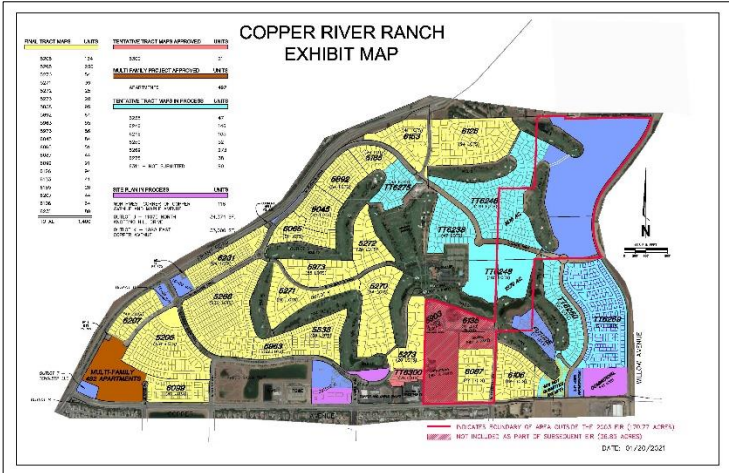


Exhibit L-1



SUBSEQUENT DRAFT ENVIRONMENTAL IMPACT REPORT

Copper River Ranch Project

SCH#2000021003

PREPARED FOR:

City of Fresno
 Development and Resource Management Dept.
 2600 Fresno Street
 Fresno, CA 93721

PREPARED BY:



Crawford & Bowen Planning, Inc.
 113 N. Church Street, Suite 302
 Visalia, CA 93291

August 2021

Subsequent Draft Environmental Impact Report

Copper River Ranch Project

SCH#2000021003

Prepared for:

City of Fresno
Development and Resource Management Department
2600 Fresno Street
Fresno, CA 93721
(559) 621-8044

Contact: Israel Trejo, Supervising Planner

Prepared by:



Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291
(559) 840-4414

Contact: Travis Crawford, AICP

August 2021

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Appendix A – Notice of Preparation & Comment Letters
Appendix B – Air Quality and Greenhouse Gas / Energy Analysis Report
Appendix C – Biological Resource Evaluation
Appendix D – Cultural Resource Evaluation
Appendix E – Water Supply Memorandum
Appendix F – Environmental Noise Assessment
Appendix G – Traffic Impact Analysis

Executive Summary

EXECUTIVE SUMMARY

Introduction

This Draft Subsequent Environmental Impact Report (SEIR) has been prepared consistent with the California Environmental Quality Act (CEQA) for the proposed Copper River Ranch Project. Its intent is to inform the public, regulatory agencies and the City of Fresno decision makers of the potential environmental impacts the proposed Project would have on environmental factors as specified in the CEQA Guidelines. This SEIR, in its entirety, addresses and discloses potential environmental effects associated with construction and operation of the proposed Project, including direct, indirect, and cumulative impacts to the environmental resources identified in the CEQA Guidelines environmental checklist. The City of Fresno is the “Lead Agency” pursuant to CEQA and is responsible for the preparation and distribution of the SEIR.

Project History and Environmental Background

In January of 2000, Copper River Ranch LLC (original Project Applicant) submitted a General Plan Amendment / Rezoning application to Fresno County. These applications were approved by the Fresno County Board of Supervisors in December of 2000 and a Final Program EIR was certified by the Board. In August 2002, the Fresno County Local Agency Formation Commission (LAFCo) included the site within the Sphere of Influence boundary for the City of Fresno. In addition, the site was designated for urban development by the 2025 City of Fresno General Plan. In 2003, the City of Fresno prepared and certified an EIR (previously referred to herein as the 2003 FEIR) for the Project and the site was annexed into the City. The site has been in a state of development since 2004 and today, there are commercial and single family uses on the site.

The Copper River Ranch Project has been building out / developed since 2004 in general conformance to what was analyzed in the 2003 FEIR. However, as development has occurred there have been some minor changes with regard to subdivision layouts, number of units, and some minor changes to locations of commercial/office. In addition, there are approximately 109 acres that were not studied as part of the 2003 FEIR for which the Project Applicant proposes to develop now or in the future. This SEIR includes a full evaluation of the “new” Project areas as well as minor changes to the existing development. Refer to Chapter Two – Project Description for the full description of the changes to the Project.

CEQA Process

The City of Fresno circulated a Notice of Preparation (NOP) of an SEIR for the proposed Project on July 31, 2020 for a 30-day public review period to trustee and responsible agencies, the State Clearinghouse, and the public. A scoping meeting (conducted virtually via a “Zoom” meeting) was held on August 20, 2020. No public or agency comments on the NOP related to the SEIR analysis were presented or submitted during the scoping meeting. However, written comment letters were received on the NOP during the 30-day public review period. Any comment letters that were received are referenced in each environmental topic in Chapter Three of this SEIR, depending on the topic (e.g. the NOP comment letter from the Native American Heritage Commission is referenced in Section 3.5 – Cultural Resources; the NOP comment letter from Caltrans is referenced in Section 3.17 – Transportation; etc.).

The next step in the process is circulation of this SEIR which will be distributed to the public for review and comment for at least 45 days. This EIR is organized as follows:

Executive Summary: Summarizes the analysis contained in the EIR.

Chapter 1 – Introduction: Provides a brief introduction to CEQA and the scope/contents of the DEIR.

Chapter 2 – Project Description: Describes the Project in detail. Includes Project location, objectives, environmental setting and regulatory context.

Chapter 3 – Environmental Analysis: Contains the CEQA checklist. Each topic discusses environmental/regulatory setting, Project impact analysis, mitigation measures and conclusions.

Chapter 4 – Alternatives: Describes and evaluates alternatives to the Project. The proposed Project is compared to each alternatives and potential environmental impacts are analyzed.

Chapter 5 – Other CEQA Sections: Describes other required sections such as environmental effects that cannot be avoided, social effects, growth inducement, etc.

Appendices: Following the text of the SEIR, several appendices and technical studies have been included as reference material.

Project Location

The proposed Copper River Ranch Project consists of two areas of development. The first consists of adding approximately 109 acres to the Copper River Ranch development that were not included in the original 2003 Copper River Ranch FEIR. The second consists of proposed land use designation changes within the existing 706.5 acre Copper River Ranch Development.

New Areas of Development

The proposed new areas of development would occur on approximately 109 acres adjacent and east of the existing Copper River Ranch footprint. The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation. The proposed new development area is surrounded by residential development to the north; residential development, portions of a golf course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west.

Refer to Figure 2-1: Regional Map, Figure 2-2: Vicinity Map and Figure 2-3: Exhibit Map for Project location. The area shown with the solid red line in Figure 2-3 depicts the approximately 170.77 acre area that was not included in the evaluation under the 2003 FEIR. The areas shown in red crosshatch are areas that are not included in this current SEIR (approximately 36.85 acres). The remaining 109 acres is the new area that is being evaluated along with the land use changes within the existing development.

Existing Copper River Ranch Development

The existing Copper River Ranch development area consists of approximately 706.5 acres situated generally between Friant Road, Copper Avenue, Willow Avenue and Silaxo Road. The existing development has been building out / developed since the original EIR was approved in 2003. The area consists of residential housing, commercial establishments, a golf course, parks/trails and related improvements. The proposed changes within the existing development are described in Section 2.2 of Chapter Two – Project Description.

Project Description Summary

The Project Applicant is proposing to modify the existing General Plan designations to reflect both the actual built out conditions of Copper River Ranch today and to identify any proposed

land use designations and zone districts that are planned for the future. The proposed changes to land use designations and zone districts will facilitate various subdivisions of land for residential development. As previously discussed, the Copper River Ranch Project has been building out / developed since 2004 in general conformance to what was analyzed in the 2003 FEIR. However, as development has occurred there have been some minor changes with regard to subdivision layouts, number of units, and some minor changes to locations of commercial/office. In addition, there are approximately 109 acres that were not studied as part of the 2003 FEIR for which the Project Applicant proposes to develop now or in the future. As such, those areas were included in the evaluation of this SEIR.

The original 2003 FEIR evaluated the impacts of development of up to 2,837 residential units (1,192 single-family units and 1,645 multi-family units). The proposed Project could result in the development of up to 3,216 total housing units within the proposed Development. Thus, the total number of “new” units at full buildout beyond what was analyzed in the 2003 FEIR is 379 additional units. The additional 379 units is derived by taking the difference between the 2003 FEIR total buildout (2,837 units) and the proposed number of units (3,216). Although only 379 units are being added to the development, this SEIR evaluates the impacts of all 3,216 units.

Refer to Chapter Two – Project Description for the full description of the Project.

Project Objectives

The following Project objectives were included in the 2003 FEIR and continue to be applicable to the proposed Project. In accordance with CEQA Guidelines Section 15124(b), the following are the Project objectives:

- To provide a variety of housing opportunities with a complete range of densities, styles, sizes, and values which are designed to satisfy the identified increasing demand of the existing and future population base.
- To provide for commercial and office development sufficient to accommodate the needs of the Project population of the Project.
- To provide for alternative forms of transportation within the Project and connection to regional trail and mass transit systems thereby reducing dependency upon the automobile.
- To provide for a variety of open space opportunities within the Project area.

- To encourage residents to work at home occupations. Promote home occupations through electronic and internet components within the home, home design, and related mixed-use facilities.
- To provide the ability, through flexible zoning conditions, to develop mixed-use projects, which combine a variety of uses on one parcel.
- To maximize view opportunities of Project open space features through innovative land use planning techniques.
- To create a strong sense of “community” with landscaping, signage, lighting and Project amenities that are unique to Copper River Ranch.

Summary of Environmental Impacts

As described in Chapter 3, it was determined that all impacts were either less than significant, or could be mitigated to a less than significant level with the exception of impacts associated with air quality and transportation, which were determined to be significant and unavoidable at the cumulative level. Mitigation measures are listed in Table ES-1, Mitigation Monitoring and Reporting Program.

Summary of Project Alternatives

CEQA Guidelines Section 15126.6 requires the consideration of a range of reasonable alternatives to the proposed Project that could feasibly attain most of the objectives of the proposed Project. This EIR analyzed the following alternatives:

- **No Development Alternative:** Under this Alternative, the unbuilt portions of the site would remain vacant and unoccupied.
- **No Project Alternative:** Under this Alternative, the site would be developed according to the 2003 FEIR and the addition of the 109 acres to the Project would not occur. The additional 109-acre area would also retain its existing land use designations where development could proceed with residential development as identified in the City’s General Plan.
- **Increased Project Density:** Under this Alternative, the site would be developed with increased residential densities which would result in a greater number of units and an increase in population as compared to the proposed Project.
- **Reduced Project Density:** Under this Alternative, the site would be developed with reduced residential densities which would result in development of fewer number of units and a decrease in population as compared to the proposed Project.

See Chapter 4 – Alternatives for a full description of potential environmental impacts associated with each alternative.

Mitigation Monitoring and Reporting Program

State law requires that a public agency adopt a monitoring program for mitigation measures that have been incorporated into the approved Project to reduce or avoid significant effects on the environment. The purpose of the monitoring program is to ensure compliance with environmental mitigation during Project implementation and operation. Since there are potentially significant impacts requiring mitigation associated with the Project, a Mitigation Monitoring Program will be included in the Project's Final EIR and is included herein on the following pages. Where previous mitigation measures from the 2003 FEIR are still applicable to the proposed Project, they are identified and shown using the numbering system from the 2003 FEIR. New or modified mitigation is shown with a lettering system (e.g. BIO – 1, BIO – 2 for Biology, CUL – 1 for Cultural, etc.).

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Aesthetics				
<p>AES – 1: The developer shall ensure that the following measures are incorporated in the design of future conditional use permits, tentative tract maps, and site plans:</p> <ol style="list-style-type: none"> 1. The developer shall incorporate landscape, wall treatment, signage, and architectural standards for the development of residential, commercial, public facility, open space, and mixed-use areas. 2. A minimum 20-foot landscaped area shall parallel the easterly side of Friant Road, the northerly side of Copper Avenue, and the westerly side of Willow Avenue. A berm and/or combination berm/sound wall shall parallel these roadways where residential lots are proposed. 3. Project entries along Copper and Willow Avenues, and along Friant Road, shall incorporate special entry features, such as extensive landscaping and low profile entry signs. 4. Detailed designs of these facilities shall be submitted to the City of Fresno Planning and Development Department for review. Approval from the City of Fresno shall be required prior to issuance of any building permits. 	Project Applicant	Prior to issuance of grading or building permits	City of Fresno	
<p>AES – 2: Lighting for Street and Parking Areas. Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences.</p>	Project Applicant	Prior to operation / occupancy	City of Fresno	
<p>AES – 3: Lighting for Public and Private Facilities. Lighting systems for public and private facilities such as active play areas shall provide adequate illumination for the activity; however, low intensity light fixtures and shields shall be used to minimize spillover light onto adjacent properties.</p>	Project Applicant	Prior to operation / occupancy	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>AES – 4: Lighting for Non-Residential Uses. Lighting systems for nonresidential uses, not including public facilities, shall provide shields on the light fixtures and orient the lighting system away from adjacent properties. Low intensity light fixtures shall also be used if excessive spillover light onto adjacent properties will occur.</p>	Project Applicant	Prior to operation / occupancy	City of Fresno	
<p>AES – 5: Signage Lighting. Lighting systems for freestanding signs shall not exceed 100 foot Lamberts (FT-L) when adjacent to streets which have an average light intensity of less than 2.0 horizontal footcandles and shall not exceed 500 FT-L when adjacent to streets which have an average light intensity of 2.0 horizontal footcandles or greater.</p>	Project Applicant	Prior to operation / occupancy	City of Fresno	
<p>AES – 6: Use of Non-Reflective Materials. Materials used on building facades shall be non-reflective.</p>	Project Applicant	Prior to operation / occupancy	City of Fresno	
Agricultural and Forestry Resources				
<p>AG – 1: Reduce Conflicts Between Urban and Agricultural Uses. In order to reduce potential conflicts between urban and agricultural uses, the following measures shall be implemented:</p> <ul style="list-style-type: none"> • Potential residents shall be notified about possible exposure to agricultural chemicals at the time of purchase / lease of property within the development. • A Right-to-Farm Covenant shall be recorded on each tract map or be made a condition of each tract map to protect continued agricultural practices in the area. • Potential residents shall be informed of the Right-to-Farm Covenant at the time of purchase / lease of property within the development. 	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Air Quality (Mitigation Measures from the 2003 FEIR that continue to be applicable to the Proposed Project)				
<p>2.3.1-a: A Fugitive Dust Prevention and Control Plan shall be developed to specify control methods, demonstrate availability of equipment and personnel, and identify the individual authorized to implement prevention measures. The Plan shall comply with the SJVAPCD Regulation VIII- Fugitive Dust Rules. The Plan shall include the following conditions:</p> <ul style="list-style-type: none"> a. All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover. b. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. c. All land clearing, grubbing, scraping excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing applications of water or by presoaking. d. When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or maintain at least six inches of freeboard space from the top of the container. e. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. f. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively 	Project Applicant	Prior to issuance of grading or building permits	City of Fresno and the SJVAPCD	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.</p> <ul style="list-style-type: none"> g. Traffic speeds on unpaved roads shall be limited to 15 miles per hour. h. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. i. Excavation and grading activity shall be suspended when winds exceed 20 miles per hour. 				
<p>2.3.1-b: Construction contracts shall include the following provisions:</p> <ul style="list-style-type: none"> a. All construction equipment shall be properly maintained and operated. b. Alternative-fueled construction equipment shall be used if feasible. c. Hours of operation of heavy-duty equipment shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Saturday. 	Project Applicant	Prior to issuance of grading or building permits	City of Fresno and the SJVAPCD	
<p>2.3.2-a: The developer shall be responsible for the following measures to be included as a condition of approval on each conditional use permit, tentative tract map, or site plan:</p> <ul style="list-style-type: none"> a. Pedestrian enhancing infrastructure shall be provided and include: sidewalks and pedestrian paths; street trees to shade sidewalks; pedestrian safety designs/infrastructure; street furniture; street lighting; and pedestrian signalization and signage. b. Bicycle enhancing infrastructure shall be provided and include: bikeways/paths connecting to a bikeway system; and secure bicycle parking. 	Project Applicant	Prior to approval of land use entitlement application	City of Fresno and the SJVAPCD	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>c. The project shall either contract with Fresno Area Express (FAX) through the City to provide transit services within the project area, or provide an on-site transit service to off-site FAX transit stations/multimodal centers.</p> <p>d. Transit-enhancing infrastructure shall be provided and include: transit shelters, benches, etc.; street lighting; route signs and displays; and/or bus turnouts/bulbs.</p> <p>e. Park and ride lots and/or satellite telecommuting centers shall be provided in the project area.</p> <p>f. Carpool/vanpool programs shall be implemented, e.g., carpool, ridematching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.</p> <p>g. On-site shops and services for employees, such as cafeteria, bank/ATM, dry cleaners, convenience market, etc. shall be provided within commercial and office areas.</p> <p>h. A Transportation Demand Management Program shall be established and include: transit, bicycle, pedestrian, traffic flow improvements, transportation system management, rideshare, telecommuting, video conferencing, and other measures to reduce peak hour vehicle trips.</p>				
<p>2.3.2-b: Future construction plans for residential, commercial, office, and public uses shall include:</p> <p>a. solar or low-emission water heaters.</p>	Project Applicant	Prior to issuance of grading or	City of Fresno and the SJVAPCD	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<ul style="list-style-type: none"> b. central water heating systems in commercial areas. c. Open-hearth fireplaces shall require use of natural gas or installation of low-emission, EPA-certified fireplace inserts. 		building permits		
Biological Resources				
<p>BIO – 1: Protect nesting Swainson’s Hawk</p> <ul style="list-style-type: none"> 1. To the extent practicable, construction shall be scheduled to avoid the Swainson’s hawk nesting season, which extends from March through August. 2. If it is not possible to schedule work between September and February, a qualified biologist shall conduct surveys for active Swainson’s hawk nests within 0.5 miles of the Project site following methods developed by the Swainson’s Hawk Technical Advisory Committee (2000). If an active nest is found within 0.5 miles, and the qualified biologist determines that Project activities would disrupt nesting, a construction-free buffer or limited operating period shall be implemented in consultation with the CDFW. The results of the survey shall be submitted to the City of Fresno Planning and Development Department prior to any construction activities. 	Project Applicant	Prior to issuance of grading or building permits	City of Fresno and CDFW	
<p>BIO – 2: Protect nesting burrowing owl</p> <ul style="list-style-type: none"> 1. A qualified biologist shall conduct focused burrowing owl surveys to assess the presence/absence of burrowing owl in accordance with guidelines in the CDFW’s <i>Staff Report on Burrowing Owl Mitigation</i> (CDFG 2012). The results of the survey shall be submitted to the City of 	Project Applicant	Prior to issuance of grading or building permits	City of Fresno and CDFW	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>Fresno Planning and Development Department prior to any construction activities.</p> <p>2. If a burrowing owl or sign of burrowing owl use (e.g., feathers, guano, pellets) is detected on or within 500 feet of the Project site, and the qualified biologist determines that Project activities would disrupt the owl(s), a construction-free buffer, limited operating period, or passive relocation shall be implemented in consultation with the CDFW.</p>				
<p>BIO – 3: Protect Nesting Birds</p> <p>1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.</p> <p>2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons. The results of the survey shall be submitted to the City of Fresno Planning and Development Department prior to any construction activities.</p>	Project Applicant	Prior to issuance of grading or building permits	City of Fresno and CDFW	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Cultural Resources				
<p>CUL-1: Should any potentially significant cultural, historical, archaeological or fossil resources be discovered, no further ground disturbance shall occur in the area of the discovery until the Planning Director concurs in writing that adequate provisions are in place to protect these resources. Unanticipated discoveries shall be evaluated for significance by a certified professional archaeologist or paleontologist that meets the Secretary of the Interior’s Professional Qualifications Standards. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; curate materials with recognized scientific or educational repository; and provide a comprehensive final report as required by Senate Bill 18; California Historical Building Code (Title 24, Part 8); California Public Resources Code Sections 5020-5029.5, 5079-5079.65, 5097.9-5097.998, and 5097.98; and California State Health and Safety Code, Section 7050.5, as applicable.</p>	Project Applicant	Prior to issuance of grading or building permits / ongoing	City of Fresno	
<p>CUL-2: If human remains are unearthed during excavation and/or construction activities, all activity shall cease immediately. No further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to PRC Section 5097.98(b). If the human remains are determined to be of Native American decent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the City shall ensure that the immediate</p>	Project Applicant	During construction	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
vicinity, according to generally accepted cultural or archeological standards or practices, where the Native American human remains are located is not damaged or disturbed by further development activity until the City has discussed and conferred with the most likely descendants regarding their recommendations.				
Hazards and Hazardous Materials (Mitigation Measures from the 2003 FEIR that continue to be applicable to the Proposed Project)				
2.10.8-a: Where a storage tank may be located, appropriate sampling shall be performed by a qualified technician to evaluate potential of soil contamination. Removal of tanks and any contaminated soil shall be accomplished consistent with all applicable regulations of Fresno County.	Project Applicant	Prior to building or grading permits	City of Fresno	
Hydrology and Water Quality (Mitigation Measures from the 2003 FEIR that continue to be applicable to the Proposed Project)				
2.9.1-a: Establish a development fee for the project’s fair share of the City’s surface water treatment plant construction and expansion.	Project Applicant	Prior to approval of land use entitlement application and building permits	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>2.9.1-c: Technical water supply information shall be submitted which demonstrates residential and commercial uses and corresponding water requirements.</p>	Project Applicant	Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.1-d: The developer shall commit to plan and maintain on-site recharge basins and lakes to ensure that necessary recharge can be accomplished over the life of the project.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.1-e: The developer shall prepare a water master plan for approval by the City in accordance with City requirements.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.2-a: New wells shall be placed a minimum of 500 feet from the project boundaries where there is an adjoining proximate off-site well, in order to preclude drawdown in off-site wells due to pumpage of new public supply wells in the project. In addition, new public supply wells on the project site shall include a test well and monitoring of a sufficient number of adjoining proximate off-site</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
wells as determined by the City to determine potential drawdown in the off-site wells. Should adverse effects on adjoining proximate off-site wells be determined, the public supply wells shall be relocated or otherwise mitigated to preclude such adverse impacts.		application and building permits		
2.9.2-b: Locate domestic water wells in accordance with the recommendations contained in the report <i>Groundwater Conditions at the Copper River Ranch</i> , prepared by Kenneth D. Schmidt and Associates, May, 2000.	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
2.9.2-c: If water yields from adjacent private wells are determined by the City Department of Public Utilities in consultation with the Fresno County Department of Community Health to have been adversely affected by the project, the developer shall improve the private well to standards acceptable to the City, or connect the user to the project water system.	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
2.9.3-a: Should any existing community water supply well exceed the DBCP MCL as detected in regular monitoring, granular activated carbon treatment or other acceptable technology shall be required to be consistent with CCR Title 22 requirements.	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>2.9.3-b: Should any existing community water supply well exceed the uranium MCL as detected in regular monitoring, the contaminated well water shall be blended with other on-site groundwater supplies to reduce the contamination level below the MCL at all times. A State DHS-approved blending program shall be implemented to meet this requirement. The effectiveness of the program shall be supported by on-going monitoring at State-specified frequencies and locations.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.3-c: Should other contaminants be identified in the future, remediation shall be resolved in accordance with CCR Title 22 requirements.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.4-a: Monitoring groundwater, including nitrogen content, has been proposed as a mitigation measure for this project (see mitigation for groundwater degradation caused by infiltration of diluted treated effluent, in Section 2.8). Measurements shall be taken each calendar quarter by City of Fresno personnel or a qualified consultant. Should the monitoring tests exceed nitrogen standards, a denitrification process shall be started at the wastewater treatment facility. The plant design shall incorporate a denitrification process that shall denitrify the treated effluent to the 10 mg/l total nitrogen level.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.6-a: Grading plans shall demonstrate that all areas of irrigated turf or other open space receiving reclaimed water drain away from FMFCD basins, except in extraordinary wet years (10-year frequency storms) when on-site lakes may fill from stormwater and utilize the FMFCD basins.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
		and building permits		
Hydrology and Water Quality				
<p>HYD – 1: Prior to clearing, grading, and disturbances to the ground such as stockpiling, or excavation, the Project proponent shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ). The SWPPP shall be designed with Best Management Practices (BMPs) that the RWQCB has deemed as effective at reducing erosion, controlling sediment, and managing runoff. These include: covering disturbed areas with mulch, temporary seeding, soil stabilizers, binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Sediment control BMPs, installing silt fences or placing straw wattles below slopes, installing berms and other temporary run-on and runoff diversions. These BMPs are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed. Final selection of BMPs will be subject to approval by City of Fresno and the RWQCB. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the RWQCB.</p>	Project Applicant	Prior to issuance of grading or building permits	City of Fresno	
<p>HYD – 2A: The Project will implement the City of Fresno Water Conservation Program, including implementation of the State’s Water Efficient Landscape Ordinance. The California Water Conservation Act mandates a 20 percent reduction in water usage. The Developer will meet the reduction target with measures applicable to new and existing development. Reductions beyond the state mandated 20 percent are possible with the use of building and landscaping water conservation features. The reductions from buildings can be achieved with</p>	Project Applicant	Prior to issuance of grading or building permits	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
high efficiency toilets, low-flow faucets, and water-efficient appliances such as dishwashers. Water savings from landscaping would be achieved primarily through the use of drought-tolerant landscaping or xeriscaping.				
HYD – 2B: The total Project area considered for water supply requirements consists of an original Project area of 706 acres and new Project area of 109 acres. The City has previously established water supply requirements for the original Project area of 706 acres and memorialized them in a Water Supply Implementation Agreement. For the new Project area, the Developer shall pay the Water Capacity Fee, as specified in the City’s Master Fee Schedule, for all new connections to the City’s water system.	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	
HYD – 3: The Project proponent shall retain a qualified consultant to prepare a drainage / grading plan prior to the issuance of any grading and/or building permit. The design-level analysis shall be prepared to the satisfaction of the City of Fresno and FMFCD.	Project Applicant	Prior to issuance of grading or building permits	City of Fresno	
Land Use and Planning (Mitigation Measures from the 2003 FEIR that continue to be applicable to the Proposed Project)				
2.1.7-a: The developer shall ensure through the subsequent master permit and associated development plan, that the following measures are incorporated in the design of future plans at the interface with adjacent residential properties: <ul style="list-style-type: none"> • All lots shall back onto the common property line on the northern boundary of the project. • All lots shall be fenced. 	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<ul style="list-style-type: none"> All lots along these common property lines shall include a backyard landscaping plan to provide for continuous screening with evergreen and deciduous trees. 				
<p>Noise (Mitigation Measures from the 2003 FEIR that continue to be applicable to the Proposed Project)</p>				
<p>2.6.2-a: Site-specific acoustical analyses, conducted by a qualified acoustical consultant, shall be required when actual lot design is proposed and a grading plan is approved, so that noise attenuation measures can be applied based on specific design, including setbacks, sound walls, and location of non-noise sensitive land uses.</p>	Project Applicant	Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.6.3-a: The developer shall pay a proportionate share, based on contribution to traffic in 2020 as determined in the project-specific traffic study prepared for projects within Copper River Ranch, of the costs of constructing appropriate noise mitigation on Maple Avenue between International Avenue and Copper Avenue. Noise improvements shall be installed, as necessary, to reduce outdoor levels to 60 dBL or lower.</p>	Project Applicant	Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.6.4-a: Site-specific acoustical analysis, conducted by a qualified acoustical consultant, shall be required when actual design and a grading plan is approved, so that abatement measures can be applied based on specific design, including setbacks, sound walls, and location of non-noise sensitive land uses.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
		and building permits		
Noise				
<p>NOI – 1:</p> <ul style="list-style-type: none"> Per the City of Fresno Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 10:00 p.m. Monday through Saturday and all day on Sunday. All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source. Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor. All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses. Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses. Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator. 	Project Applicant	Ongoing / during construction	City of Fresno	
<p>Public Services (Mitigation Measures from the 2003 FEIR that continue to be applicable to the Proposed Project)</p>				
<p>2.10.1-a: The developer shall ensure through the subsequent master use permit and associated development plan, that a site for a “community service center” is provided within the project acceptable to the Fresno Police and Fire Departments.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>2.10.1-b: Maximize visibility and natural surveillance abilities through the placement and design of physical features including building orientation, windows, entrances and exits, parking lots, walkways, guard gates, low-maintenance landscaping (trees and shrubs), fences or walls, signage and any other physical obstructions.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	
<p>2.10.1-c: Implement design features to clearly identify public/private spaces and to facilitate natural access control and territorial reinforcement, to include, but not limited to, the following measures:</p> <ul style="list-style-type: none"> • Identify public entrances and exits through the implementation of sidewalks, pavement, lighting and landscaping to clearly guide the public. • Discourage/prevent public access to and from dark and/or unmonitored areas through the use of fences, walls or landscaping. • All residential and commercial addresses shall be clearly visible from the street and shall be illuminated. • Incorporate access control, including parking lot barriers, fenced rear and side yards, and entry telephones for gated neighborhoods. • Implement exterior nighttime lighting of display areas, parking lots, walkways, entrances and exits. These areas shall be illuminated, at a minimum, one-half hour after sunset and one-half hour before sunrise during hours of operation. • Incorporate measures that provide off-street parking to discourage auto-related crimes, graffiti-resistant paints and surfaces, and view fences. 	Project Applicant	Prior to approval of land use entitlement application or issuance of building permits	City of Fresno	
<p>2.10.1-d: The Fresno Police Department shall be consulted during site planning and subdivision design to ensure that adequate provisions acceptable to the Police Department for crime prevention are designed into the project.</p>	Project Applicant	Prior to issuance of grading or building permits	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>2.10.2-a: The geometric sections of all interior roads shall, at a minimum, be improved to City of Fresno standards to adequately provide for emergency vehicles. Any deviations from the standards shall be accomplished through modifications or exceptions requested at the Vesting Tentative Subdivision Map or site plan review stage.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	
<p>2.10.2-b: A water supply and distribution system, including fire hydrants, shall be designed and constructed to meet the adopted fire protection standards of the City of Fresno.</p>	Project Applicant	Prior to issuance of grading or building permits	City of Fresno	
<p>2.10.2-c: All residential and commercial development shall be provided with fire control systems as required by Fresno Fire Department regulations. The tertiary wastewater treatment facility shall also be provided with a fire control system.</p>	Project Applicant	Prior to issuance of grading or building permits	City of Fresno	
<p>2.10.9-a: Following consultation with the developer, PG&E shall provide written verification to the City of Fresno that the Project is phased in keeping with the availability of electric and gas services.</p>	Project Applicant	Prior to approval of land use entitlement application and building permits	City of Fresno and PG&E	
<p>Public Services</p>				
<p>PUB-1: The Project Applicant shall pay development impact fees for police, fire, schools, recreation and other public services as determined by the City of Fresno.</p>	Project Applicant	Prior to issuance of grading or	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>REC – 1: A minimum of 28.8 acres of park space shall be provided within the Copper River Ranch Project. As shown on Figure 3.16-1, the ponding basin is notated as future (optional) open space. Should the ponding basin not be utilized for open space, an alternative location(s) must be provided elsewhere within the Copper River Ranch development in a location(s) approved by the Planning and Development Department.</p>	Project Applicant	building permits Prior to approval of land use entitlement application	City of Fresno	
<p>Recreation (Mitigation Measures from the 2003 FEIR that continue to be applicable to the Proposed Project)</p>				
<p>2.10.5-b: Road improvements shall be made to adequately accommodate vehicle traffic that shall be generated by the parks, recreation and open space uses within the project.</p>	Project Applicant	Prior to issuance of grading or building permits	City of Fresno	
<p>Recreation</p>				
<p>REC – 1: A minimum of 28.8 acres of park space shall be provided within the Copper River Ranch Project. As shown on Figure 3.16-1, the ponding basin is notated as future (optional) open space. Should the ponding basin not be utilized for open space, an alternative location(s) must be provided elsewhere within the Copper River Ranch development in a location(s) approved by the Planning and Development Department.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	
<p>Transportation (Mitigation Measures from the 2003 FEIR that continue to be applicable to the Proposed Project)</p>				

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>2.2.1-a: If the project is found to trigger a capacity improvement, which otherwise would not be required under the no-project scenario, the project will be required to fully fund (100 percent) of the improvement. Subsequent project-specific studies will determine the need and feasibility of the improvement.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	
<p>2.2.1-c: Establish a Transportation Demand Management Program that provides incentives for people both living and working in the project area to utilize some sort of commute alternative such as walking, bicycling, carpool/vanpool, transit, and flex-scheduling.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	
<p>Transportation</p>				
<p>TRA-1: The Project shall pay into applicable transportation fee programs. These include a Fresno Major Street Impact Fee (FMSI), a Traffic Signal Mitigation Impact Fee (TSMI) and a Regional Transportation Mitigation Fee (RTMF). The FMSI Fee will be calculated and assessed during the building permit process. The RTMF will be calculated and assessed by Fresno COG.</p>	Project Applicant	Prior to approval of land use entitlement application or issuance of building permits	City of Fresno	
<p>TRA-2: The Project will be responsible for paying its fair share cost percentages and/or constructing the recommended improvements identified in the Cumulative Year 2035 With Project Scenario subject to reimbursement for the costs that are in excess of the Project’s equitable responsibility as determined by the City. This will be itemized and enforced through conditions of approval or a development agreement, at the discretion of the City, prior to Project implementation. The following are the required improvements:</p> <ul style="list-style-type: none"> ● Friant Road / Willow Avenue 	Project Applicant	Prior to approval of land use entitlement application or issuance of building permits	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<ul style="list-style-type: none"> ○ Remove the northbound left-turn lane; ○ Modify the inside northbound through lane to a left-through lane; ○ Remove the southbound left-turn lane; ○ Modify the inside southbound through lane to a left-through lane; and ○ Install a two-lane roundabout for Friant Road and a single lane for Willow Avenue and Birkhead Avenue. The Roundabout should retain the existing free flow right-turn lane from Willow Avenue to an acceleration lane on northbound Friant Road. ● Willow Avenue / Alicante Drive <ul style="list-style-type: none"> ○ Signalize the intersection with protective left-turn phasing in all directions. ● Willow Avenue / Copper Avenue <ul style="list-style-type: none"> ○ Add a second eastbound left-turn lane; ○ Add a second eastbound through lane; ○ Add a second westbound left-turn lane; ○ Modify the westbound through-right lane to through lane; ○ Add a second westbound through lane; ○ Add a westbound right-turn lane; ○ Add a second northbound left-turn lane; ○ Modify the northbound through-right lane to a through lane; ○ Add a second northbound through lane with a receiving lane north of Copper Avenue; ○ Add a northbound right-turn lane; ○ Add a second southbound left-turn lane; and ○ Modify the traffic signal to accommodate the added lanes. ● Peach Avenue / Copper Avenue 				

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<ul style="list-style-type: none"> ○ Add an eastbound right-turn lane; ○ Modify the eastbound through-right lane to a through lane; ○ Add a westbound left-turn lane; ○ Modify the westbound left-through lane to a through lane; and ○ Add a two-way left-turn lane on the west leg of Peach Avenue. ● Auberry Road / Copper Avenue <ul style="list-style-type: none"> ○ Add a westbound right-turn lane; ○ Modify the westbound through-right lane to a through lane; and ○ Modify the traffic signal to accommodate the added lanes. ● Chestnut Avenue / Behymer Avenue <ul style="list-style-type: none"> ○ Signalize the intersection with protective left-turn phasing in all directions. ● Friant Road / Audubon Drive <ul style="list-style-type: none"> ○ Modify the traffic signal to implement overlap phasing of the westbound right-turn with the southbound left-turn phase; ○ Prohibit southbound to northbound U-turn movements; ○ Modify the traffic signal to implement overlap phasing of the southbound right-turn with the eastbound left-turn phase; ○ Prohibit eastbound to westbound U-turn movements; ○ Modify the traffic signal to implement overlap phasing of the northbound right-turn with the westbound left-turn phase; and ○ Prohibit westbound to eastbound U-turn movements. ○ It should be noted that given existing constraints and the ultimate designation for six-lanes on Friant Road, the said improvements are not projected to meet the City's target LOS threshold; however, it is projected they will reduce overall delay by an average of 22 				

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>seconds. Therefore, the traffic impacts at this intersection are considered adverse but unavoidable.</p> <ul style="list-style-type: none"> • Fresno Street / Friant Road <ul style="list-style-type: none"> ○ Given existing constraints and the ultimate designation for six-lanes on Friant Road, the number of modifications that can be made at this intersection are limited. JLB analyzed, if implementing an overlap phasing of the northbound right-turn with the westbound left-turn phase; however, it was found that such modifications will result in very low benefit in the reduction of delay while requiring a large number of westbound to eastbound U-turns to be prohibited. As a result, JLB recommends against modifications to this intersection while acknowledging that the City's LOS threshold for this intersection is projected to be exceeded. • State Route 41 Northbound Off-Ramp / Friant Road <ul style="list-style-type: none"> ○ Consistent with the <i>Fresno General Plan</i> Circulation Element, Friant Road already exists as a six-lane divided arterial between Audubon Drive and Nees Avenue. ○ The <i>Fresno General Plan</i> Circulation Element acknowledged that Friant Road would exceed LOS D as a six-lane facility between Shepherd Avenue and State Route 41 Southbound Off-Ramp and made appropriate findings to designate the maximum number of lanes to three (3) in each direction while exceeding the City's standard LOS threshold for this segment of Friant Road. ○ The Caltrans' State Route 41 TCR also acknowledged that State Route 41 would exceed LOS D as an eight-lane freeway between El Paso Avenue and the Fresno/Madera County line and made the 				

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>appropriate findings to designate LOS F as the LOS threshold for this segment of State Route 41.</p> <ul style="list-style-type: none"> ▪ City of Fresno VMT Guidelines, make clear that any capacity enhancing transportation projects may have a significant VMT impact and be subject to a detailed analysis that would include measuring induced travel likely requiring infeasible VMT mitigation measures. ▪ Considering the <i>Fresno General Plan</i> Circulation Element, the Caltrans State Route 41 TCR and the City of Fresno VMT Guidelines, the traffic impacts at this intersection are considered adverse but unavoidable. 				
<p>TRA-3: The Project shall incorporate (or take credit for) the following design features to reduce Project-related VMT:</p> <ul style="list-style-type: none"> • Incorporate bike lane street design (on-site) <ul style="list-style-type: none"> ○ Within the Project, Class II Bikeways exist along portions of Alicante Drive between Via Livorno Lane and approximately 1,600 feet west of Crest View Drive, Clubhouse Drive between Alicante Drive and Queensberry Avenue, Copper River Drive between Friant Road and Maple Avenue and Cedar Avenue between Copper River Drive and Copper Avenue. It is recommended that the Project implement Class II Bikeways within the Project along the remaining lengths of Alicante Drive and Winery Avenue/Road 'G'. • Orient project towards transit, bicycle and pedestrian facilities <ul style="list-style-type: none"> ○ This measure applies if a Project is oriented towards a planned or existing transit, bicycle or pedestrian corridor. ○ This Project has connections to Class I and Class II Bikeways in the vicinity of the Project along Copper Avenue, Willow Avenue and 	Project Applicant	Prior to approval of land use entitlement application or issuance of building permits	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>Shepherd Avenue. Connections also exist to the nearby Lewis S. Eaton Trail and the Fresno-Clovis Rail-Trail.</p> <ul style="list-style-type: none"> ○ Additionally, all major street improvements have been designed to accommodate transit. <ul style="list-style-type: none"> ● Provide pedestrian network improvements <ul style="list-style-type: none"> ○ This mitigation measure provides that all the internal components of a Project are connected with each other and the larger off-site network via pedestrian paths to encourage people to walk instead of drive. ○ Within the Project site, pedestrian sidewalks exist along built out portions of Alicante Drive, Clubhouse Drive, Copper River Drive, Cedar Avenue and Maple Avenue. ○ Adjacent to the Project site, a Class I Bike Path exists along Copper Avenue between Friant Road and Chestnut Avenue. In the vicinity of the Project site, pedestrian sidewalks exist along portions of Friant Road, Willow Avenue, Copper Avenue, Millbrook Avenue, Cedar Avenue, Maple Avenue, Chestnut Avenue, Olympic Avenue, International Avenue, Behymer Avenue, Sommerville Drive, Audubon Drive, Fresno Street, Blackstone Avenue and Nees Avenue. ○ Connections also exist to the nearby Lewis S. Eaton Trail and the Fresno-Clovis Rail-Trail via a Class I Bike Path on Copper Avenue. ● Increase destination accessibility <ul style="list-style-type: none"> ○ This mitigation is measured in terms of the number of jobs or other attractions reachable within a given travel time. In this case, it is measured to the downtown Fresno area approximately 11.75 miles away. ● Provide traffic calming measures 				

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<ul style="list-style-type: none"> ○ There are four existing roundabouts and three proposed roundabouts within the Project. The four existing roundabouts are located at the intersections of Alicante Drive and Copper River Drive, Alicante Drive and Clubhouse Drive, Crest View Drive and Alicante Drive and Maple Avenue and Copper River Drive. The three proposed roundabouts are located at the future intersections of Road 'G' and New Willow Access Road, Road 'G' and Alicante Drive and Alicante Drive and future internal road. These proposed roundabouts will be completed with the construction of the Project and its internal roads. ○ Internal roadways are existing with and proposed to contain marked crosswalks, raised median islands, planter strips with street trees and curves. On-street parking and/or NEV lanes exist on stretches of internal roadways as well. ● Increase mix of uses within the project or within the project’s surroundings <ul style="list-style-type: none"> ○ The Project consists of multiple land uses as noted in the trip generation in Table 3.17-3. Included in the land uses are park-n-ride lot, single-family detached housing with multiple densities, apartments, city parks and commercial components. ● Located project near bike path / bike lane <ul style="list-style-type: none"> ○ The Project has several existing bike paths and lanes in the vicinity. For example, Class II Bikeways exist along portions of Friant Road, Millbrook Avenue, Cedar Avenue, Maple Avenue, Chestnut Avenue, Willow Avenue, Olympic Avenue, International Avenue, Behymer Avenue, Sommerville Drive, Audubon Drive, Fresno Street and Nees Avenue. Similarly, Class I Bikeways exist along portions of Friant Road, Copper Avenue, Willow Avenue, Audubon Drive, Fresno Street and Nees Avenue. Connections also exist to the nearby Lewis S. 				

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>Eaton Trail and the Fresno-Clovis Rail-Trail via a Class I Bike Path on Copper Avenue.</p> <ul style="list-style-type: none"> ○ In addition to this, it was recommended that the Project implement Class I Bikeways along its frontages to Copper Avenue and Willow Avenue. Similarly, it is recommended that the Project implement Class II Bikeways along its frontage to Willow Avenue, Copper Avenue, Alicante Drive and Road "G". ● Existing park-and-ride lot <ul style="list-style-type: none"> ○ This park-and-ride lot contains 23 parking spots and is located on the southeast corner of Friant Road and Copper Avenue. 				
<p>Utilities and Service Systems</p> <p>(Mitigation Measures from the 2003 FEIR that continue to be applicable to the Proposed Project)</p>				
<p>2.8.1-a: The developer shall construct and/or pay for all facilities necessary to accommodate the impact of connection to the City sewer system and associated wastewater treatment.</p>	Project Applicant	Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.8.1-b: The design of necessary collection system improvements is subject to approval by the City. All reasonable effort will be made by the developer and the City to design and stage facilities to maximize value and minimize cost.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
		and building permits		
<p>2.8.1-d: Treated effluent from the proposed wastewater treatment facility (recycled water) shall be re-used by the project. Land application of recycled water shall be subject to the approval of the City of Fresno and appropriate County and State agencies.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application	City of Fresno	
<p>2.8.2-a: Reclaimed water shall be utilized for golf course or landscape irrigation in designated open space areas. These sites shall be fully described and approved by the RWQCB as part of the preliminary discharge permit and it must be shown by soil testing by a qualified engineer that the sites are capable of handling the entire planned disposal flow.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.8.2-b: The spray irrigation system shall be operated so as to minimize contact with the public. Irrigation shall be scheduled for times when the areas are not in use and all irrigation piping shall be clearly marked as not for potable use. The system shall be operated to minimize aerosols, ponding, and runoff of reclaimed water. Operation of the irrigation system by City of Fresno personnel shall be in accordance with guidelines established by DHS.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.8.2-c: Separation of the reclaimed effluent distribution system and the potable water distribution system shall be assured through use of color-coded pipe.</p>	Project Applicant	Ongoing / Prior to	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Effluent pipelines and hardware shall be appropriately labeled, and backflow prevention devices may be required where a potential cross connection may exist. Minimum separation of potable water and reclaimed water lines shall be as prescribed by City of Fresno and State of California standards.		approval of land use entitlement application and building permits		
2.8.3-a: The developer shall participate in any necessary collection system enhancements subject to full and satisfactory mitigation by the developer of all potentially significant impacts identified by the City of Fresno Department of Public Utilities.	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
2.8.3-b: The developer shall be responsible for all wastewater facility and trunk fees necessary to accommodate the sludge loading.	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
2.8.4-d: Annual nutrient summaries shall be prepared for all turf areas served with reclaimed water. The summaries shall evaluate the needs of the turf, the amount of nutrients applied, and any supplemental fertilizers applied. The amount of treated effluent applied shall be adjusted based on the turf nutrient requirements.	Project Applicant	Ongoing	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>2.8.5-a: The developer shall be responsible for the following mitigation measure to be included as a condition of approval of the conditional use permit for the wastewater treatment plant:</p> <ul style="list-style-type: none"> Monitoring groundwater, including nitrogen content, has been proposed as a mitigation measure for this project (see above mitigation for groundwater degradation caused by infiltration of diluted treated effluent). Measurements shall be taken each calendar quarter by City of Fresno personnel or a qualified consultant. Should the monitoring tests exceed nitrogen standards, a denitrification process shall be started at the wastewater treatment facility. The plant design shall incorporate a denitrification process that shall denitrify the treated effluent to the 10 mg/l total nitrogen level. 	Project Applicant	Ongoing	City of Fresno	
<p>2.9.1-a: Establish a development fee for the project’s fair share of the City’s surface water treatment plant construction and expansion.</p>	Project Applicant	Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.1-c: Technical water supply information shall be submitted which demonstrates residential and commercial uses and corresponding water requirements.</p>	Project Applicant	Prior to approval of land use entitlement application and building permits	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>2.9.1-d: The developer shall commit to plan and maintain on-site recharge basins and lakes to ensure that necessary recharge can be accomplished over the life of the project.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.1-e: The developer shall prepare a water master plan for approval by the City in accordance with City requirements.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.2-a: New wells shall be placed a minimum of 500 feet from the project boundaries where there is an adjoining proximate off-site well, in order to preclude drawdown in off-site wells due to pumpage of new public supply wells in the project. In addition, new public supply wells on the project site shall include a test well and monitoring of a sufficient number of adjoining proximate off-site wells as determined by the City to determine potential drawdown in the off-site wells. Should adverse effects on adjoining proximate off-site wells be determined, the public supply wells shall be relocated or otherwise mitigated to preclude such adverse impacts.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
<p>2.9.2-b: Locate domestic water wells in accordance with the recommendations contained in the report <i>Groundwater Conditions at the Copper River Ranch</i>, prepared by Kenneth D. Schmidt and Associates, May, 2000.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.2-c: If water yields from adjacent private wells are determined by the City Department of Public Utilities in consultation with the Fresno County Department of Community Health to have been adversely affected by the project, the developer shall improve the private well to standards acceptable to the City, or connect the user to the project water system.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.3-a: Should any existing community water supply well exceed the DBCP MCL as detected in regular monitoring, granular activated carbon treatment or other acceptable technology shall be required to be consistent with CCR Title 22 requirements.</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
<p>2.9.3-b: Should any existing community water supply well exceed the uranium MCL as detected in regular monitoring, the contaminated well water shall be blended with other on-site groundwater supplies to reduce the contamination level below the MCL at all times. A State DHS-approved blending program shall be implemented to meet this requirement. The effectiveness of the program</p>	Project Applicant	Ongoing / Prior to approval of land use entitlement application	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
shall be supported by on-going monitoring at State-specified frequencies and locations.		and building permits		
2.9.3-c: Should other contaminants be identified in the future, remediation shall be resolved in accordance with CCR Title 22 requirements.	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
2.9.4-a: Monitoring groundwater, including nitrogen content, has been proposed as a mitigation measure for this project (see mitigation for groundwater degradation caused by infiltration of diluted treated effluent, in Section 2.8). Measurements shall be taken each calendar quarter by City of Fresno personnel or a qualified consultant. Should the monitoring tests exceed nitrogen standards, a denitrification process shall be started at the wastewater treatment facility. The plant design shall incorporate a denitrification process that shall denitrify the treated effluent to the 10 mg/l total nitrogen level.	Project Applicant	Ongoing / Prior to approval of land use entitlement application and building permits	City of Fresno	
2.9.6-a: Grading plans shall demonstrate that all areas of irrigated turf or other open space receiving reclaimed water drain away from FMFCD basins, except in extraordinary wet years (10-year frequency storms) when on-site lakes may fill from stormwater and utilize the FMFCD basins.	Project Applicant	Prior to approval of land use entitlement application and building permits	City of Fresno	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Utilities and Service Systems				
<p>HYD – 2A: The Project will implement the City of Fresno Water Conservation Program, including implementation of the State’s Water Efficient Landscape Ordinance. The California Water Conservation Act mandates a 20 percent reduction in water usage. The Developer will meet the reduction target with measures applicable to new and existing development. Reductions beyond the state mandated 20 percent are possible with the use of building and landscaping water conservation features. The reductions from buildings can be achieved with high efficiency toilets, low-flow faucets, and water-efficient appliances such as dishwashers. Water savings from landscaping would be achieved primarily through the use of drought-tolerant landscaping or xeriscaping.</p>	Project Applicant	Prior to issuance of grading or building permits	City of Fresno	
<p>HYD – 2B: The total Project area considered for water supply requirements consists of an original Project area of 706 acres and new Project area of 109 acres. The City has previously established water supply requirements for the original Project area of 706 acres and memorialized them in a Water Supply Implementation Agreement. For the new Project area, the Developer shall pay the Water Capacity Fee, as specified in the City’s Master Fee Schedule, for all new connections to the City’s water system.</p>	Project Applicant	Prior to approval of land use entitlement application	City of Fresno	

Chapter 1

INTRODUCTION

CHAPTER ONE - INTRODUCTION

1.0 Introduction

This Environmental Impact Report (EIR) has been prepared as a Subsequent EIR (SEIR or Draft SEIR) to the City of Fresno's Final Environmental Impact Report (State Clearinghouse number 2000021003) for the Copper River Ranch Project that was certified by the City in 2003 (2003 FEIR). The 2003 FEIR analyzed the potential environmental impacts associated with construction and operation of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres within the boundary of the original Copper River Ranch development. The Copper River Ranch development is generally situated between Friant Road, Copper Avenue, Willow Avenue and Silaxo Road (alignment) within the City limits of Fresno. This SEIR discusses the potential environmental impacts of changes to the Project description as well as changes to the regulatory setting and physical environment that have occurred since the 2003 FEIR was certified. The full description of the changes and additions to the Project is included in Chapter Two – Project Description. The City of Fresno is the Lead Agency for this SEIR pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

Project History and Environmental Background

In January of 2000, Copper River Ranch LLC (original Project Applicant) submitted a General Plan Amendment / Rezoning application to Fresno County. These applications were approved by the Fresno County Board of Supervisors in December of 2000 and a Final Program EIR was certified by the Board. In August 2002, the Fresno County Local Agency Formation Commission (LAFCo) included the site within the Sphere of Influence boundary for the City of Fresno. In addition, the site was designated for urban development by the 2025 City of Fresno General Plan. In 2003, the City of Fresno prepared and certified an EIR (previously referred to herein as the 2003 FEIR) for the Project and the site was annexed into the City. The site has been in a state of development since 2004 and today, there are commercial and single family uses on the site.

The Copper River Ranch Project has been building out / developed since 2004 in general conformance to what was analyzed in the 2003 FEIR. However, as development has occurred there have been some minor changes with regard to subdivision layouts, number of units, and some minor changes to locations of commercial/office. In addition, there are approximately 109 acres that were not studied as part of the 2003 FEIR for which the Project Applicant proposes to develop now or in the future. As such, those areas will require additional evaluation. This SEIR includes a full evaluation of the "new" Project areas as well as minor changes to the existing

development. Refer to Chapter Two – Project Description for the full description of the changes to the Project.

CEQA Updates Since Certification of the 2003 FEIR

As discussed herein, the Project was authorized in 2003 and the Project remains substantially built out in conformance to what was environmentally reviewed in 2003. However, in the intervening years, several changes have been made to the CEQA Guidelines, regulatory and statutory requirements, special status species lists, as well as the environmental setting. The CEQA Guidelines Appendix G Checklist Form was updated to address the analysis and mitigation of greenhouse gas emissions (March 18, 2010) and include questions related to impacts to tribal cultural resources (September 27, 2016). On December 28, 2018, a comprehensive update to the State CEQA Guidelines became effective, which addressed legislative changes to the CEQA statute, clarified certain portions of the existing CEQA Guidelines, and updated the CEQA Guidelines to be consistent with recent court decisions, including but not limited to the incorporation of energy as new topic addressed by the CEQA Guidelines. The topic of Wildfire was also added to the 2019 CEQA Guidelines as a stand-alone topic. In addition, there have been changes to protected and/or special status species lists (e.g. Valley Elderberry Long-Horned Beetle has been removed, San Joaquin Kit Fox has been added, etc.). This SEIR addresses these changes, minor updates to other environmental topics, and the Project Description modifications. In addition, this SEIR evaluates the status of the previous 2003 FEIR mitigation measures and their applicability to the proposed Project.

Purpose, Scope and Legal Authority

The Lead Agency has determined that Project modifications or changed circumstances have occurred and/or new information has become available following the previous discretionary approval, and these changes trigger the need for additional environmental review. Pursuant to the State CEQA Guidelines, a Lead Agency must prepare a Subsequent EIR for a previously-certified EIR when any of the following criteria set forth in CEQA Guidelines Section 15162(a)(1-3) would occur:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement

of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified shows any of the following:
- a. The project will have one or more significant effects not discussed in the previous EIR;
 - b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Therefore, the City has prepared this Subsequent EIR for the Project. Refer to Section 1.5 – Organization and Scope for more information pertaining to the contents of the SEIR.

Documents Incorporated by Reference

As previously discussed, the original Copper River Ranch Project environmental impacts were evaluated in the 2003 FEIR prepared by the City of Fresno (EIR No. 10126, State Clearinghouse No. 2000021003). That document and associated findings are herein incorporated by reference pursuant to CEQA Guidelines Section 15150 and is available for review at the City of Fresno Planning and Development Department located at 2600 Fresno Street, Room 3065, Fresno, CA 93721.

1.1 Purpose of an EIR

Preparation of an EIR is required by CEQA prior to approving any project that may have a significant impact on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a

reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]).

This Draft SEIR has been prepared according to CEQA requirements to evaluate the potential environmental impacts associated with the implementation of the Project. The Draft SEIR also proposes mitigation measures that will offset, minimize, or otherwise avoid significant environmental impacts. This Draft SEIR has been prepared in accordance with CEQA, California Resources Code Section 21000 et seq.; the Guidelines for the California Environmental Quality Act (California Code of Regulations, Title 14, Chapter 3); and the rules, regulations, and procedures for implementing CEQA as adopted by the Lead Agency.

An EIR must disclose the expected direct and indirect environmental impacts associated with a project, including impacts that cannot be avoided, growth-inducing effects, impacts found not to be significant, and significant cumulative impacts, as well as identify mitigation measures and alternatives to the proposed project that could reduce or avoid its adverse environmental impacts. CEQA requires government agencies to consider and, where feasible, minimize environmental impacts of proposed development.

1.2 Intended Uses of the EIR

The City of Fresno, as the Lead Agency, has prepared this SEIR to provide the public and responsible and trustee agencies with an objective analysis of the potential environmental impacts resulting from implementation of the Project. The environmental review process enables interested parties to evaluate the proposed Project in terms of its environmental consequences, to examine and recommend methods to eliminate or reduce potential adverse impacts, and to consider a reasonable range of alternatives to the Project. While CEQA requires that consideration be given to avoiding adverse environmental effects, the Lead Agency must balance adverse environmental effects against other public objectives, such as economic and social benefits of a project, in determining whether a project should be approved.

This SEIR will be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the Project. Subsequent actions that may be associated with the Project are identified in Chapter Two, Project Description.

1.3 Known Responsible and Trustee Agencies

The term “Responsible Agency” includes all public agencies other than the Lead Agency that have discretionary approval power over the project or an aspect of the project (CEQA Guidelines Section 15381). For the purpose of CEQA, a “Trustee” agency has jurisdiction by law over natural

resources that are held in trust for the people of the State of California (CEQA Guidelines Section 15386). Other than approvals from the City of Fresno, the Project will require various approvals, permits, entitlements and/or coordination (e.g. air quality permits, water quality permits, etc.) as follows:

- Compliance with other federal, state and local requirements such as the San Joaquin Valley Air Pollution Control District for a dust control plan and the Regional Water Quality Control Board for a Stormwater Pollution Prevention Plan.
- City of Fresno Department of Public Utilities (Water, Sewer and Solid Waste)
- Fresno Irrigation District
- Fresno Metropolitan Flood Control District
- City of Fresno Fire Department
- City of Fresno Public Works Department
- Clovis Unified School District
- Fresno County Environmental Health
- California Department of Transportation (Caltrans)

1.4 Environmental Review Process

The review and certification process for the SEIR has involved, or will involve, the following general procedural steps:

Notice of Preparation

The Lead Agency circulated a Notice of Preparation (NOP) of an SEIR for the proposed Project on July 31, 2020 for a 30-day public review period to trustee and responsible agencies, the State Clearinghouse, and the public. A scoping meeting (conducted virtually via a “Zoom” meeting) was held on August 20, 2020. No public or agency comments on the NOP related to the SEIR analysis were presented or submitted during the scoping meeting.

Draft SEIR

The purpose of a Subsequent EIR is to examine and disclose the impacts of a project when a project has been modified to the extent that it could result in new or substantially more severe impact than what was previously analyzed in a previous EIR. As such, this SEIR examines the potential impacts of the proposed modifications to the Copper River Ranch Project. Information and analysis from the 2003 FEIR that is relevant to the analysis of the Project modifications is briefly summarized or described rather than repeated. This Subsequent EIR is intended to:

- Address Project modifications (such as the proposed General Plan Amendments and proposed land use changes), changed circumstances, or new information that was not known and could not have been known with the exercise of reasonable diligence at the time the prior document was certified, as required under CEQA Guidelines Section 15162;
- Address new CEQA requirements, such as greenhouse gas emissions, tribal cultural resources and other CEQA topics that have been added since 2003;
- Address new or substantially more severe significant environmental effects related to proposed Project modifications;
- Recommend mitigation measures to avoid or lessen impacts associated with any new or substantially more severe significant environmental effects; and
- Update the impact analysis and mitigation measures where conditions have changed since the certification of the 2003 FEIR.
- Evaluate the previous 2003 FEIR mitigation measures to determine their status and applicability to the proposed Project.

An analysis was conducted to compare the proposed Project with the Project analyzed in the 2003 FEIR in order to assess the proposed Project's consistency with the Project analyzed in the 2003 FEIR and determine which environmental topics warranted further analysis in this Subsequent EIR (see Section 1.5 Organization and Scope).

Upon completion of the Draft SEIR, the Lead Agency will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor's Office of Planning and Research and will publish/circulate the SEIR to begin the public review period.

Public Notice/Public Review

Concurrent with the NOC, the Lead Agency will provide a public notice of availability for the Draft SEIR, and invite comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA requirements, the review period for this Draft SEIR is forty-five (45) days. Public comment on the Draft SEIR will be accepted in written form. All comments or questions regarding the Draft SEIR should be addressed to:

Israel Trejo
 City of Fresno Planning and Development
 2600 Fresno Street, Room 3065
 Fresno, CA 93721
 (559) 621-8277
Israel.Trejo@fresno.gov

Responses to Comments/Final EIR

Following the public review period, a Final SEIR will be prepared. The Final SEIR will respond to written comments received during the public review period and to oral comments during such review period.

Certification of the EIR/Project Consideration

The City of Fresno will review and consider the Final SEIR. If the Fresno City Council (Council) finds that the Final EIR is "adequate and complete," the Council may certify the Final SEIR in accordance with CEQA. As set forth by CEQA Guidelines Section 15151, the standards of adequacy require an EIR to provide a sufficient degree of analysis to allow decisions to be made regarding the proposed Project that intelligently take account of environmental consequences.

Upon review and consideration of the Final SEIR, the Council may take action to approve, revise, or reject the Project. A decision to approve the proposed Project, for which this SEIR identifies significant environmental effects, must be accompanied by written findings in accordance with State CEQA Guidelines Sections 15091 and 1509 and a statement of overriding consideration made in accordance with State CEQA Guidelines Section 15093. A Mitigation Monitoring and Reporting Program (MMRP) would also be adopted in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097 for mitigation measures that have been incorporated into or imposed upon the Project to reduce or avoid significant effects on the environment. The Mitigation Monitoring and Reporting Program will be designed to ensure that these measures are carried out during Project implementation, in a manner that is consistent with the SEIR.

1.5 Organization and Scope

Sections 15122 through 15132 of the State CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include a description of the environmental setting, an environmental impact analysis, mitigation measures, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This Draft SEIR is organized in the following manner:

Executive Summary

The Executive Summary summarizes the characteristics of the proposed Project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the Project's environmental impacts and potential mitigation measures. This chapter identifies alternatives that reduce or avoid at least one significant environmental effect of the proposed Project.

Chapter 1.0 – Introduction

Chapter 1.0 briefly describes the proposed Project, the purpose of the environmental evaluation, identifies the lead, trustee, and responsible agencies, summarizes the process associated with preparation and certification of an EIR, identifies the scope and organization of the Draft SEIR, and summarizes the NOP.

Chapter 2.0 – Project Description

Chapter 2.0 provides a detailed description of the proposed Project, including the location, intended objectives, background information, the physical and technical characteristics, including the decisions subject to CEQA, subsequent Projects and activities, and a list of related agency action requirements.

Chapter 3.0 – Environmental Setting, Impacts and Mitigation Measures

Chapter 3.0 contains an analysis of environmental topic areas as identified below. The new or updated sections will be organized as follows:

Environmental and Regulatory Setting. Each environmental topic includes a description of the existing environmental setting as it pertains to the topical area as well as a description of the regulatory environment that may be applicable to the Project.

Impacts and Mitigation Measures. Each environmental topic includes the thresholds of significance by which impacts are determined, a description of Project-related impacts associated with the environmental topic, identification of appropriate mitigation measures, and a conclusion as to the significance of each impact. Cumulative impacts are also addressed at the end of each impact section. Each impact topic will contain an analysis of impacts related to the changes in the Project description as described in Chapter Two – Project Description.

As previously described, this SEIR has been prepared because the City determined that changes to and circumstances surrounding the 2003 FEIR have occurred and new information has become available since the City certified the 2003 FEIR. Moreover, the City evaluated the impacts of the proposed updated Project description and determined that impacts of the updated Project were not previously examined in the 2003 FEIR and may be potentially significant. Therefore, in addition to the CEQA Appendix G checklist topics, the following additional checklist questions are addressed for each topic:

- Is the proposed Project within the scope of the 2003 FEIR?
- Will the Project cause any additional significant effect on the environment not examined in the 2003 FEIR?
- Is there any new information or project component requiring new analysis?
- Did the 2003 FEIR mitigation measures fully address the impacts of the proposed Project? (This includes a discussion/analysis on the current status of 2003 FEIR mitigation measures and their applicability, as well as any new mitigation measures that are required.)

Chapter 4.0 – Project Alternatives

Chapter 4.0 provides a comparative analysis between the merits of the proposed Project and the selected alternatives. State CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the Project, which could feasibly attain the basic objectives of the Project and avoid and/or lessen any significant environmental effects of the Project.

Chapter 5.0 – Other CEQA-Required Topics

Chapter 5.0 evaluates and describes the following CEQA required topics: growth-inducing effects, significant and irreversible effects, significant and unavoidable impacts, substantial adverse effects on fish, wildlife, and plan species, substantial adverse effects on human beings, and effects not found to be significant.

Chapter 6.0 – Report Preparers

Chapter 6.0 lists all authors and agencies that assisted in the preparation of the Draft SEIR, by name, title, and company or agency affiliation.

Appendices

This section includes the 2003 FEIR, the Project NOP and technical studies.

1.6 – Summary of Comments Received on the Notice of Preparation

Three NOP comment letters were received during the 30-day NOP public review period as follows:

1. **Native American Heritage Commission** – provided information about the tribal consultation process (AB 52 and SB 18). (August 4, 2020)

2. **California Department of Conservation (Geologic Energy Management Division)** – the letter indicated that there are no known oil or gas wells identified within the Project boundaries and also provided information pertaining to potential (unknown) underground wells that may be encountered during construction. (August 17, 2020)
3. **Fresno County Environmental Health** – provided information about the use and handling of potentially hazardous materials and listed potential measures to protect groundwater and to reduce noise impacts. (August 18, 2020)
4. **Fresno Metropolitan Flood Control District** – provided information on flood control facilities in the Project area, applicable regulations, and methodologies that should be used when evaluating flood/stormwater impacts associated with the Project. (August 26, 2020)
5. **Caltrans** – provided methodologies that should be used in the Project traffic analysis and provided recommendations on intersections/roadways to include in the analysis. (August 28, 2020)
6. **San Joaquin Valley Air Pollution Control District** – provided the Air District’s list of applicable rules and regulations as well as the methodologies that should be used in the Project air analysis. (August 31, 2020)

Chapter 2

PROJECT DESCRIPTION

Project Description

2.1 Project Location and Surrounding Land Use

As described in Chapter One – Introduction, the proposed Copper River Ranch Project consists of two areas of development. The first consists of adding approximately 109 acres to the Copper River Ranch development that were not included in the original 2003 Copper River Ranch FEIR. The second consists of proposed land use designation changes within the existing 706.5 acre Copper River Ranch Development.

New Areas of Development

The proposed new areas of development would occur on approximately 109 acres adjacent and east of the existing Copper River Ranch footprint. The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation. The proposed new development area is surrounded by residential development to the north; residential development, portions of a golf course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west.

Refer to Figure 2-1: Regional Map, Figure 2-2: Vicinity Map and Figure 2-3: Exhibit Map for Project location. The area shown with the solid red line in Figure 2-3 is the new 109 acres that is being evaluated along with the land use changes within the existing development.

Existing Copper River Ranch Development

The existing Copper River Ranch development area consists of approximately 706.5 acres situated generally between Friant Road, Copper Avenue, Willow Avenue and Silaxo Road. The existing development has been building out / developed since the original EIR was approved in 2003. The area consists of residential housing, commercial establishments, a golf course, parks/trails and related improvements. The proposed changes within the existing development are described in Section 2.2 of this Chapter.

Figure 2-1: Regional Map

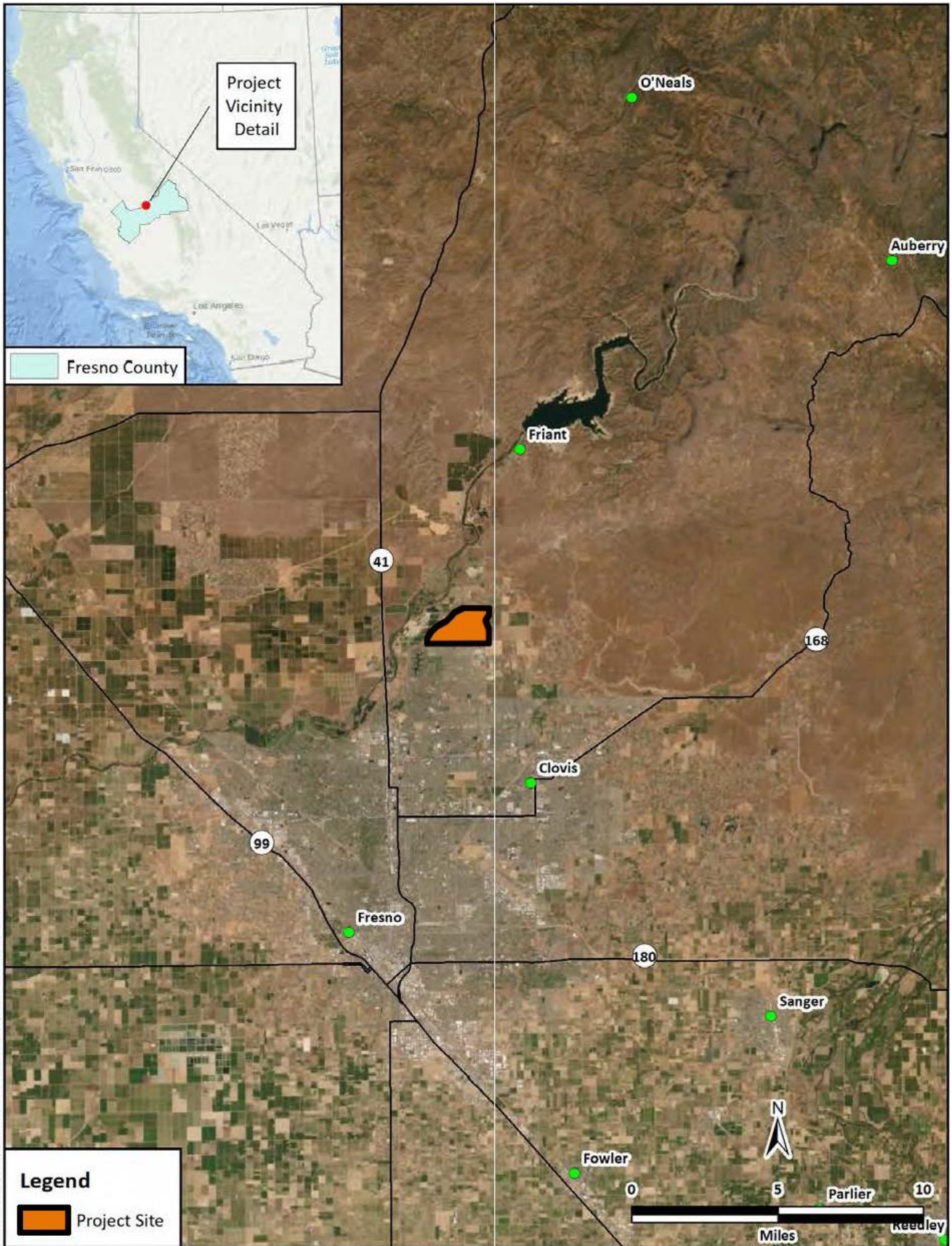


Figure 2-2: Vicinity Map

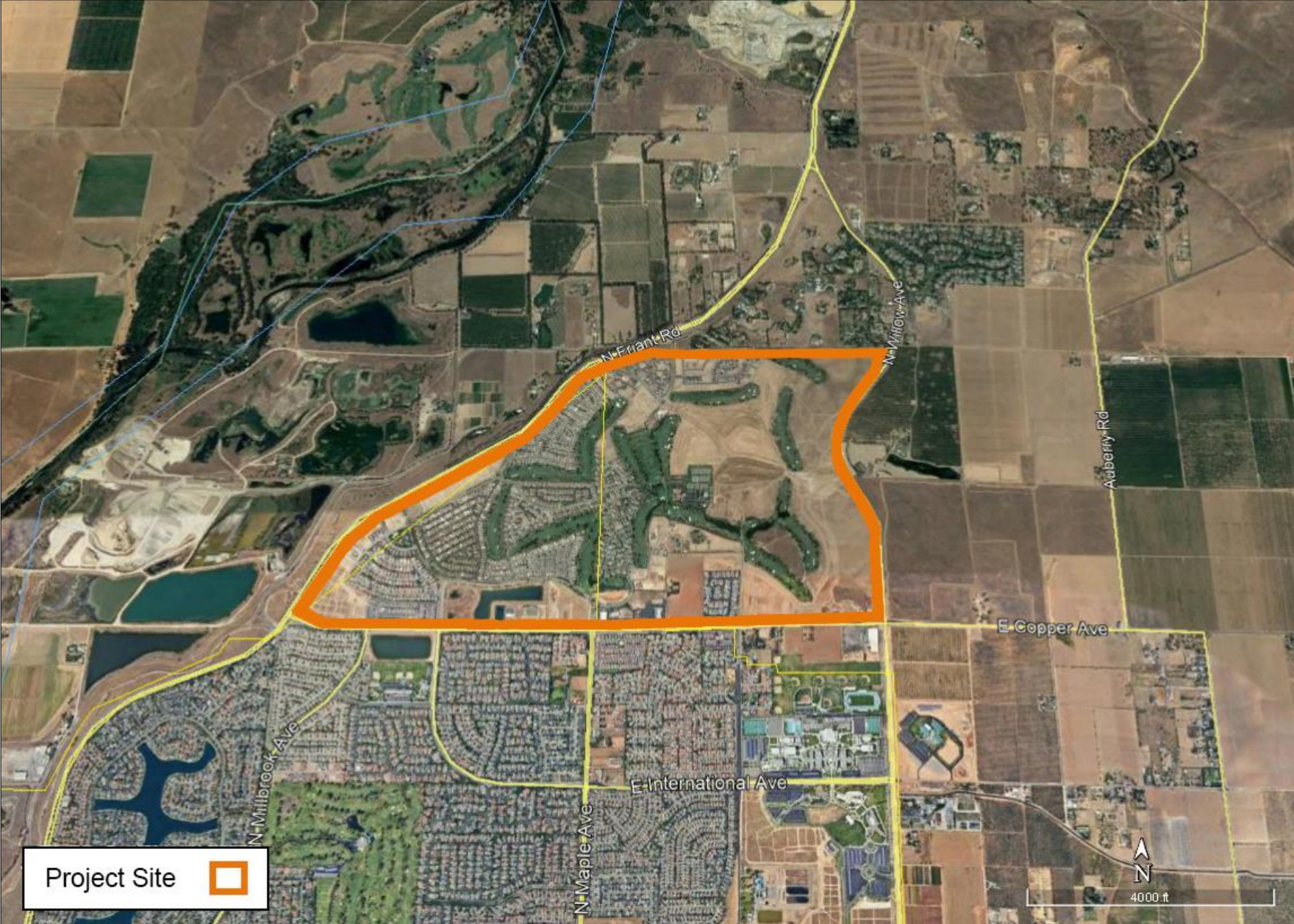
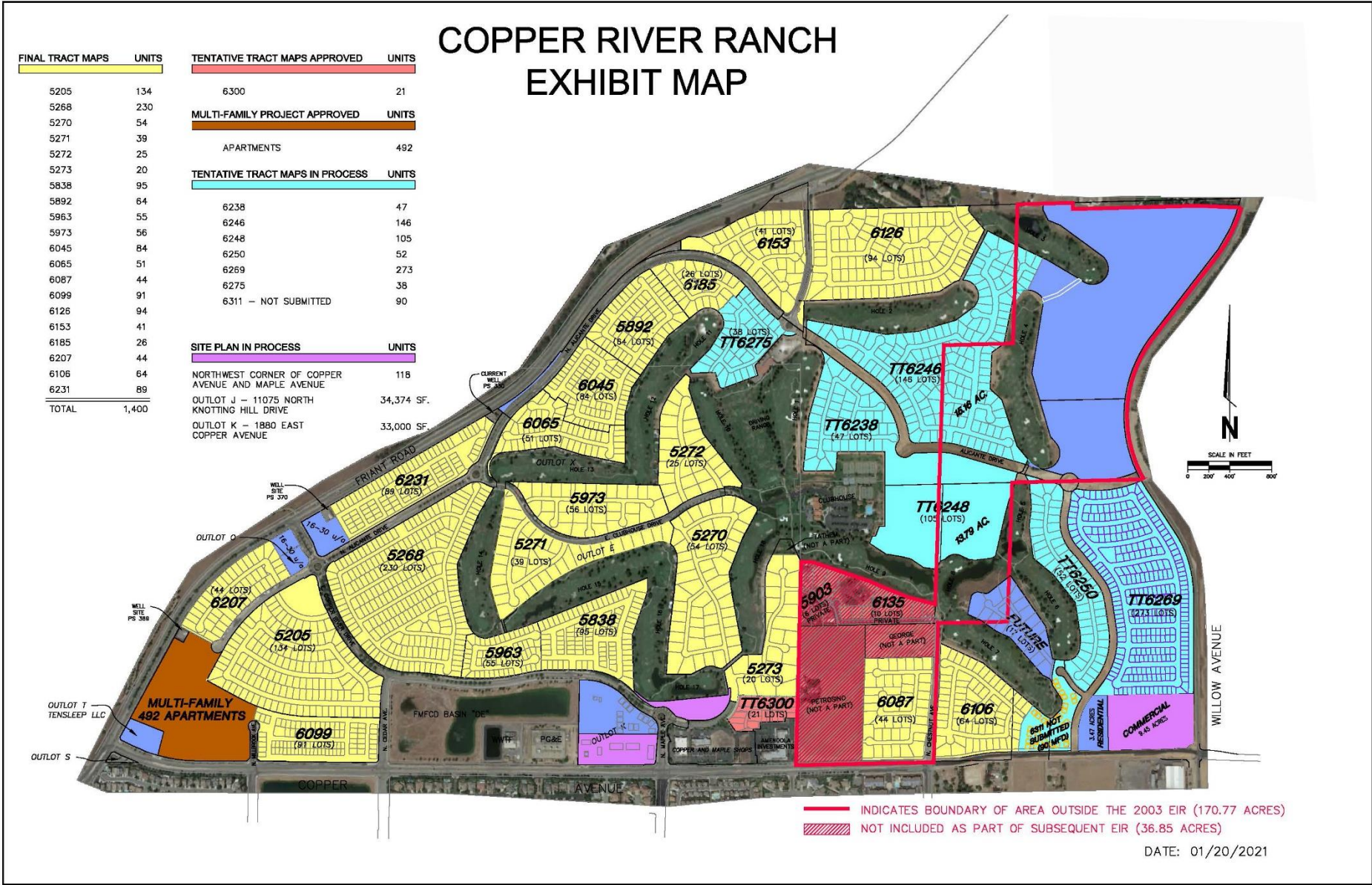


Figure 2-3: Exhibit Map



2.2 Project Description

Environmental Background

The existing Copper River Ranch Development was originally submitted to and approved by the County of Fresno Board of Supervisors in 2000. The Project was designated and zoned for a mixture of uses including commercial, multifamily residential, and single family residential. In 2001, the City of Fresno initiated the update of their General Plan and wanted to include the Copper River Ranch area. Work on the General Plan update was completed, and the Plan was approved in 2002. The Copper River Ranch Project was approved in 2003 by the Fresno City Council, and the area was annexed into the Fresno City limits. The Project has been in a state of development since 2004 and today, there are commercial and residential uses on the Project site.

The City of Fresno prepared and certified an Environmental Impact Report (No. 10126) for the Copper River Ranch Project (State Clearinghouse #2000021003), adopted in 2003. That EIR analyzed the impacts of the following:

- 2,837 residential units on 706 acres
- 250,000 square feet of office/commercial (60 acres)

The Copper River Ranch Project has been building out / developed since that time in general conformance to what was analyzed in the 2003 EIR. However, as development has occurred there have been some minor changes with regard to subdivision layouts, number of units, and some minor changes to locations of commercial/office. In addition, there are approximately 170.77 acres that were not studied as part of the 2003 EIR for which the Project Applicant proposes to develop now or in the future approximately 109 acres of the 170.77 acres. As such, those areas required additional environmental evaluation, and the SEIR includes a full evaluation of the “new” Project areas as well as all proposed land use changes and associated maps. The remaining approximately 62 acres of the 170.77 acres is not included in this study and is comprised of a hatched area of 36.85 acres and golf course area of 25.08 acres per Figure 2-3. Figure 2-3 also shows the locations of final tract maps, tentative tract maps approved, tentative tract maps in process, site plans in process, and depicts the boundary of “new” Project areas that have been evaluated in this SEIR.

Proposed Project

As described in Chapter One – Introduction, the proposed Copper River Ranch Project consists of two areas of development. The first consists of adding approximately 109 acres to the Copper River Ranch development that were not included in the original 2003 Copper River Ranch EIR. The second consists of proposed land use designation changes within the existing 706.5-acre Copper River Ranch Development. These Project components are described below.

New Areas of Development

The approximately 109 acres of new development areas are proposed to be developed with a variety of housing types. The breakdown of the approximately 109 acres of new development is shown in Table 2-1 and Table 2-2 and is summarized as follows:

- 11.86 acres of Parcel 14 – existing medium-low density residential with no proposed land use change
- 48.27 acres of Parcel 15 – existing medium-low density residential with no proposed land use change
- 3.6 acres of Parcel 7 – existing medium density residential proposed for low density residential
- 15.16 acres of Tract 6246 (portion) - existing medium-low density residential with no proposed land use change
- 13.79 acres of Tract 6248 (portion) – existing medium density residential with no proposed land use change
- 2.2 acres between holes 3 and 4 – existing medium-low density residential with no proposed land use change
- 13.96 acres of Tract 6087

Existing Copper River Ranch Development

The Applicant is proposing to modify the existing General Plan designations to reflect both the actual built out conditions of Copper River Ranch today and to identify any proposed land use designations and zone districts that are planned for the future. The proposed changes to the existing land use designations, zoning, and tentative tract maps are shown in Table 2-1 (Proposed Land Use Changes) and Table 2-2 (No Proposed Land Use Changes). These are also depicted in Figure 2-4: Parcel Locations and General Plan Designations (1 of 2) and Figure 2-5: Parcel Locations and General Plan Designations (2 of 2).

**Table 2-1
Proposed Land Use Changes**

Parcel No.	Acres	Existing Land Use Designation	Proposed Land Use Designation	Existing Zoning	Proposed Zoning
1	10.16	Med DR	Low DR	RS5	RS3
2	4.53	Gen Comm	Low DR	GC	RS3
3	1.17	Comm Comm	Low DR	CC	RS3
4**	2.07	Golf Course	Med Low DR	OS	RS3
5	16.21	Med DR	Low DR	RS5	RS3
7**	9.22	Med DR	Low DR	RS5	RS4
9	7.23	Med High DR	Med DR	RM1	RS5
10***	0.79	Med High DR	Med Low DR	RM1	RS3
10***	2.68	Med High DR	Comm Comm	RM1	CC
11	7.11	Comm Comm	Urban Neighbor	CC	RM2
12****	2.68	Comm Comm	Med Low DR	CC	RS3
19	1.06	Comm Comm	Urban Neighbor	CC	RM2
20	0.93	Med DR	Urban Neighbor	RS5	RM2
Total Acres:	65.84				

* See Figures 2-4 and 2-5 for parcel locations

** Portions not within the original 2003 EIR study area.

*** Portion of a total 3.47 acres for Parcel 10

**** Portion of a total 9.45 acres for Parcel 12

**Table 2-2
No Proposed Land Use Changes**

Parcel No.	Acres	Existing Land Use Designation	Existing Zoning
6	6.11	Med DR	RS5
8**	28.46	Med Low DR	RS4
12***	6.77	Comm Comm	CC
13	32.61	Med DR	RS5
14**	11.86	Med Low DR	RS4
15**	48.27	Med Low DR	RS4
16**	32.59	Med Low DR	RS4
17**	12.23	Med Low DR	RS4
Total Acres:	178.9		

* See Figures 2-4 and 2-5 for parcel locations

** Portions not within the original 2003 EIR study area.

*** Portion of a total 9.45 acres for Parcel 12

Summary of Proposed Land Use Changes

Figures 2-4 and 2-5 show the locations of the parcels identified in the tables above. The proposed changes/additions to the Copper River Ranch Project will not substantially increase the overall unit count that was originally analyzed in the 2003 FEIR. As previously discussed, the 2003 FEIR evaluated the impacts of development of up to 2,837 residential units (1,192 single-family units and 1,645 multi-family units). The proposed Project could result in the development of up to 3,216 total housing units within the proposed Development. Thus, the total number of “new” units at full buildout beyond what was analyzed in the 2003 FEIR is 379 additional units. The additional 379 units is derived by taking the difference between the 2003 FEIR total buildout (2,837 units) and the proposed number of units (3,216). Although only 379 units are being added to the development, this SEIR evaluates the impacts of all 3,216 units.

The changes are summarized as follows:

1. The changes will affect fourteen (14) different parcels, for a total of 65.84 acres.
2. Of the 65.84 total acres, 46.29 acres will have a reduction in residential density.

3. Of the 65.84 total acres, 19.55 acres will be proposed for an increase in residential density.
4. There are eight (8) parcels with no proposed land use changes, which have a total of 178.90 acres.
5. There are 108.84 acres that were not studied as part of the 2003 FEIR study area. The breakdown of that acreage is found on page 2-6.

Density/Number of Lots/Maps

Within the original Copper River Ranch Project area (2003 FEIR study area), the current count (as of Year 2021) of approved single-family residential units is 1,400 (see Figure 2-3) and multi-family residential is 492.

Based on the tentative tract maps currently submitted for processing as outlined below (or to be submitted), the proposed number of lots outside of the original 2003 FEIR study area is 102 single-family units; the remainder of the proposed lots are within the 2003 FEIR study area. As shown in Figure 2-3, there are 49 single-family units as part of Tract 6246 and 53 single-family units as a part of Tract 6248 that are outside of the original 2003 FEIR study area. In addition, the changes to Parcel 11 will result in additional multi-family units (range of 102 – 191 units), the analysis of which is included in this current SEIR. The remaining acreage outside of the 2003 FEIR study area is not currently proposed to be mapped. Tentative tract maps will be submitted for that area at some time in the future.

The easterly half of Copper River Ranch may be developed with additional blended densities with properties within the westerly half of Copper River Ranch. Any density-transfers will be submitted for approval to the City of Fresno Planning and Development Department and as allowed pursuant to a future Planned Development Permit. Calculations will be provided as tracts are developed.

Currently there have been 492 multi-family units conditionally approved on the westerly half of Copper River Ranch. Additional multi-family units are proposed within the easterly half of Copper River Ranch (Parcel 6).

Figures 2-4 and 2-5 depict the parcel locations and General Plan designations within the Project area. A general description of each tract is provided below:

- **Tract 6238** – Proposed 47 single-family low density residential lots. It is a total of 15.86 acres with 10.16 acres as medium-density residential (Parcel 1), 4.53 acres as General Commercial (Parcel 2), and 1.17 acres as Community Commercial (Parcel 3). As noted

on Table 2-1, the General Plan designation proposed for this property is low density residential. The Owner/Applicant processing the tentative tract map is Gary McDonald Homes.

- **Tract 6246** – Proposed 146 single-family medium low density residential lots. It is a total of 46.89 acres, with 44.82 acres planned medium low residential and 2.07 acres planned Golf Course (Parcel 4). As noted on Table 2-1, 2.07 acres of this property is proposed to be amended to medium-low density residential. The Owner/Applicant processing the tentative tract map is Gary McDonald Homes.
- **Tract 6250** – Proposed 52 single-family low density residential lots. It is currently 16.21 acres of medium-density residential (Parcel 5). As noted on Table 1, the General Plan designation proposed for this property is low density residential. The Owner/Applicant processing the tentative tract map is Granville Homes.
- **Parcel 6 (Tract 6311)** – Proposed 6.11 acres of medium-density residential. The Owner/Applicant processing the map is Granville Homes.
- **Tract 6248** – Proposed 28.46 acres as medium-low density residential (Parcel 8). The Owner/Applicant processing the site plan is Granville Homes.
- **Tract 6269** – Proposed 273 single-family medium-density residential lots within 39.84 acres with 32.61 as medium-density residential (Parcel 13) and 7.23 acres as medium-high density residential (Parcel 9). As noted on Table 2-1, 7.23 acres of this property is proposed to be amended to medium-density residential. The Owner/Applicant processing the tentative tract map is Wathen Castanos Homes.
- **Parcel 11 (Portion of Outlot K)** – Proposed multi-family units on 7.11 acres. Apartments would occupy 3.9 acres and duplexes would occupy 2.45 acres for a total unit density of between 102 and 191 units total. The southerly portion of Outlot K (shown as Parcel 18) will remain designated for commercial uses and is proposed for 33,000 square feet of commercial.

There are currently no maps for Parcels 10, 14, and 15. In addition to the tract maps above, this CEQA document analyzes future development on said parcels which are both within and outside the 2003 FEIR study area. Currently there is not an approved conceptual alignment for

Road G (north) which would potentially extend from the intersection of Winery Avenue (Road G) and Alicante Drive, north to Parcels 14 and 15, with anticipated exit/entrance to Willow Avenue subject to approval by the Department of Public Works. Winery Avenue (Road G) south of Alicante Drive is a 13 ft wide lane in each direction with 7 ft wide shoulders. It is anticipated the conceptual alignment for Road G will be developed with the future tentative tract maps in Parcels 14 and 15 and will be analyzed at that time.

Figure 2-4: Parcel Locations and General Plan Land Use Designations (1 of 2)

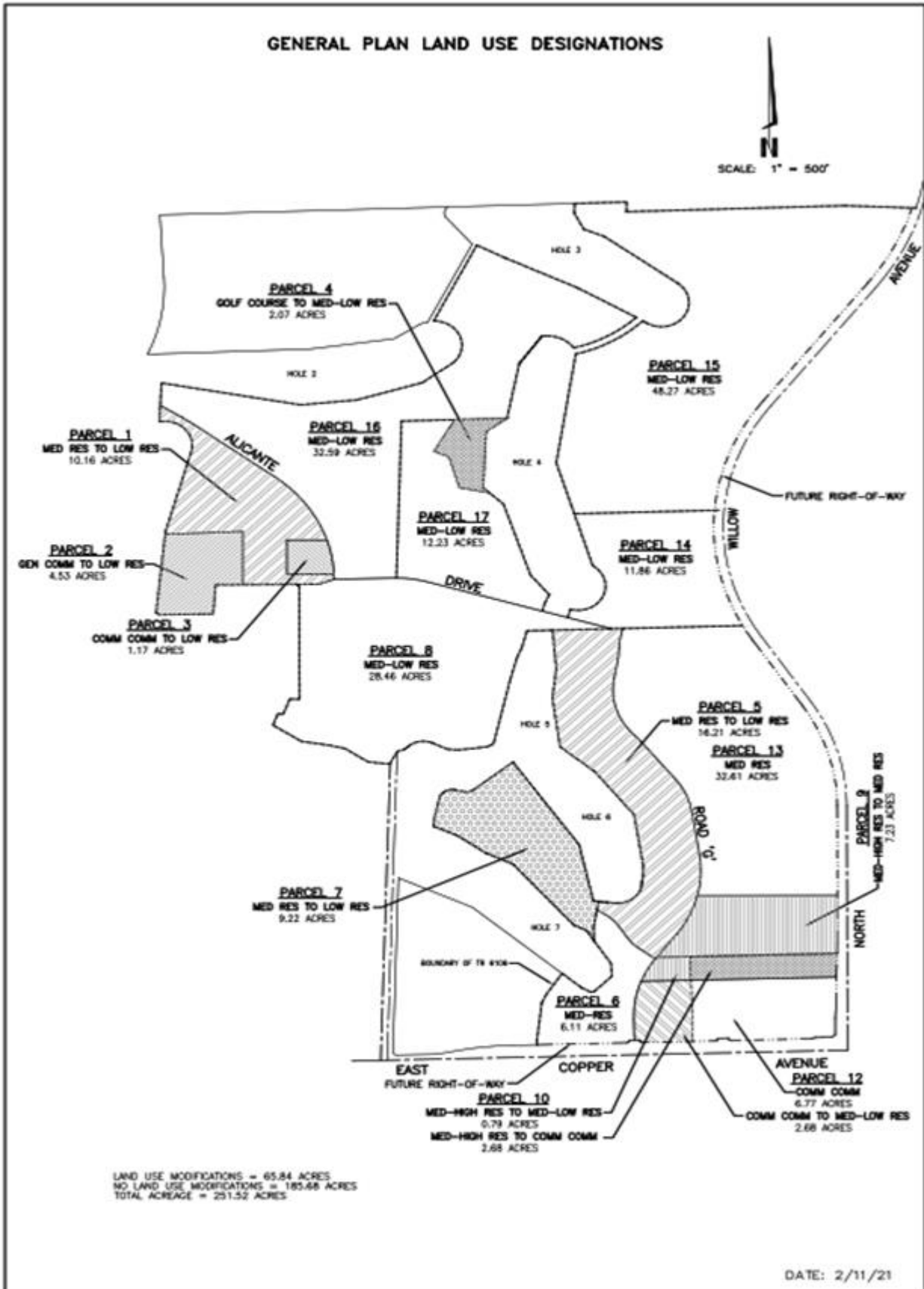
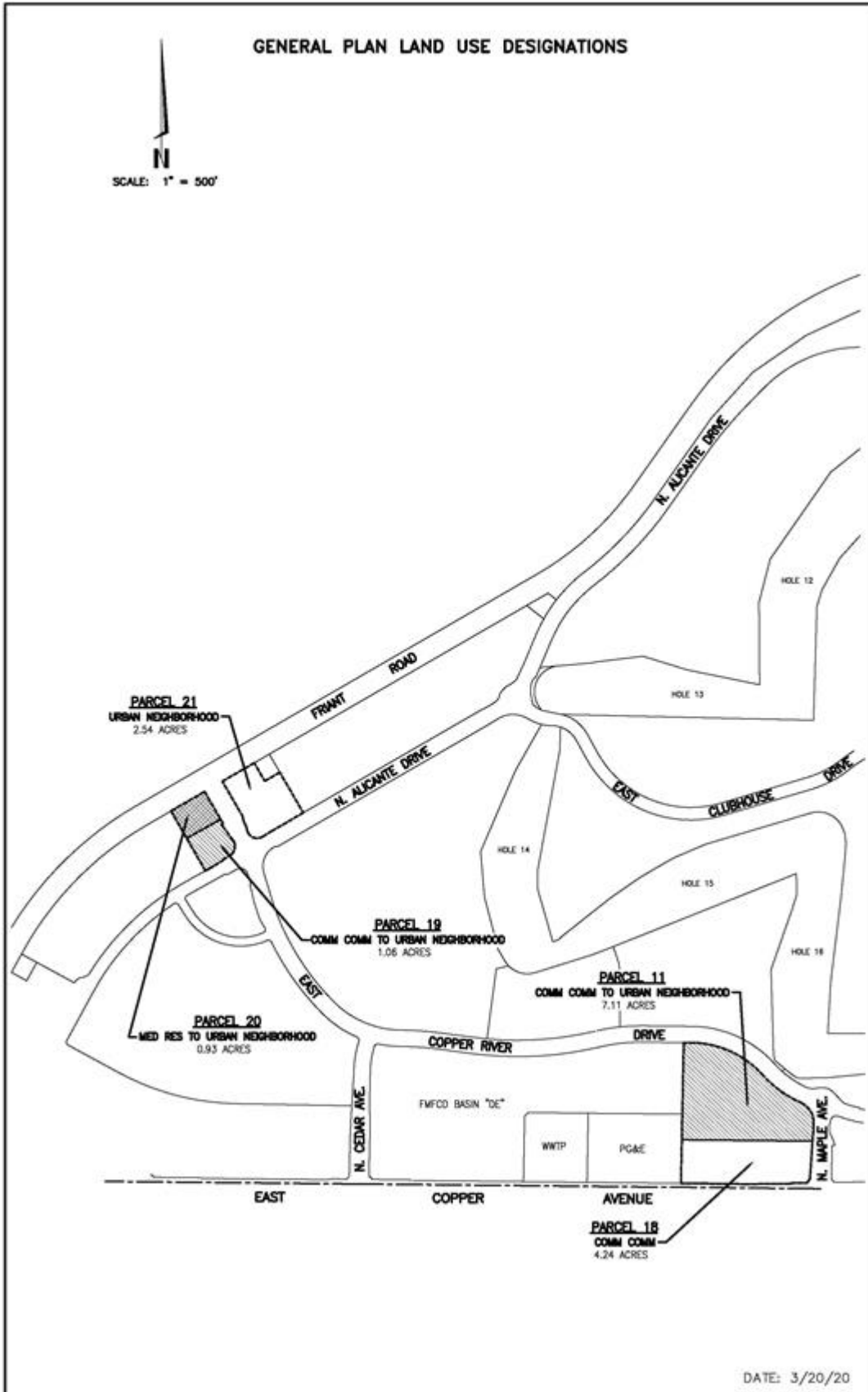


Figure 2-5: Parcel Locations and General Plan Land Use Designations (2 of 2)



2.3 Project Description Changes from the Notice of Preparation

The proposed Project’s Notice of Preparation (NOP) (See Appendix A) that was released for public review in August 2020 included a general description of the proposed Project. Since that time, minor changes were made to the Project description. These minor changes are noted below and are shown in tracked changes. ~~Strikethrough~~ text means the text was removed and Underlined text means the text was added. The changes pertain to parcels 6, 8, 10 and 12. Parcels 6 and 8 are no longer being proposed for land use designation changes (they will retain their existing land use designations); a portion of Parcel 10 is proposed to be converted to commercial uses instead of residential; and a portion of Parcel 12 is proposed to be converted to residential instead of commercial. These minor changes are reflected in this SEIR in Section 2.2 herein. These changes are not considered a significant change under CEQA because the information was not changed in a way that deprives the public of a meaningful opportunity to comment on the environmental effect of the Project. Therefore, the NOP was not recirculated for public comment. The proposed Project, as described in Section 2.2 is the Project Description that is used for the environmental analysis herein.

The NOP Project Description is presented in its entirety below, with changes noted.

“The Project Applicant is proposing to modify the existing General Plan designations to reflect both the actual built out conditions of Copper River Ranch today and to identify any proposed land use designations and zone districts that are planned for the future. The list of proposed changes to the existing land use designations, zoning, and tentative tract maps is shown in the following tables:

Proposed Land Use Changes

Parcel No.	Acres	Existing Land Use Designation	Proposed Land Use Designation	Existing Zoning	Proposed Zoning
1	10.16	Med DR	Low DR	RS5	RS3
2	4.53	Gen Comm	Low DR	GC	RS3
3	1.17	Comm Comm	Low DR	CC	RS3
4**	2.07	Golf Course	Med Low DR	OS	RS3
5	16.21	Med DR	Low DR	RS5	RS3
6	6.11	Med DR	Low DR	RS5	RS3

7**	9.22	Med DR	Low DR	RS5	RS4
8**	28.46	Med Low DR	Low DR	RS4	RS3
9	7.23	Med High DR	Med DR	RM1	RS5
10***	<u>3,470.79</u>	Med High DR	Comm Comm Med Low DR	RM1	CCRS3
10***	2.68	Med High DR	Comm Comm	RM1	CC
11	7.11	Comm Comm	Urban Neighbor	CC	RM2
12****	2.68	Comm Comm	Med Low DR	CC	RS3
19	1.06	Comm Comm	Urban Neighbor	CC	RM2
20	0.93	Med DR	Urban Neighbor	RS5	RM2
Total Acres:	<u>97.7365.84</u>				

~~* See Figures 1 and 2 for parcel locations / ** Portions not within the original 2003 EIR study area.~~

* See Figures 2-4 and 2-5 for parcel locations

** Portions not within the original 2003 EIR study area.

*** Portion of a total 3.47 acres for Parcel 10

**** Portion of a total 9.45 acres for Parcel 12

No Proposed Land Use Changes

Parcel No.	Acres	Existing Land Use Designation	Existing Zoning
<u>6</u>	<u>6.11</u>	<u>Med DR</u>	<u>RS5</u>
8**	28.46	Med Low DR	RS4
12***	9.456.77	Comm Comm	CC
13	32.61	Med DR	RS5
14**	11.86	Med Low DR	RS4
15**	48.27	Med Low DR	RS4
16**	32.59	Med Low DR	RS4
17**	12.23	Med Low DR	RS4
Total Acres:	<u>147.04178.90</u>		

~~* See Figures 1 and 2 for parcel locations / ** Portions not within the original 2003 EIR study area~~

* See Figures 2-4 and 2-5 for parcel locations

** Portions not within the original 2003 EIR study area.

*** Portion of a total 9.45 acres for Parcel 12"

2.4 Project Objectives

The following Project objectives were included in the 2003 FEIR and continue to be applicable to the proposed Project. In accordance with CEQA Guidelines Section 15124(b), the following are the Project objectives:

- To provide a variety of housing opportunities with a complete range of densities, styles, sizes, and values which are designed to satisfy the identified increasing demand of the existing and future population base.
- To provide for commercial and office development sufficient to accommodate the needs of the Project population of the Project.
- To provide for alternative forms of transportation within the Project and connection to regional trail and mass transit systems thereby reducing dependency upon the automobile.
- To provide for a variety of open space opportunities within the Project area.
- To encourage residents to work at home occupations. Promote home occupations through electronic and internet components within the home, home design, and related mixed-use facilities.
- To provide the ability, through flexible zoning conditions, to develop mixed-use projects, which combine a variety of uses on one parcel.
- To maximize view opportunities of Project open space features through innovative land use planning techniques.
- To create a strong sense of “community” with landscaping, signage, lighting and Project amenities that are unique to Copper River Ranch.

2.5 Proposed Entitlements

In support of the proposed Project, the Project Applicant is seeking the following entitlements from the City of Fresno:

- General Plan Amendments associated with the proposed land use changes described in Table 2-1 herein.

- Zone Designation changes associated with the proposed land use changes described in Table 2-1 herein.
- Tentative Tract Maps
- Final Tract Maps
- Community Facilities District for maintenance of the public green spaces.
- Grading and building permits.

2.6 Other Required Approvals

The Project will require various regulatory approvals, permits, entitlements and/or coordination with agencies as follows:

- Certification of the Final SEIR by the City of Fresno.
- Compliance with other federal, state and local requirements such as the San Joaquin Valley Air Pollution Control District for a dust control plan and the Regional Water Quality Control Board for a Stormwater Pollution Prevention Plan.
- City of Fresno Department of Public Utilities – Solid Waste
- Fresno Irrigation District
- Fresno Metropolitan Flood Control District
- City of Fresno Police Department
- City of Fresno Fire Department
- City of Fresno Public Works Department
- Clovis Unified School District
- Fresno County Environmental Health

Chapter 3

ENVIRONMENTAL SETTING, IMPACTS & MITIGATION

3.1 Aesthetics

This section of the SEIR examines visual resources in the proposed Project vicinity and potential impacts the Project may have on the aesthetic character of the landscape. No NOP comment letters were received pertaining to this topic.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated potential impacts to aesthetics associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a significant and unavoidable impact on aesthetic resources (Section 2.11, pages 2.11.1 – 2.11.3 of the 2003 FEIR) and included mitigation measures to reduce the impact (Section 2.11, pages 2.11-3 and 2.11-3). However, the Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, additional information is being provided herein regarding impacts to aesthetic resources. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Have a substantial adverse effect on a scenic vista?	✓	
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	✓	
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	✓	

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	✓	
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Environmental Setting

Project Site

The Project proposes to develop the remaining unbuilt portions of the existing 706-acre Copper River Ranch Development and to add approximately 109 acres that are proposed to be developed immediately adjacent to and east of the existing development. The existing 706-acre Copper River Ranch Development includes a combination of residential land uses (both single- and multi-family) and a variety of non-residential land uses including a golf course, office and commercial land uses. The existing development has been largely developed with urban uses. The proposed additional 109 acres is located adjacent to and east of the existing development. Elevations of the proposed new development area range from 340 to 400 feet above sea level. The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation. The proposed new development area is surrounded by residential development to the north; residential development, portions of a golf course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west. Representative photographs of the Project area are shown in Figures 3.1-1 through 3.1-3.



Figure 3.1-1. Photograph of the Project site, looking west, showing a gated residential development.



Figure 3.1-2. Photograph of the Project site, looking northeast, showing a manicured golf course.



Figure 3.1-3. Photograph of the Project site, looking east, showing disturbed land cover and an adjacent orchard.

Scenic Vistas

A scenic vista is viewpoint that provides expansive views of a highly valued landscape for the public's benefit. It is usually viewed from some distance away. Aesthetic components of a scenic vista include (1) scenic quality; (2) sensitivity level; and (3) view access. A scenic vista can be impacted in two ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or "vista" of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project's proposed height, mass, and location relative to surrounding land uses and travel corridors. Typical scenic vistas are locations where views of rivers, hillsides, and open space areas are accessible from public vantage points.

The City's General Plan does not identify or designate scenic vistas within the City's Planning Area or the proposed Project footprint. Although no scenic vista has been designated, the City's approved General Plan identifies six locations along the San Joaquin River bluffs as designated vista points from which views should be maintained. Scenic vistas within the City's Planning Area could provide distant views of features such as the San Joaquin River to the north and the foothills of the Sierra Nevada Mountains to the east. Distant views of the San Joaquin River and areas north of the river can be seen from the river bluffs. However, the majority of these views are from private property. Partially obstructed views of the San Joaquin River can be seen from

Weber Avenue, Milburn Avenue, McCampbell Drive, Valentine Avenue, Palm Avenue, State Route 41, Friant Road, and Woodward Park. Additionally, there are several locations throughout the eastern portion of the City's Planning Area that provide distant views of the Sierra Nevada foothills. It should be noted that these distant views of the Sierra Nevada foothills are impeded many days during the year by the poor air quality in the San Joaquin Valley Air Basin.¹ Due to intervening land uses and existing topography, the proposed Project will not impact any protected scenic vistas.

Scenic Corridors

Scenic corridors are channels that facilitate movement (primarily by automobile, transit, bicycle, or foot) from one location to another with expansive views of natural landscapes and visually attractive man-made development. Scenic corridors analyzed under CEQA typically include State-designated scenic highways.

According to the California Department of Transportation (Caltrans) State Scenic Highway Mapping System, there are no eligible or officially-designated State Scenic Highways within the Project area. However, Fresno County has three eligible State Scenic Highways; the nearest eligible highways include a portion of SR 180 (located over 15 miles southeast of the Project area) and a portion of SR 168 (located over 5 miles east of the Project area). The nearest officially designated State Scenic Highway is located more than 30 miles northeast of the Project area within the county of Madera.²

Light and Glare

A light source is a device that produces illumination, including incandescent bulbs, fluorescent and neon tubes, halogen and other vapor lamps, and reflecting surfaces or refractors incorporated into a lighting fixture. Any translucent enclosure of a light source is considered to be part of the light source. Glare is defined as a continuous or periodic intense light that may cause eye discomfort or be temporarily blinding to humans.

The proposed Project is within the existing City limits in an urbanized area and is characterized by significant sources of light and glare, including streetlights, vehicle lights, lighting within

¹ City of Fresno General Plan EIR (2020), page 4.1-3.

² City of Fresno General Plan EIR (2020), page 4.1-4.

parking lots, interior lights from buildings, lighting associated with recreational facilities, and light emitted from residential and non-residential buildings throughout the Project area.

Regulatory Setting

Federal Regulations

There are no federal policies or regulations pertaining to aesthetics that are applicable to the proposed Project.

State of California Regulations

Caltrans Scenic Highway Program

The Caltrans Scenic Highway Program protects the natural scenic beauty of the State's highways and corridors through its designated scenic highways throughout the State. Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Other considerations given to a scenic highway designation include how much of the natural landscape a traveler may see and the extent to which visual intrusions degrade the scenic corridor. As stated previously, there are no eligible or officially designated State Scenic Highways within the City's Planning Area.

California Code, Public Resources Code Section 21099

PRC Section 21099 requires the Office of Planning and Research (OPR) to develop revisions to the State CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects within transit priority areas, which are areas within 0.5 mile of a major transit stop. Such criteria should promote a reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. Within transit priority areas, aesthetic impacts related to residential, mixed-use residential, or employment center projects on an infill site would not be considered significant impacts on the environment.

Local Regulations

City of Fresno Development Code

The City's Development Code (Chapter 15 of the Municipal Code) is intended to provide a guide for the physical development of the City in order to achieve the arrangement of land uses

depicted in the approved General Plan, as well as implement goals, objectives, and policies of the approved General Plan. Among the aspects of development regulated by the Municipal Code are types of allowable land uses, setback and height requirements, landscaping, walls, fencing, signage, access, parking requirements, storage areas, and trash enclosures. Article 25, Performance Standards, of the Zoning Ordinance includes standards related to lighting and glare.

City of Fresno General Plan

The following is a summary of the applicable policies included in the City's General Plan that are related to aesthetic resources and applicable to the proposed Project.

Urban Form, Land Use, and Design Element

Policy UF-1-c: Identifiable City Structure. Focus integrated and ongoing planning efforts to achieve an identifiable city structure, comprised of a concentration of buildings, people, and pedestrian-oriented activity in Downtown; along a small number of transit-oriented, mixed use corridors and strategically located Activity Centers; and in existing and new neighborhoods augmented with parks and connected by multi-purpose trails and tree lined bike lanes and streets.

Policy UF-1-e: Unique Neighborhoods. Promote and protect unique neighborhoods and mixed use areas throughout Fresno that respect and support various ethnic, cultural and historic enclaves; provide a range of housing options, including furthering affordable housing opportunities; and convey a unique character and lifestyle attractive to Fresnoans. Support unique areas through more specific planning processes that directly engage community members in creative and innovative design efforts.

Policy UF-1-f: Complete Neighborhoods, Densities, and Development Standards. Use Complete Neighborhood design concepts and development standards to achieve the development of Complete Neighborhoods and the residential density targets of the General Plan.

Policy UF-12-g: Impacts on Surrounding Uses. Establish design standards and buffering requirements for high-intensity Activity Centers to protect surrounding residential uses from increased impacts from traffic noise and vehicle emissions, visual intrusion, interruption of view and air movement, and encroachment upon solar access.

Policy UF-13-a: Future Planning to Require Design Principles. Require future planning, such as Specific Plans, neighborhood plans or Concept Plans, for Development Areas and BRT Corridors designated by the General Plan to include urban design principles and standards consistent with the Urban Form, Land Use, and Design Element.

Policy UF-14-a: Design Guidelines for Walkability. Develop and use design guidelines and standards for a walkable and pedestrian-scaled environment with a network of streets and connections for pedestrians and bicyclists, as well as transit and autos.

Objective LU-1. Establish a comprehensive citywide land use planning strategy to meet economic development objectives, achieve efficient and equitable use of resources and infrastructure, and create an attractive living environment.

Policy LU-1-a: Promote Development within the Existing City Limits as of December 31, 2012. Promote new development, infill, and rehabilitation of existing building stock in the Downtown Planning Area, along BRT corridors, in established neighborhoods generally south of Herndon Avenue, and on other infill sites and vacant land within the City.

Policy LU-1-b: Land Use Definition and Compatibility. Include zoning districts and standards in the Development Code that provide for the General Plan land use designations and create appropriate transitions or buffers between new development with existing uses, taking into consideration the health and safety of the community.

Objective LU-2. Plan for infill development that includes a range of housing types, building forms, and land uses to meet the needs of both current and future residents.

Policy LU-2-c: Infill Design Toolkit. Develop and distribute an infill design toolkit, consistent with the City's Infill Development Act to support and encourage infill development.

Policy LU-2-e: Neighborhood Preservation. Incorporate standards in the Development Code to preserve the existing residential quality of established neighborhoods.

Policy LU-4-a: Neighborhood Nuisance Abatement. Continue proactive and responsive code enforcement and nuisance abatement programs to improve the attractiveness of residential neighborhoods.

Policy LU-5-g: Scale and Character of New Development. Allow new development in or adjacent to established neighborhoods that is compatible in scale and character with the surrounding area by promoting a transition in scale and architectural character between new buildings and established neighborhoods, as well as integrating pedestrian circulation and vehicular routes.

Policy LU-6-a: Design of Commercial Development. Foster high quality design, diversity, and a mix of amenities in new development with uses through the consideration of guidelines, regulations and design review procedures.

Policy LU-6-b: Commercial Development Guidelines. Consider adopting commercial development guidelines to assure high quality design and site planning for large commercial developments, consistent with the Urban Form policies of this Plan.

Policy LU-6-d: Neighborhood and Community Commercial Center Design. Plan for neighborhood mixed use and community commercial uses to implement the Urban Form concepts of this Plan, promote the stability and identity of neighborhoods and community shopping areas, and allow efficient access without compromising the operational effectiveness of the street system.

- Neighborhoods will be anchored by community commercial centers with a mix of uses that meet the area’s needs and create a sense of place; and
- Community commercial centers will be located within Activity Centers.

Policy LU-6-f: Auto-Oriented Commercial Uses. Direct highway-oriented and auto-serving commercial uses to locations that are compatible with the Urban Form policies of the General Plan. Ensure adequate buffering measures for adjacent residential uses, noise, glare, odors, and dust.

Objective D-1. Provide and maintain an urban image that creates a “sense of place” throughout Fresno.

Policy D-1-d: Public Art. Continue to promote a citywide public art program that contributes to an awareness of the City’s history and culture.

Policy D-1-e: Graphic Identity. Continue the preservation, promotion, procurement and strategic location of landmarks, monuments and artwork that provide orientation and represent Fresno's cultural heritage and artistic values.

Policy D-1-h: Screening of Parking. Consider requiring all new development with parking in Activity Centers and along corridors to be screened or concealed. Locate principal pedestrian entrances to new non-residential buildings on the sidewalk; any entrances from parking areas should be incidental or emergency use only.

Objective D-3. Create unified plans for Green Streets, using distinctive features reflecting Fresno’s landscape heritage.

Policy D-3-a: Green Street Tree Planting. Create a Green Street Tree Planting Program, with a well-balanced variety and spacing of trees to establish continuous shading and visual continuity for each streetscape. Strive to achieve coherent linkages between public and private spaces, prioritizing tree planting along tree-deficient Arterial Roadways in neighborhoods characterized by lower per capita rates of vehicle ownership.

Policy D-3-b: Funding for Green Street Tree Planting Program. Pursue funding for the Green Street Tree Planting Program, including landscaping of median islands.

Policy D-3-c: Local Streets as Urban Parkways. Develop local streets as "urban parkways," where appropriate, with landscaping and pedestrian spaces.

Policy D-3-d: Undergrounding Utilities. Partner with utility companies to continue to pursue the undergrounding of overhead utilities as feasible.

Objective D-4. Preserve and strengthen Fresno’s overall image through design review and create a safe, walkable and attractive urban environment for the current and future generations of residents.

Policy D-4-f: Design Compatibility with Residential Uses. Strive to ensure that all new nonresidential land uses are developed and maintained in a manner complementary to and compatible with adjacent residential land uses, to minimize interface problems with the surrounding environment and to be compatible with public facilities and services.

Objective D-5. Maintain and improve community appearance through programs that prevent and abate blighting influences.

Policy D-5-a: Code Enforcement. Continue enforcement of the Fresno Municipal Code to remove or abate public nuisances in a timely manner.

Policy D-5-b: Clean Streets. Promote community partnerships and continued City efforts toward litter clean-up and abatement of trash stockpiles on public and private streets.

Policy D-5-c: Facade Improvements. Pursue funding for, and support of, building façade improvement programs.

Policy D-5-d: Graffiti Prevention and Abatement. Seek ways to end graffiti, continue and expand the City's effective Graffiti Abatement Program.

Policy D-6-b: Consider adopting and implementing incentives for, and support efforts by, private development to incorporate culturally-specific architectural elements in areas with a predominant ethnic population.

Mobility and Transportation Element

Objective MT-3. Identify, promote and preserve scenic or aesthetically unique corridors by application of appropriate policies and regulations.

Policy MT-3-a: Scenic Corridors. Implement measures to preserve and enhance scenic qualities along scenic corridors or boulevards, including:

- Van Ness Boulevard - Weldon to Shaw Avenues
- Van Ness Extension - Shaw Avenue to the San Joaquin River Bluff
- Kearney Boulevard - Fresno Street to Polk Avenue
- Van Ness/Fulton couplet - Weldon Avenue to Divisadero
- Butler Avenue - Peach to Fowler Avenues
- Minnewawa Avenue - Belmont Avenue to Central Canal
- Huntington Boulevard - First Street to Cedar Avenue
- Shepherd Avenue - Friant Road to Willow Avenue
- Audubon Drive - Blackstone to Herndon Avenues
- Friant Road - Audubon to Millerton Roads
- Tulare Avenue - Sunnyside to Armstrong Avenues
- Ashlan Avenue- Palm to Maroa Avenues

Policy MT-3-b. Preserve street trees lining designated scenic corridors or boulevards. Replace trees of the predominant type and in a comparable pattern to existing plantings if there is no detriment to public safety.

Parks, Open Space, and Schools Element

Policy POSS-7-f: River Bluffs. Preserve the river bluffs as a unique geological feature in the San Joaquin Valley by maintaining and enforcing the requirements of the "BP" Bluff

Preservation Overlay Zone District, maintaining the bluff area setback for buildings, structures, decks, pools and spas (which may be above or below grade), fencing, and steps, and maintaining designated vista points.

- Strive to assure that development of the parkway and other uses within the San Joaquin riverbottom environs are consistent with the mineral resources conservation zones; honor flood, environmental, recreational and aesthetic issues; protect natural habitats and historic resources; and consider adjacent property owners.
- Take an active role in establishing park entrances. Provide all gates, trails and roads adequate access by emergency vehicles such as fire trucks, police cars, and ambulances.
- For safety reasons, access may be limited to points that have controlled access gates. Cooperation of private parties having legal control of riverbottom access shall be sought in this effort.
- Continue to work toward the adoption of official plan lines for new segments of the San Joaquin River Trails and actively pursue completion of these segments to ensure that adequate and appropriate public access to the San Joaquin River and the Parkway is provided.
- Refer to Policy NS-2-d (Chapter 9, Noise and Safety) for additional information for sites within the BP Overlay District.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

- Have a substantial adverse effect on a scenic vista?
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and regulations governing scenic quality?
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Impacts and Mitigation Measures

Impact 3.1-1: *Have a substantial adverse effect on a scenic vista?*

Less Than Significant Impact. A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. The San Joaquin River and the Sierra Nevada Mountains are the only natural and visual resources in the Project area.

The City's General Plan does not identify or designate scenic vistas within the City's Planning Area or the proposed Project footprint. Although no scenic vista has been designated, the City's approved General Plan identifies six locations along the San Joaquin River bluffs as designated vista points from which views should be maintained. Scenic vistas within the City's Planning Area could provide distant views of features such as the San Joaquin River to the north and the foothills of the Sierra Nevada Mountains to the east. Distant views of the San Joaquin River and areas north of the river can be seen from the river bluffs. However, the majority of these views are from private property. Partially obstructed views of the San Joaquin River can be seen from Weber Avenue, Milburn Avenue, McCampbell Drive, Valentine Avenue, Palm Avenue, State Route 41, Friant Road, and Woodward Park. Additionally, there are several locations throughout the Project area that provide distant views of the Sierra Nevada foothills.

The Project is separated from the San Joaquin River by intervening land uses including Friant Road, agricultural lands, a mining facility, and public lands. All development of the unbuilt areas within the existing 706-acre Copper River Ranch Development and development of the additional 109 acres will occur south and southeast of Friant Road and will not involve development that is closer to the San Joaquin River than what was analyzed in the 2003 FEIR.

Views of the Sierra Nevada Mountains are afforded only during clear conditions due to poor air quality in the valley. Distant views of the Sierra Nevada Mountains would largely be unaffected by the development of the Project because of the nature of the Project, distance and limited visibility of these features. The City of Fresno does not identify views of these features as required to be "protected."

The Project site is within a developing area of Fresno. There are no scenic vistas or other protected scenic resources on or near the site that would be significantly impacted by the Project. Visual character of the site is addressed further in Response 3.1-3 below.

Therefore, the Project has a *less than significant impact* on scenic vistas.

Mitigation Measures: None are required.

Impact 3.1-2: *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

Less Than Significant Impact. According to the California Department of Transportation (Caltrans) State Scenic Highway Mapping System, there are no eligible or officially-designated State Scenic Highways within the Project area. However, Fresno County has three eligible State Scenic Highways; the nearest eligible highways include a portion of SR 180 (located over 15 miles southeast of the Project area) and a portion of SR 168 (located over 5 miles east of the Project area). The nearest officially designated State Scenic Highway is located more than 30 miles northeast of the Project area within the county of Madera.³

Therefore, since there are no state scenic highways in the immediate Project area, the Project has a *less than significant impact* on state scenic highways.

Mitigation Measures: None are required.

Impact 3.1-3: *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and regulations governing scenic quality?*

Less Than Significant Impact With Mitigation. The proposed Project is located in an area that has been substantially urbanized. The vacant lands associated with the proposed Project have generally been disturbed through grading and disking and consist primarily of bare ground with little vegetation. Implementation of the proposed Project will alter the visual character of the Project site from vacant/disturbed land to urban development. Although this land use conversion could be perceived by some as a negative aesthetic impact in comparison with the Project site's current partially developed appearance, based upon the subjective nature of aesthetics, the City does not anticipate that the development of the proposed Project with urban uses will create a visually degraded character or quality to the Project site or to the properties near and around the Project site. The Project will be built out with similar visual characteristics of the existing Copper River Ranch Development and will not introduce new land uses to the area that aren't already occurring.

³ City of Fresno General Plan EIR (2020), page 4.1-4.

The Project design is subject to the City's Design Guidelines adopted for the City's General Plan which apply to site layout, building design, landscaping, interior street design, lighting, parking and signage. This includes landscaping easements that will run along the frontage of the development and additional landscaping design will accompany the proposed park spaces and bicycle/pedestrian trails. Detailed architectural plans, color palettes and building materials as well as landscaping plans will be submitted by the Project developer to the City of Fresno Planning and Development Department. The plans shall be required prior to issuance of any building permits.

The improvements such as those proposed by the Project are typical of large City urban areas and are generally expected from residents of the City. These improvements would not substantially degrade the visual character of the area and would not diminish the visual quality of the area, as they would be consistent with the existing visual setting and development patterns in the area. The Project itself is not visually imposing against the scale of the existing development and nature of the surrounding area. The 2003 FEIR contained mitigation measures to reduce visual impacts, which is applicable to the proposed Project and is included as Mitigation Measure AES-1 below (Note: Item #4 in Mitigation Measure AES-1 was not included in the 2003 FEIR, but has been revised as a result of this SEIR and will be implemented as revised.). Therefore, with mitigation, the Project would have *less than significant impacts* on the visual character of the area.

Mitigation Measures:

- AES – 1** The developer shall ensure that the following measures are incorporated in the design of future conditional use permits, tentative tract maps, and site plans:
1. The developer shall incorporate landscape, wall treatment, signage, and architectural standards for the development of residential, commercial, public facility, open space, and mixed-use areas.
 2. A minimum 20-foot landscaped area shall parallel the easterly side of Friant Road, the northerly side of Copper Avenue, and the westerly side of Willow Avenue. A berm and/or combination berm/sound wall shall parallel these roadways where residential lots are proposed.
 3. Project entries along Copper and Willow Avenues, and along Friant Road, shall incorporate special entry features, such as extensive landscaping and low profile entry signs.

4. Detailed designs of these facilities shall be submitted to the City of Fresno Planning and Development Department for review. Approval from the City of Fresno shall be required prior to issuance of any building permits.

Impact 3.1-4: *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Less Than Significant With Mitigation. The existing Copper River Ranch Development and surrounding areas currently produce light and glare from streetlights, residential lights, commercial security lighting and vehicle lights. Additional night lighting sources associated with the proposed Project, especially any unshielded light, could result in spillover light that could impact surrounding adjacent residential uses. This would create new sources of light that could potentially have a significant impact on nighttime light levels in the area. During the entitlement process, staff will ensure that lights are located in areas that will minimize light sources to the neighboring properties. Further, Mitigation Measures from the City's General Plan MEIR require lighting systems to be shielded to direct light to ground surfaces and orient light away from adjacent properties and requires use of non-reflective building materials to reduce glare impacts.

In addition, a condition of approval will require that lighting, where provided for public streets, shall be hooded and so arranged and controlled so as not to cause a nuisance either to traffic or to the living environment. The amount of light shall be provided according to the standards of the Department of Public Works. As a result, the Project will implement the necessary mitigation measures and will have a *less than significant impact* on aesthetics.

Mitigation Measures:

AES – 2 Lighting for Street and Parking Areas. Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences.

AES – 3 Lighting for Public and Private Facilities. Lighting systems for public and private facilities such as active play areas shall provide adequate illumination for the activity; however, low intensity light fixtures and shields shall be used to minimize spillover light onto adjacent properties.

- AES – 4 Lighting for Non-Residential Uses.** Lighting systems for nonresidential uses, not including public facilities, shall provide shields on the light fixtures and orient the lighting system away from adjacent properties. Low intensity light fixtures shall also be used if excessive spillover light onto adjacent properties will occur.

- AES – 5 Signage Lighting.** Lighting systems for freestanding signs shall not exceed 100 foot Lamberts (FT-L) when adjacent to streets which have an average light intensity of less than 2.0 horizontal footcandles and shall not exceed 500 FT-L when adjacent to streets which have an average light intensity of 2.0 horizontal footcandles or greater.

- AES – 6 Use of Non-Reflective Materials.** Materials used on building facades shall be non-reflective.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to aesthetics. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>The developer shall ensure that the following measures are incorporated in the design of future conditional use permits, tentative tract maps, and site plans:</p> <p>2.11.1-a: The developer shall incorporate landscape, wall treatment, signage, and architectural standards for the development of residential, commercial, public facility, open space, and mixed-use areas.</p>	<p>Mitigation Measures 2.11.1-a, 2.11.1-b, and 2.11.1-c from the 2003 FEIR are still applicable to the proposed Project. However, these mitigation measures have been grouped and augmented with an additional component as shown in Mitigation Measure AES – 1. This mitigation measure, along with additional mitigation measures from the City’s current General Plan EIR (pertaining to light/glare)</p>	<p>AES – 1: The developer shall ensure that the following measures are incorporated in the design of future conditional use permits, tentative tract maps, and site plans:</p> <ol style="list-style-type: none"> 1. The developer shall incorporate landscape, wall treatment, signage, and architectural standards for the development of residential, commercial, public facility, open space, and mixed-use areas. 2. A minimum 20-foot

<p>2.11.1-b: A minimum 20-foot landscaped area shall parallel the easterly side of Friant Road, the northerly side of Copper Avenue, and the westerly side of Willow Avenue. A berm and/or combination berm/sound wall shall parallel these roadways where residential lots are proposed.</p> <p>2.11.1-c: Project entries along Copper and Willow Avenues, and along Friant Road, shall incorporate special entry features, such as extensive landscaping and low profile entry signs.</p>	<p>will be required for the Project.</p>	<p>landscaped area shall parallel the easterly side of Friant Road, the northerly side of Copper Avenue, and the westerly side of Willow Avenue. A berm and/or combination berm/sound wall shall parallel these roadways where residential lots are proposed.</p> <p>3. Project entries along Copper and Willow Avenues, and along Friant Road, shall incorporate special entry features, such as extensive landscaping and low profile entry signs.</p> <p>4. Detailed designs of these facilities shall be submitted to the City of Fresno Planning and Development Department for review. Approval from the City of Fresno shall be required prior to issuance of any building permits.</p> <p>AES – 2: Lighting for Street and Parking Areas. Lighting systems for street and parking areas shall include shields to direct light to the roadway surfaces and parking areas. Vertical shields on the light fixtures shall also be used to direct light away from adjacent light sensitive land uses such as residences.</p> <p>AES – 3: Lighting for Public and Private Facilities. Lighting systems for public and private facilities such as active play areas shall provide adequate illumination for the activity; however, low intensity</p>
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		<p>light fixtures and shields shall be used to minimize spillover light onto adjacent properties.</p> <p>AES – 4: Lighting for Non-Residential Uses. Lighting systems for nonresidential uses, not including public facilities, shall provide shields on the light fixtures and orient the lighting system away from adjacent properties. Low intensity light fixtures shall also be used if excessive spillover light onto adjacent properties will occur.</p> <p>AES – 5: Signage Lighting. Lighting systems for freestanding signs shall not exceed 100 foot Lamberts (FT-L) when adjacent to streets which have an average light intensity of less than 2.0 horizontal footcandles and shall not exceed 500 FT-L when adjacent to streets which have an average light intensity of 2.0 horizontal footcandles or greater.</p> <p>AES – 6: Use of Non-Reflective Materials. Materials used on building facades shall be non-reflective.</p>
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Cumulative Impacts

The scope for considering cumulative impacts to aesthetics and visual resources are the geographic areas covered by the City of Fresno General Plan / EIR and the County of Fresno General Plan / EIR. Mitigation measures associated with this topic are included to ensure that potential impacts to aesthetics remains less than significant at a project level. The landscape in north-central Fresno County has been changing over the years from one of predominately rural open space and agricultural grazing land to urban uses. The cities of Fresno and Clovis have been rapidly growing to the north and northwest, contributing to the landscape change. Several land development proposals envisioned by the City of Fresno, City of Clovis and Fresno County general plans and individual project proposals have received their entitlements, or are seeking them. Although the urban environment that is ultimately built could be aesthetically pleasing to many, these cumulative changes will significantly degrade the existing visual character and quality of the area. Based on the standards of significance, the proposed Project individually would have a less than significant aesthetic impact as concluded in Section 3.1 of this SEIR. However, ultimate impacts of the proposed Project in combination with other projects in the area are significant, and the Project's incremental contribution to this impact is itself *cumulatively considerable* and thus *significant*. This impact cannot be mitigated to a less than cumulatively considerable level and is unavoidable.

3.2 Agricultural and Forestry Resources

This section of the SEIR identifies potential impacts of the proposed Project pertaining to Agricultural and Forestry Resources. No NOP comment letters were received pertaining to this topic.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR identified that Project implementation would result in the conversion of prime agricultural land and recognized that it was a significant and unavoidable impact (pages 2.1.8 – 2.1.19 of the 2003 FEIR). At that time, the original Copper River Ranch project resulted in the conversion of approximately 70 acres of Thompson grapes, 180 acres of wine grapes, five acres of oranges and 150 acres of dry farmed grassland. In addition, the City’s General Plan Master EIR (2014) evaluated the loss of agricultural lands associated with buildout of the City’s General Plan (including the proposed Project areas)¹. The Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. However, the additional 109 acres has already been designated by the City of Fresno General Plan for urban uses and will not result in the loss of additional agricultural lands beyond what was analyzed in the City’s General Plan Master EIR (2014) and the 2003 Copper River Ranch FEIR. Although the proposed Project will not result in additional agricultural impacts, supplemental information is being provided herein regarding impacts to agricultural resources. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	✓	
b. Conflict with existing zoning for agricultural use, or a	✓	

¹ Fresno General Plan Draft Master EIR (2014), pages 5.2-11 through 5.2-13.

Williamson Act contract?		
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	✓	
d. Result in the loss of forest land or conversion of forest land to non-forest use?	✓	
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	✓	

Environmental Setting

The Project site is located in the northern portion of the City of Fresno, in an area dominated by urban land uses. The existing 706-acre Copper River Ranch Development includes a combination of residential land uses (both single- and multi-family) and a variety of non-residential land uses including a golf course, office and commercial land uses. The existing development has been largely built out and there are no lands designated for agricultural or forestry purposes within the site.

The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation. The proposed new development area is surrounded by residential development to the north; residential development, portions of a golf course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west.

The current Farmland Monitoring and Mapping Program (FMMP) map identifies the Project site (which consists of the existing 706-acre development and the additional 109-acres of new development) as having the following designations²:

- Farmland of Local Importance, which includes all farmable lands within the State that do not meet the definitions of prime, statewide, or unique and land that is or has been used for irrigated pasture, dryland farming, confined livestock and dairy, poultry facilities, aquaculture and grazing, and Urban and Built Up Land.
- Urban and Built-up Land, which is land occupied with urban structures (residential, commercial, office, etc.).
- Other Land, which is land not included in any other mapping category. Examples include low density residential developments.

The majority of forest land occurs in the eastern portion of Fresno County, in the Sierra Nevada foothills and Sierra Nevada. The Project site does not contain any land defined as forest land (as defined by Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or land zoned Timberland Production (as defined by Government Code section 51104(g)).

Regulatory Setting

Federal Regulations

Farmland Protection Policy Act

The federal Farmland Protection Policy Act, part of the Agriculture and Food Act of 1981, was passed in response to the National Agricultural Land Study of 1980-1981 which found that millions of acres of farmland were being converted in the U.S. each year and a related report which found that much of this conversion was the result of programs funded by the federal government. The intent of the Act is to minimize the impact that federal programs have on unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that – to the extent possible – federal programs are administered to be compatible with state and local government and private programs and policies to protect farmland.

² California Department of Conservation. California Important Farmland Finder. <https://maps.conservation.ca.gov/DLRP/CIFE/>. Accessed October 2020.

State of California Regulations

Farmland Mapping and Monitoring Program

The California Department of Conservation uses the Natural Resources Conservation Service soil classifications to classify agricultural lands under the Farmland Mapping and Monitoring Program (FMMP). The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. These designated agricultural lands are included in the farmland maps used in planning for the present and future of California's agricultural resources. The California Department of Conservation has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding classifications. The categories are described below. In addition to mapping existing farmland, the FMMP provides analysis of agricultural land use changes throughout California.

California Public Resources Code, Division 13 Environmental Quality, Section 21060.1 defines agricultural land for the purposes of assessing environmental impacts. Collectively, land classified as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance is referred to as "agricultural land." These same classifications of farmland are described as Important Farmland under the FMMP and are also used in CEQA Guidelines Appendix G as the farmland classifications on which impacts on agricultural resources are to be evaluated.

Prime Farmland. This farmland has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply necessary to produce sustained high yields. To be classified as Prime Farmland, the land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Unique Farmland. This is farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. The land must have been cropped at some time during the four years prior to the mapping date.

Farmland of Statewide Importance. This is farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. The land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Farmland of Local Importance. This is farmland of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

Grazing Land. Grazing land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum contiguous mapping area for Grazing Land is 40 acres.

Urban and Built-up Land. Land occupied by structures with a building density of at least one building unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public and transportation uses, and other developed purposes.

Other Land. Land not included in any other mapping category, including low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; animal confinement facilities; mines; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use as a means of preserving California’s prime agricultural lands from urbanization. Prime Farmland under the Williamson Act includes land that qualifies as Class I and II under the Natural Resources Conservation Service classification of land. Through the voluntary contracts between landowners and a city or county, the owners agree to retain their lands in agricultural or other open space uses for a minimum of 10 years.

In return for entering into a Williamson Act contract, landowners receive property tax relief on the lands under contract. This relief is provided through the assessment of lands based upon their income-producing value rather than their market value, which may be considerably higher. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

To remove a property from a Williamson Act contract, a landowner has two primary options as described below.

Non-renewal. Submittal of a non-renewal application is the most common means to exit a Williamson Act contract. Once the non-renewal form is recorded, the non-renewal period is

approximately nine years. All of the contract restrictions remain in effect until the expiration date. To be valid in any contract year the Notice of Non-Renewal must be recorded prior to October 1st or the notice will not take effect until the following renewal date.

Request for Cancellation. Any landowner whose land is under Williamson Act contract may petition the board of supervisors or city council for cancellation of the contract. The board or council may grant tentative approval for cancellation of a contract only if it makes one of the following two findings based on substantial evidence:

- Cancellation is Consistent with the Williamson Act. Required findings:
 - Cancellation is for land on which a notice of non-renewal has been served pursuant to California Government Code Section 51245;
 - Cancellation is not likely to result in the removal of adjacent lands from agricultural use;
 - Cancellation is for an alternative use which is consistent with the applicable provisions of the city or county general plan;
 - Cancellation will not result in discontinuous patterns of urban development; and
 - There is no proximate non-contracted land which is both available and suitable for the use to which it is proposed the contracted land be put, or, that development of the contracted land would provide more contiguous patterns of urban development than development of proximate non-contracted land; or
- Cancellation is in the Public Interest. Required findings:
 - Other public concerns substantially outweigh the objectives of this chapter; and
 - There is no proximate non-contracted land which is both available and suitable for the use to which it is proposed the contracted land be put, or, that development of the contracted land would provide more contiguous patterns of urban development.

A proposed contract cancellation may be approved by a board of supervisors or city council only after it is reviewed and commented on by the California Department of Conservation. Cancellation of a Williamson Act contract generally requires that the landowner pay fees equal to 12.5 percent of the full market value of the property.

Local Regulations

City of Fresno General Plan

The City's General Plan is a set of goals, objectives, and policies that form a blueprint for the physical development of the City. The following objective and policies related to agricultural resources are presented in the General Plan:

Resource Conservation and Resilience Element

- Objective RC-9: Preserve agricultural land outside of the area planned for urbanization under this General Plan.
- Policy RC-9-a: Regional Cooperation. Work to establish a cooperative research and planning program with the Counties of Fresno and Madera, City of Clovis, and other public agencies to conserve agricultural land resources.
- Policy RC-9-b: Unincorporated Land in the Planning Area. Express opposition to residential and commercial development proposals in unincorporated areas within or adjacent to the Planning Area when these proposals would do any of the following:
 - Make it difficult or infeasible to implement the General Plan;
 - Contribute to the premature conversion of agricultural, open space, or grazing lands; or
 - Constitute a detriment to the management of resources and/or facilities important to the region (such as air quality, water quantity and quality, traffic circulation, and riparian habitat).
- Policy RC-9-c: Farmland Preservation Program. In coordination with regional partners or independently, establish a Farmland Preservation Program. When Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is converted to urban uses outside City limits, this program would require that the developer of such a project permanently protect an equal amount of similar farmland elsewhere through easement to mitigate the loss of such farmland consistent with the requirements of CEQA. The Farmland Preservation Program shall provide several mitigation options that may include, but are not limited to the following: Restrictive Covenants or Deeds, In Lieu Fees, Mitigation Banks, Fee Title Acquisition, Conservation Easements, Land Use Regulation, or any other mitigation method that is in compliance with the requirements of CEQA. The Farmland Preservation Program may be modeled after some or all of the programs described by the California Council of Land Trusts.

City of Fresno Development Code

The City's Development Code (Chapter 15 of the Municipal Code) is intended to provide a guide for the physical development of the city in order to achieve the arrangement of land uses depicted in the approved General Plan, as well as implement goals, objectives, and policies of the approved General Plan.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item. Would the project:

- Convert Prime Farmland, Unique Farmland, or Farmland of statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code section 12220(g)), timberland as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?
- Result in the loss of forest land or conversion of forest land to non-forest use?
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Impacts and Mitigation Measures

Impact 3.2-1: *Convert Prime Farmland, Unique Farmland, or Farmland of statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

No Impact. The proposed Project site does not contain soils identified as prime, statewide important, or unique farmland by the California Department of Conservation Farmland

Mapping and Monitoring Program (FMMP). The current FMMP map identifies the Project site as farmland of local importance, “other land”, and urban and built up land.³ The site is within the City limits of Fresno and is designated and zoned for a variety of urban uses including residential, commercial, office, open space, golf course and related uses. The original Copper River Ranch Project 2003 FEIR identified that the original Project would result in the conversion of prime agricultural land and recognized that it was a significant and unavoidable impact (pages 2.1.8 – 2.1.19 of the 2003 FEIR). At that time, the original Copper River Ranch project resulted in the conversion of approximately 70 acres of Thompson grapes, 180 acres of wine grapes, five acres of oranges and 150 acres of dry farmed grassland. In addition, the City’s General Plan Master EIR (2014) evaluated the loss of agricultural lands associated with buildout of the City’s General Plan (including the proposed Project areas)⁴. The Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. However, the additional 109 acres has already been designated by the City of Fresno General Plan for urban uses and will not result in the loss of additional agricultural lands beyond what was analyzed in the City’s General Plan Master EIR (2014) and the 2003 Copper River Ranch FEIR. As such, there are *no impacts* related to the conversion of agricultural land from the Project itself.

Mitigation Measures

None are required.

Impact 3.2-2: *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No Impact. There are no lands in a Williamson Act Contract on the Project site (which consists of the existing 706-acre development and the additional 109-acres of new development) and the Project site is designated in the City’s General Plan and Zoning Ordinance for urban (non-agricultural) uses. As such, no conflicts with agricultural zoning would occur and there would be *no impact* related to an agricultural zoning conflict.

³ California Department of Conservation. California Important Farmland Finder. <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed October 2020.

⁴ Fresno General Plan Draft Master EIR (2014), pages 5.2-11 through 5.2-13.

Mitigation Measures

None are required.

Impact 3.2-3: *Conflict with existing zoning for, or cause rezoning of, forest land as defined in Public Resources Code section 12220(g), timberland as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)), or result in the loss of forest land or convert forest land to non-forest use?*

No Impact. The proposed Project site lies within the City of Fresno, where there is no forest land. The Project is not zoned for forestland, timberland, or timberland zoned Timberland Production and does not propose any zone changes related to forest or timberland. As such, there are *no potential impacts* resulting from forest or timber land conflicts or conversion of forest land to non-forest use.

Mitigation Measures

None are required.

Impact 3.2-4: *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

Less Than Significant Impact With Mitigation. As discussed in Impact 3.2-1 through 3.2-3, the proposed Project is not located on Farmland as designated by the FMMP or the City and there is no forest land in the Project vicinity. However, there are agricultural lands located immediately east of Project boundary on the east side of Willow Avenue. The 2003 FEIR contained a mitigation measure intended to reduce conflicts between existing agricultural operations and urban development in the area as follows:

“The City shall pursue appropriate measures, including recordation of right to farm covenants, to ensure that agricultural uses of land may continue within those areas of transition where planned urban areas interface with planned agricultural areas.”

The previous mitigation measure will be replaced with a similar, but more specific mitigation measure which will ensure impacts remain *less than significant* as follows:

Mitigation Measures

AG – 1 Reduce Conflicts Between Urban and Agricultural Uses

In order to reduce potential conflicts between urban and agricultural uses, the following measures shall be implemented:

- Potential residents shall be notified about possible exposure to agricultural chemicals at the time of purchase / lease of property within the development.
- A Right-to-Farm Covenant shall be recorded on each tract map or be made a condition of each tract map to protect continued agricultural practices in the area.
- Potential residents shall be informed of the Right-to-Farm Covenant at the time of purchase / lease of property within the development.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to agricultural resources. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>2.1.5-a: The City shall pursue appropriate measures, including recordation of right to farm covenants, to ensure that agricultural uses of land may continue within those areas of transition where planned urban areas interface with planned agricultural areas.</p>	<p>This previous mitigation measure from the 2003 FEIR is similar to the currently proposed mitigation measures (i.e. right to farm covenant). However, the proposed new mitigation measure (AG - 1) shall supersede mitigation measure 2.1.5-a contained in the 2003 FEIR.</p>	<p>AG – 1: In order to reduce potential conflicts between urban and agricultural uses, the following measures shall be implemented:</p> <ul style="list-style-type: none"> • Potential residents shall be notified about possible exposure to agricultural chemicals at the time of purchase / lease of property within the development. • A Right-to-Farm Covenant shall be recorded on each tract map or be made a condition of each tract map

		<p>to protect continued agricultural practices in the area.</p> <ul style="list-style-type: none"> • Potential residents shall be informed of the Right-to-Farm Covenant at the time of purchase / lease of property within the development.
<p>2.1.4-a: The developer shall ensure through the subsequent master use permit and associated development plan, that the project is designed in a compact nature consistent with the principles of <i>A Landscape of Choice</i> to maximize the use of land, thereby reducing the pressure on productive agricultural land to the west, southwest, east and southeast of the Fresno/Clovis metropolitan area.</p>	<p>The development principles identified in the document <i>A Landscape of Choice</i> have been superseded by various development guidelines as identified in the City's General Plan. Therefore mitigation measure 2.1.4-a from the 2003 FEIR is not applicable. Refer to Section 3.11 – Land Use and Planning in this SEIR for a discussion of land use compatibility and consistency with the City's General Plan development standards.</p>	<p>Not applicable.</p>

Cumulative Impacts

The geographic area of this cumulative analysis is the entire State of California. This cumulative analysis is based on the Statewide FMMP map. As discussed above, the Project site (which consists of the existing 706-acre development and the additional 109-acres of new development) is not on Farmland as designated by the FMMP. The land is not under a Williamson Act Contract and there is no forest land in the Project vicinity. As such, the Project will not result in project-specific impacts and will result in *less than cumulatively considerable* impacts on agricultural resources.

3.3 Air Quality

This section of the SEIR evaluates the potential impacts to Air Quality associated with implementation of the proposed Project. An Air Quality and Greenhouse Gas/Energy Analysis Report was prepared by Mitchell Air Quality Consulting for the proposed Project. The analysis below is a summarization of the information found within that report, and is provided in its entirety as Appendix B. One NOP comment letter was received from the San Joaquin Valley Air Pollution Control District (SJVAPCD) and is provided in Appendix A. The SJVAPCD recommendations in the comment letter were outlined in seven major points, all of which are addressed within this Air Quality Analysis.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated air quality impacts associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a significant and unavoidable impact on air quality resources. The Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, a new technical study was prepared (See Appendix B). Additional information is being provided herein regarding impacts to air quality resources associated with the additional 109 acres and the changes to the existing land uses. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Would the project conflict with or obstruct implementation of the applicable air quality plan?	✓	
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	✓	
c. Expose sensitive receptors to substantial pollution concentrations?	✓	
d. Result in other emissions (such as those leading to odors affecting a substantial number of people)?	✓	

Environmental Setting

San Joaquin Valley Air Basin

Topography

The topography of a region is important for air quality because mountains can block airflow that would help disperse pollutants and can channel air from upwind areas that transports pollutants to downwind areas. The Air Basin is generally shaped like a bowl. It is open in the north and is surrounded by mountain ranges on all other sides. The Sierra Nevada mountains are along the eastern boundary (8,000 to 14,000 feet in elevation), the Coast Ranges are along the western boundary (3,000 feet in elevation), and the Tehachapi Mountains are along the southern boundary (6,000 to 8,000 feet in elevation).

Climate

The climate is important for air quality because of differences in the atmosphere’s ability to trap pollutants close to the ground, which creates adverse air quality; inversely, the atmosphere’s ability to rapidly disperse pollutants over a wide area prevents high concentrations from accumulating under different climatic conditions. The Air Basin has an “inland Mediterranean” climate and is characterized by long, hot, dry summers and short, foggy winters. Sunlight can be

a catalyst in the formation of some air pollutants (such as ozone); the Air Basin averages over 260 sunny days per year.¹

Inversion layers are significant in determining pollutant concentrations. Concentration levels can be related to the amount of mixing space below the inversion. Temperature inversions that occur on the summer days are usually encountered 2,000 to 2,500 feet above the valley floor. In winter months, overnight inversions occur 500 to 1,500 feet above the valley floor.

Dominant airflows provide the driving mechanism for transport and dispersion of air pollution. The mountains surrounding the Air Basin form natural horizontal barriers to the dispersion of air contaminants. The wind generally flows south-southeast through the valley, through the Tehachapi Pass and into the Mojave Desert Air Basin portion of Kern County. As the wind moves through the Air Basin, it mixes with the air pollution generated locally, generally transporting air pollutants from the north to the south in the summer and in a reverse flow in the winter.

The winds and unstable air conditions experienced during the passage of winter storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high pressure and light winds allow cold moist air to pool on the San Joaquin Valley floor. This creates strong, low-level temperature inversions and very stable air conditions, which can lead to Tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of PM_{2.5} and PM₁₀.

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¹ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 11.

The winds and unstable air conditions experienced during the passage of winter storms result in periods of low pollutant concentrations and excellent visibility. Between winter storms, high pressure and light winds allow cold moist air to pool on the San Joaquin Valley floor. This creates strong, low-level temperature inversions and very stable air conditions, which can lead to Tule fog. Wintertime conditions favorable to fog formation are also conditions favorable to high concentrations of PM_{2.5} and PM₁₀.

Existing Air Quality Conditions

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. **Error! Reference source not found.**3.3-1 summarizes 2017 through 2019 published monitoring data, which is the most recent three-year period available. Data were obtained from the closest air monitoring station with data available. The table displays data from the Clovis-North Villa monitoring station located approximately 5.5 miles south of the Project site). The data show that during the past few years, the project area has exceeded the standards for ozone (state and national), PM₁₀ (state), and PM_{2.5} (national). The data in the table reflect the concentration of the pollutants in the air, measured using air monitoring equipment. No recent monitoring data for Fresno County or the San Joaquin Valley Air Basin were available for carbon monoxide and SO₂. Generally, no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

**Table 3.3-1
Air Quality Monitoring Summary²**

Air Pollutant	Averaging Time	Item	2017	2018	2019
Ozone ^a	1 Hour	Max 1 Hour (ppm)	0.138	0.121	0.103
		Days > State Standard (0.09 ppm)	13	13	6
	8 Hour	Max 8 Hour (ppm)	0.100	0.094	0.079
		Days > State Standard (0.07 ppm)	50	49	30

² Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 21.

Air Pollutant	Averaging Time	Item	2017	2018	2019
		Days > National Standard (0.070 ppm)	47	43	10
Carbon monoxide (CO)	8 Hour	Max 8 Hour (ppm)	ND	ID	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND
Nitrogen dioxide (NO ₂) ^b	Annual	Annual Average (ppm)	0.010	0.090	0.080
	1 Hour	Max 1 Hour (ppm)	0.0588	0.0645	0.0572
		Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide (SO ₂)	Annual	Annual Average (ppm)	ND	ND	ND
	24 Hour	Max 24 Hour (ppm)	ND	ND	ND
		Days > State Standard (0.04 ppm)	ND	ND	ND
Inhalable coarse particles (PM ₁₀) ^b	Annual	Annual Average (µg/m ³)	36.2	39.4	32.6
	24 hour	24 Hour (µg/m ³)	103.2	114.6	150.9
		Days > State Standard (50 µg/m ³)	90.4	65.9	90.4
		Days > National Standard (150 µg/m ³)	0	0	0
Fine particulate matter (PM _{2.5}) ^a	Annual	Annual Average (µg/m ³) 12.0 µg/m ³	14.7	10.2	14.7
	24 Hour	24 Hour (µg/m ³)	82.3	39.1	82.3
		Days > National Standard (35 µg/m ³)	27.1	10.0	27.1
Notes:					

Air Pollutant	Averaging Time	Item	2017	2018	2019
> = exceed ppm = parts per million µg/m ³ = micrograms per cubic meter ID = insufficient data ND = no data max = maximum Bold = exceedance of State or Federal Standard State Standard = California Ambient Air Quality Standard National Standard = National Ambient Air Quality Standard a Tranquility Monitoring Station b Fresno Garland Monitoring Station					

The health impacts of the various air pollutants of concern can be presented in a number of ways. The clearest of these is comparable with the state and federal ozone standards. If concentrations are below the standard, it is safe to say that no health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount by which the standard is exceeded. The EPA developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air.

Table 3.3-23.3-2 provides a description of the health impacts of ozone at different concentrations.

**Table 3.3-2
Air Quality Index and Health Effects from Ozone³**

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI—51–100—Moderate	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 55–70 ppb	Health Effects Statements: Unusually sensitive individuals may experience respiratory symptoms.
	Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.

³ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 22.

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI—101–150—Unhealthy for Sensitive Groups	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 71–85 ppb	Health Effects Statements: Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
AQI—151–200—Unhealthy	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 86–105 ppb	Health Effects Statements: Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
AQI—201–300—Very Unhealthy	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 106–200 ppb	Health Effects Statements: Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.

The AQI for the 8-hour ozone standard is based on the current NAAQS of 70 parts per billion (ppb). Based on the AQI scale for the 8-hour ozone standard, the project area experienced no days in the last three years that would be categorized as very unhealthy (AQI 201–250), and as many

as 117 days that were unhealthy (AQI 151–200) or unhealthy for sensitive groups (AQI 101–150), violating the 70-ppb standard as measured at the Clovis -North Villa monitoring station. The highest reading was 100 parts per billion (ppb) in 2017 (AQI 187), compared with the 105-ppb cutoff point for unhealthy (AQI 200). The most days over the standard were 47 days in 2017.⁴

The other nonattainment pollutant of concern is PM_{2.5}. An AQI of 100 or lower is considered moderate and would be triggered by a 24-hour average concentration of 12.1 to 35.4 µg/m³. An AQI of 101 to 150 or 35.5 to 55.4 µg/m³ is considered unhealthy for sensitive groups. When concentrations reach this amount, it is considered an exceedance of the federal PM_{2.5} standard. The monitor at the Tranquility station exceeded the national standard on 2 days in 2016, 6 days in 2017 and 16 days in 2018. People with respiratory or heart disease, the elderly and children are the groups most at risk. Unusually sensitive people should consider reducing prolonged or heavy exertion. The AQI of 151 to 200 is classified as unhealthy for everyone. This AQI classification is triggered when PM_{2.5} concentration ranges from 55.4 to 150.4 µg/m³. At this concentration, there is increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and in the elderly. People with respiratory or heart disease, the elderly, and children should limit prolonged exertion. Everyone else should reduce prolonged or heavy exertion. The highest concentration recorded at the Clovis-North Villa monitoring station in the last three years was 82.3 µg/m³ (AQI 165) in 2018. At this concentration, increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly, and increased respiratory effects in general population would occur. People with respiratory or heart disease, the elderly, and children should avoid prolonged exertion; everyone else should limit prolonged exertion when the AQI exceeds this level. The relationship of the AQI to health effects is shown

Table3.3-3.

⁴ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 23.

**Table 3.3-3
Air Quality Index and Health Effects of Particulate Pollution⁵**

Air Quality Index/ PM_{2.5} Concentration	Health Effects Description
AQI—51–100—Moderate Concentration 12.1–35.4 µg/m ³	<p>Sensitive Groups: Some people who may be unusually sensitive to particle.</p> <p>Health Effects Statements: Unusually sensitive people should consider reducing prolonged or heavy exertion.</p> <p>Cautionary Statements: Unusually sensitive people: Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.</p>
AQI—101–150—Unhealthy for Sensitive Groups Concentration 35.5–55.4 µg/m ²	<p>Sensitive Groups: Sensitive groups include people with heart or lung disease, older adults, children, and teenagers.</p> <p>Health Effects Statements: Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease, and the elderly.</p> <p>If you have heart disease: Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.</p>
AQI—151–200—Unhealthy Concentration 86–105 ppb	<p>Sensitive Groups: Children and people with asthma are the groups most at risk.</p> <p>Health Effects Statements: Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population.</p> <p>Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should</p>

⁵ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 23.

Air Quality Index/ PM _{2.5} Concentration	Health Effects Description
	avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
AQI—201–300—Very Unhealthy Concentration 106–200 ppb	<p>Sensitive Groups: Children and people with asthma are the groups most at risk.</p> <p>Health Effects Statements: Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population.</p> <p>Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.</p>

Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Each standard has a different definition, or “form” of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM_{2.5} standard is met if the three-year average of the annual average PM_{2.5} concentration is less than or equal to the standard.

The current attainment designations for the Air Basin are shown in

Table 3.3-4. The Air Basin is designated as nonattainment for ozone, PM₁₀, and PM_{2.5}.

**Table 3.3-4
San Joaquin Valley Air Basin Attainment Status⁶**

Pollutant	State Status	National Status
Ozone—One Hour	Nonattainment/Severe	No Standard
Ozone—Eight Hour	Nonattainment	Nonattainment/Extreme
Carbon monoxide	Attainment/Unclassified	Merced, Madera, and Kings Counties are unclassified; others are in Attainment
Nitrogen dioxide	Attainment	Attainment/Unclassified
Sulfur dioxide	Attainment	Attainment/Unclassified
PM ₁₀	Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
Lead	Attainment	No Designation/Classification

Regulatory Setting

Federal Regulations

Clean Air Act

Congress established much of the basic structure of the Clean Air Act (CAA) in 1970, and made major revisions in 1977 and 1990. Six common air pollutants (also known as criteria pollutants) are addressed in the CAA: particulate matter, ground-level ozone, carbon monoxide (CO), sulfur oxides (SO_x), nitrogen oxides (NO_x), and lead. The EPA labels these pollutants as criteria air pollutants because they are regulated by developing human health-based and/or environmentally based criteria (science-based guidelines), which sets permissible levels. The set of limits based on human health are called primary standards. Another set of limits intended to

⁶ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 25.

prevent environmental and property damage are called secondary standards.⁷ The federal standards are called National Ambient Air Quality Standards (NAAQS). The air quality standards provide benchmarks for determining whether air quality is healthy at specific locations and whether development activities will cause or contribute to a violation of the standards. The criteria pollutants are:

- Ozone
- Nitrogen dioxide (NO₂)
- Lead
- Particulate matter (PM₁₀ and PM_{2.5})
- Carbon monoxide (CO)
- Sulfur dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the EPA is tasked with updating the standards as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health.⁸

State of California Regulations

California Clean Air Act

The California Legislature enacted the California Clean Air Act (CCAA) in 1988 to address air quality issues of concern not adequately addressed by the federal CAA at the time. California's air quality problems were and continue to be some of the most severe in the nation, and required additional actions beyond the federal mandates. The California Air Resources Board (ARB) administers California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. The 10 state air pollutants are the six federal standards listed above as well as visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride. The EPA authorized California to adopt its own regulations for motor vehicles and other sources that are more stringent than similar federal regulations implementing the CAA. Generally, the planning requirements of the CCAA are less stringent than the federal CAA; therefore, consistency with the CAA will also demonstrate consistency with the CCAA.

Toxic Air Contaminants

⁷ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 12.

⁸ Ibid.

A toxic air contaminant (TAC) is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. The ten TACs are acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM). TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. There are no ambient air quality standards for TAC emissions. TACs are regulated in terms of health risks to individuals and populations exposed to the pollutants. The 1990 Clean Air Act Amendments significantly expanded the EPA's authority to regulate hazardous air pollutants (HAP). Section 112 of the Clean Air Act lists 187 hazardous air pollutants to be regulated by source category. Authority to regulate these pollutants was delegated to individual states. ARB and local air districts regulate TACs and HAPs in California.

Air Pollutant Description and Health Effects

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program (ARB 1998) demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increased risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause a cough, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. The federal and state ambient air quality standards, relevant effects, properties, and sources of the pollutants are summarized in Table 1 of Appendix B.

DPM differs from other TACs in that it is not a single substance, but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on: engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The ARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the ARB emissions inventory's PM₁₀ database, ambient PM₁₀ monitoring data, and the results from several studies to estimate concentrations of DPM.

Health risks attributable to the top 10 TACs listed above are available from the ARB as part of its California Almanac of Emissions and Air Quality. As shown therein for data collected at the First Street air monitoring station in Fresno, cancer risks attributable to all of the listed TACs above with the exception of DPM have declined about 70 percent from the mid-1990s to 2007. Risks associated with DPM emissions are provided only for the year 2000 and have not been updated in the Almanac. Although more recent editions of the Almanac do not provide estimated risk, they do provide emission inventories for DPM for later years. The 2013 Almanac provides emission inventory trends for DPM from 2000 through 2035. The same Almanac reports that DPM emissions were reduced in the SJVAB from 16 tons per day in 2000 to 11 tons per day in 2010, a 31 percent decrease. DPM emissions in the San Joaquin Valley are projected to decrease to 6 tons per day by 2015, a 62 percent reduction from year 2000 levels. ARB predicts a reduction to three tons per day by 2035, which would be an 81 percent reduction from year 2000 levels. Continued implementation of the ARB's Diesel Risk Reduction Plan is expected to provide continued reductions in DPM through 2020 and beyond through regulations on this source.⁹

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings that were constructed prior to the 1977 ban on asbestos for use in buildings. Exposure to naturally occurring asbestos can occur during soil-disturbing activities in areas with deposits present.

Air Quality Plans and Regulations

Air pollutants are regulated at the national, state, and air basin or county level, and each agency has a different level of regulatory responsibility: the EPA regulates at the national level, the ARB at the state level, and the SJVAPCD at the air basin level.

⁹ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 20.

The EPA is responsible for national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Ambient Air Quality Standards—also known as the federal standards described earlier.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. California's State Implementation Plan incorporates individual federal attainment plans for regional air districts; specifically, an air district prepares their federal attainment plan, which is sent to ARB to be approved and incorporated into the California State Implementation Plan. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms. The ARB then submits the to the EPA for approval. After reviewing submitted SIPs, the EPA proposes to approve or disapprove all or part of each plan. The public has an opportunity to comment on the EPA's proposed action. EPA considers public input before taking final action on a state's plan. If EPA approves all or part of a SIP, those control measures are enforceable in federal court. If a state fails to submit an approvable plan or if EPA disapproves a plan, the EPA is required to develop a federal implementation plan (FIP).

The most recent federally approved attainment plans for the SJVAPCD are the 2007 8-hour Ozone Attainment Plan and the 2012 PM_{2.5} Plan for the 2006 PM_{2.5} standard. The Air Basin is designated as an extreme ozone nonattainment area for the EPA's 2008 8-hour ozone standard of 75 ppb. The plan to address this standard was adopted by the SJVAPCD on June 16, 2016. The ARB approved the attainment demonstration plan for the San Joaquin Valley on July 21, 2016 and transmitted the plan to EPA on August 24, 2016. The plan for areas designated extreme nonattainment must demonstrate attainment of the new ozone standard by December 31, 2031. The 2016 Ozone Plan predicts attainment of the 2008 standard by 2031. On June 30, 2020, US EPA approved portions of the 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards and the San Joaquin Valley Supplement to the 2016 State Strategy for the State Implementation Plan related to the 2006 24-hour PM_{2.5} National Ambient Air Quality Standard (NAAQS) of 35 µg/m³. Additionally, EPA granted an extension of the Serious area attainment date for the 2006 PM_{2.5} NAAQS from December 31, 2019, to December 31, 2024. Federal review of portions of the plan that pertain to the other PM_{2.5} standards will continue in 2020. The EPA Administrator signed the Final Rule revising the 8-hour ozone standard to 70 ppm on October 1, 2015. The SJVAB is expected to be designated nonattainment for this new standard in late 2017.

Areas designated nonattainment must develop air quality plans and regulations to achieve standards by specified dates, depending on the severity of the exceedances. For much of the country, implementation of federal motor vehicle standards and compliance with federal permitting requirements for industrial sources are adequate to attain air quality standards on schedule. For many areas of California, however, additional state and local regulation is required to achieve the standards. Regulations adopted by California are described below.

Low-Emission Vehicle Program. The ARB first adopted Low-Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 State Implementation Plan. In 2012, ARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and GHGs for new passenger vehicles.¹⁰

On-Road Heavy-Duty Vehicle Program. The ARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, as well as test procedures. ARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others.¹¹

ARB Truck and Bus Regulation. The latest amendments to the Truck and Bus regulation became effective on December 31, 2014. The amended regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet PM filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

¹⁰ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 26.

¹¹ Ibid.

The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. The regulation provides a variety of flexibility options tailored to fleets operating low-use vehicles, fleets operating in selected vocations like agricultural and construction, and small fleets of three or fewer trucks.¹²

Advanced Clean Truck Regulation. The Advanced Clean Trucks regulation was approved on June 25, 2020 and has two main components, a manufacturers ZEV sales requirement and a one-time reporting requirement for large entities and fleets. Promoting the development and use of advanced clean trucks will help CARB achieve its emission reduction strategies as outlined in the State Implementation Plan (SIP), Sustainable Freight Action Plan, Senate Bill (SB) 350, and Assembly Bill (AB) 32.

The proposed regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- **Zero-emission truck sales:** Manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales.
- **Company and fleet reporting:** Large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.¹³

ARB Regulation for In-Use Off-Road Diesel Vehicles. On July 26, 2007, the ARB adopted a regulation to reduce DPM and nitrous oxide (NO_x) emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The

¹² Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 27.

¹³ Ibid.

ARB is enforcing that part of the rule with fines up to \$10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_x emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements, making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501–5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

ARB Regulation for Consumer Products. The ARB Consumer Products Regulation was last amended in January 2015. The ARB regulates the VOC content of a wide variety of consumer products sold and manufactured in California. The purpose of the regulation is to reduce the emission of ozone precursors, TACs, and GHG emissions in products that are used by homes and businesses. The regulated products include but are not limited to solvents, adhesives, air fresheners, soaps, aromatic compounds, windshield cleaners, charcoal lighter, dry cleaning fluids, floor polishes, and general cleaners and degreasers.¹⁴

ARB Airborne Toxic Control Measure for Asbestos. In July 2001, the ARB approved an Air Toxic Control Measure for construction, grading, quarrying, and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than 1 acre in size. These projects require the submittal of a Dust Mitigation Plan and approval by the air district prior to the start of a project.

Construction sometimes requires the demolition of existing buildings where construction occurs. The project includes no demolition. Buildings often include materials containing asbestos. Asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found

¹⁴ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 27.

associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present.

The ARB has an Air Toxic Control Measure for construction, grading, quarrying, and surface mining operations, requiring the implementation of mitigation measures to minimize emissions of asbestos-laden dust. The measure applies to road construction and maintenance, construction and grading operations, and quarries and surface mines when the activity occurs in an area where naturally occurring asbestos is likely to be found. Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the Air Pollution Control Officer or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally occurring asbestos on the site. The measure also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity. Review of the Department of Conservation maps indicates that no ultramafic rock has been found near Laton.

Diesel Risk Reduction Plan. The ARB’s Diesel Risk Reduction Plan has led to the adoption of state regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels. The projected emission benefits associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010, and 85 percent by 2020.¹⁵

Right to Farm Act

The California “Right to Farm Act” states that agricultural activity is not a nuisance and further states that “no agricultural activity, operation, or facility, or appurtenances thereof, conducted or maintained for commercial purposes, and in a manner consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to any changed condition in or about the locality, after it has been in operation for more than three years if it was not a nuisance at the time it began.”

San Joaquin Valley Air Pollution Control District Regulations

¹⁵ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 28.

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is responsible for controlling emissions primarily from stationary sources. The SJVAPCD, in coordination with eight countywide transportation agencies, is also responsible for developing, updating, and implementing air quality plans for the SJVAPCD.

Ozone Plans

The Air Basin is designated nonattainment of state and federal health-based air quality standards for ozone. To meet Clean Air Act requirements for the one-hour ozone standard, the SJVAPCD adopted an Extreme Ozone Attainment Demonstration Plan in 2004, with an attainment date of 2010. Although the EPA revoked the federal 1-hour ozone standard effective June 15, 2005 and replaced it with an 8-hour standard, the requirement to submit a plan for that standard remained in effect for the San Joaquin Valley.

The planning requirements for the 1-hour plan remain in effect until replaced by a federal 8-hour ozone attainment plan. On March 8, 2010, the EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan, including revisions to the plan, effective April 7, 2010. However, the Air Basin failed to attain the standard in 2010 and was subject to a \$29-million Clean Air Act penalty. The penalty is being collected through an additional \$12 motor vehicle registration surcharge for each passenger vehicle registered in the Air Basin that will be applied to pollution reduction programs in the region. The SJVAPCD also instituted a more robust ozone episodic program to reduce emissions on days with the potential to exceed the ozone standards. On July 18, 2016, the EPA published in the Federal Register a final action determining that the San Joaquin Valley has attained the 1-hour ozone national ambient air quality standard. This determination is based on the most recent three-year period (2012-2014) of sufficient, quality-assured, and certified data. The penalty fees remain in place pending submittal of a demonstration that the San Joaquin Valley will maintain the 1-hour standard for 10 years.¹⁶

The EPA originally classified the Air Basin as serious nonattainment for the 1997 federal 8-hour ozone standard with an attainment date of 2013. On April 30, 2007, the SJVAPCD's Governing Board adopted the 2007 Ozone Plan, which contained analysis showing a 2013 attainment target to be infeasible. The 2007 Ozone Plan details the plan for achieving attainment on schedule with an "extreme nonattainment" deadline of 2024. At its adoption of the 2007 Ozone Plan, the SJVAPCD also requested a reclassification to extreme nonattainment. ARB approved the plan in

¹⁶ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 29.

June 2007, and the EPA approved the request for reclassification to extreme nonattainment on April 15, 2010.

The Air Basin is designated as an extreme ozone nonattainment area for the EPA's 2008 8-hour ozone standard of 75 ppb. The SJVAPCD's Governing Board approved the 2016 Plan for the 2008 8-Hour Ozone Standard on June 16, 2016. The ARB approved the attainment demonstration plan for the San Joaquin Valley on July 21, 2016 and transmitted the plan to EPA on August 24, 2016. The comprehensive strategy in this plan will reduce NO_x emissions by over 60 percent between 2012 and 2031, and will bring the San Joaquin Valley into attainment of the EPA's 2008 8-hour ozone standard as expeditiously as practicable, no later than December 31, 2031. The 2016 Ozone Plan predicts attainment of the 2008 standard by 2031.¹⁷ To ensure that the plan is approvable with the necessary contingencies, the plan includes a "Black Box" that will require implementation of new advanced technologies and controls prior to the 2031 deadline.

The EPA Administrator signed the Final Rule revising the 8-hour ozone standard to 70 ppm on October 1, 2015. The new standard will require the SJVAPCD to prepare a new attainment to achieve the more stringent emission level within 20 years from the effective date of designation.¹⁸

State ozone standards do not have an attainment deadline but require implementation of all feasible measures to achieve attainment at the earliest date possible. This is achieved through compliance with the federal deadlines and control measure requirements.

Particulate Matter Plans

The Air Basin was designated nonattainment of state and federal health-based air quality standards for PM₁₀. The Air Basin is also designated nonattainment of state and federal standards for PM_{2.5}.

To meet Clean Air Act requirements for the PM₁₀ standard, the SJVAPCD adopted a PM₁₀ Attainment Demonstration Plan (Amended 2003 PM₁₀ Plan and 2006 PM₁₀ Plan), which has an attainment date of 2010. The SJVAPCD adopted the 2007 PM₁₀ Maintenance Plan in September 2007 to assure the San Joaquin Valley's continued attainment of the EPA's PM₁₀ standard. The EPA designated the valley as an attainment/maintenance area for PM₁₀ on September 25, 2008. Although the San Joaquin Valley has exceeded the standard since then, those days were

¹⁷ Ibid. Page 30.

¹⁸ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 30.

considered exceptional events that are not considered a violation of the standard for attainment purposes.

The 2008 PM_{2.5} Plan builds upon the comprehensive strategy adopted in the 2007 Ozone Plan to bring the Air Basin into attainment of the 1997 national standards for PM_{2.5}. The EPA has identified NO_x and SO₂ as precursors that must be addressed in air quality plans for the 1997 PM_{2.5} standards. The 2008 PM_{2.5} Plan is a continuation of the SJVAPCD's strategy to improve the air quality in the Air Basin. The EPA issued final approval of the 2008 PM_{2.5} Plan on November 9, 2011, which became effective on January 9, 2012. The EPA approved the emissions inventory, the reasonably available control measures/reasonably available control technology demonstration, reasonable further progress demonstration, attainment demonstration and associated air quality modeling, and the transportation conformity motor vehicle emissions budgets. The EPA also granted California's request to extend the attainment deadline for the San Joaquin Valley to April 5, 2015 and approved commitments to measures and reductions by the SJVAPCD and the ARB. Finally, it disapproved the State Implementation Plan's contingency provisions and issued a protective finding for transportation conformity determinations.

In December 2012, the SJVAPCD adopted the 2012 PM_{2.5} Plan to bring the San Joaquin Valley into attainment of the EPA's 2006 24-hour PM_{2.5} standard of 35 µg/m³. The ARB approved the SJVAPCD's 2012 PM_{2.5} Plan for the 2006 standard at a public hearing on January 24, 2013.¹⁹ This plan seeks to bring the Valley into attainment with the standard by 2019, with the expectation that most areas will achieve attainment before that time.

The 2015 Plan for the 1997 PM_{2.5} Standard approved by the SJVAPCD Governing Board on April 16, 2015—will bring the Valley into attainment of the EPA's 1997 PM_{2.5} standard as expeditiously as practicable, but no later than December 31, 2020. The plan was required to request reclassification to Serious nonattainment and to extend the attainment date from 2018 to 2020.²⁰

The 2016 Moderate Area Plan for the 2012 PM_{2.5} Standard was adopted on September 15, 2016. This plan includes an attainment impracticability demonstration and request for reclassification of the Valley from Moderate nonattainment to Serious nonattainment. The 2016 PM_{2.5} Plan is under ARB review.²¹

¹⁹ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 30.

²⁰ Ibid. Page 31.

²¹ Ibid.

The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards on November 15, 2018. This plan provides a combined strategy to address the EPA federal 1997 annual PM_{2.5} standard of 15 µg/m³ and 24-hour PM_{2.5} standard of 65 µg/m³; the 2006 24-hour PM_{2.5} standard of 35 µg/m³; and the 2012 annual PM_{2.5} standard of 12 µg/m³. This plan demonstrates attainment of the federal PM_{2.5} standards as expeditiously as practicable.²²

Rules and Regulations

The following SJVAPCD rules and regulations that may apply to the proposed Project include but are not limited to the following:²³

Rule 4102—Nuisance. The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials. This rule is enforced on a complaint basis.

Rule 4601—Architectural Coatings. The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling. Only compliant components are available for purchase in the San Joaquin Valley.

Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations. The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641. This regulation is enforced on the asphalt provider.

Rule 4901—Wood-Burning Fireplaces and Wood-Burning Heaters. The purposes of this rule are to limit emissions of carbon monoxide and particulate matter from wood-burning fireplaces, wood-burning heaters, and outdoor wood-burning devices, and to establish a public education program to reduce wood-burning emissions. All development that includes wood-burning devices are subject to this rule.

Rule 4902—Residential Water Heaters. In 2009, the SJVAPCD amended Rule 4902 to strengthen the rule by lowering the limit to 10 nanograms per joule (ng/J) for new or replacement water

²² Ibid.

²³ Ibid.

heaters, and to a limit of 14 ng/J for instantaneous water heaters. Retailer compliance dates ranged from 2010 to 2012, depending on the unit type.

Regulation VIII—Fugitive PM₁₀ Prohibitions. Rules 8011–8081 are designed to reduce PM₁₀ emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules.

Rule 9510—Indirect Source Review. This rule reduces the impact of NO_x and PM₁₀ emissions from growth within the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through on-site mitigation, off-site SJVAPCD-administered projects, or a combination of the two. This project is subject to Rule 9510.

Thresholds of Significance

The CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in the environment.” To determine if a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the project must be evaluated.

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines effective December 28, 2018. A significant impact would occur if the project would:

- a) Conflict with or obstruct implementation of the applicable air quality plan;
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable national or state ambient air quality standard;
- c) Expose sensitive receptors to substantial pollutant concentrations; or
- d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

While the final determination of whether a project is significant is within the purview of the lead agency pursuant to Section 15064(b) of the CEQA Guidelines, the SJVAPCD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If

the lead agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts. The applicable SJVAPCD thresholds and methodologies are contained under each impact analysis herein.

Impacts and Mitigation Measures

Impact 3.3-1: *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Significant and Unavoidable Impact. The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The GAMAQI indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds would not conflict with or obstruct the applicable air quality plan (AQP). An additional criterion regarding the project's implementation of control measures was assessed to provide further evidence of the project's consistency with current AQPs. This document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the SJVAPCD for Regional and Local Air Pollutants.
2. Will the project comply with applicable control measures in the AQPs? The primary control measures applicable to development projects is Regulation VIII – Fugitive PM₁₀ Prohibitions and Rule 9510 Indirect Source Review.

Contribution to Air Quality Violations

A measure for determining if the project is consistent with the air quality plans is if the project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards. Therefore, the cumulative impact of the project is based on its

cumulative contribution. Because of the region's nonattainment status for ozone, PM_{2.5}, and PM₁₀—if project-generated emissions of either of the ozone precursor pollutants (ROG and NO_x), PM₁₀, or PM_{2.5} would exceed the SJVAPCD's significance thresholds—then the project would be considered to contribute to violations of the applicable standards and conflict with the attainment plans.

As discussed in Impact 3.2-2 below, emissions of ROG, NO_x, CO, and PM₁₀ associated with the operation of the project would exceed the SJVAPCD's significance thresholds. However, as shown in Impact 3.2-2, the Project would not result in CO hotspots that would violate CO standards. Therefore, the Project would not contribute to air quality violations of the CO standard. Although the Project would exceed the criteria pollutant thresholds for several pollutants, the Copper River Ranch DEIR had already considered air quality to be a significant and unavoidable impact. In addition, the new area being added to Copper River Ranch by the proposed Project was designated for development in the City of Fresno General Plan and was addressed in the air quality analysis in the General Plan Master Environmental Impact Report (MEIR). In addition, proposed changes in land use designation within the adopted Copper River Ranch plan area reflect reduced development densities which produce less air quality impacts than would occur if developed at the existing designations.

Compliance with Applicable Control Measures

The AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. A description of rules and regulations that apply to this Project is provided below.

SJVAPCD Rule 9510—Indirect Source Review (ISR) is a control measure in the 2006 PM₁₀ Plan that requires NO_x and PM₁₀ emission reductions from development projects in the San Joaquin Valley. The NO_x emission reductions help reduce the secondary formation of PM₁₀ in the atmosphere (primarily ammonium nitrate and ammonium sulfate) and also reduce the formation of ozone. Reductions in directly emitted PM₁₀ reduce particles such as dust, soot, and aerosols. Rule 9510 is also a control measure in the 2016 Plan for the 2008 8-Hour Ozone Standard. Developers of projects subject to Rule 9510 must reduce emissions occurring during construction and operational phases through on-site measures, or pay off-site mitigation fees. The Project is required to comply with Rule 9510.

Regulation VIII—Fugitive PM₁₀ Prohibitions is a control measure that is one main strategies from the 2006 PM₁₀ for reducing the PM₁₀ emissions that are part of fugitive dust. Residential projects over 10 acres and non-residential projects over 5 acres are required to file a Dust Control

Plan (DCP) containing dust control practices sufficient to comply with Regulation VIII. The Project is required to prepare a DCP to comply with Regulation VIII.

Other control measures that apply to the project are Rule 4641—Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operation that requires reductions in VOC emissions during paving and Rule 4601—Architectural Coatings that limits the VOC content of all types of paints and coatings sold in the San Joaquin Valley. These measures apply at the point of sale of the asphalt and the coatings, so Project compliance is ensured without additional mitigation measures.

The Project would comply with all applicable SJVAPCD rules and regulations. Therefore, the Project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan.

Conclusion

The Project's emissions are significant for ROG, NO_x, CO, and PM₁₀ and would be considered inconsistent with the AQP for this criterion. The Project complies with applicable control measures of the AQP and would be less than significant for this criterion. The growth accommodated by Copper River Ranch is included in the General Plan and therefore it is consistent with the land use assumptions used to prepare the AQP. A substantial portion of the undeveloped area in Copper River Ranch is fully entitled by the City so no additional mitigation can be imposed on those individual projects. Copper River Ranch includes numerous design features to reduce motor vehicle trips and increase walking, bicycling, and transit use. In addition, all projects are required to comply with Rule 9510, which is intended to mitigate the cumulative impacts of new development in the San Joaquin Valley to the extent feasible. However, after compliance with Rule 9510, emissions will still exceed the SJVAPCD quantitative thresholds of significance. Mitigation measure AIR-1 will reduce impacts; however, impacts are still considered *significant and unavoidable*.

Mitigation Measures

AIR-1 The air quality mitigation measures adopted in the Copper River Ranch 2003 FEIR shall apply to new projects within the plan area, except for those measures that have been superseded by more stringent regulations or are part of City of Fresno Development Code.

Impact 3.3-2: *Would the project 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?*

Significant and Unavoidable Impact. To result in a less than significant impact, the following criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the SJVAPCD's regional significance thresholds. This is an approach recommended by the SJVAPCD in its GAMAQI.
2. Summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

Regional Emissions

Air pollutant emissions have both regional and localized effects. This analysis assesses the regional effects of the project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the Project. Localized emissions from project construction and operation are assessed under Impact 3.3-3— Sensitive Receptors using concentration-based thresholds that determine if the project would result in a localized exceedance of any ambient air quality standards or would make a cumulatively considerable contribution to an existing exceedance.

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

Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_x emissions in the presence of sunlight. Therefore, ROG and NO_x are termed ozone precursors. The Air Basin often exceeds the state and national ozone standards. Therefore, if the project emits a substantial quantity of ozone precursors, the project may contribute to an exceedance of the ozone standard. The Air Basin also exceeds air quality

standards for PM₁₀, and PM_{2.5}; therefore, substantial project emissions may contribute to an exceedance for these pollutants. The SJVAPCD’s annual emission significance thresholds used for the project define the substantial contribution for both operational and construction emissions as follows:

- 100 tons per year CO
- 10 tons per year NO_x
- 10 tons per year ROG
- 27 tons per year SO_x
- 15 tons per year PM₁₀
- 15 tons per year PM_{2.5}

The Project does not contain sources that would produce substantial quantities of SO₂ emissions during construction and operation. Modeling conducted for the project show that SO₂ emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in Appendix B. No further analysis of SO₂ is required.

Construction Emissions

Construction emissions were modeled using the CalEEMod version 2016.3.2. The results of the modeling are presented in **Error! Reference source not found.** Construction emissions were assumed to occur at a steady rate through project buildout and were modeled in a single run. CalEEMod assumes that site preparation and grading would occur at the beginning of construction and architectural coatings would occur at the end of construction. For large plan areas, individual residential tracts and commercial projects are constructed gradually with the various construction activities happening at any time within the buildout period. Therefore, the annual average construction emissions were calculated for comparison to the annual threshold of significance. The emissions reflect compliance with SJVAPCD regulations that apply to construction activities. For assumptions in estimating the emissions, please refer to Appendix B. As shown in **Error! Reference source not found.**, the emissions are below the SJVAPCD significance thresholds. Therefore, the emissions would be less than significant on a Project basis.

**Table 3.3-5
Construction Air Pollutant Emissions Summary²⁴**

²⁴ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 79.

Year	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Residential Construction					
2021	0.48	5.04	3.09	1.07	0.59
2022	0.52	4.98	4.19	0.83	0.40
2023	1.18	8.60	10.01	1.59	0.63
2024	1.11	8.23	9.80	1.57	0.60
2025	1.03	7.76	9.50	1.53	0.56
2026	13.03	3.49	4.83	0.58	0.24
Total	17.35	38.10	41.42	7.17	3.01
Average Annual Construction Emissions (5 years or 60 months)	3.47	7.62	8.28	1.43	0.60
Commercial Construction					
2021	0.05	0.49	0.31	0.11	0.06
2022	0.27	2.59	1.87	0.52	0.17
2023	0.27	2.35	1.89	0.59	0.18
2024	0.26	2.31	1.80	0.60	0.18
2025	0.24	2.25	1.70	0.59	0.17
2026	0.23	2.23	1.63	0.59	0.17
2027	0.22	2.21	1.56	0.59	0.17
2028	0.85	0.97	0.80	0.26	0.08
Total	2.41	15.40	11.54	3.85	1.19
Average Annual Construction Emissions (7 years or 84 months)	0.34	2.20	1.65	0.55	0.17
Combined Project Annual Average Construction Emissions					
Annual Average	3.81	9.82	9.93	1.98	0.26

Year	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Annual Average with Rule 9510 ISR Compliance	3.81	7.86	9.93	1.97	0.26
Significance threshold (tons/year)	10	10	100	15	15
Exceed threshold—significant impact?	No	No	No	No	No
Notes: PM ₁₀ and PM _{2.5} emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM ₁₀ Prohibitions. ROG = reactive organic gases NO _x = nitrogen oxides PM ₁₀ and PM _{2.5} = particulate matter Calculations use unrounded numbers. Source: CalEEMod output (Appendix B).					

Operational Emissions

Operational emissions occur over the lifetime of the Project and are from two main sources: area sources and motor vehicles, or mobile sources. Project buildout for residential is assumed to occur in 2026 and in 2028 for the commercial portions of the Project. The SJVAPCD considers construction and operational emissions separately when making significance determinations. For assumptions in estimating the emissions, please refer to Appendix B. The emissions modeling results for Project operation are summarized in **Error! Reference source not found.**

As shown in **Error! Reference source not found.**, the operational emissions exceed the SJVAPCD thresholds for ROG, NO_x, CO, and PM₁₀ after compliance with Rule 9510. The emissions shown in Table 3.3-6 for the residential and commercial portions of the Project include credit for compliance with regulations and Project design features that would reduce Project emissions. The combined Project emissions show the unmitigated emissions before and after compliance with Rule 9510 which applies to the unmitigated baseline. Project operational emissions would result in a significant impact.

**Table 3.3-6
Operational Air Pollutant Emissions at Buildout²⁵**

Emission Sources	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Residential (with design features)					
Area	13.16	0.96	15.88	0.15	0.15
Energy	0.23	1.94	0.82	0.16	0.16
Mobile	4.20	13.74	44.35	17.77	4.83
Total	17.60	16.64	61.05	18.07	5.13
Commercial (with design features)					
Area	0.85	0.00	0.00	0.00	0.00
Energy	0.02	0.15	0.13	0.01	0.01
Mobile	2.09	2.05	14.26	5.03	1.36

²⁵ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 81.

Emission Sources	Emissions (tons per year)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Total	2.96	2.21	14.39	5.04	1.38
Combined Project Residential and Commercial (Unmitigated)					
Area	18.05	1.55	51.99	6.04	6.04
Energy	0.26	2.21	1.00	0.18	0.18
Mobile	6.45	16.67	63.71	25.60	6.96
Total Project Emissions	24.76	20.43	116.70	31.82	13.18
Total with Rule 9510 ISR Compliance	24.76	13.62	116.70	15.91	13.18
Significance threshold	10	10	100	15	15
Exceed threshold—significant impact?	Yes	Yes	Yes	Yes	No
<p>Notes:</p> <p>ROG = reactive organic gases NO_x = nitrogen oxides PM₁₀ and PM_{2.5} = particulate matter</p> <p>Area source emissions include emissions from natural gas, landscape, and painting. Rule 9510 compliance is based on a reduction prior to credits for design features and mitigation measures.</p> <p>Source: CalEEMod output (Appendix B).</p>					

Step 2: Plan Approach

Section 15130(b) of the CEQA Guidelines states the following:

The following elements are necessary to an adequate discussion of significant cumulative impacts: 1) Either: (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact.

In accordance with CEQA Guidelines 15130(b), this analysis of cumulative impacts is based on a summary of projections analysis. The SJVAPCD attainment plans are based on a summary of projections that accounts for projected growth throughout the Air Basin, and the controls needed to achieve ambient air quality standards. This analysis considers the current CEQA Guidelines, which includes the amendments approved by the Natural Resources Agency, effective on December 28, 2018. The Air Basin is in nonattainment or maintenance status for ozone and particulate matter (PM₁₀ and PM_{2.5}), which means that concentrations of those pollutants currently exceed the ambient air quality standards for those pollutants, or that the standards have recently been attained in the case of pollutants with maintenance status. When concentrations of ozone, PM₁₀, or PM_{2.5} exceed the ambient air quality standard, then those sensitive to air pollution (such as children, the elderly, and the infirm) could experience health effects such as: decrease of pulmonary function and localized lung edema in humans and animals; increased mortality risk; and risk to public health, implied by altered connective tissue metabolism, altered pulmonary morphology in animals after long-term exposures, and pulmonary function decrements in chronically exposed humans. See Appendix B for additional correlation of the health impacts with the existing pollutant concentrations experienced in the Fresno area.

Under the CEQA Guidelines, cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The geographic scope for cumulative criteria pollution from air quality impacts is the Air Basin, because that is the area in which the air pollutants generated by the sources within the Air Basin circulate and are often trapped. The SJVAPCD is required to prepare and maintain air quality attainment plans and a State Implementation Plan to document the strategies and measures to be undertaken to reach attainment of ambient air quality standards. While the SJVAPCD does not have authority over land use decisions, it is recognized that changes in land use and circulation planning would help the Air Basin achieve clean air mandates. The SJVAPCD evaluated emissions from land uses and transportation in the entire Air Basin when it developed its attainment plans. Emission inventories used to predict attainment of NAAQS must be based on the latest planning assumptions for mobile sources.

In accordance with CEQA Guidelines Section 15064, subdivision (h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously approved plan or mitigation program.

The history and development of the SJVAPCD's current Ozone Attainment Plan is described in Appendix B. The 2007 8-Hour Ozone Plan contains measures to achieve reductions in emissions of ozone precursors, and sets plans towards attainment of ambient ozone standards by 2023. The 2012 PM_{2.5} Plan and the 2015 PM_{2.5} Plan for the 1997 PM_{2.5} Standard require fewer NO_x reductions to attain the PM_{2.5} standard than the Ozone Plan, so the Ozone Plan is considered the applicable plan for reductions of the ozone precursors NO_x and ROG. The 2012 PM_{2.5} Plan requires reductions in directly emitted PM_{2.5} from combustion sources, such as diesel engines and fireplaces, and from fugitive dust to attain the ambient standard and is the applicable plan for PM_{2.5} emissions. PM_{2.5} is also formed in secondary reactions in the atmosphere involving NO_x and ammonia to form nitrate particles. Reductions in NO_x required for ozone attainment are also sufficient for PM_{2.5} attainment. As discussed in Impact 3.3-1, the Project is consistent with all applicable control measures in the air quality attainment plans. The Project would comply with any SJVAPCD rules and regulations that may pertain to implementation of the AQPs. Therefore, impacts would be less than significant with regard to compliance with applicable rules and regulations.

In conclusion, the growth resulting from the Project is accounted for in the General Plan and the applicable AQP, the Project will comply with applicable rules and regulations implementing the AQP; however, the Project exceeds SJVAPCD thresholds for ROG, NO_x, CO, and PM₁₀ after compliance with Rule 9510; therefore, the Project is considered significant for this criterion.

Project Health Impacts

In the 5th District Court of Appeal case *Sierra Club v. County of Fresno (Friant Ranch, L.P.)*, the Court found the project EIR deficient because it did not identify specific health-related effects resulting from the estimated amount of pollutants generated by the project. The ruling stated that the EIR should give a "sense of the nature and magnitude of the 'health and safety problems' caused by a project's air pollution. The EIR should translate the emission numbers into adverse impacts or to understand why such translation is not possible at this time (and what limited translation is, in fact, possible)."

The standard measure of the severity of impact is the concentration of pollutant in the atmosphere compared to the ambient air quality standard for the pollutant for a specified period of time. The

severity of the impact increases with the concentration and the amount of time that people are exposed to the pollutant. The change in health impacts with concentration is described in

Table **3.3-2** and

Table using the EPA's Air Quality Index. The pollutants of concern in the Friant Ranch ruling were regional criteria pollutants ozone, and PM₁₀. It is important to note that the potential for localized impacts can be addressed through dispersion modeling. The SJVAPCD includes screening criteria that if exceeded would require dispersion modeling to determine if project emissions would result in a significant health impact. For this Project, no significant localized health impacts would occur. Regional pollutants require more complex modeling as described below.

Ozone concentrations are estimated using regional photochemical models because ozone formation is subject to temperature, inversion strength, sunlight, emissions transport over long distances, dispersion, and the regional nature of the precursor emissions. The emissions from individual projects are too small to produce a measurable change in ozone concentrations—it is the cumulative contribution of emissions from existing and new development that is accounted for in the photochemical model. Ozone concentrations vary widely throughout the day and year even with the same amount of daily emissions. The SJVAPCD indicated in an Amicus Brief on Friant Ranch that running the photochemical model with just Friant Ranch emissions (109.5 tons/year NO_x) is not likely to yield valid information given the relative scale involved. A copy of the SJVAPCD brief is included in Appendix B of Appendix B. The NO_x inventory for the San Joaquin Valley is 224 tons per day in 2019 or 81,760 tons per year. Friant Ranch would result in 0.13 percent increase in NO_x emissions. A project emitting at the SJVAPCD CEQA threshold of 10 tons per year would result in a 0.01 percent increase in NO_x emissions. Project NO_x emissions are 13.2 tons per year, so would result in a 0.016 percent increase in NO_x. Most Project emissions are generated by motor vehicle travel distributed on regional roadways miles from the Project site, and these emissions are not conducive to project-level concentration-based modeling.

Emissions throughout the San Joaquin Valley are projected to markedly decline in the coming decade. The SJVAPCD 2016 Ozone Plan predicts NO_x emissions will decline to 103 tons per day by 2029 or 54 percent from 2019 levels through implementation of control measures included in the plan. This means that ozone health impacts to residents of the San Joaquin Valley will be lower than currently experienced and most areas of the San Joaquin Valley will have attained ozone air quality standards. The plan accounts for growth in population at rates projected by the State of California for the San Joaquin Valley, so only cumulative projects that would exceed regional growth projections would potentially delay attainment and prolong the time and the

number of people would experience health impacts. It is unlikely that anyone would experience greater impacts from regional emissions than currently occur. The federal transportation conformity regulation provides a means of ensuring growth in emissions does not exceed emission budgets for each County. Regional Transportation Plans and Regional Transportation Improvement Plans must provide a conformity analysis based on the latest planning assumptions that demonstrates that budgets will be not be exceeded. If budgets are exceeded, the San Joaquin Valley may be subject to Clean Air Act sanctions until the deficiency is addressed.

Particulate emission impacts can be localized and regional. Particulates can be directly emitted and can be formed in the atmosphere with chemical reactions. Small directly emitted particles such as diesel emissions and other combustion emissions can remain in the atmosphere for a long time and can be transported over long distances. Large particles such as fugitive dust tend to be deposited a short distance from where emitted but can also travel long distances during periods of high winds. Particulates can be washed out of the atmosphere by rain and deposited on surfaces. Secondary particulates formed in the atmosphere such as ammonium nitrate require NO_x and ammonia, and they require low inversion levels and certain ranges of temperature and humidity to result in substantial concentrations. These complications make modeling project particulate emissions to determine concentration feasible only for directly emitted particles at receptor locations close to the project site. Regional particulate concentrations are modeled using a gridded inventory (emissions in tons/day are placed a 4-kilometer, three-dimensional grid to spatially allocate the emissions geographically and vertically in the atmosphere) and an atmospheric chemistry component to simulate the chemical reactions. The model uses relative reduction factors to determine the reductions of each PM component that will be needed to attain the air quality standards on the days with the conditions most favorable to high particulate concentrations. A small project would not produce sufficient emissions to determine a project's individual contribution to the particulate concentration.

Step 3: Cumulative Health Impacts

The Air Basin is in nonattainment for ozone, PM_{10} (State only), and $\text{PM}_{2.5}$, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects that were described in Appendix B. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in the severity and nature

of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects. Error! Reference source not found.,

Table 3.3-2.3-2, and

Table relate the pollutant concentration experienced by residents using air quality data for the nearest air monitoring station to the health impacts ascribed to those concentrations by the EPA Air Quality Index. This provides a more detailed look at the actual impacts currently experienced by area residents.

Since the Basin is nonattainment for ozone, PM₁₀, and PM_{2.5}, it is considered to have an existing significant cumulative health impact without the project. When this occurs, the analysis considers whether the project's contribution to the existing violation of air quality standards is cumulatively considerable. The SJVAPCD regional thresholds for NO_x, VOC, PM₁₀, or PM_{2.5} are applied as cumulative contribution thresholds. Projects that exceed the regional thresholds would have a cumulatively considerable health impact. As shown in **Error! Reference source not found.** 3.3-5 and **Error! Reference source not found.**, the regional analysis of construction and operational emissions indicates that the Project would exceed the SJVAPCD's significance thresholds for operational emissions. Therefore, the Project would be considered to have a significant health impact based on this criterion. However, the Project is considered less than significant for the other criteria related to consistency with the Air Quality Plan.

The SJVAPCD Air Quality Attainment Plans predict that nonattainment pollutant emissions will continue to decline each year as regulations adopted to reduce these emissions are implemented, accounting for growth projected for the region. Therefore, the cumulative health impact will also decline even with the Project's emission contribution.

Conclusion

The Project's operational emissions exceed SJVAPCD regional criteria pollutant thresholds for ROG, NO_x, CO, and PM₁₀; therefore, this is considered a significant impact. The Draft Environmental Impact Report (DEIR) for Copper River Ranch includes a mitigation measure to reduce air quality impacts that will continue to apply to individual projects within the plan area, but found the impacts to be significant and unavoidable after mitigation. Since the Final EIR was certified in 2003, the City of Fresno General Plan was updated in 2014 and a Master Environmental Impact Report (MEIR) was prepared that included Copper River Ranch and the expanded plan area included in the current project. The MEIR identified General Plan policies that would reduce significant air quality impacts to the extent feasible and found regional air

quality impacts to be significant and unavoidable. The mitigation measure for regional emission impacts from the DEIR is provided below:

1. The developer shall be responsible for the following measures to be included as a condition of approval on each conditional use permit; tentative tract map, or site plan:
 - a. Pedestrian enhancing infrastructure shall be provided and include: sidewalks and pedestrian paths; street trees to shade sidewalks; pedestrian safety designs/infrastructure; street furniture; street lighting; and pedestrian signalization and signage.
 - b. Bicycle enhancing infrastructure shall be provided and include: bikeways/paths connecting to a bikeway system; and secure bicycle parking.
 - c. The project shall either contract with Fresno Area Express (FAX) through the City to provide transit services within the project area, or provide an on-site transit service to off-site FAX transit stations/multimodal centers.
 - d. Transit-enhancing infrastructure shall be provided and include: transit shelters, benches, etc.; street lighting; route signs and displays; and/or bus turnouts/bulbs.
 - e. Park and ride lots and/or satellite telecommuting centers shall be provided in the project area.
 - f. Carpool/Vanpool programs shall be implemented, e.g., carpool, ridematching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.
 - g. On-site shops and services for employees, such as cafeteria, bank/ATM, dry cleaners, convenience market, etc. shall be provided within commercial and office areas.
 - h. A Transportation Demand Management Program shall be established and include: transit, bicycle, pedestrian, traffic flow improvements, transportation system management, rideshare, telecommuting, video conferencing, and other measures to reduce peak hour vehicle trips.
2. Future construction plans for residential, commercial, office, and public uses shall include:
 - a. Solar or low-emission water heaters.
 - b. Central water heating systems in commercial areas.

- c. Open-hearth fireplaces shall require use of natural gas or installation of low-emissions, EPA-certified fireplace inserts.

The proposed Project incorporates design features that reduce air quality impacts as required by the mitigation measures. In addition, regulations adopted by the SJVAPCD and the State of California since the DEIR was prepared, provide emission reductions that meet or exceed the requirements of the mitigation measures included in the DEIR and relevant General Plan policies. For example, Rule 9510 ISR, adopted in 2006, requires the project to reduce operational NOx emissions by 30 percent and PM₁₀ emissions by 50 percent through the implementation of design features or payment of off-site mitigation fees. Rule 4901 regulates the installation of wood burning devices in project residences. Rule 9401 Employee Trip Reduction requires large employers to prepare plans to reduce employee trips with measures listed in the mitigation measure, among others. Title 24 Building Energy Efficiency Standards are updated every three years and now require energy efficiency measures much more stringent than envisioned at the time the DEIR was prepared. Solar panels are now required for residential projects under 2019 Title 24. The existing development in Copper River Ranch and new development in the proposed project include bicycle, pedestrian, and transit infrastructure as required by the mitigation measure.

SJVAPCD comments on the NOP recommended that if the Project is expected to have a significant impact, the SEIR should include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for the project. A VERA is an off-site mitigation program funded with mitigation fees managed by the SJVAPCD. A VERA is not feasible for this Project for the following reasons:

1. Copper River Ranch was subject to an EIR that identified significant and unavoidable air quality impacts and included all feasible mitigation measures and a Statement of Overriding Circumstances (SOC), so no additional mitigation measures can be imposed on the developed or entitled (but undeveloped) portions of the current plan area.
2. Undeveloped portions of current plan area with vested land use entitlements in place are not subject to additional mitigation measures or conditions of approval. A substantial portion of the emissions that that resulted in the project exceeding the threshold of significance are from fully entitled residential and commercial projects.
3. New project areas being added to Copper River Ranch have existing land use designations that were included in the City of Fresno General Plan and covered by an SOC for air quality impacts by the General Plan MEIR. Under this circumstance, the

projects within new areas must only demonstrate consistency with the General Plan and comply with conditions applied to the Tentative Tract Maps and commercial site plans for individual projects and with applicable regulations. If the project is not approved, development projects could proceed on an individual project basis without any additional requirements beyond compliance with Rule 9510 ISR.

4. Requiring additional mitigation for only a portion of the project site would create an unfair burden to individual projects within the plan area that have not fully completed the entitlement process. The burden of administering a VERA for only a portion of the site over a seven-year buildout would be excessive compared to the air quality benefits.
5. VERAs are open ended agreements with no cap on potential costs to the developer. The SJVAPCD reserves the option to increase mitigation fees if the cost of emission reduction projects increase by the time development occurs and the fees are paid. Paying the fees early to lock in the cost is not feasible for most developers. This places uncertainty on the future feasibility and cost of the projects.

Based on this information, a VERA should not be considered a feasible mitigation measure for this Project. However, the Project should continue to implement the mitigation measures included in the 2003 Copper River Ranch DEIR that have not been superseded by more stringent regulations and standards. Mitigation Measure AIR-1 will reduce impacts; however, those impacts remain *significant and unavoidable*.

Mitigation Measures

AIR-1 The air quality mitigation measures adopted in the Copper River Ranch 2003 FEIR shall apply to new projects within the plan area, except for those measures that have been superseded by more stringent regulations or are part of City of Fresno Development Code.

Impact 3.3-3: *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Less Than Significant Impact.

Sensitive Receptors

Those who are sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. The SJVAPCD considers a sensitive receptor a

location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools. The closest off-site sensitive receptors are existing residences located adjacent to the project site to the south across East Copper Avenue. Development will occur at multiple locations within Copper River Ranch where residences already exist. New and existing residential development within the project area would be considered sensitive receptors once occupied.

Off-site Sensitive Receptors

Impacts to receptors located outside the Project boundaries would occur during Project construction and operation. Construction emissions are assumed to commence with the year 2021 and continue until Project buildout in 2028. The highest emissions are expected to occur during the site preparation and grading activities and to a lesser extent during ground up construction. The buildout of Copper River Ranch will occur on a project-by-project basis over a wide area. The maximum impact from each individual subdivision or commercial development would occur at sensitive receptor locations closest to construction sites. Therefore, the largest individual projects remaining to be constructed in the project area were assessed to determine the maximum daily emissions compared to SJVAPCD localized emission thresholds. As shown in **Error! Reference source not found.** and **Error! Reference source not found.**, emissions generated from construction and operation of the largest residential and commercial projects would be less than SJVAPCD screening criteria. Therefore, this impact would be less than significant.

On-site Sensitive Receptors

The Project is not a significant source of TAC emissions. Construction activities produce short-term emissions that would not contribute substantially to cancer risk, which is estimated on a 70-year exposure period. The neighborhood commercial uses produce TAC emissions from diesel delivery trucks, but not in significant amounts.

Construction: ROG

ROG is emitted during the application of architectural coatings (painting). The amount emitted is dependent on the amount of ROG (or VOC) in the paint. ROG emissions are typically an indoor air quality health hazard concern rather than an outdoor air quality health hazard concern. Therefore, exposure to ROG during architectural coatings is a less than significant health impact.

There are three types of asphalt that are typically used in paving: asphalt cements, cutback asphalts, and emulsified asphalts. However, SJVAPCD Rule 4641 prohibits the use of the following types of asphalt: rapid cure cutback asphalt; medium cure cutback asphalt; slow cure asphalt that contains more than one-half (0.5) percent of organic compounds that evaporate at 500 degrees Fahrenheit (°F) or lower; and emulsified asphalt containing organic compounds, in excess of 3 percent by volume, that evaporate at 500°F or lower. An exception to this is medium cure asphalt when the National Weather Service official forecast of the high temperature for the 24-hour period following application is below 50°F.

The acute (short-term) health effects from worker direct exposure to asphalt fumes include irritation of the eyes, nose, and throat. Other effects include respiratory tract symptoms and pulmonary function changes. The studies were based on occupational exposure of fumes. Residents are not in the immediate vicinity of the fumes; therefore, they would not be subjected to concentrations high enough to evoke a negative response. In addition, the restrictions that are placed on asphalt in the San Joaquin Valley reduce ROG emissions from asphalt and exposure. The impact to nearby sensitive receptors from ROG during construction would be less than significant.

Localized Pollutant Screening Analysis

Emissions occurring at or near the Project have the potential to create a localized impact, also referred to as an air pollutant hotspot. Localized emissions are considered significant if, when combined with background emissions, they would result in exceedance of any health-based air quality standard. The impact from localized pollutants is based on the impact to the nearest sensitive receptor. Copper River Ranch covers a large area with individual projects that are widely separated from one another and would be constructed over at least five years for residential development and seven years for commercial projects. All individual projects will be adjacent to existing and planned sensitive receptor locations where the maximum localized impact would occur. Therefore, only the largest individual projects with Copper River Ranch were modeled to identify the worst-case, since other smaller projects would produce lower emissions and impacts to nearby sensitive receptors.

The SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an ambient air quality analysis. The criteria pollutants of concern for localized impact in the SJVAB are PM₁₀, PM_{2.5}, NO_x, and CO. There is no

localized emission standard for ROG and most types of ROG are not toxic and have no health-based standard; however, ROG was included for informational purposes only.

The highest daily emissions occur during project grading activities except for ROG emissions, which are highest during application of architectural coatings. The results of the construction screening analysis are presented in **Error! Reference source not found.** The largest remaining tract map (Tract 6269) and largest commercial project (Copper/Willow Shopping Center) were modeled to determine the maximum daily impact. The sequence and location of development within Copper River Ranch is subject to market forces; therefore, construction was assumed to begin early in the buildout process as a conservative assumption. Project maximum daily construction emissions would be less than the screening threshold for all pollutants; therefore, no additional analysis is required for localized criteria pollutant impacts.

**Table 3.3-7
Maximum Daily Air Pollutant Emissions During Construction²⁶**

Maximum Daily Emissions by Year	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Residential Project (Tract 6269)					
2022	7.33	77.73	58.62	16.33	9.91
2023	73.75	33.73	38.37	2.55	1.71
Maximum Daily Construction Emissions any Year	73.75	77.73	58.62	16.33	9.91
Screening Thresholds	100	100	100	100	100
Exceeds Threshold (Yes or No)	No	No	No	No	No
2022	3.71	38.88	29.58	9.89	5.99
2023	36.86	22.41	22.92	3.21	1.35
Residential Project (Tract 6269)					
Maximum Daily Construction Emissions any Year	36.86	38.88	29.58	9.89	5.99

²⁶ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 89.

Maximum Daily Emissions by Year	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Screening Thresholds	100	100	100	100	100
Exceeds Threshold (Yes or No)	No	No	No	No	No
Notes: NO _x = nitrogen oxides CO = carbon monoxide PM ₁₀ and PM _{2.5} = particulate matter N/A = Not applicable Emissions shown are from the summer model output. There is no ambient air quality standard for ROG. Source: CalEEMod output (Appendix B).					

Maximum Daily Operational Emissions

An analysis of maximum daily emissions during operation was conducted to determine if emissions would exceed 100 pounds per day for any pollutant of concern. The maximum daily operational emissions are assumed to occur at the largest, most intense individual development sites. In this case, the largest residential tract remaining to be developed is Tract 6269 with 276 dwelling units on 39.84 acres, and the largest commercial development is the 9.45-acre shopping center site at Copper Avenue and Willow Avenue. The Projects were modeled with a 2022 operational date, which would constitute a conservative analysis because emissions decline over time as older, high-emitting vehicles are replaced with new low-emitting vehicles compliant with current emission standards. Operational emissions include emissions generated on-site by area sources such as natural gas combustion and landscape maintenance, and off-site by motor vehicles accessing the project. Most motor vehicle emissions would occur distant from the site and would not contribute to a violation of ambient air quality standards; therefore, only emissions from vehicles operating within 0.5 mile of the site were included in the assessment. The results of the screening analysis are presented in **Error! Reference source not found.**

**Table 3.3-8
Maximum Daily Air Pollutant Emissions during Operations²⁷**

²⁷ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 90.

Maximum Daily Emissions per Source Category	Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Residential Project (Tract 6269)					
Area	12.72	2.78	23.87	0.33	0.33
Energy	0.20	1.71	0.73	0.14	0.14
Mobile	0.40	1.06	3.64	1.02	0.28
Total	13.32	5.56	28.24	1.49	0.75
Screening threshold	100	100	100	100	100
Exceed screening threshold?	No	No	No	No	No
Commercial Project (Copper/Willow Shopping Center)					
Area	2.26	0.00	0.01	0.00	0.00
Energy	0.04	0.37	0.31	0.03	0.03
Mobile	0.83	0.83	4.60	1.04	0.28
Total	3.13	1.21	4.92	1.07	0.31
Screening threshold	100	100	100	100	100
Exceed screening threshold?	No	No	No	No	No
Notes: NO _x = nitrogen oxides CO = carbon monoxide PM ₁₀ and PM _{2.5} = particulate matter N/A = Not applicable Emissions shown are from the summer model output. There is no ambient air quality standard for ROG. Source: CalEEMod output (Appendix B).					

The Project would not exceed SJVAPCD screening thresholds for localized operational criteria pollutant impacts; therefore, the Project’s localized criteria pollutant impacts would be less than significant.

Operation: ROG

During operation, ROG would be emitted primarily from motor vehicles. Direct exposure to ROG from project motor vehicles would not result in health effects, because the ROG would be distributed across miles and miles of roadway and in the air. The concentrations would not be great enough to result in direct health effects.

Operation: PM₁₀, PM_{2.5}, CO, NO₂

As shown in **Error! Reference source not found.**, localized emissions of PM₁₀, PM_{2.5}, CO, and NO₂ would not exceed the SJVAPCD screening thresholds at full project buildout. Residential development is an insignificant source of these pollutants, except for projects that allow woodburning devices that emit PM₁₀, PM_{2.5} in wood smoke. The project will include only natural gas-fueled fireplaces and inserts that are insignificant sources of PM_{2.5} and PM₁₀. The largest source of emissions from commercial projects is motor vehicles. Most motor vehicle emissions occur when employee and customer vehicles travel to and from the project site and not during parking and idling on the site. The localized emissions would not exceed the screening threshold; the project would not expose sensitive receptors located near the commercial site to substantial criteria air pollutant concentrations during operation.

Carbon Monoxide Hot Spot Analysis

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of intersections in the project vicinity.

Project construction would result in minor increases in traffic for the surrounding road network during the duration of construction. Motor vehicles accessing the site when it becomes operational would result in a minor increase in daily trips that would not substantially reduce the LOS on roads serving the site. The highest background 8-hour average CO concentration during the latest year it was monitored is 2.06 ppm, which is 78 percent lower than the CAAQS of 9.0 ppm or the NAAQS of 9 ppm.

A sensitivity analysis using the CALINE4 CO Hotspot model was run for the General Plan MEIR to determine the volume of trips that would be required to exceed the most stringent CO standard. At triple the predicted peak for General Plan buildout of 36,000 peak-hour trips, the hourly concentration was 7.5 ppm and an 8-hour concentration of 6.0 ppm. Based on this analysis, it is extremely unlikely that a CO hotspot will occur in the Plan Area. CO emissions are predicted to continue to decline as old vehicles are retired and new cleaner motor vehicles take their place. Therefore, no CO hotspot modeling is required for new projects during General Plan Buildout

unless intersection volumes exceed 36,000 peak-hour trips, which is not projected to occur with the Project.

Construction: Toxic Air Contaminants

Project construction would involve the use of diesel-fueled vehicles and equipment that emit DPM, which is considered a TAC. The SJVAPCD's latest threshold of significance for TAC emissions is an increase in cancer risk for the maximally exposed individual of 20 in a million (formerly 10 in a million). The SJVAPCD's 2015 GAMAQI does not currently recommend analysis of TAC emissions from project construction activities, but instead focuses on projects with operational emissions that would expose sensitive receptors over a typical lifetime of 70 years. Residential and neighborhood commercial projects produce limited amounts of TAC emissions during operation and thus have not been subject to project TAC analysis. Most emissions from construction activities occur during the grading and site preparation phases that occur over the first three months of construction and do not overlap with project operations. Limited amounts of diesel equipment are used during ground-up construction of individual houses that occurs during the majority of the construction schedule when some units may be occupied. Construction equipment fleet operators are subject to ARB's In Use Offroad Equipment Fleet Regulation, which requires the use of increasing amounts of lower-emitting equipment that will help to ensure that risk would not exceed SJVAPCD thresholds.

Construction phase risks would be considered acute health risks as opposed to cancer risks, which are long-term. OEHHA has yet to define acute risk factors for diesel particulates that would allow the calculation of a hazards risk index; thus, evaluation of this impact would be speculative and no further discussion is necessary.

Operation: Toxic Air Contaminants

The ARB Air Quality and Land Use Handbook contains recommendations that will "help keep California's children and other vulnerable populations out of harm's way with respect to nearby sources of air pollution"²⁸, including recommendations for distances between sensitive receptors and certain land uses. In the *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) (Case No. S213478) the California Supreme Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project

²⁸ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 92.

risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project’s impact on the environment—and not the environment’s impact on the project—that compels an evaluation of how future residents or users could be affected by exacerbated conditions.” Although the Court ruled that impacts from the existing environment on projects are not required to be addressed under CEQA, land uses such as gasoline stations, dry cleaners, distribution centers, and auto body shops can expose residents to high levels of TAC emissions if they are close to the project site. Information regarding the location of existing TAC sources is provided for disclosure purposes only and not as a measure of the project’s significance under CEQA.

Consistency with these recommendations is assessed as follows:

- Heavily traveled roads. ARB recommends avoiding new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. Epidemiological studies indicate that the distance from the roadway and truck traffic densities were key factors in the correlation of health effects, particularly in children. The project is located on the north side of East Copper Avenue between North Friant Road and North Willow Avenue. Traffic volume on East Copper Avenue west of North Millbrook Avenue was 12,870 trips per day in 2019. Traffic volume on North Friant Road south of Copper Avenue was 28,553 trips per day in 2019. No roads serving the project would exceed this criterion.²⁹
- Distribution centers. ARB also recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center. The project is not located within 1,000 feet of a distribution center.
- Fueling stations. ARB recommends avoiding new sensitive land uses within 300 feet of a large fueling station (a facility with a throughput of 3.6 million gallons per year or greater). ARB recommends a 50-foot separation is recommended for typical gas dispensing facilities. The nearest gas station is located at 10091 N. Maple Avenue, approximately 1.2 miles south of the project site. The project is expected to have three gas stations at buildout. The gas stations are expected to be small facilities with volumes of 1.0 million gallons per year or less that should be constructed at least 50 feet from the nearest residence. The proposed gas stations at Friant Road and Copper Avenue and Copper

²⁹JLB Traffic Engineering, Inc. 2019. Traffic Impact Analysis – Sunset Center. Dated December 5, 2019.

Avenue and Maple Avenue are over 50 feet from the nearest residence. No site plan has been prepared for the shopping center site located at Copper Avenue and Willow Avenue.

- Dry cleaning operations. ARB recommends avoiding siting new sensitive land uses within 300 feet of any dry-cleaning operation that uses perchloroethylene. For operations with two or more machines, ARB recommends a buffer of 500 feet. For operations with three or more machines, ARB recommends consultation with the local air district. The nearest dry-cleaning operation is approximately 1.2 miles south of the project site at 10083 N. Maple Avenue. The commercial sites could attract dry cleaners as tenants, but this would be speculative. In the event that dry cleaners are located in the project, facilities with on-site dry cleaning would be subject to SJVAPCD permitting and health risk screening.
- Auto body shops. Auto body shops have the potential to emit TACs related to painting. The nearest auto body shop is located at 427 W. Bedford Avenue approximately 6.0 miles south of the Project site, which is beyond the distance that would result in a measurable impact.

Valley Fever

Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). The spores live in soil and can live for an extended time in harsh environmental conditions. Activities or conditions that increase the amount of fugitive dust contribute to greater exposure, and they include dust storms, grading, and recreational off-road activities.

The San Joaquin Valley is considered an endemic area for Valley fever. During 2000-2018, a total of 65,438 coccidioidomycosis cases were reported in California; median statewide annual incidence was 7.9 per 100,000 population and varied by region from 1.1 in Northern and Eastern California to 90.6 in the Southern San Joaquin Valley, with the largest increase (15-fold) occurring in the Northern San Joaquin Valley. Incidence has been consistently high in six counties in the Southern San Joaquin Valley (Fresno, Kern, Kings, Madera, and Tulare counties) and Central Coast (San Luis Obispo County) regions.³⁰ California experienced 6,490 new cases of Valley fever in 2020. A total of 508 Valley fever cases were reported in Fresno County in 2020.³¹

³⁰ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 94.

³¹ Ibid.

The distribution of *C. immitis* within endemic areas is not uniform and growth sites are commonly small (a few tens of meters) and widely scattered. Known sites appear to have some ecological factors in common suggesting that certain physical, chemical, and biological conditions are more favorable for *C. immitis* growth. Avoidance, when possible, of sites favorable for the occurrence of *C. immitis* is a prudent risk management strategy. Listed below are ecologic factors and sites favorable for the occurrence of *C. immitis*:

- Rodent burrows (often a favorable site for *C. immitis*, perhaps because temperatures are more moderate and humidity higher than on the ground surface)
- Old (prehistoric) Indian campsites near fire pits
- Areas with sparse vegetation and alkaline soils
- Areas with high salinity soils
- Areas adjacent to arroyos (where residual moisture may be available)
- Packrat middens
- Upper 30 centimeters of the soil horizon, especially in virgin undisturbed soils
- Sandy, well-aerated soil with relatively high water-holding capacities

Sites within endemic areas less favorable for the occurrence of *C. immitis* include:

- Cultivated fields
- Heavily vegetated areas (e.g., grassy lawns)
- Higher elevations (above 7,000 feet)
- Areas where commercial fertilizers (e.g., ammonium sulfate) have been applied
- Areas that are continually wet
- Paved (asphalt or concrete) or oiled areas
- Soils containing abundant microorganisms

- Heavily urbanized areas where there is little undisturbed virgin soil.³²

The Project site is situated in a city growth area. The project includes urbanization of a site that is partially developed and previously graded. Therefore, implementation of the project would have a low probability of the site having *C. immitis* growth sites and exposure to the spores from disturbed soil.

Construction activities would generate fugitive dust that could contain *C. immitis* spores. The project will minimize the generation of fugitive dust during construction activities by complying with the SJVAPCD's Regulation VIII. Therefore, this regulation, combined with the relatively low probability of the presence of *C. immitis* spores, would reduce Valley fever impacts to less than significant.

During operations, dust emissions are anticipated to be negligible, because most of the project area would be occupied by buildings, pavement, and landscaped areas. This condition would preclude the possibility of the project from providing habitat suitable for *C. immitis* spores and for generating fugitive dust that may contribute to Valley fever exposure. Impacts would be less than significant.

Naturally Occurring Asbestos

According to a map of areas where naturally occurring asbestos in California are likely to occur,³³ there are no such areas in the project area. Therefore, development of the project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

In summary, the Project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant. The Project is not a significant source of TAC emissions during construction or operation. The Project is not in an area with suitable habitat for Valley fever spores and is not in area known to have naturally occurring asbestos. Therefore, the Project would not result in significant impacts to sensitive receptors. Impacts are *less than significant*.

Mitigation Measures

No mitigation measures are required.

³² Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 94.

³³ Ibid.

Impact 3.3-4: *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Less than Significant Impact. Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor. According to the *CBIA v. BAAQMD* ruling, impacts of existing sources of odors on the project are not subject to CEQA review. Therefore, the analysis to determine if the project would locate new sensitive receptors near an existing source of odor is provided for information only. The SJVAPCD has determined the common land use types that are known to produce odors in the Air Basin. These types are shown in **Error! Reference source not found.9**.

**Table 3.3-9
Screening Levels for Potential Odor Sources³⁴**

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles

³⁴ Air Quality and Greenhouse Gas Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 90.

Odor Generator	Screening Distance
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile

According to the SJVAPCD GAMAQI, analysis of potential odor impacts should be conducted for the following two situations:

- **Generators:** projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, and
- **Receivers:** residential or other sensitive receptor projects or other projects built for the intent of attracting people located near existing odor sources.

Project as a Generator

Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations, composting facilities, feed lots, coffee roasters, asphalt batch plants, and rendering plants. The Project would not engage in any of these activities. Therefore, the Project would not be considered a generator of objectionable odors during operations.

During construction, the various diesel-powered vehicles and equipment in use on-site would create localized odors. These odors would be temporary and would not likely be noticeable for extended periods of time beyond the Project’s site boundaries. The potential for diesel odor impacts would therefore be less than significant.

Project as a Receiver

With the *CBIA v. BAAQMD* ruling, analysis of odor impacts on receivers is not required for CEQA compliance. Therefore, the following analysis is provided for information only.

The residential portion of the development has the potential to place sensitive receptors near existing and new odor sources. However, there are no major odor-generating sources (as listed in **Error! Reference source not found.**9) within screening distance of the site or planned for the commercially designated areas of the plan. Therefore, the uses in the Project vicinity would not result in substantial odor impacts to the Project. Impacts are *less than significant*.

Mitigation Measures

No mitigation measures are required.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to air quality resources. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
2.3.1-a: A Fugitive Dust Prevention and Control Plan shall be developed to specify control methods, demonstrate availability of equipment and personnel, and identify the individual authorized to implement prevention measures. The Plan shall comply with the SJVAPCD	The previous 2003 mitigation measures shall apply to the Project as currently proposed.	The air quality mitigation measures adopted in the Copper River Ranch 2003 FEIR shall apply to new projects within the plan area, except for those measures that have been superseded by more stringent regulations or are part of City of Fresno Development Code. Therefore, Mitigation Measures

<p>Regulation VIII- Fugitive Dust Rules. The Plan shall include the following conditions:</p> <ul style="list-style-type: none"> a. All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover. b. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. c. All land clearing, grubbing, scraping excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing applications of water or by presoaking. d. When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or maintain at least six inches of freeboard space from the top of the container. 		<p>2.3.1-a, 2.3.1-b, 2.3.2-a, and 2.3.2-b continue to be applicable.</p>
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<p>e. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.</p> <p>f. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.</p> <p>g. Traffic speeds on unpaved roads shall be limited to 15 miles per hour.</p> <p>h. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.</p> <p>i. Excavation and grading activity shall be suspended when winds exceed 20 miles per</p>		
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<p>hour.</p>		
<p>2.3.1-b: Construction contracts shall include the following provisions:</p> <ul style="list-style-type: none"> a. All construction equipment shall be properly maintained and operated. b. Alternative-fueled construction equipment shall be used if feasible. c. Hours of operation of heavy-duty equipment shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Saturday. 		
<p>2.3.2-a: The developer shall be responsible for the following measures to be included as a condition of approval on each conditional use permit, tentative tract map, or site plan:</p> <ul style="list-style-type: none"> a. Pedestrian enhancing infrastructure shall be provided and include: sidewalks and pedestrian paths; street trees to shade sidewalks; pedestrian safety designs/infrastructure; street furniture; street lighting; and 		

<p>pedestrian signalization and signage.</p> <p>b. Bicycle enhancing infrastructure shall be provided and include: bikeways/paths connecting to a bikeway system; and secure bicycle parking.</p> <p>c. The project shall either contract with Fresno Area Express (FAX) through the City to provide transit services within the project area, or provide an on-site transit service to off-site FAX transit stations/multimodal centers.</p> <p>d. Transit-enhancing infrastructure shall be provided and include: transit shelters, benches, etc.; street lighting; route signs and displays; and/or bus turnouts/bulbs.</p> <p>e. Park and ride lots and/or satellite telecommuting centers shall be provided in the project area.</p> <p>f. Carpool/vanpool programs shall be implemented, e.g., carpool, ridematching</p>		
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<p>for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.</p> <p>g. On-site shops and services for employees, such as cafeteria, bank/ATM, dry cleaners, convenience market, etc. shall be provided within commercial and office areas.</p> <p>h. A Transportation Demand Management Program shall be established and include: transit, bicycle, pedestrian, traffic flow improvements, transportation system management, rideshare, telecommuting, video conferencing, and other measures to reduce peak hour vehicle trips.</p>		
<p>2.3.2-b: Future construction plans for residential, commercial, office, and public uses shall include:</p> <p>a. solar or low-emission water heaters.</p>		

<p>b. central water heating systems in commercial areas.</p> <p>c. Open-hearth fireplaces shall require use of natural gas or installation of low-emission, EPA-certified fireplace inserts.</p>		
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Cumulative Impacts:

The scope for considering cumulative impacts to air quality resources is the San Joaquin Valley Air Basin. Cumulative Criteria Pollutant Impacts are discussed in Impact 3.3-2 and within that analysis, cumulative impacts were demonstrated to be significant and unavoidable. As such, cumulative impacts, even with mitigation, are considered *cumulatively significant and unavoidable*.

3.4 Biological Resources

This section of the SEIR evaluates the potential impacts to Biological Resources associated with implementation of the proposed Project. No NOP comments were received pertaining to Biological Resources.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated biological impacts associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a less than significant impact on biological resources with incorporation of mitigation measures (Section 2.5, pages 2.5.1 – 2.5.16 of the 2003 FEIR). However, the Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, a new biological technical study was prepared (See Appendix C), and additional information is being provided herein regarding impacts to biological resources associated with the additional 109 acres. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. 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 Game or the U.S. Fish and Wildlife Service?	✓	
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	✓	
c. Have a substantial adverse effect on state or federally-protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or	✓	

other means;		
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site?	✓	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	✓	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	✓	

Environmental Setting

The existing 706.5-acre Copper River Ranch Development is located at the northeastern edge of the City limits of Fresno in an area that has been largely developed with urban uses. The proposed additional 109 acres is located adjacent to and east of the existing development (See Figure 3.4-1). Elevations of the proposed new development area range from 340 to 400 feet above sea level. The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation. The proposed new development area is surrounded by residential development to the north; residential development, portions of a golf course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west. See Figure 3.4-1 for the location of the new areas that were biologically surveyed.

Figure 3.4-1
Biological Survey Boundary of New Development Areas



Regulatory Setting

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (ESA) protects fish and wildlife species and their habitats that have been identified by the National Marine Fisheries Service (NMFS) or U.S. Fish and Wildlife Service (USFWS) as threatened or endangered. Endangered refers to species, subspecies, or distinct population segments (DPSs) that are in danger of extinction through all or a significant portion of their range. Threatened refers to species, subspecies, or DPSs that are likely to become endangered in the near future.

ESA is administered by USFWS and NMFS. In general, NMFS is responsible for protection of listed marine species and anadromous fish, and USFWS is responsible for other listed species. Implementation of any project that may result in take of any species protected by ESA would be subject to approval and oversight by NMFS and USFWS, as relevant, and subject to the terms and conditions of any biological opinion (BO) from that agency. Compliance with the terms and conditions of the BOs would further ensure that no implemented project would jeopardize the continued existence of any threatened or endangered species. Relevant ESA provisions are summarized below.

Section 9

ESA Prohibitions: ESA Section 9 prohibits the take of any fish or wildlife species listed under ESA as endangered. Take of threatened species also is prohibited under Section 9, unless otherwise authorized by federal regulations. Take, as defined by ESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Harm is defined as “any act that kills or injures the species, including significant habitat modification.” In addition, Section 9 prohibits removing, digging up, cutting, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction.

Section 7

ESA Authorization Process for Federal Actions: ESA Section 7 provides a means for authorizing take of threatened and endangered species by federal agencies. Under Section 7, a federal agency that permits, licenses, funds, or otherwise authorizes a project activity must consult with the USFWS to ensure that its actions would not jeopardize the continued existence of any listed species or destroy or adversely modify designated Critical Habitat.

Federal Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (16 U.S.C. 704) makes it unlawful to “take” (kill, harm, harass, etc.) any migratory bird listed in 50 Code of Federal Regulations 10, including their nests, eggs, or products. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many other species.

Federal Clean Water Act Section 404

Section 404 of the Federal Clean Water Act (CWA) regulates the discharge of dredged material, placement of fill material, or excavation within waters of the United States and authorizes the Secretary of the U.S. Army, through the Chief of Engineers, to issue permits for such actions. “Waters of the United States” are defined by the Council on Environmental Quality (CEQ) as “rivers, creeks, streams, and lakes extending to their headwaters and any associated wetlands.” Wetlands are defined by the CEQ as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.” The permit review process entails an assessment of potential adverse effects on Corps jurisdictional waters of the United States and wetlands.

Federal Clean Water Act Section 401

The mission of the California Regional Water Quality Control Board (RWQCB) is to develop and enforce water quality objectives and implement plans that will best protect the beneficial uses of the State’s waters, recognizing local differences in climate, topography, geology, and hydrology. Section 401 of the CWA requires that:

“any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act.”

Before the Corps will issue a Section 404 permit, the Project Applicant must apply for and receive a Section 401 water quality certification from the RWQCB. A complete application for 401 Certification will include a detailed Water Quality Management Plan (WQMP) that addresses the key water quality features of the project to ensure the integrity of water quality in the area during and after construction.

Under separate authorities granted by state law (i.e., the Porter-Cologne Water Quality Control Act), a RWQCB may choose to regulate discharges of dredge or fill materials by issuing or

waiving (with or without conditions) Waste Discharge Requirements (WDRs), a type of state discharge permit, instead of taking a water quality certification action. Processing of a WDR is similar to that of a Section 401 certification; however, the RWQCB has slightly more discretion to add conditions to a project under the Porter-Cologne Water Quality Control Act than under the federal CWA.

Executive Order 11990

On May 24, 1977, President Carter signed Executive Order (E.O.) 11990, requiring federal agencies to avoid adverse impacts (both long- and short-term) to wetlands whenever there is a practicable alternative available. The order defines wetlands as areas that are inundated by surface or ground water with a frequency to support a prevalence of vegetative or aquatic life that require saturation or seasonally saturated soil conditions for growth and reproduction.

State

California Fish and Game Code

The California Fish and Game Code (CFGC) includes mandates for persons in the State of California who tamper with, affect, or alter environmental resources. The following sections illustrate the sections of the CFGC that pertain to the proposed Project.

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or Memorandum of Understanding. In addition, some sensitive mammals and birds are protected by the State as Fully Protected Species. California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's California Natural Diversity Data Base (CNDDDB) project which maintains a database of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biological resources assessments.

Fully Protected Species (CFGFC § 3511, 4700, 5050, and 5515)

CFGFC Sections 3511, 4700, 5050, and 5515 list the bird, mammal, reptile, amphibian, and fish species that are identified as “fully protected.” Fully protected wildlife may not be harmed, taken, or possessed. The classification of “fully protected” was California’s initial effort to identify and provide additional protection to those wildlife species that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations.

Migratory Birds (CFGFC § 3500-3516, and 3800)

CFGFC Section 3513 furthers the intent of the MBTA by prohibiting any take or possession of birds in California that are designated by the MBTA as migratory non-game birds, except as allowed by federal rules and regulations promulgated pursuant to the MBTA. In addition, CFGFC Sections 3503, 3503.5, 3511, and 3800 further protect nesting birds and their parts, including passerine birds, raptors, and state “fully protected” birds. These regulations protect almost all native nesting birds, not just special-status birds.

State of California—Section 1602 of the California Fish and Game Code

Streambeds and other drainages that occur within the area are subject to regulation by the CDFW. The CDFW considers most drainages to be “streambeds” unless it can be demonstrated otherwise. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel with banks and supports fish or other aquatic life. This includes watercourses having a surface or sub-surface flow that supports, or has supported, riparian vegetation.

Section 1602 of the California Fish and Game Code requires any entity (e.g., person, state or local government agency, or public utility) which proposes a project that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waster, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, to first notify CDFW of the project. The CDFW will review the project as it affects streambed habitats within the project area. The CDFW may then place conditions on the Section 1602 clearance to avoid, minimize, and mitigate the potentially significant adverse effects within CDFW jurisdictional limits.

State and Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) has jurisdiction throughout California and protects water quality by setting statewide policy and coordinating the nine RWQCBs in California that exercise regulatory activities by basins. The RWQCB also asserts authority over waters of the state under waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne). Waters found to be isolated and not subject to CWA regulation are often still regulated by the RWQCB under Porter-Cologne. If a CWA Section 404 permit is not required for an action, the RWQCB may still require a permit (i.e., Waste Discharge Requirement) under Porter-Cologne.

State of California – Porter Cologne Act

The SWRCB has ruled after the U.S. Supreme Court decisions to reduce the federal jurisdiction over Waters of the U.S., that the State would require that a Waste Discharge Report be required for any discharge of waste, including fill, into “waters of the state”, other than those projects requiring a federal Section 404 permit and the State’s Section 401 Certification of the federal permit, under the authority of the Porter Cologne Act. This essentially extends the State’s assumption of the National Pollutant Discharge Elimination System (NPDES) program, by modifying the definition of waste. The RWQCB is responsible for issuing Waste Discharge Permits.

State of California—Sections 3503, 3503.5, and 3800 of the California Fish and Game Code

These sections of the Fish and Game Code prohibit the “take or possession of birds, their nests, or eggs.” Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a “take.” Such a take would also violate Federal law protecting migratory birds.

Incidental Take Permits (i.e., Management Agreements) are required from the CDFW for projects that may result in the incidental take of species listed by the State of California as endangered, threatened, or candidate species. The permits require that impacts to protected species be minimized to the extent possible and mitigated to a level of insignificance.

State of California—2800 et seq. of the California Fish and Game Code- Natural Community Conservation Planning Act

This section of the Fish and Game Code outlines the methodology taken to establish Natural Community Conservation Plans (NCCP); however, there are no NCCP’s in effect for the project area.

California Native Plant Society

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. CNPS has compiled an inventory comprising information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. Sensitive species that occur or potentially could occur within the area are based on one or more of the following: (1) the direct observation of the species during one of the biological surveys; (2) a record reported in the CNDDDB; and (3) the Project Area is within known distribution of a species and contains appropriate habitat.

Local

City of Fresno General Plan

The Fresno General Plan (City of Fresno 2014) serves as a guide to enable government at all levels, private enterprise, community groups, and individual citizens to make decisions and utilize community resources in a manner that will realize progress toward a common vision, as established in the plan through a community visioning process. The current General Plan includes the following policies that are applicable to biological resources within the City of Fresno:

- Policy POSS-5-a: Habitat Area Acquisition. Support state, federal, and local programs to acquire significant habitat areas for permanent protection and/or conjunctive educational and recreational use.
- Policy POSS-5-b: Habitat Conservation Plans. Participate in cooperative, multi-jurisdictional approaches for area-wide habitat conservation plans to preserve and protect rare, threatened, and endangered species.
- Policy POSS-5-c: Buffers for Natural Areas. Require development projects, where appropriate and warranted, to incorporate natural features (such as ponds hedgerows and wooded strips) to serve as buffers for adjacent natural areas with high ecological value.
- Policy POSS-5-d: Guidelines for Habitat Conservation. Establish guidelines for habitat conservation and mitigation programs. These programs will include:
 - An evaluation of the site's environmental setting and proposed design and operating parameters of proposed mitigation measures.
 - A graphic depiction of land to be acquired or set aside for mitigation activities.

- Mitigation site preparation plans.
- Specification of the types and sources of plant material used for any revegetation.
- Water irrigation plans.
- Post-planting maintenance and other operational measures to ensure successful mitigation.
- Monitoring at an appropriate frequency by qualified personnel and reporting of data collected to permitting agencies.
- Policy POSS-5-e: Pursue development of conjunctive habitat and recreational trail uses in flood control and drainage projects.
- Policy POSS-5-f: Regional Mitigation and Habitat Restoration. Coordinate habitat restoration programs with responsible agencies to take advantage of opportunities for a coordinated regional mitigation program.
- Objective POSS-6: Maintain and restore, where feasible, the ecological values of the San Joaquin River corridor.
- Policy POSS-6-a: San Joaquin River Parkway Master Plan. Support the San Joaquin River Conservancy in its efforts to update the San Joaquin River Parkway Master Plan by working with the other jurisdictions and the River Conservancy to create a comprehensive and feasible plan for preservation, conservation, and Parkway development.
- Policy POSS-6-b: Effects of Stormwater Discharge. Support efforts to identify and mitigate cumulative adverse effects on aquatic life from stormwater discharge to the San Joaquin River.
 - Avoid discharge of runoff from urban uses to the San Joaquin River or other riparian corridors.
 - Approve development on sites having drainage (directly or indirectly) to the San Joaquin River or other riparian areas upon a finding that adequate measures for preventing pollution of natural bodies of water from their runoff will be implemented.
 - Periodically monitor water quality and sediments near drainage outfalls to riparian areas. If unacceptable levels of contaminant(s) occur, remedial measures shall be promptly instituted.
- Objective POSS-7: Support the San Joaquin River Conservancy in its collaborative, multiagency efforts to develop the San Joaquin River Parkway.

- Policy POSS-7-a: Preserve Wildlife Corridors. Acquire and expand natural reserves and wildlife corridors through purchase, easements, mitigation for proposed activities, or other mutually satisfactory transactions.
- Policy POSS-7-b: Wildlife Corridor along San Joaquin River. Create a wildlife corridor to provide continuous open space land and water areas parallel to the San Joaquin River within the jurisdiction of the City.
 - Preserve a minimum width of 200 feet of riparian vegetation on both sides of the river.
 - Require the corridor to be wider when possible and/or necessary to protect additional areas of native plants and critical habitat (such as wildlife breeding areas). Re-establishment of a 200-foot or wider band of native plants is recommended in areas where 200 feet of riparian vegetation no longer exists along the river bank, to the maximum extent feasible from topologic and hydrologic standpoints.
 - Allow exceptions where the minimum-width corridor is infeasible due to topography, hydrology, or other constraints. An offsetting expansion may be approved in those instances on the opposite side of the river. Incorporate the bluff face into the wildlife corridor where steep bluffs drop directly into or close to the river.
- Policy POSS-7-c: Monitoring River Corridor Conditions. Undertake periodic monitoring to determine the status of conditions and mitigation measures required for projects within, and in the vicinity of, the river corridor.
 - Pursue a Memorandum of Understanding (MOU) or other agreement so that the San Joaquin River Conservancy can perform, or participate in, this monitoring program in order to furnish additional expertise, provide for cost efficiency, and to ensure consistency throughout the river corridor.
 - Based on information obtained from monitoring, modifications in special permits, reclamation plans, and other documents, operating parameters for uses may be necessary to insure human health and safety and the well-being of riparian plants and wildlife.
- Policy POSS-7-d: Buffer Zones near Intensive Uses. Protect natural reserve areas and the wildlife corridor areas in the River Corridor whenever more intensive human uses exist or are proposed on adjacent lands. Buffer zones will allow multiple uses on parts of the parkway while still protecting wildlife and native plants.

- Require studies of appropriate buffer widths to be approved by State and federal wildlife agencies before variances from standard buffer zone widths are granted.
- Maintain natural riparian buffer zones with appropriate native plants (seed material and cuttings locally derived).
- Incorporate open space uses such as pasture, low-intensity agricultural activities, and the “rough” or marginal areas of golf courses, into buffer zones when they constitute an improvement in habitat over a previous use or degraded area. Evaluate and address the potential impacts of construction, cultural, and operational practices (such as grading, number of livestock per acre, lighting, and use of pesticides, herbicides, and fertilizers) before these uses are approved for buffering.
- For nearby areas of the San Joaquin River corridor outside of the exclusive jurisdiction of the City, support efforts to work with other jurisdictions to achieve this policy.

Fresno Municipal Code (Section 13-305-Tree Preservation)

The Fresno Municipal Code (FMC) Section 13-305 protects all public trees in the City including, but not limited to, trees which are affecting surface improvements or underground facilities or which are diseased, or located where construction is being considered or will occur. No person, except authorized City personnel, shall remove, destroy, deface or injure any tree on public property by any means including but not limited to: pouring material on or immediately adjacent to any tree, attaching any sign or notice to a tree without supervision of the Director, causing or encouraging fire around any tree, or covering the ground within a 4-foot-radius around any tree with concrete or other unnatural surface. Any removal of trees shall be conducted only after an evaluation and inspection by the Director, and with written authorization.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item. In accordance with Appendix G of the CEQA Guidelines, the proposed Project would have a significant environmental impact if it would:

- a. 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 Game or the U.S. Fish and Wildlife Service;
- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service;
- c. Have a substantial adverse effect on state or federally-protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site;
- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impacts and Mitigation Measures

The information and analysis presented in this section are based on the *Copper River Ranch Development Project – Biological Resource Evaluation* (2020) prepared by Colibri Ecological Consulting, LLC (CEC). The *Biological Resource Evaluation* is provided in Appendix C.

- a. 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 Game or U.S. Fish and Wildlife Service?

Methodology

CEC was retained to conduct a reconnaissance survey to describe the biotic resources of the proposed new 109 acres of development and to evaluate potential impacts to those resources that could result from proposed Project development. CEC obtained a USFWS species list for the Project as a framework for the evaluation and reconnaissance survey. In addition, CEC searched the California Natural Diversity Data Base and the CNPS Inventory of Rare and Endangered Plants for records of special-status plant and animal species from the vicinity of the Project site. Regional lists of special-status species were compiled using USFWS, CNDDDB, and CNPS database searches confined to the Friant 7.5-minute United States Geological Survey (USGS) topographic quad, which encompasses the Project site and the eight surrounding quads (Little Table Mtn, Millerton Lake West, Millerton Lake East, Lanes Bridge, Academy, Fresno North, Clovis, and Round Mountain). A local list of special-status species was compiled using CNDDDB records from within 5 miles of the Project site. Species that lack a special status designation by state or federal regulatory agencies or public interest groups were omitted from the final list. Species for which the Project site does not provide habitat were eliminated from further consideration. CEC also reviewed aerial imagery from Google Earth (Google 2020) and other sources, USGS topographic maps, the Web Soil Survey (NRCS 2020), and relevant literature.

Land Use and Habitats

The Project site supported residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation (Figure 3.4-1 and site photos shown in Figures 3.4-2 through 3.4-4). The area is surrounded by residential development to the north; residential development, portions of a golf course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west.

Reconnaissance Survey

CEC Senior Scientist Joshua Reece conducted field reconnaissance surveys of the Project site on 15 and 17 September 2020. Except where gates at residential communities precluded access, the Project site and a 50-foot buffer surrounding the Project site were walked and thoroughly inspected to evaluate and document the potential for the site to support state- or federally protected resources. The survey area also included a 0.5-mile buffer around the Project site to evaluate the potential occurrence of special-status raptors (Figure 3.4-5). The survey area was

evaluated for the presence of regulated habitats, including lakes, streams, and other waters using methods described in the *Wetlands Delineation Manual* and regional supplement (USACE 1987, 2008) and as defined by the CDFW (<https://www.wildlife.ca.gov/conservation/lsa>) and under the Porter-Cologne Water Quality Control Act. All plants except ornamentals and all animals (vertebrate wildlife species) observed in the survey area were identified and documented.



Figure 3.4-2. Photograph of the Project site, looking west, showing a gated residential development.



Figure 3.4-3. Photograph of the Project site, looking northeast, showing a manicured golf course.



Figure 3.4-4. Photograph of the Project site, looking east, showing disturbed land cover and an adjacent orchard.

Observed Species

In total, 23 plant species (10 native and 13 nonnative) were found during the reconnaissance survey (See Table 2 of Appendix C). Seven bird species and four mammal species were also detected (Table 2 of Appendix C).

Nesting Birds and the Migratory Bird Treaty Act

Migratory birds could nest on or near the Project site. Such species include, but are not limited to, mourning dove (*Zenaida macroura*) and red-tailed hawk (*Buteo jamaicensis*).

Regulated Habitats

Artificial ponds at the golf course, as surface waters within the boundaries of the state, are under the regulatory jurisdiction of the SWRCB. However, no impacts to these features are anticipated.

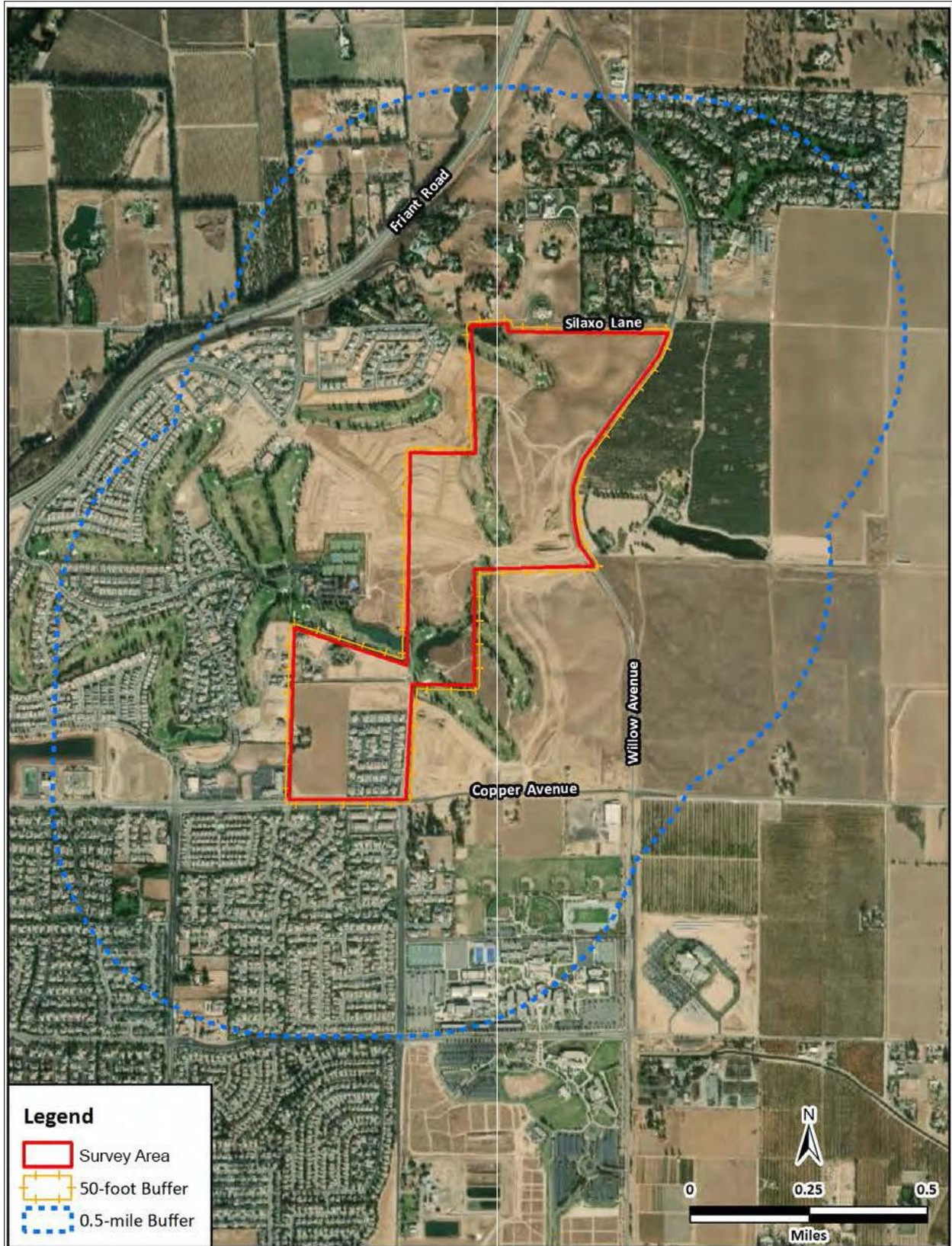
Special Status Species

Swainson's hawk (*Buteo swainsoni*) (ST)

Swainson's hawk is a state listed as threatened raptor in the family Accipitridae. It is a gregarious, migratory, breeding resident of Central California where it uses open areas including grassland, sparse shrubland, pasture, open woodland, and annual agricultural fields such as grain and alfalfa to forage on small mammals, birds, and reptiles. After breeding, it eats mainly insects, especially grasshoppers (Bechard et al. 2020). Swainson's hawk builds a small to medium-sized nest in medium to large trees near foraging habitat. The nesting season begins in March or April in Central California when this species returns to its breeding grounds from wintering areas in Mexico and Central and South America. Nest building commences within one to two weeks of arrival to the breeding area and lasts about one week (Bechard et al. 2020). One to four eggs are laid and incubated for about 35 days. Young typically fledge in about 38–46 days and tend to leave the nest territory within 10 days of fledging (Bechard et al. 2020). Swainson's hawks depart for the non-breeding grounds between August and September.

Two CNDDDB records for Swainson's hawk, from 1956, are known from within 5 miles of the Project site (CNDDDB 2020). No Swainson's hawks were observed during the reconnaissance survey, but potential nest trees were on and within 0.5 miles of the Project site, and open grassland and agricultural fields nearby could support foraging. Therefore, this species has a low potential to occur on the Project site.

Figure 3.4-2
Reconnaissance Survey Area Map



Burrowing owl (*Athene cunicularia*) (SSSC)

Burrowing owl is a member of the family Strigidae and recognized as a species of special concern by the CDFW (CDFW 2020). Burrowing owl depends on burrow systems excavated by other species such as California ground squirrel (*Otospermophilus beecheyi*) and American badger (*Taxidea taxus*) (Poulin et al. 2020). Burrowing owl uses burrows for protection from predators, weather, as roosting sites, and dwellings to raise young (Poulin et al. 2020). It commonly perches outside burrows on mounds of soil or on nearby fence posts. Prey includes insects, especially grasshoppers and crickets, frogs, toads, lizards, and small mammals (Poulin et al. 2020). The nesting season begins in March and incubation lasts about 28–30 days. Females incubate eggs males forage and deliver food items to the burrow/nest; young fledge between 44 and 53 days after hatching (Poulin et al. 2020). Adults can live up to 8 years in the wild.

Two CNDDDB records of burrowing owls (from 2000) are known from within 5 miles of the Project site (CNDDDB 2020). Several California ground squirrel burrows were found on the Project site, although no evidence of use of the burrows by owls (e.g., feathers, guano, pellets) was observed. Nevertheless, this species has a low potential to occur on the Project site.

Impact Determination

Less than Significant Impact With Mitigation. The Project could adversely affect, either directly or through habitat modifications, two special-status animals that occur or may occur on or near the Project site. Swainson’s hawk (ST) has a low potential to occur on or near the Project site. The burrowing owl (SSSC) was not detected but also has a low potential to occur on the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species or substantially modifies its habitat could constitute a significant impact. Therefore, Mitigation Measures BIO-1 and BIO-2 (below) will be implemented to reduce the potential impact to a *less than significant* level.

Mitigation Measures:

BIO – 1 Protect nesting Swainson’s Hawk

1. To the extent practicable, construction shall be scheduled to avoid the Swainson’s hawk nesting season, which extends from March through August.
2. If it is not possible to schedule work between September and February, a qualified biologist shall conduct surveys for active Swainson’s hawk nests within 0.5 miles of the Project site following methods developed by the Swainson’s Hawk Technical Advisory Committee (2000). If an active nest is found within 0.5 miles, and the qualified biologist

determines that Project activities would disrupt nesting, a construction-free buffer or limited operating period shall be implemented in consultation with the CDFW. The results of the survey shall be submitted to the City of Fresno Planning and Development Department prior to any construction activities.

BIO – 2 Protect nesting burrowing owl

1. A qualified biologist shall conduct focused burrowing owl surveys to assess the presence/absence of burrowing owl in accordance with guidelines in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). The results of the survey shall be submitted to the City of Fresno Planning and Development Department prior to any construction activities.
2. If a burrowing owl or sign of burrowing owl use (e.g., feathers, guano, pellets) is detected on or within 500 feet of the Project site, and the qualified biologist determines that Project activities would disrupt the owl(s), a construction-free buffer, limited operating period, or passive relocation shall be implemented in consultation with the CDFW.

b. 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 Game or U.S. Fish and Wildlife Service?

No Impact. Based on the biological survey, as well as review of local and regional plans, policies, regulations and review of information from the CA Department of Fish & Wildlife and the U.S. Fish & Wildlife Service, there are no riparian habitats or other sensitive natural communities on the proposed Project site. Therefore, there is *no impact*.

Mitigation Measure: None required.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The survey area (Figure 3.4-5) was evaluated for the presence of regulated habitats, including lakes, streams, and other waters using methods described in the *Wetlands Delineation*

Manual and regional supplement (USACE 1987, 2008) and as defined by the CDFW (<https://www.wildlife.ca.gov/conservation/lisa>) and under the Porter-Cologne Water Quality Control Act. Based on this evaluation, there are no federally protected wetlands on the site. Therefore, there is *no impact*.

Mitigation Measure: None required.

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact with Mitigation. The Project could impede the use of nursery sites for native birds protected under the California Fish and Game Code and Migratory Bird Treaty Act. Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort is considered take by the CDFW. Loss of fertile eggs or nestlings, or any activities resulting in nest abandonment, could constitute a significant impact if the species is particularly rare in the region. Therefore, Mitigation Measure BIO-3 (below) will be implemented to reduce the potential impact to a *less than significant* level.

Mitigation Measure:

BIO – 3 Protect Nesting Birds

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.
2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-

construction related reasons. The results of the survey shall be submitted to the City of Fresno Planning and Development Department prior to any construction activities.

e.,f. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There are no adopted habitat conservation plans, natural community conservation plans, or other conservation plans within the proposed Project site. However, the Fresno Municipal Code (FMC) Section 13-305 protects all public trees in the City including, but not limited to, trees which are affecting surface improvements or underground facilities or which are diseased, or located where construction is being considered or will occur. No person, except authorized City personnel, shall remove, destroy, deface or injure any tree on public property by any means including but not limited to: pouring material on or immediately adjacent to any tree, attaching any sign or notice to a tree without supervision of the Director, causing or encouraging fire around any tree, or covering the ground within a 4-foot-radius around any tree with concrete or other unnatural surface. Any removal of trees shall be conducted only after an evaluation and inspection by the Director, and with written authorization.

The Project site has been largely disturbed through development and grading activities and is largely void of public trees. However, in accordance with FMC Section 13-305, the Project Applicant will be required to consult the City on any public trees that may be subject to FMC Section 13-305. As this is an existing regulation, it is not considered a mitigation measure.

There are *less than significant impacts* regarding this impact topic.

Mitigation. None required.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to biological resources. The determination of the applicability of those mitigation measures is shown in the table below. It should be noted that the mitigation measures identified herein are applicable to

the entire proposed Copper River Ranch Project (existing development area plus the additional 109 acres of new development).

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>2.5.1-a: No additional mitigation is required beyond compliance with the USACE permit.</p>	<p>Mitigation Measure 2.5.1-a has been completed.</p>	<p>N/A</p>
<p>2.5.2-a: A qualified biologist shall conduct a preconstruction survey for burrowing owls no more than 30 days prior to the onset of project construction. This survey shall be conducted according to methods described in the <i>Draft Report on Burrowing Owl Mitigation</i> (CDFG 1995). If preconstruction surveys undertaken during the breeding season (February through July) locate active next burrows within or near construction zones, the developer shall establish an appropriate construction-free setback around these nests until the conclusion of the breeding season. A qualified ornithologist in consultation with the CDFG shall determine the distance of the setback. At the conclusion of the nesting season these owls may be relocated as discussed below.</p> <ul style="list-style-type: none"> • If preconstruction surveys undertaken during the non-breeding season 	<p>This previous mitigation measure from the 2003 FEIR is similar to the currently proposed mitigation measures (i.e. preconstruction surveys, avoidance, etc.). However, the regulatory requirements for these surveys have changed since 2003. Therefore, the proposed new mitigation measures (see column to the right) shall supersede the biological mitigation measure contained in the 2003 FEIR.</p>	<p>BIO – 1 Protect nesting Swainson’s Hawk</p> <ol style="list-style-type: none"> 1. To the extent practicable, construction shall be scheduled to avoid the Swainson’s hawk nesting season, which extends from March through August. 2. If it is not possible to schedule work between September and February, a qualified biologist shall conduct surveys for active Swainson’s hawk nests within 0.5 miles of the Project site following methods developed by the Swainson’s Hawk Technical Advisory Committee (2000). If an active nest is found within 0.5 miles, and the qualified biologist determines that Project activities would disrupt nesting, a construction-free buffer or limited operating period shall be implemented in consultation with the

<p>(August through January) locate resident owls, these individuals may be relocated to alternative habitat. The relocation of resident owls shall be conducted according to a relocation plan prepared by a qualified biologist in consultation with CDFG. Passive relocation as described in <i>Draft Report on Burrowing Owl Mitigation</i> shall be the preferred method of relocation. The plan shall provide for the owls relocation to nearby lands possessing available nesting habitat. Ground squirrel populations and their burrow complexes can then be eliminated to prevent the return of burrowing owls at a later time when construction may occur.</p> <ul style="list-style-type: none"> • A qualified biologist 		<p>CDFW. The results of the survey shall be submitted to the City of Fresno Planning and Development Department prior to any construction activities.</p> <p>BIO – 2 Protect nesting burrowing owl</p> <ol style="list-style-type: none"> 1. A qualified biologist shall conduct focused burrowing owl surveys to assess the presence/absence of burrowing owl in accordance with guidelines in the CDFW’s <i>Staff Report on Burrowing Owl Mitigation</i> (CDFG 2012). The results of the survey shall be submitted to the City of Fresno Planning and Development Department prior to any construction activities. 2. If a burrowing owl or sign of burrowing owl use (e.g., feathers, guano, pellets) is detected on or within 500 feet of the Project site, and the qualified biologist determines that Project activities would disrupt the owl(s), a construction-free buffer, limited
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<p>shall conduct a preconstruction survey for Northern Harriers no more than 30 days prior to the on-set of project construction, if construction is to occur during the breeding season (February through July). If active nest burrows are located within or near construction zones, the developer shall establish an appropriate construction-fee setback around these nests until the conclusion of the breeding season. A qualified ornithologist in consultation with the CDFG shall determine the distance of the setback. The developer may also disc the non-native grassland prior to the onset of the breeding season. Discing shall prevent the growth of dense tall grasses favorable for</p>		<p>operating period, or passive relocation shall be implemented in consultation with the CDFW.</p> <p>BIO – 3 Protect Nesting Birds</p> <ol style="list-style-type: none"> 1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August. 2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted by a qualified biologist no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the
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<p>nesting Northern Harriers.</p>		<p>construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons. The results of the survey shall be submitted to the City of Fresno Planning and Development Department prior to any construction activities.</p>
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Cumulative Impacts

The scope for considering cumulative impacts to biological resources are the geographic areas covered by the City of Fresno General Plan / EIR and the County of Fresno General Plan / EIR. Mitigation measures associated with this topic are included to ensure that potential impacts to biological resources remains less than significant at a project level. Cumulative development would result in the conversion of existing habitat to urban uses. Both the City’s and County’s General Plan EIR, in addition to regional, State and federal regulations, include policies and measures that mitigate impacts to biological resources associated with future development.

As described in this impact section, there are no known special-status species that have been observed on the Project site. Mitigation Measures BIO-1 through BIO-3 reduce all potential impacts to biological resources to less than significant levels. As development occurs in the region, the City and County will review projects on a case-by-case basis at the time each is considered for approval. Most projects in the region would generally occur within or around urban areas that have either been previously disturbed or are near existing urban development. However, some future projects may occur on undeveloped portions of the City and County that may result in potentially significant impacts to biological resources. However, these projects would likely be required to implement mitigation measures in order to reduce these potential impacts to less than significant levels. Compliance with applicable state and federal permit requirements for these resources would be required for all future projects, which would ensure that these projects would not significantly affect sensitive biological resources or contribute to a cumulatively significant impact to such resources in the area. Implementation of the proposed Project would have a less than significant cumulative impact relative to this environmental topic. As such, impacts to biological resources would be less than cumulatively considerable.

3.5 Cultural Resources

This section of the SEIR evaluates the potential impacts to Cultural Resources associated with implementation of the proposed Project. One NOP comment letter was received pertaining to Cultural Resources from the Native American Heritage Commission dated August 4, 2020. The letter provided information about the tribal consultation process (AB 52 and SB 18).

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated impacts to cultural resources associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a less than significant impact on cultural resources with incorporation of mitigation measures (Section 2.12, pages 2.12.1 – 2.12.2 of the 2003 FEIR). However, the Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. Since the Project is proposing an additional 109 acres to the development, a new cultural survey was conducted and a report prepared (See Appendix D), and additional information is being provided herein regarding impacts to cultural resources associated with the additional 109 acres. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	✓	
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	✓	
c. Disturb any human remains, including those interred outside of formal cemeteries?	✓	
d. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	✓	

Environmental Setting

The Table Mountain Rancheria was retained to conduct a cultural resources survey to describe the cultural resources of the proposed Project site and to evaluate potential impacts to those resources that could result from proposed Project development. The information in this section is summarized from that survey report and the report is provided in its entirety in Appendix D.

Natural Environment

The study area is situated on the eastern edge of the San Joaquin Valley, 0.67 miles east of the San Joaquin River and 3.75 miles west of foot slopes of the Sierra Nevada Foothills, specifically Owens Mountain. The immediate study area has been heavily disturbed and prior to 1990, was used for agriculture. Prior to development, the area would have been rolling arid California Prairie, dominated by sparse perennial bunch grasses such as Purple Needle Grass, *Nassella pulchra*, and during years of optimum precipitation, annual flowers such as California Poppy. Prior to the current development over the last two decades, the Copper River Ranch and Golf Course project area was characterized by a relatively flat western half, with no more than four feet in elevational change, while the eastern half was a rolling plateau or bench roughly 15 to 40 feet higher than the western half. This plateau or bench was trifurcated by broad shallow channels characterized by a gentle U-shaped cross section. The topography of the western upper bench was likely created by singular erosional events sometime in the recent geological past. The only reliable water sources adjacent to the study area are the San Joaquin River, 0.67 miles to the west and Little Dry Creek, 1.63 miles to the north. A half mile long segment of one blue line stream is noted on the 1922 Lanes Bridge Quadrangle, section 11, within the lower western bench, which likely carried water only during brief periods of heavy precipitation. Given its distance from any reliable water source, Native American occupation of the immediate study area is highly unlikely within the discernable past.¹

Ethnography and Ethnohistory

The indigenous people of the San Joaquin Valley and its bordering foothills of the Sierra and Diablo Ranges are speakers of Yokutsan languages within the Penutian language family. The word yokuts or *yokotch* translates as people in most of the Yokutsan dialects and has been attached to the many groups that speak this language as a Tribal appellation by early anthropologists working in the region. The majority of Yokuts lived along rivers, seasonal

¹ Cultural Resources Survey prepared by the Table Mountain Rancheria. February 2021. Appendix D. Page 6.

streams and permanent springs on the more well-watered eastern side of the San Joaquin Valley, around the shores of historic Tulare Lake and along the braids of the San Joaquin River as it flowed north from the big bend of the river near what is today Mendota. Valley lands between water courses usually lacked resources necessary for settlements. Lieutenant George H. Derby, US Topographical Engineers, noted during his reconnaissance survey of the San Joaquin (Tulare) Valley in April and May of 1850 that “The Tulare valley, from the mouth of the Mariposa to the Tejon pass at its head, is about one hundred and twenty mile in extent, and varies from eight to one hundred miles in width. With the exception of a strip of fertile land upon the rivers emptying into the (Tulare) lake from the east, it is little better than a desert. The soil is generally dry, decomposed and incapable of cultivation, and the vegetation, consisting of *Artemisias* [sic] and wild sage, is extremely sparse.”² The study area likely falls within the pre-contact homelands of the *Pitkachi* (about 18 miles to the N/NE.³ The *Pitkachi*, a Tribe of the San Joaquin River Yokuts group of the Foothill Yokuts division, occupied the area south of the San Joaquin in between Mendota and immediately south of the study in present day Fresno.⁴ Known ethnographic villages located near this area include *Kohuou*, near Herndon. The *Pitkachi* were said to be named after a salt or alkali that was “evil-smelling”.⁵

Yokuts occupants of the San Joaquin Valley and adjoining Sierra foothills were hunters and gatherers who depended upon the seasonal vegetal and faunal resources. Similar to their neighboring Tribes, the *Pitkachi* lived in permanently established villages during most of the year, usually between the months of October and May.⁶ The rest of the year, they would travel across their territory, tracking seasonally available plants as well as game and fish. Their principal villages were located along permanent springs, sloughs, and streams, while temporary camps were scattered throughout their area along seasonal drainages. Pounding rocks, the most visible vestige of Native American occupation, are located on rock boulders and bedrock outcrops above seasonal or permanent water courses, but are rarely found on the valley floor. River cobble mortars or wooden mortars on fallen tree logs were more commonly used in this area. The abundance of resources in the valley supported a socially complex lifestyle, with the high population numbers normally associated with agricultural peoples.⁷

² A Cultural Resources Survey of 81.52 Acres. Prepared by the Table Mountain Rancheria. February 2021. Appendix D. Page 7.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid. Page 8.

⁷ Ibid.

Historic-era Context; 1840-1970

According to 1856 and 1874 survey maps produced by the U.S. General Land Office, the subject property was crossed by two historic roads in the 19th Century, the Road from Stockton to Kings River and the “Old Road”.⁸ The Old Road (*El Camino Viejo* in Spanish) was the less used eastern branch of the main *El Camino Viejo* that connected Los Angeles to the Bay Area via the west side of the valley along the Coastal Ranges ending at San Francisco Bay near present day Oakland. Little information exists regarding the origin of this eastern branch, but it appears to have been in use since at least the early 1840s. This east side branch crossed the San Joaquin River at a shallow ford on the southern half of General Jose Castro’s 1846 land grant, Rancho Rio del San Joaquin, at a place subdivided by Jose Castro for a new town to be called City of Washington. Ultimately, Castro was unable to secure his land grant in the U.S Courts and his vision for a new community never materialized. Fort Washington, a fortified trading post, ferry and hotel, was established at this river crossing in 1850 by Thomas Alsbury, Wiley B. Cassity and Major Lane.⁹ Fort Washington became one of the flash points for the Mariposa Indian War of 1850-1851 when Cassity was killed in December 1850 by local Tribes along the Road between Rootville (Millerton) and Fort Washington.

The Stockton to Kings River Road was one of three stage lines established between 1850-1854, crossing the San Joaquin River between the County seat at Millerton and present day Fresno. This line ran from Stockton to Visalia, intersecting the “Old Road” at Fort Washington, passing through the study area, eventually crossing the Kings River at Pooles Ferry two miles north of Reedley, California on its way to Visalia.¹⁰ No physical evidence of either road currently exists within the study area. Fort Washington eventually lent its name to the local elementary school, Fort Washington Elementary. Fort Washington School District was established in 1874-75 and shows on the 1891 Thompson Atlas of Fresno County as being on the north side of Old Millerton Road, 218 yards north of the study area. It was moved to the corner of Fresno and Auberry (today’s Millbrook Ave and Copper Road) around 1906, approximately 65 yards south of the study area. It was demolished following WWII and no physical evidence of either construction exists today.

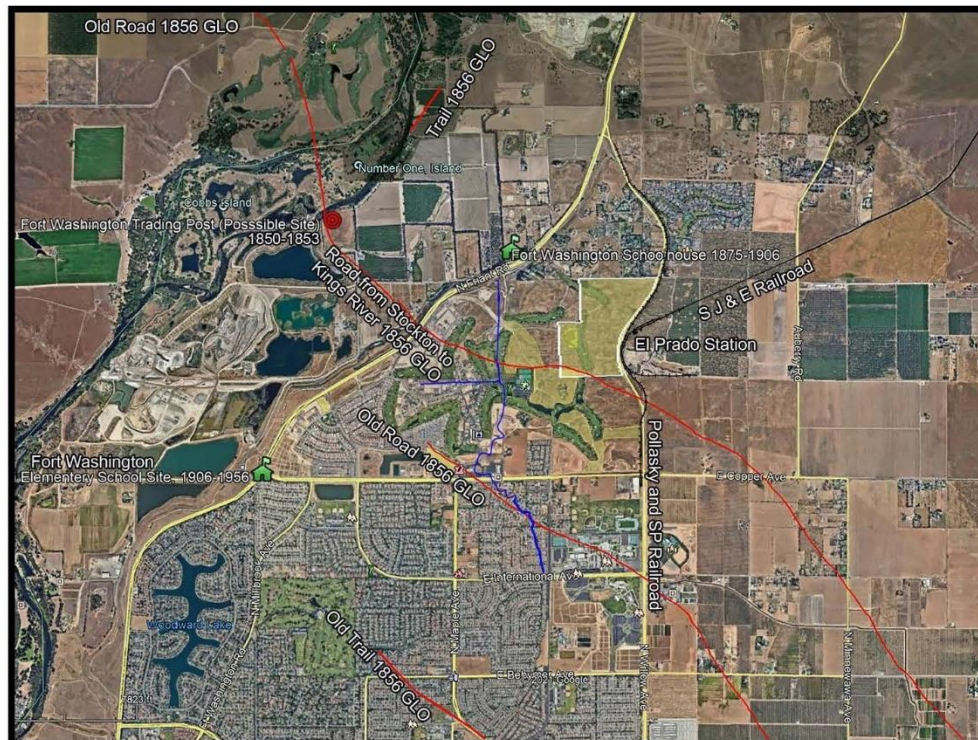
In 1891, Fresno promoter Marcus Pollasky organized funding from local investors to build a railroad line, the San Joaquin Valley Railroad, or Pollasky Line, from Fresno through

⁸ A Cultural Resources Survey of 81.52 Acres. Prepared by the Table Mountain Rancheria. February 2021. Appendix D. Page 8.

⁹ Ibid. Page 10

¹⁰ Ibid. Page 10

Hamptonville, (present day Friant) to the Sierra Nevada Mountains. Its stated purpose was to open the area for real estate development and logging. Upon partial completion of the rail line as far as Hamptonville in 1892, Hamptonville was renamed Pollasky, whereupon Mr. Pollasky quietly left town. The local investors, having felt duped, promptly sold the Pollasky rail line to the Southern Pacific Railroad. The line was eventually extended to Crane Flat (present day Bass Lake) from 1921-1933 as the Minarets and Western Railroad by the Sugar Pine Lumber company for their lumber mill at Pinedale, northwest of the intersection of Blackstone and Herndon in Fresno. The Pollasky -SP rail line was completely abandoned between 1961-1971. A portion of the original railroad grade with various railroad artifacts can be found within the southeastern edge of the study area as shown in the figure below (the paths of the previous railroads are shown with a red line).



An *in situ* concrete culvert stamped with the date 1911 is found on the eastern edge of APN 579-390-53. The Pollasky-SP Line is registered with the Fresno County Landmark Commission (Commission) as an historic resource. The Cultural Resources Study prepared for the Project recommended that the Project Applicant contact the Commission to discuss treatment of the culvert. The Project Applicant contacted the Commission on February 17, 2021 (telephone conversation with Karen Coletti who is with the Commission) wherein the Commission indicated that the culvert did not qualify as a preservation location.

A spur line off of the SP-Pollasky line was built in 1912 to aid in the construction of the Big Creek Hydroelectric Project. The San Joaquin and Electric, commonly known as the SJ&E, began at a station called El Prado, located 75 meters east and outside of the study area. The SJ&E rail line went through the town of Auberry ending at the company town of Cascada, today's Big Creek. The entire line was built in 157 days, working for seven days a week and 10 hours per day. All construction work was done by wheelbarrow, mule team and scraper. Higher in the mountains, blasting through granite was handled by individuals or teams of two. The SJ&E was built to carry materials and passengers for the largest hydroelectric project in the world at the time. Upon its completion, the Big Creek Hydroelectric project supplied 95% of the electricity for southern California. The SJ&E Railroad was abandoned in 1933.¹¹ Many sections of the railroad grade and portions of trestle footings still exist throughout its original line, including some of the railroad grade at El Prado.

Historical Resources

In April 2019, Table Mountain Cultural Resources Department requested a record search from the Southern San Joaquin Valley Information Center. The record search indicated no archaeological resources had been previously identified on the subject property or within ½ mile radius.

Geoarchaeological Context

Cultural Resources staff of the Table Mountain Rancheria used both on-site and in-office methods to complete the geoarchaeology review. On-site procedure involved examining surface soils composition throughout the study area, more specifically in road cuts and excavations. In office procedures involved identifying soils utilizing the UC Davis California Soil Resource Lab Soil Survey Geographic Database (SSURGO). Soils identified by the SSURGO within the study area are predominately the Pollasky/Montpellier series complex. The Montpellier series consists of deep and very deep, well or moderately well drained soils formed in old alluvium from granitic rock sources. The Pollasky series occurs on the eastern San Joaquin Valley side slopes and consists of moderately deep, well drained, moderately coarse textured Regosols formed in the residuum from softly to moderately consolidated arkosic (sandstone) sediments (SUURGO). This series occurs on undulating to steep dissected terraces under annual grasses and forbs. The Pollasky/Montpellier series complex soils are found in the higher dissected bench lands on the eastern half of the study area. Hanford series soils consist of very deep, well drained soils that

¹¹ A Cultural Resources Survey of 81.52 Acres. Prepared by the Table Mountain Rancheria. February 2021. Appendix D. Page 13.

formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are found on stream bottoms, floodplains and alluvial fans having slopes of 0 to 15 percent and are also found on the lower, flatter bench of the western half of the study area.

The western half of the study area also contained large disturbed deposits of Pumicite (finely powdered Pumice). Some Pumicite deposits identified were possibly undisturbed and were found layered between sand and gravel alluvium, while other Pumicite deposits were very deep and uniform. Pumice and Pumicite deposits are commonly found in the area near Friant Dam/Millerton Lake and have been mined commercially over the last century and were described by the California Division of Mines.

Pumicite deposits in alluvium have also been identified in road cuts on Auberry Road along Little Dry Creek and Willow Ave near where it connects with Friant Road. It has been suggested that these pumicite deposits may have been created by a terminal Pleistocene catastrophic flood event or series of events that may have been responsible for the shaping of the two differing land forms and soil series found within the study area.

The study area for the Copper River Ranch Development, was evaluated by Caltrans and Far Western and Associates in 2019 as being low sensitivity and lowest sensitivity for both surface and buried cultural deposits.¹²

Regulatory Setting

Federal Regulations

National Historic Preservation Act (1966)

The National Historic Preservation Act (NHPA) is the most prominent federal law dealing with historic preservation. The NHPA established guidelines to “preserve important historic, cultural, and natural aspects of our national heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice.” The NHPA includes regulations specifically for federal land-holding agencies, but also includes regulations (Section 106) which pertain to all projects that are funded, permitted, or approved by any federal agency and which have the potential to affect cultural resources. All projects that are subject to NEPA

¹² A Cultural Resources Survey of 81.52 Acres. Prepared by the Table Mountain Rancheria. February 2021. Appendix D. Page 18.

are also subject to compliance with Section 106 of the NHPA and the NEPA requirements concerning cultural resources can be addressed through compliance with Section 106 of the NHPA process.

Provisions of NHPA establish a National Register of Historic Places (The National Register) maintained by the National Park Service, the Advisory Council on Historic Preservation, State Offices of Historic Preservation, and grants-in-aid programs. At the federal level, the Office of Historic Preservation (OHP) carries out reviews under Section 106 of the National Historic Preservation of 1966, as amended.

State of California Regulations

In the State of California, the process of reviewing projects and decisions that may impact cultural resources including historic, archaeological, and paleontological resources is conducted under several different federal, state, and local laws. CEQA requires that public agencies consider the effects of their actions on historical resources eligible for listing on the California Register of Historical Resources.

Additionally, California Public Resources Code 5024 requires consultation with OHP when a project may impact historical resources located on State-owned land. California State law (SB 18) requires cities and counties to notify and consult with California Native American Tribes about proposed local land use planning decisions for the purpose of protecting Traditional Tribal Cultural Places (“cultural places”). Refer to Section 3.18 – Tribal Cultural Resources for information pertaining to tribal consultation for the Project pursuant to SB 18.

California Register of Historic Resources (CRHR)

California State law also provides for the protection of cultural resources by requiring evaluations of the significance of prehistoric and historic resources identified in CEQA documents. Under CEQA, a cultural resource is considered an important historical resource if it meets any of the criteria found in Section 15064.5(a) of the CEQA Guidelines. Criteria identified in the CEQA Guidelines are similar to those described under the NHPA. The State Historic Preservation Office (SHPO) maintains the CRHR. Historic properties listed, or formally designated for eligibility to be listed, on The National Register are automatically listed on the CRHR. State Landmarks and Points of Interest are also automatically listed.

The CRHR can also include properties designated under local preservation ordinances or identified through local historical resource surveys.

Health and Safety Code, Section 7050.5

Section 7050.5 of the California Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the county coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission (NAHC). CEQA Guidelines (Public Resources Code Section 5097) specify the procedures to be followed in case of the discovery of human remains on non-federal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

California Government Code 65352.3-5, Local Government – Tribal Consultation California Government Code Sections 65092, 65351, 65352, 65352.3 and 65352.4, formally known as Senate Bill (SB) 18.

These regulations regulate the consultation with California Native American tribes having traditional lands located within the jurisdiction of applicable cities and counties. The intent of the underlying legislation was to provide all California Native American tribes that are on the contact list maintained by the Native American Heritage Commission, an opportunity to consult with specific local governments for the purpose of preserving and protecting their sacred places. Such consultations apply to the preparation, adoption and amendment of general plans.

The Notice of Preparation, which briefly describing the proposed Project, including a map of the Project area, was sent to the State Clearinghouse which notifies Native American representatives of the opportunity to comment on the proposed Project. To date, no comments or concerns have been received.

California Historical Resources Information System (CHRIS)

The California Historical Resources Information System (CHRIS) is a statewide system for managing information on the full range of historical resources identified in California. CHRIS is a cooperative partnership between the citizens of California, historic preservation professionals, twelve Information Centers, and various agencies. This system bears the following responsibilities: integrate newly recorded sites and information on known resources into the California Historical Resources Inventory; furnish information on known resources and surveys to governments, institutions, and individuals who have a justifiable need to know; and supply a list of consultants who are qualified to do work within their area.

Typically, the initial step in addressing cultural resources in the project review process involves contacting the appropriate Information Center to conduct a record search. A record search

should identify any previously recorded historical resources and previous archaeological studies within the project area, as well as provide recommendations for further work, if necessary. Depending on the nature and location of the project, the project proponent or lead agency may be required to contact appropriate Native American representatives to aid in the identification of traditional cultural properties.

If known cultural resources are present within the Project area, or if the Project area has not been previously investigated for the presence of such resources, the Information Center may recommend a survey for historical, archaeological, and paleontological sites. Cultural resources that may be adversely affected by an undertaking should be evaluated for significance. For archaeological sites, a significance evaluation typically involves conducting test excavations. For historical sites or standing structures, historical research should be conducted and an architectural evaluation may be warranted. If significant, the resource should be protected from adverse impacts. Data recovery excavations may be warranted in the case of unavoidable damage to archaeological sites. If human burials are present, the appropriate coroner's office should be contacted. A professional archaeologist and appropriate Native American representatives should also be consulted.

When an initial study identifies the existence, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission.

California Environmental Quality Act (CEQA)

CEQA is applicable to discretionary actions by state or local lead agencies. Under CEQA, lead agencies must analyze impacts to cultural resources. Significant impacts under CEQA occur when "historically significant" or "unique" cultural resources are adversely affected, which occurs when such resources could be altered or destroyed through project implementation. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). In practice, the federal NRHP criteria for significance applied under Section 106 are generally (although not entirely) consistent with CRHR criteria (see PRC § 5024.1, Title 14 CCR, Section 4852 and § 15064.5(a)(3)).

Local Regulations

City of Fresno Code of Ordinance: Article 16 – Historic Preservation Ordinance

The intent of this Ordinance is to preserve, promote and improve the historic resources and districts of the City of Fresno for educational, cultural, economic and general welfare of the public; to continue to protect and review changes to these resources and districts which have a distinctive character or a special historic, architectural, aesthetic or cultural value to the City, state and nation; to continue to safeguard the heritage of the City by preserving and regulating its historic buildings, structures, objects, sites and districts which reflect elements of the City's historic, cultural, social, economic, political and architectural history; to continue to preserve and enhance the environmental quality and safety of these landmarks and districts; to continue to establish, stabilize and improve property values and to foster economic development. The Ordinance outlines the requirements for managing and protecting historic resources in the City.

Thresholds of Significance

In accordance with the CEQA Guidelines, a project impact would be considered significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?
- Disturb any human remains, including those interred outside of formal cemeteries?
- Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Impacts and Mitigation Measures

Impact 3.5-1: *Cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to §15064.5? OR*

Impact 3.5-2: *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

Less Than Significant With Mitigation. As previously described, according to the records search and site survey, there are no recorded cultural resources within the Project area. Additionally, the study area was evaluated by Caltrans and Far Western and Associates in 2019 as being low sensitivity and lowest sensitivity for both surface and buried cultural deposits.¹³

Project construction and operation would occur on existing disturbed lands; however, further disturbance could potentially discover buried sensitive historical, archaeological or cultural resources. This would be a potentially significant impact. However, mitigation measure CUL-1 included herein will reduce the impact to a *less than significant* level.

Mitigation Measures:

CUL-1: Should any potentially significant cultural, historical, archaeological or fossil resources be discovered, no further ground disturbance shall occur in the area of the discovery until the Planning Director concurs in writing that adequate provisions are in place to protect these resources. Unanticipated discoveries shall be evaluated for significance by a certified professional archaeologist or paleontologist that meets the Secretary of the Interior’s Professional Qualifications Standards. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; curate materials with recognized scientific or educational repository; and provide a comprehensive final report as required by Senate Bill 18; California Historical Building Code (Title 24, Part 8); California Public Resources Code Sections 5020-5029.5, 5079-5079.65, 5097.9-5097.998, and 5097.98; and California State Health and Safety Code, Section 7050.5, as applicable.

¹³ A Cultural Resources Survey of 81.52 Acres. Prepared by the Table Mountain Rancheria. February 2021. Appendix D. Page 18.

Impact 3.5-3: *Disturb any human remains, including those interred outside of formal cemeteries?*

Less Than Significant With Mitigation. California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98 mandate the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. Specifically, California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within a project site, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Although soil-disturbing activities associated with development in accordance with the proposed project could result in the discovery of human remains, compliance with existing law would ensure that impacts to human remains would not be significant.

Project development would occur on existing disturbed lands; however, further disturbance could potentially uncover human remains. This would be a potentially significant impact. However, mitigation measure CUL-2 included herein will reduce the impact to a *less than significant* level.

Mitigation Measures:

CUL-2: If human remains are unearthed during excavation and/or construction activities, all activity shall cease immediately. No further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to PRC Section 5097.98(b). If the human remains are determined to be of Native American decent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the City shall ensure that the immediate vicinity, according to generally accepted cultural or archeological standards or practices, where the Native American human remains are located is not damaged or

disturbed by further development activity until the City has discussed and conferred with the most likely descendants regarding their recommendations.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to cultural resources. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>2.12.1-a: If material that may be human remains, animal fossils, or archaeological material is encountered during project surveying, grading, excavating, or construction, work shall stop in the immediate area.</p> <p>a. If the material is, or includes, suspected human remains, the Fresno County Coroner shall be immediately contacted for his determination as to whether the material is prehistoric in nature. If the remains or other archaeological material is possibly Native American in origin, the Native American Heritage Commission shall be immediately contacted, and a recognized archaeologist shall be retained to conduct an archaeological assessment for the project. The site shall be</p>	<p>This previous mitigation measure from the 2003 FEIR is similar to the currently proposed mitigation measures (if resources are discovered, stop construction). However, the proposed new mitigation measures (CUL – 1 and CUL – 2) shall supersede the cultural mitigation measure contained in the 2003 FEIR.</p>	<p>CUL-1: Should any potentially significant cultural, historical, archaeological or fossil resources be discovered, no further ground disturbance shall occur in the area of the discovery until the Planning Director concurs in writing that adequate provisions are in place to protect these resources. Unanticipated discoveries shall be evaluated for significance by a certified professional archaeologist or paleontologist that meets the Secretary of the Interior’s Professional Qualifications Standards. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; curate materials with recognized scientific or educational repository; and</p>

<p>formally recorded, and recommendations made to the City of Fresno as to any further site investigations or site avoidance/preservation.</p> <p>b. If the material is human-related, but does not include human remains, and if this archaeological material is possibly Native American in origin, the Native American Heritage Commission shall be immediately contacted and the California Archaeological Inventory/Southern San Joaquin Valley Information Center shall be contacted to obtain a referral list of recognized archaeologist. An archaeological assessment shall be conducted for the project, the site shall be formally recorded, and recommendations made to the City of Fresno as to any further site investigation or site avoidance/preservation.</p> <p>c. If animal fossils are uncovered, the Museum of Paleontology, U.C. Berkeley shall be contacted to obtain a referral list of recognized paleontologists. An assessment shall be conducted by a paleontologist and, if the</p>		<p>provide a comprehensive final report as required by Senate Bill 18; California Historical Building Code (Title 24, Part 8); California Public Resources Code Sections 5020-5029.5, 5079-5079.65, 5097.9-5097.998, and 5097.98; and California State Health and Safety Code, Section 7050.5, as applicable.</p>
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<p>paleontologist determines the material to be significant, it shall be preserved.</p>		
<p>--</p>	<p>See analysis above.</p>	<p>CUL-2: If human remains are unearthed during excavation and/or construction activities, all activity shall cease immediately. No further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to PRC Section 5097.98(b). If the human remains are determined to be of Native American decent, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendent of the deceased Native American, who shall then serve as the consultant on how to proceed with the remains. Pursuant to PRC Section 5097.98(b), upon the discovery of Native American remains, the City shall ensure that the immediate vicinity, according to generally accepted cultural or archeological standards or practices, where the Native American human remains are located is not damaged or</p>

		<p>disturbed by further development activity until the City has discussed and conferred with the most likely descendants regarding their recommendations.</p>
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Cumulative Impacts

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to cultural resources is all of Fresno County. Development in Fresno County and the San Joaquin Valley has likely resulted in the loss or degradation of historic and/or archaeological resources. As discussed above, implementation of mitigation measures will ensure that Project implementation avoids and/or minimizes a cumulative loss of these resources if they are found during Project activities and would reduce impacts associated with cumulative development to a less than significant level. As such, the proposed Projects impact to cultural and tribal resources would be *less than cumulatively considerable*.

3.6 Energy

This section of the SEIR analyzes the Project’s potential impacts on energy resources. The data utilized for analysis of this section is based on the Air Quality and Greenhouse Gas/Energy Analysis Report for the Copper River Ranch Project by Mitchell Air Quality Consulting. The full report can be reviewed in Appendix B. No NOP comments were received pertaining to energy.

Determination of Adequacy of 2003 FEIR

The topic of Energy was not included in the CEQA Guidelines Appendix G checklist when the original 2003 FEIR was prepared. Since 2003, the CEQA Guidelines have been updated to include questions related to impacts to energy. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	✓	
b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	✓	

Environmental Setting

Electricity

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

Energy Usage

Energy usage is typically quantified using the British Thermal Unit (BTU). Total energy consumption in California was 7,967 trillion BTU’s in 2018 (the most recent year for which this specific data is available), which equates to an average of 202 million BTU’s per capita.¹ Of California’s total energy usage, the breakdown by sector is 40 percent transportation, 23 percent industrial, 19 percent commercial, and 18 percent residential.² Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use.

While BTUs measure total energy usage, electricity is generally measured in kilowatt-hours (kWh) which is the standard billing unit for energy delivered to consumers by electrical utilities.

The electricity consumption attributable to Fresno County from 2009 to 2019 is shown in Table 3.6-1. As indicated, energy consumption in Fresno County varied approximately 11 percent over the last 10 years.

**Table 3.6-1
Electricity Consumption in Fresno County 2009 – 2019³**

Year	Electricity Consumption (in millions of kilowatt hours)
2009	7,078
2010	6,903
2011	6,886
2012	7,382
2013	7,513
2014	7,686
2015	7,686

¹ U.S. Energy Information Administration, California State Profile and Energy Estimates. <https://www.eia.gov/state/print.php?sid=CA>. Accessed January 2021.

² Ibid.

³ California Energy Commission. Energy Reports. Electricity Consumption by County. <https://ecdms.energy.ca.gov/elecbycounty.aspx>. Accessed January 2021.

Year	Electricity Consumption (in millions of kilowatt hours)
2016	7,625
2017	7,461
2018	7,602
2019	7,387

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and, therefore, resource availability is typically not an issue. Natural gas provides almost one-third of the state’s total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel.

Natural gas is provided to the Project area by Pacific Gas & Electric. The natural gas consumption attributable to Fresno County from 2009 to 2019 is provided in Table 3.6-2, Natural Gas Consumption in Fresno County 2009-2019. Natural gas consumption in Fresno County varied 30% over the 10-year span.

**Table 3.6-2
Natural Gas Consumption in Fresno County 2009 – 2019⁴**

Year	Natural Gas Consumption (in millions of therms)
2009	271
2010	283
2011	296
2012	306

⁴ California Energy Commission. Energy Reports. Gas Consumption by County. <http://www.ecdms.energy.ca.gov/gasbycounty.aspx> Accessed January 2021.

Year	Natural Gas Consumption (in millions of therms)
2013	300
2014	295
2015	300
2016	285
2017	341
2018	347
2019	352

Transportation Energy

According to the U.S. Energy Administration, transportation accounted for 40 percent of California’s total energy consumption in 2018.⁵ In 2019, California consumed 15.4 billion gallons of gasoline (including aviation gasoline) and 3.0 billion gallons of diesel fuel.⁶ More motor vehicles are registered and more vehicle miles are traveled in California than in any other state.⁷

According to the Board of Equalization (BOE), statewide taxable sales figures indicate a total of 15,471 million gallons of gasoline and 1,777 million gallons of diesel fuel were sold in 2018.⁸ Although exact estimates are not available by County, retail fuel outlet survey data indicates Fresno County accounted for approximately 2.38 percent and 2.87 percent of total statewide gasoline and diesel sales, respectively, in 2018.⁹

⁵ U.S. Energy Information Administration, California State Profile and Energy Estimates. <https://www.eia.gov/state/print.php?sid=CA>. Accessed January 2021.

⁶ California Department of Tax and Fee Administration. June 2020 – Motor Vehicle Fuel 10 Year Reports and Taxable Diesel Gallons 10 Year Report. <https://www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm>. Accessed January 2021.

⁷ U.S. Energy Information Administration. California Profile Analysis. Updated January 16, 2020. <https://www.eia.gov/state/analysis.php?sid=CA>. Accessed January 2021.

⁸ California Energy Commission. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. <https://www.energy.ca.gov/media/3874>. Accessed January 2021.

⁹ California Energy Commission. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. <https://www.energy.ca.gov/media/3874>. Accessed January 2021.

Regulatory Setting

Federal Regulations

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Energy and Policy Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards.

Energy Independence and Security Act of 2007

This Act set increased Corporate Average Fuel Economy (CAFÉ) standards for motor vehicles and includes the following provisions related to energy efficiency:

- Renewable fuel standards (RFS)
- Appliance and lighting efficiency standards
- Building energy efficiency

This Act requires increasing levels of renewable fuels to replace petroleum. The U.S. EPA is responsible for developing and implementing regulations to ensure transportation fuel sold into the US contains a minimum volume of renewable fuel.

The RFS programs regulations were developed in collaboration with refiners, renewable fuel products, and other stakeholders and were created under the Energy Policy Act of 2005. The RFS program established the first renewable fuel volume mandate in the US. As required under the act, the original RFS program required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the Act, the RFS program was expanded in several key ways that laid the foundation for achieving significant reductions of GHG emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of the nation's renewable fuels sector. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline;
- EISA increase the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- EISA established new categories of renewable fuel and set separate volume requirements for each one; and

- EISA required by the U.S. EPA to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.¹⁰

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternate energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

Federal Vehicle Standards

In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of carbon dioxide (CO₂) in model year 2025, on an average industry fleetwide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and in March of 2020, CO₂ emissions standards were finalized for model years 2021 – 2026.¹¹

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018-2027 for certain trailers, and model years 2021-2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO₂ emissions by approximately 1.1

¹⁰ U.S. EPA. Renewable Fuel Standard Program. Overview for Renewable Fuel Standard. <https://www.epa.gov/renewable-fuel-standard-program/overview-renewable-fuel-standard>. Accessed January 2021.

¹¹ U.S DOT. Corporate Average Fuel Economy. <https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy>. Accessed March 2021.

billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.¹²

In August 2018, The USEPA and NHTSA released a notice of proposed rulemaking called Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). This rule would modify the existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks, and establish new standards covering model years 2021-2026. SAFE standards are expected to uphold model year 2020 standards through 2026.¹³

State of California Regulations

Integrated Energy Policy Report

Senate Bill 138 (Bowen Chapter 568, Statutes of 2002) requires the California Energy Commission to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state’s electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state’s economy; and protect public and safety (Public Resources Code §25301(a)).

The 2019 Integrated Energy Policy Report¹⁴ (IEPR) was adopted in February 2020, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2019 IEPR focuses on a variety of topics such as including the environmental performance of the electricity generation system, landscape-scale planning, transportation fuel supply reliability issues, and the California Energy Demand Forecast.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the

¹² U.S. Department of Transportation. Briefing Room. EPA and DOT Finalize Greenhouse Gas and Fuel Efficiency Standards for Heavy-Duty Trucks. <https://archive.epa.gov/epa/newsreleases/epa-and-dot-finalize-greenhouse-gas-and-fuel-efficiency-standards-heavy-duty-trucks-0.html>. Accessed January 2021.

¹³ U.S. Department of Transportation. SAFE. The Safer Affordable Fuel-Efficient ‘SAFE’ Vehicles Rule. [https://www.nhtsa.gov/corporate-average-fuel-economy/safe#:~:text=The%20Safer%20Affordable%20Fuel%2DEfficient%20\(SAFE\)%20Vehicles%20Rule%20proposed,model%20years%202021%20through%202026](https://www.nhtsa.gov/corporate-average-fuel-economy/safe#:~:text=The%20Safer%20Affordable%20Fuel%2DEfficient%20(SAFE)%20Vehicles%20Rule%20proposed,model%20years%202021%20through%202026). Accessed January 2021.

¹⁴ California Energy Commission. 2019 Integrated Energy Policy Report Update. <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2019-integrated-energy-policy-report>. Accessed January 2021.

transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental end energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24)

Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in California. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CALGreen contains both mandatory and voluntary measures. For nonresidential land uses, there are 39 mandatory measures including, but not limited to, exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to nonresidential land uses, for a total of 36 additional elective measures.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. Starting in 2020, the 2019 standards improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements; and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 Building Energy Efficiency Standards are approximately 53 percent more efficient than the 2016

Title 24 Energy Standards for residential development and approximately 30 percent more efficient for nonresidential development.

Executive Order B-30-15

Executive Order B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, set a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase the amount of renewable electricity provided state-wide to 50 percent;
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner;
- Reduce petroleum use in cars and trucks by up to 50 percent;
- Reduce emissions of short-lived climate pollutants; and
- Manage farms, rangelands, forests, and wetlands to increasingly store carbon.

Senate Bill (SB) 375 (Sustainable Communities and Climate Protection Act)

In January 2009, California SB 375, known as the Sustainable Communities and Climate Protection Act, went into effect. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce GHG emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In 2010, CARB released the proposed GHG reduction targets for the MPOs. The proposed reduction targets for the Kern COG region were five percent by year 2020 and ten percent by year 2035 through September of 2018, then six percent by 2020 and 13 percent by 2035 beginning in October of 2018.¹⁵

¹⁵ California Air Resources Board. Regional Plan Targets. <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>. Accessed January 2021.

Renewables Portfolio Standard Program

In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state’s electricity mix to 20 percent of retail sales by 2017. The 2003 Integrated Energy Policy Report recommended accelerating that goal to 20 percent by 2010, and the 2004 Energy Report Update further recommended increasing the target to 33 percent by 2020. The state’s Energy Action Plan also supported this goal. In 2006 under Senate Bill 107, California’s 20 percent by 2010 RPS goal was codified. The legislation required retail sellers of electricity to increase renewable energy purchases by at least one percent each year with a target of 20 percent renewables by 2010. Publicly owned utilities set their own RPS goals, recognizing the intent of the legislature to attain the 20 percent by 2010 target.

In 2008, Governor Schwarzenegger signed Executive Order S-14-08 requiring that “all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020.” The following year, Executive Order S-21-09 directed CARB to enact regulations to achieve the goal of 33 percent renewables by 2020.

In 2015, Governor Brown signed Senate Bill 350 to codify ambitious climate and clean energy goals. One key provision of SB 350 is for retail sellers and publicly owned utilities to procure “half of the state’s electricity from renewable sources by 2030.”

The State’s RPS program was further strengthened by SB 100 in 2018. SB 100 revised the State’s RPS Program to require retail sellers of electricity to serve 50 percent and 60 percent of the total kilowatt-hours sold to retail end-use customers be served by renewable energy sources by 2026 and 2030, respectively, and to require that 100 percent of all electricity supplied come from renewable sources by 2045.

Executive Order B-55-18

In 2018, Governor Brown signed EO B-55-18 to achieve carbon neutrality by moving California to 100 percent clean energy by 2045. This Executive Order also includes specific measures to reduce GHG emissions via clean transportation, energy efficient buildings, directing cap-and-trade funds to disadvantaged communities, and better management of the state’s forest land.

Low Carbon Fuel Standard Regulation

CARB initially approved the Low Carbon Fuel Standard (LCFS) regulation in 2009, identifying it as one of the nine discrete early action measures in the 2008 Scoping Plan to reduce California’s GHG emissions. The LCFS regulation defines a Carbon intensity, or “CI,” reduction

target (or standard) for each year, which the rule refers to as the “compliance schedule.” The LCFS regulation requires a reduction of at least 10 percent in the CI of California’s transportation fuels by 2020 and maintains that target for all subsequent years.

CARB has begun the rulemaking process for strengthening the compliance target of the LCFS through the year 2030. For a new LCFS target, the preferred scenario in the 2017 Scoping Plan Update identifies an 18 percent reduction in average transportation fuel carbon intensity, compared to a 2010 baseline, by 2030 as one of the primary measures for achieving the state’s GHG 2030 target. Achieving the SB 32 reduction goals will require the use of a low carbon transportation fuels portfolio beyond the amount expected to result from the current compliance schedule.¹⁶

Advanced Clean Cars Program

In 2012, CARB approved the Advanced Clean Cars (ACC) Program (formerly known as Pavley II) for model years 2017-2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the Zero-Emission Vehicle (ZEV) regulation. The program combines the control of smog, soot, and global warming gases with requirements for greater numbers of zero-emission vehicles into a single package of standards. By 2025, new automobiles under California’s Advanced Clean Car program will emit 34 percent less global warming gases and 75 percent less smog-forming emissions.

EO B-48-18, issued by Governor Brown in 2018, establishes a target to have five million ZEVs on the road in California by 2030. This Executive Order is supported by the State’s 2018 ZEV Action Plan Priorities Update, which expands upon the State’s 2016 ZEV Action Plan. While the 2016 plan remains in effect, the 2018 update function as an addendum, highlighting the most important actions State agencies are taking in 2018 to implement the directives of EO B-48-18.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to energy if it will:

- Result in a wasteful, inefficient or unnecessary consumption of energy resources;
- Conflict with or obstruct state or local plans.

¹⁶ California Air Resources Board. CARB amends Low Carbon Fuel Standard for wider impact.

<https://ww2.arb.ca.gov/index.php/news/carb-amends-low-carbon-fuel-standard-wider-impact>. Accessed January 2021.

Impacts and Mitigation Measures

Impact 3.6-1: *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Less Than Significant.

CEQA Guidelines Appendix F does not prescribe a threshold for the determination of significance. Rather, Appendix F focuses on reducing and minimizing inefficient, wasteful, and unnecessary consumption of energy. Therefore, for the purposes of this EIR, a significant impact to energy would result if the project would:

1. Result in the wasteful and inefficient use of nonrenewable resources during its construction.
2. Result in the wasteful and inefficient use of nonrenewable resources during long-term operation.
3. Be inconsistent with Adopted Plans and Policies.

Construction Energy Consumption

Project construction is assumed to be completed over five years for residential development and seven years for commercial development. Construction activities would consume energy through the operation of heavy off-road equipment, trucks, and worker traffic. Construction equipment fuel consumption for each of was based on equipment lists generated using CalEEMod default values. The fuel consumption of off-road equipment calculated in this analysis is based on an SCAQMD estimated fuel consumption rate of 0.05 gallon per hp-hr and the horsepower, usage hours, and load factors from CalEEMod model runs prepared for the Project's air quality analysis.

Based on the anticipated construction schedule and hours of use, construction equipment would result in the consumption of approximately 1,386,254 gallons of diesel fuel for residential development and 225,334 gallons of diesel fuel for commercial development for a total of 1,611,588 gallons over the entire construction period.

Worker, vendor, and haul trips would result in approximately 786,618 VMT over the entire construction period. A countywide average fuel consumption of 30.7 miles per gallon (mpg) for employee vehicles and 8.3 mpg for vendor trucks were obtained from EMFAC 2017. The results indicate that construction trips would consume approximately 523,183 gallons of motor vehicle fuel.

Although the proposed Project would result in the consumption of an estimated 1,044,003 gallons of diesel from construction equipment and 523,183 gallons of motor vehicle fuels during construction for a total of 1,611,588 gallons of fuel, the project is expected to achieve energy efficiencies typical for development projects in California. Construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency, combined with local, state, and federal regulations limiting engine idling times and require recycling of construction debris, would further reduce the amount of transportation fuel demand during project construction. Considering these reductions in transportation fuel use, the proposed project would not result in the wasteful and inefficient use of energy resources during construction and impacts would be less than significant. Detailed modeling results are provided in Appendix B. Construction energy use is summarized in **Error! Reference source not found.3**.

**Table 3.6-3
Construction Energy Consumption¹⁷**

Activity	Variable	Consumption Rate	Consumption Amount
Construction Equipment Diesel Fuel Use	hp-hr of equipment use per project Hours of Use	0.05 gal/hp-hr 368,666 hours	1,611,588 gallons (diesel)
Construction Employee VMT	VMT/Project	VMT = 17,496,778 mpg = 33.8	517,656 gallons (gasoline)
Construction Vendor Truck VMT	VMT/Project	VMT = 48,523 mpg = 8.78	5,527 gallons (diesel)

Operation Energy Consumption

Long-term energy consumption associated with the project includes electricity and natural gas consumption by residents and businesses, energy required for water supply, treatment, distribution, and wastewater treatment, and motor vehicle travel.

¹⁷ Air Quality and Greenhouse Gas/Energy Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Quality Consulting. January 2021. Appendix B. Page 128.

Electricity and Natural Gas Consumption

During operations the proposed Project would consume natural gas for space heating, water heating, and cooking associated with the land uses on the Project site. The natural gas consumption was estimated using the CalEEMod default values and modeling results. The results of the analysis indicate that the Project residential development would consume approximately 41,928,900 thousand British thermal units (kBtu) per year of natural gas per year and the commercial development would consume 2,669,996 kBtu of natural gas per year for a total of 44,598,886 kBtu per year during operation.

In addition to the consumption of natural gas, the proposed Project would use electricity for lighting, appliances, and other uses associated with the project. Electricity use during operations was estimated using CalEEMod default values. The results of the modeling indicate that the project residential development would use approximately 16,657,135 kilowatt-hours (kWh) of electricity per year, the commercial development would use 1,889,485 kWh per year, and the total is 16,657,135 kWh per year for both residential and commercial development. Title 24 (2019) requires the installation of solar panels in residential developments. Variations in the amount installed can be due to local conditions and project design. In addition, some projects may use community solar instead of rooftop solar installations. Although the energy estimates assume no solar will be installed, most electricity used by the residential portions of the Project is expected to be generated by zero emission renewable sources. In addition, commercial projects may install solar panels voluntarily to take advantage of energy cost savings that are increasingly possible as the cost of solar has declined.

As described above, the proposed Project would result in a long-term increase in demand for electricity from PG&E. However, the Project would be designed to meet the most recent Title 24 standards. Title 24 specifically establishes energy efficiency standards for residential and non-residential buildings constructed in the State of California in order to reduce energy demand and consumption. Title 24 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies. Therefore, impacts from the wasteful or inefficient use of electricity or natural gas during operation of the Project would be less than significant.

Water Treatment, Conveyance, and Distribution

Water used for indoor and outdoor purposes requires electricity for water treatment, conveyance, and distribution. The Project's water demand was calculated from default values included in CalEEMod. Based on this methodology, the proposed project is estimated to use approximately 178.1 million gallons per year for residential development and 30.7 million

gallons per year for commercial development. This would result in the use of approximately 977,098 kWh of electricity per year.

Although the proposed Project would result in electricity use from the treatment, conveyance, and distribution of water to the Project site, the Project would also require all water fixtures to be compliant with the 2013 California Green Building Standards Code and the MWEL0, which would reduce the amount of water used by the Project and require compliance with regulations relating to drought conditions. Therefore, the Project would not result in the wasteful or inefficient use of electricity for water treatment, conveyance, and distribution and impacts would be less than significant.

Wastewater Service

The Project would be served by an existing on-site wastewater treatment facility. Project wastewater generation was estimated using CalEEMod default assumptions for indoor water use required by the project land uses. Project indoor water use of 128.9 million gallons per year would result in the use of 697,507 kWh of electricity per year. Compliance with the 2013 California Green Building Standards Code, would reduce the wastewater generated by the project. Energy used for treating Project wastewater will increasingly be generated by renewable energy sources to comply with RPS standards that apply to the energy utility serving the project area.

Wastewater service would require connection to existing sewer lines to the treatment plant. The energy added for the extension and use of these facilities combined with the project's estimated electricity and natural gas consumption would not result in substantial new energy generation or transmission infrastructure due to the location and capacity of existing energy infrastructure near the project site. Additionally, the Project would be built out over about 7 years, allowing for gradual expansion of facilities. Therefore, the project would not result in the wasteful or inefficient use of electricity for wastewater treatment, and impacts would be less than significant.

Fuel Consumption

During operation of the proposed Project, vehicle trips would be generated by the Project. The Project was modeled with vehicle trip generation rates from the project Traffic Impact Study (see Appendix G) and default trip lengths from CalEEMod. CalEEMod provides the SJVAPCD's methods for estimating trip lengths and VMT and assumes an average trip length by trip purpose and assumes one trip in and one trip out. Because CalEEMod assigns both the to/from trips to the project, it generally results in a higher estimate of VMT. The CalEEMod results show

that the vehicle trips generated would result in approximately 47,044,149 VMT per year from the residential development and 15,234,171 VMT from the commercial development for total of 62,278,320 VMT from the Project. Based on a countywide average fuel consumption of 24.2 mpg from EMFAC 2017 for all vehicle classifications for 2028, the proposed project would result in the consumption of an estimated 2,569,238 gallons per year of transportation fuel.

Various federal and state regulations including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program would serve to reduce the Project's transportation fuel consumption progressively into the future. In addition, the Project will include bike lanes, and pedestrian infrastructure that will increase trips by walking and bicycling. Therefore, the Project would be designed to avoid the wasteful and inefficient use of transportation fuel during operations and impacts would be less than significant.

State and federal regulatory requirements addressing fuel efficiency are expected to increase fuel efficiency over time as older, less fuel-efficient vehicles are retired. The efficiency standards and light/heavy vehicle efficiency/hybridization programs, contribute to increased fuel efficiency and therefore would reduce vehicle fuel energy consumption rates over time. The annual vehicular energy consumption calculated for the proposed project was based on 2028 average rates for Fresno County. While the Project would increase the consumption of gasoline and diesel proportionately with projected population growth, the increase would be accommodated within the projected growth as part of the energy projections for the state and the region and would not require the construction of new regional energy production facilities. Therefore, energy impacts related to fuel consumption/efficiency during project operations would be less than significant.

Impact Summary

As described above, the Project would result in less than significant impacts on the wasteful, inefficient, or unnecessary use of energy due to project design features that will comply with the City's design guidelines and regulations that apply to the project such as Title 24 Building Energy Efficiency Standards and the California Green Building Standards Code that apply to commercial and residential buildings. The installation of solar panels required by 2019 Title 24 standards is expected to offset most electricity used by project residences. Furthermore, various federal and state regulations including the Low Carbon Fuel Standard, Pavley Clean Car Standards, and Low Emission Vehicle Program would serve to reduce the transportation fuel demand by the Project.

With the adherence to the increasingly stringent building and vehicle efficiency standards as well as implementation of the project's design features that would reduce energy consumption, the proposed Project would not contribute to a cumulative impact to the wasteful or inefficient use of energy. As such, the project would not result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation. A summary of the project's estimated operational energy consumption is provided in **Error! Reference source not found.4.**

**Table 3.6-4
Operational Energy Consumption¹⁸**

Activity	Variable	Consumption Rate	Consumption Amount
Electricity Residential	2,906 Dwelling Unit (1,247 Single Family and 849 Multi-Family)	8,691 kWh/unit/yr. SFR	14.78 MWh/year
		5,629 kWh/unit/yr. MFR	
Natural Gas Residential		24,576 kBTU/unit/yr. SFR	41,928,900 kBTU/year
		13,290 kBTU/unit/yr. MFR	
Electricity Commercial	254.423 sf Commercial	kWh/unit/year (varies by land use)	1.89 MWh/year
Natural Gas Commercial		kBTU/unit/year (varies by land use)	44,598,886 kBTU/year
Water Supply, Treatment, and Conveyance and Wastewater Treatment	Water Use (Mgal)	178.1 Mgal/yr Residential 30.7 Mgal/yr Commercial	977,098 kWh/year
Transportation	VMT/year	VMT/year = 62,278,320 mi.	2,569,238 gallons/year

¹⁸ Air Quality and Greenhouse Gas/Energy Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Quality Consulting. January 2021. Appendix B. Page 131.

	mpg all Fuels	mpg = 24.24	Transportation Fuels
<p>Notes:</p> <p>MPG = miles per gallon Mgal = million gallons VMT = vehicle miles traveled</p> <p>kW = kilowatts kWh = kilowatt-hours MWh = megawatt-hours KBTU = thousand British thermal units</p> <p>Source of data for energy use and VMT: CalEEMod 2016.3.2.</p> <p>Source of Fresno County MPG for 2028: EMFAC 2017.</p>			

This impact would be *less than significant*.

Mitigation Measures

None Required.

Impact 3.6-2: *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less Than Significant. The City of Fresno has adopted local plans that promote renewable energy and energy efficiency. Fresno Green—The City of Fresno’s Strategy for Achieving Sustainability—was adopted in 2007 (Fresno Green). One strategy of Fresno Green is for Fresno to become a leader in renewable energy use and creation of related innovative technology and new business enterprises. This would be accomplished by the following strategies:

- Increase the use of renewable energy to meet 50 percent of the City’s annual electrical consumption of kWh.
- Reduce the City’s peak electrical load by 10 percent through energy efficiency, shifting the timing of energy demands, and conservation measures.

Fresno Green was the City’s first effort to improve sustainability. The City of Fresno General Plan and GHG Reduction Plan build on this initial effort.

The City of Fresno General Plan includes goals and strategies related to energy efficiency. The following policies are applicable to the Project:

- RC-5-a Support State Goal to Reduce Statewide GHG Emissions. As is consistent with State law, strive to meet AB 32 goal to reduce greenhouse gas emissions to 1990 levels by 2020 and strive to meet a reduction of 80 percent below 1990 levels by 2050 as stated in Executive Order S-03-05. As new statewide GHG reduction targets and dates are set by the State update the City’s Greenhouse Gas Reduction Plan to include a comprehensive strategy to achieve consistency with those targets by the dates established.
- RC-5-c GHG Reduction through Design and Operations. Increase efforts to incorporate requirements for GHG emission reductions in land use entitlement decisions, facility design, and operational measures subject to City regulation through the following measures and strategies:
 - Promote the expansion of incentive-based programs that involve certification of projects for energy and water efficiency and resiliency. These certification programs and scoring systems may include public agency “Green” and conservation criteria, Energy Star™ certification, CALGreen Tier 1 or Tier 2, Leadership in Energy Efficient Design (LEED™) certification, etc.
 - Promote appropriate energy and water conservation standards and facilitate mixed-use projects, new incentives for infill development, and the incorporation of mass transit, bicycle and pedestrian amenities into public and private projects.

The General Plan includes a Greenhouse Gas Reduction Plan (GHG Plan) that provides the City’s primary strategy for reducing GHG emissions. Strategies to reduce GHG emissions often rely on increases in renewable energy use and increases in energy efficiency. A discussion of the Project’s consistency with the GHG Plan is provided in Section 3.8. The Project analysis found the project to be consistent with the City of Fresno General Plan and GHG Plan; therefore, the Project would not conflict with or obstruct the local plan for renewable energy or energy efficiency.

The Project was reviewed for consistency with State of California energy plans. The ARB 2008 Scoping Plan required by AB 32 and the ARB 2017 Scoping Plan provide the State’s strategy for achieving legislated GHG reduction targets. Although the primary purpose of the Scoping Plans is to reduce GHG emissions, the strategies to achieve the GHG reduction targets rely on the use of increasing amounts of renewable fuels under the LCFS and RPS, and energy efficiency with updates to Title 24 and the CalGreen Code. The 2019 California Energy Efficiency Action Plan addresses issues pertaining to energy efficiency in California’s buildings, industrial, and agricultural sectors. Buildings constructed to implement the project will meet the

latest efficiency standards. Vehicles and equipment will meet the latest fuel efficiency standards and use fuels subject to the LCFS.¹⁹

The Project is consistent with applicable plans and policies and would not result in wasteful or inefficient use of nonrenewable energy sources; therefore, impacts would be *less than significant*.

Mitigation Measures

None Required.

Cumulative Impacts

Less Than Cumulatively Considerable. Development associated with buildout of the proposed Project would require the consumption of electricity, natural gas, and vehicle fuel resources to accommodate growth. As discussed above, new development and land use turnover would be required to comply with statewide mandatory energy requirements outlined in Title 24, Part 6, of the California Code of Regulations (the CALGreen Code), which could decrease estimated electricity and natural gas consumption in new and retrofitted structures. Furthermore, energy consumed by development in the Project area would continue to be subject to the regulations described in the Regulatory Setting of this Section. For these reasons, the electrical and natural gas energy that would be consumed by the Project is not considered unnecessary, inefficient, or wasteful. Impacts are *less than cumulatively considerable*.

¹⁹ Air Quality and Greenhouse Gas/Energy Analysis Report for the Copper River Ranch Project. Prepared by Mitchell Quality Consulting, January 2021. Appendix B. Page 133.

3.7 Geology/Soils

This section of the SEIR identifies potential impacts of implementing the proposed Project on geology and soils. One comment letter was received on this topic from the California Department of Conservation (Geologic Energy Management Division). The letter indicated that there are no known oil or gas wells identified within the Project boundaries and it also provided information pertaining to potential (unknown) underground wells that may be encountered during construction.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated potential impacts to geology and soils associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a less than significant impact on geologic resources with incorporation of mitigation measures (Section 2.4, pages 2.4.5 – 2.4.6 of the 2003 FEIR). However, the Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, additional information is being provided herein regarding impacts to geologic resources. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
<p>a-i. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</p> <p>a-ii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?</p>	✓	

<p>a-iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?</p> <p>a-iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?</p>		
<p>b. Result in substantial soil erosion or the loss of topsoil?</p>	✓	
<p>c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?</p>	✓	
<p>d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?</p>	✓	

Environmental Setting

The City of Fresno is located along the eastern margin of the southern San Joaquin Valley portion of the Great Valley Geomorphic Province of California. The San Joaquin Valley is bordered to the north by the Sacramento Valley portion of the Great Valley, to the east by the Sierra Nevada, to the west by the Coast Ranges, and to the south by the Transverse Ranges. The San Joaquin sedimentary basin is separated from the Sacramento basin to the north by the buried Stockton arch and associated Stockton Fault. The 450-mile long Great Valley is an asymmetric structural trough that has been filled with a prism of Mesozoic and Cenozoic sediments up to 5 miles thick.

The Sierra Nevada, located east of the San Joaquin Valley, is a gently southwesterly tilted fault block comprised of igneous and metamorphic rocks of pre-Tertiary age that comprise the basement beneath the San Joaquin Valley. The Coast Ranges, located west of the San Joaquin Valley, are comprised of folded and faulted sedimentary and metasedimentary rocks of Mesozoic and Cenozoic age.

The San Joaquin River and the Kings River are the principal rivers in the area, with the alluvial fans formed by these rivers serving as the predominant geomorphic features in the area. The Project area is generally characterized by low alluvial fans and plains, which constitute a belt of coalescing alluvial fans of low relief between the dissected uplands, adjacent to the Sierra Nevada and the valley trough. Recent alluvial fan deposits from streams emerging from highlands surrounding the Great Valley and Pleistocene non-marine sedimentary deposits (Riverbank Formation) composed of older alluvium and dissected fan deposits underlain the subject site area.¹

Topography

Topographic relief of the Project site is composed of gently to moderately rolling hills and is sloped generally in a southwesterly plain toward the San Joaquin River. The elevation ranges from 340 to 4000 feet. The Project site includes several low lying areas which contain lakes as part of the existing Copper River Ranch golf course. No natural water channels are present.

Soils

According to the USDA Soils Report prepared for the Project, the majority of the site consists of Pollasky-Montpellier complex, 9 to 15 percent slopes. The soil is well drained and is in Hydrologic Soil Group B. Soils in this group have moderately low runoff potential when thoroughly wet and water transmission through the soil is unimpeded.²

Expansive Soils

Expansive soils are composed largely of clays, which greatly increase in volume when saturated with water and shrink when dried. Because of this effect, building foundations may rise during the rainy season and fall during the dry season. If this expansive movement varies underneath different parts of a single building, foundations may crack, structural portions of the building may be distorted, and doors and windows may become warped so that they no longer function properly. The potential for soil to undergo shrink and swell is greatly enhanced by the presence of a fluctuating, shallow groundwater table. Volume changes of expansive soils can result in the consolidation of soft clays following the lowering of the water table or the placement of fill. The surface and near-surface soils observed throughout the City of Fresno consist of varying

¹ City of Fresno. General Plan and Development Code Update. Master Environmental Impact Report. Geology and Soils. <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/Sec-05-06-Geo-Fresno-MEIR.pdf> Page 5.6-1. Accessed November 2020.

² USDA. NRCS. Part 630 Hydrology National Engineering Handbook. Chapter 7 – Hydrologic Soil Groups. <https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba>. Page 7-2. Accessed November 2020.

combinations of clays, silts, sands, gravels, and cobbles. The clayey soils are considered to be slightly to moderately expansive.³

Asbestos

The term “asbestos” is used to describe a variety of fibrous minerals that, when airborne, can result in serious human health effects. Naturally occurring asbestos is commonly associated with ultramafic rocks and serpentinite. Ultramafic rocks, such as dunite, peridotite, and pyroxenite are igneous rocks comprised largely of iron-magnesium minerals. As they are intrusive in nature, these rocks often undergo metamorphosis, prior to their being exposed on the Earth’s surface. The metamorphic rock serpentinite is a common product of the alteration process. The Department of Conservation Division of Mines and Geology has mapped naturally occurring asbestos in Fresno County. There are no mapped deposits of naturally occurring asbestos within the Project area.⁴ The nearest deposits are located in central Fresno County, northwest of Millerton Lake.

Seismicity

The Fresno area is subject to ground shaking from earthquakes generated by California’s numerous faults, although there are no known faults within or adjacent to the Project area. Major faults that lay on the west side of the Central Valley include the San Andreas, Ortigalita, Calaveras, Hayward, Coalinga and Rinconada. Major faults to the east (primarily on the east side of the Sierra Nevada mountains) include the Owens Valley Fault, Kern Front Fault Groups, White Wolf Fault and the Kern Canyon Fault.

Fresno County is comprised of nine seismic zones, as defined in the Five County Seismic Safety Element (FCSSE) (prepared and adopted in 1974 by the five counties of the southern San Joaquin Valley and their cities). These zones are differentiated by the level of ground motion that can reasonably be anticipated from earthquakes on the principal fault systems affecting the five county area. Most of Fresno County, from approximately Interstate 5 east, is located in Seismic Zone 3, as defined by the California Uniform Building Code.⁵

³ City of Fresno. General Plan and Development Code Update. Master Environmental Impact Report. Geology and Soils. <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/Sec-05-06-Geo-Fresno-MEIR.pdf>. Page 5.6-7. Accessed November 2020.

⁴ Department of Conservation. Division of Mines and Geology. Areas with potential for naturally occurring asbestos. <https://www.arcgis.com/apps/webappviewer/index.html?id=da4b648958844134adc25ff002d8ea1c>. Accessed November 2020.

⁵ Fresno County General Plan Update. Revised Public Review Draft Background Report. January 2000. <https://www.co.fresno.ca.us/home/showdocument?id=8398>. Page 9-5. Accessed November 2020.

The City of Fresno is not located in a designated “Special Studies Zone” under the Alquist-Priolo Special Studies Zone Act of 1972.

Regulatory Setting

Federal Regulations

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1997 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in November 1990 by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of agency responsibilities, program goals, and objectives.

NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results.

The NEHRPA designates FEMA as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities.

State of California Regulations

Seismic Hazards Mapping Act

“Under the Seismic Hazards Mapping Act, the State Geologist is responsible for identifying and mapping seismic hazards zones as part of the California Geologic Survey (CGS). The CGS provides zoning maps of non-surface rupture earthquake hazards (including liquefaction and seismically induced landslides) to local governments for planning purposes. These maps are intended to protect the public from the risks associated with strong ground shaking, liquefaction, landslides or other ground failure, and other hazards caused by earthquakes. For projects within seismic hazard zones, the Seismic Hazards Mapping Act requires developers to conduct

geological investigations and incorporate appropriate mitigation measures into project designs before building permits are issued.”

California Building Code

“The California Building Code” is another name for the body of regulations known as the California Code of Regulations (C.C.R.), Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist- Priolo Earthquake Fault Zoning Act (formerly the Alquist- Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazards associated with fault rupture and to prohibit the location of most structures for human occupancy across these traces.

Local Regulations

City of Fresno General Plan

Objectives and policies of the City’s General Plan regarding geologic hazards are listed below.

Objective NS-2: Minimize risks of property damage and personal injury posed by geologic and seismic risks.

Policy NS-2: Soil Analysis Requirement. Identify areas with potential geologic and/or soils hazards, and require development in these areas to conduct a soil analysis and mitigation plan by a registered civil engineer (or engineering geologist specializing in soil geology) prior to allowing on-site drainage or disposal for wastewater, stormwater runoff, or swimming pool/spa water.

City of Fresno Municipal Code

Section 11-101. California Building Code The City of Fresno Municipal Code has incorporated and adopted the CBC, 2019 Edition, as promulgated by the California Building Standards Commission, which incorporates the adoption of the 2012 edition of the of the International Building Code, as amended with necessary California amendments and the 2012 International Building Code of the International Code Council, with the exception of Appendix B. Together

with the City's amendments to the CBC provided in Section 11- 102, these shall be referred to as the Fresno Building Code. One copy of the CBC is on file and available for use by the public in the Development and Resource Management Department, Building and Safety Services Division.

Section 12-1022. Soils Report

(a) Preliminary Soils Report. A preliminary soils report, prepared by a civil engineer registered in this state, and based upon adequate test borings, shall be required for every subdivision for which a final map is required and shall be submitted to the City Engineer.

(b) Waiver. A preliminary soils report may be waived by the City Engineer if he finds that, due to the knowledge the city has as to the soils qualities of the soils in the subdivision, no preliminary analysis is necessary.

(c) Soils Investigation. If the city has knowledge of, or the preliminary soils report indicates, the presence of critically expansive soils or other soils problems, which, if not corrected, would lead to structural defects, a soils investigation of each lot in the subdivision may be required by the City Engineer. Such soils investigation shall be done by a civil engineer registered in this state, who shall recommend the corrective action, which is likely to prevent structural damage to each structure proposed to be constructed in the area where such soils problems exist.

(d) Approval of Corrective Action. The Commission may approve the subdivision or portion thereof where such soils problems exist if it determines that the recommended action is likely to prevent structural damage to each structure to be constructed, and as a condition to the issuance of any building permit may require that the approved recommended action be incorporated in the construction of each structure.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?
 - Strong seismic ground shaking?

- Seismic-related ground failure, including liquefaction?
- Landslides?
- Result in substantial soil erosion or the loss of topsoil?
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial direct or indirect risks to life or property?
- Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?
- Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Impacts and Mitigation Measures

Impact 3.7-1: *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*
- ii) Strong seismic ground shaking?*
- iii) Seismic-related ground failure, including liquefaction?*
- iv) Landslides?*

Rupture of a Known Earthquake Fault – No Impact. According to the Fault Rupture Zones Map prepared by the California Department of Conservation in 2007, the Project area is not located within a Fault-Rupture Hazard Area.⁶ Moreover, no active faults have been identified within the Project vicinity. The nearest zoned fault to the Project area is a portion of the Nunez Fault, located

⁶ California Department of Conservation. CGS Information Warehouse. Regulatory Maps and Reports. <https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/>. Accessed November 2020.

over 50 miles southwest of the Project Area. Therefore, *no impacts* related to rupture from a known earthquake fault would result.

Strong Seismic Ground Shaking – Less Than Significant Impact. Although the Project area occurs in an area with historically low to moderate level of seismicity, strong ground shaking could occur in the region; however, the Project would be designed to withstand strong ground shaking, in compliance with the California Building Code, to minimize the potential effects of ground shaking and other seismic activity. Impacts from seismic ground shaking would result in *less than significant impacts*.

Seismic-Related Ground Failure and Liquefaction – Less Than Significant Impact. Liquefaction involves a sudden loss in strength of a saturated soil caused by an earthquake, resulting in the temporary transformation of the soil into a fluid mass. If the liquefying layer is near the surface, the effects are such like that of quicksand on any structure located on it. Liquefaction typically occurs in areas where groundwater is less than 30 feet below the surface and where the soils are composed predominantly of poorly consolidated fine sand. Because of the site soils, the relatively level site conditions, and the low to moderate degree of seismicity, seismically induced settlement would result in a less than significant geologic hazard. It also appears that the potential for soil liquefaction within the Project site is very low, due to the type of soils anticipated to be within the upper layer, the relatively low levels of expected groundshaking at the site, and the lack of groundwater. In addition, the proposed Project would be required to be in compliance with the Fresno Municipal Code, including Sections 11-101, 12-1022, and 12-1023. Compliance with these regulations will reduce seismic-related ground failure and liquefaction impacts to a *less than significant* level.

Landslides – Less Than Significant Impact. Slope stability and landslides are not known to be a problem in the Project area due to the relatively flat topography; however, slopes of the up to 30 percent are located in the Project site. According to the California Department of Conservation Landslide mapper, there are no areas of landslide hazard in the Project area. Impacts are *less than significant*.

Mitigation Measures: None are required.

Impact 3.7-2: *Result in substantial soil erosion or the loss of topsoil?*

Less Than Significant Impact. Construction activities associated with the Project involves ground preparation work for the proposed development of the site. These activities could expose

barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the Project site.

Grading of the Project site would be minimized and would follow the existing topography of the Project site to the greatest extent feasible to limit potential erosion and maintain existing drainage patterns. The temporary and permanent site roadways would be graded and compacted prior to road construction. Any existing vegetation would be scarified and grubbed for the development of temporary and permanent access roads, and the soil surface would be smoothed, moisture conditioned, and compacted with a crown in the center and swale on the side to prepare the roadway surface. Grading, excavation, removal of vegetation cover, development of access roads, and disturbance of soils during construction activities would result in the disturbance of an area greater than one acre and would temporarily increase erosion, runoff, and sedimentation. Construction activities would also result in soil compaction and wind erosion effects that could adversely affect soils at the construction sites and staging areas.

During grading, erosion prevention measures would be implemented, including the separation of topsoil, whereby topsoil is separated and stockpiled separately from subsoil and stabilized to prevent erosion. When Project construction is complete, stripped subsoil and topsoil would be replaced as required. Other erosion and sediment control measures would include watering for dust control and soil compaction during grading and throughout construction activities.

The Applicant and/or contractor would be required to employ appropriate sediment and erosion control BMPs as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required in the California National Pollution Discharge Elimination System (NPDES). Soil erosion and loss of topsoil would also be minimized through implementation of the SVJAPCD fugitive dust control measures (See Section 3.3 – Air Quality). In addition, Fresno Municipal Code Section 12-1023 requires every approved map to be conditioned on compliance with the requirements for grading and erosion control. Once construction is complete, the Project would not result in significant soil erosion or loss of topsoil. Impacts are *less than significant*.

Mitigation Measures: None are required.

Impact 3.7-3: *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?*

Less Than Significant Impact. Issues associated with liquefaction, lateral spreading and landslides are discussed in Impact 3.7-1, above. As previously discussed, impacts associated with liquefaction, lateral spreading, and landslides would be less than significant. Portions of the San Joaquin Valley have been subject to land subsidence or collapse due to groundwater and petroleum extraction. Damage caused by subsidence or collapse has been restricted principally to significant changes in gradients of canals and aqueducts, and breakage of deep-water well casings. Within the San Joaquin Valley, subsidence or collapse is concentrated in the southern part and the west side of the valley where rainfall is sparse and groundwater recharge is minimal. Although subsidence or collapse is a significant concern in western Fresno County, as well as other portions of the San Joaquin Valley, the Project area is not known to be subject to such subsidence or collapse hazards. Accordingly, the impacts associated with this subsidence or collapse would be *less than significant*.

Mitigation Measures: None are required.

Impact 3.7-4: *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Less Than Significant Impact. According to the USDA Soils Report prepared for the Project, the majority of the site consists of Pollasky-Montpellier complex, 9 to 15 percent slopes. The soil is well drained and is in Hydrologic Soil Group B. Soils in this group have moderately low runoff potential when thoroughly wet and water transmission through the soil is unimpeded.⁷ As such, these soils have a low shrink/swell potential and impacts related to expansive soils would be *less than significant*.

Mitigation Measures: None are required.

Impact 3.7-5: *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

No Impact. The Project does not include the construction, replacement, or disturbance of septic tanks or alternative wastewater disposal systems, as the Project is proposing to install

⁷ USDA. NRCS. Part 630 Hydrology National Engineering Handbook. Chapter 7 – Hydrologic Soil Groups. https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757_wba. Page 7-2. Accessed November 2020.

sewer/wastewater infrastructure that will tie into the City’s sewer system. Therefore, there is *no impact* related to septic tanks or alternative wastewater disposal systems.

Mitigation Measures: None are required.

Impact 3.7-6: *Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?*

Less than Significant Impact with Mitigation. Paleontological resources are valued for the information they yield about the history of the earth and its past ecological settings. A review of the cultural and historical resources was provided in Section 3.5 and 3.17, Cultural Resources and Tribal Resources, respectively. There are currently no unique geologic features located on the Project site.

While the discovery of underground paleontological resources in the Project site is considered unlikely, Mitigation Measure CUL-1 would be implemented in the case of any inadvertent discoveries. With adherence to these regulatory requirements and measures, impacts would be *less than significant*.

Mitigation Measure: CUL-1, as described in Section 3.5.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to geology and soils. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
2.4.3-a: A qualified geologist or consultant shall prepare and submit an erosion control plan for approval by the City of Fresno Public Works Department demonstrating compliance with water quality standards. Elements of this	This previous mitigation measure from the 2003 FEIR is now a requirement of the Fresno Municipal Code, as described in the Regulatory Setting and Impact 3.7-2. Since it is now a regulatory	N/A

<p>plan shall address both the potential for soil erosion and non-point source pollution.</p>	<p>requirement pursuant to Fresno Municipal Code Section 12-1023, it is not listed as a mitigation measure, but it is still required.</p>	
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Cumulative Impacts

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to geology and soils is generally site-specific rather than cumulative in nature because each project site has different geological considerations that would be subject to review. Construction of the proposed Project may result in risks associated with geology and soils. For example, there will always be a chance that a fault located anywhere in the state (or region) could rupture and cause seismic ground shaking. Additionally, grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation.

While some cumulative impacts may occur in the region as individual projects are constructed, local and state regulations (as described in the Regulatory Setting section of this Chapter), will reduce the risk to people in the region. Considering the protection granted by local, state, and federal agencies and their requirements for the seismic design, as discussed above, the overall cumulative impact would not be significant. The proposed project’s incremental contribution to cumulative geologic and soil impacts would be *less than cumulatively considerable*.

3.8 Greenhouse Gas Emissions

This section of the SEIR evaluates the potential impacts to Greenhouse Gas Emissions (GHGs) associated with implementation of the proposed Project. An Air Quality and Greenhouse Gas/Energy Analysis Report was prepared by Mitchell Air Quality Consulting for the proposed Project. The analysis below is a summarization of the information found within that report, and is provided in its entirety as Appendix B. No NOP comments were received pertaining to Greenhouse Gas Emissions.

Determination of Adequacy of 2003 FEIR

The 2003 FEIR did not address potential impacts to greenhouse gas (GHG) emissions because it was prepared prior to the 2010 amendment to the State CEQA Guidelines requiring the evaluation of environmental impacts related to GHG emissions. Therefore, this section provides a comprehensive analysis of GHG emissions associated with the proposed Project and as such, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	✓	
b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	✓	

Environmental Setting

Climate Change

Climate change is a change in the average weather of the earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of

statistical significance, specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature change from 1990 to 2100, given six scenarios, could range from 1.1 degrees Celsius (°C) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios.¹ The report also concluded that “[w]arming of the climate system is unequivocal,” and that “[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.”

An individual project cannot generate enough GHG emissions to cause a discernible change in global climate. However, the project participates in the potential for global climate change by its incremental contribution of GHGs—and when combined with the cumulative increase of all other sources of GHGs—constitute potential influences on global climate change.

Consequences of Climate Change in California

In California, climate change may result in consequences such as the following²:

- **Reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.
- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of southern California are estimated to increase by approximately 30 percent toward the end of the 21st century because more winter rain will stimulate the growth of more plant “fuel” available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.

¹ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 37.

² Ibid..

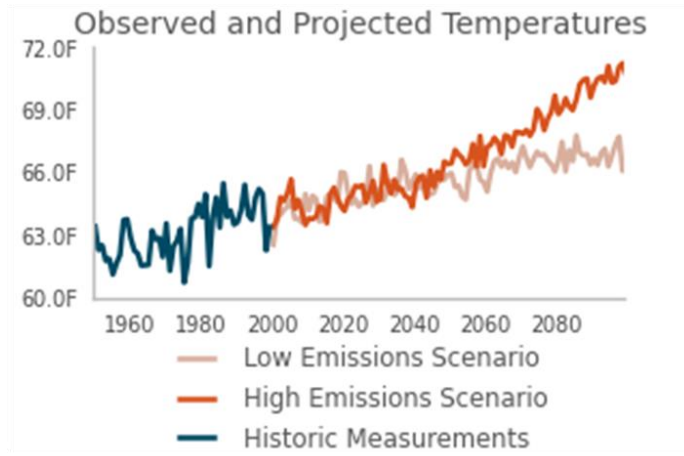
- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- **An increase in temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

Consequences of Climate Change in the Project Area

Error! Reference source not found. displays a chart of measured historical and projected annual average maximum temperatures in the Project area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios. The results indicate that temperatures are predicted to increase by 3.7 degrees Fahrenheit (°F) under the low emission scenario and 6.5 °F under the high emissions scenario.³

³ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 38.

Figure 3.8-1
Observed and Projected Temperatures for Climate Change in the Project Area



Water Supply. The Project site is within an urbanizing area with limited fuels that would be subject to a wildfire. Foothill and mountain areas located to the north and east of the Fresno area subject to wildfire. The potential for increased temperatures and drought conditions due to climate change would result in increased risk from wildfire in those areas.

Wildfires. The Project site is within an urbanizing area with limited fuels that would be subject to a wildfire. Foothill and mountain areas located to the north and east of the Fresno area subject to wildfire. The potential for increased temperatures and drought conditions due to climate change would result in increased risk from wildfire in those areas.

Human Health Effects of GHG Emissions

GHG emissions from development projects would not result in concentrations that would directly impact public health. However, the cumulative effects of GHG emissions on climate change have the potential to cause adverse effects to human health.

In its report, *Global Climate Change Impacts in the U.S. (2009)*, the U.S. Global Change Research Program has analyzed the degree to which impacts on human health are expected to impact the United States.

- Potential effects of climate change on public health include:
- Direct Temperature Effects: Climate change may directly affect human health through increases in average temperatures, which are predicted to increase the incidence of heat waves and hot extremes.

- **Extreme Events:** Climate change may affect the frequency and severity of extreme weather events, such as hurricanes and extreme heat and floods, which can be destructive to human health and well-being.
- **Climate-Sensitive Diseases:** Climate change may increase the risk of some infectious diseases, particularly those diseases that appear in warm areas and are spread by mosquitoes and other insects, such as malaria, dengue fever, yellow fever, and encephalitis.
- **Air Quality:** Respiratory disorders may be exacerbated by warming-induced increases in the frequency of smog (ground-level ozone) events and particulate air pollution.⁴

Although there could be health effects resulting from changes in the climate and the consequences that can occur, inhalation of GHGs at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (particulate matter). The potential health effects of ozone and particulate matter are discussed in criteria pollutant analyses. At very high indoor concentrations (not at levels existing outside), carbon dioxide (CO₂), methane, sulfur hexafluoride, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen.⁵

Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as GHGs. The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide, methane, NO_x, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Climate change is driven by forcings and feedbacks. Radiative forcing is the difference between the incoming energy and outgoing energy in the climate system. Positive forcing tends to warm the surface while negative forcing tends to cool it. Radiative forcing values are typically expressed in watts per square meter. A feedback is a climate process that can strengthen or weaken a forcing. For example, when ice or snow melts, it reveals darker land underneath which absorbs more radiation and causes more warming. The global warming potential is the

⁴ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 39.

⁵ Ibid.

potential of a gas or aerosol to trap heat in the atmosphere. The global warming potential of a gas is essentially a measurement of the radiative forcing of a GHG compared with the reference gas, CO₂.

Individual GHG compounds have varying global warming potential and atmospheric lifetimes. CO₂, the reference gas for global warming potential, has a global warming potential of one. The global warming potential of a GHG is a measure of how much a given mass of a GHG is estimated to contribute to global warming. To describe how much global warming a given type and amount of GHG may cause, the carbon dioxide equivalent is used. The calculation of the carbon dioxide equivalent is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas, CO₂. For example, CH₄'s warming potential of 25 indicates that CH₄ has 25 times greater warming effect than CO₂ on a molecule-per-molecule basis. A carbon dioxide equivalent is the mass emissions of an individual GHG multiplied by its global warming potential. GHGs defined by Assembly Bill (AB) 32 include CO₂, CH₄, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, as described in Table 3.8-1. A seventh GHG, nitrogen trifluoride, was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. The global warming potential amounts are from IPCC Fourth Assessment Report (AR4). The AR4 GWP amounts are incorporated into the CalEEMod 2016.3.2 used in this analysis. Although the newer IPCC Fifth Assessment Report (AR5) includes new global warming potential amounts, ARB continues to use AR4 rates for inventory purposes, including the 2018 inventory released on October 19, 2020, to ensure consistency with past inventories. Until such time as ARB updates its Scoping Plan inventories to utilize AR5 GWPs, it is appropriate to continue using AR4 GWPs for CEQA analyses, which are based on Scoping Plan consistency.

**Table 3.8-1
Description of Greenhouse Gases⁶**

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous Oxide (N ₂ O)	Nitrous oxide (laughing gas) is a colorless greenhouse gas. It has a lifetime of 114 years. Its global warming potential is 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.

⁶ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 40.

Greenhouse Gas	Description and Physical Properties	Sources
Methane (CH₄)	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 21.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
Carbon dioxide (CO₂)	Carbon dioxide (CO ₂) is an odorless, colorless, natural greenhouse gas. Carbon dioxide's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
Chlorofluorocarbons (PFCs)	These are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987.
Hydrofluorocarbons (HCFCs)	Hydrofluorocarbons are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons (PFCs)	Perfluorocarbons have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.

Greenhouse Gas	Description and Physical Properties	Sources
<p>Sulfur hexafluoride (SF6)</p>	<p>Sulfur hexafluoride (SF6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.</p>	<p>This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.</p>
<p>Nitrogen trifluoride (NF3)</p>	<p>Nitrogen trifluoride (NF3) was added to Health and Safety Code section 38505(f)(7) as a greenhouse gas of concern. It has a high global warming potential of 17,200</p>	<p>This gas is used in electronics manufacture for semiconductors and liquid crystal displays.</p>

The State has begun the process of addressing pollutants referred to as short-lived climate pollutants. Senate Bill (SB) 605, approved by the governor on September 14, 2014, required the ARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants by January 1, 2016. ARB was required to complete an emission inventory of these pollutants, identify research needs, identify existing and potential new control measures that offer co-benefits, and coordinated with other state agencies and districts to develop measures. The Short Lived Climate Pollutant Strategy was approved by the ARB in March 2017. The strategy calls for reductions of 50 percent from black carbon, 40 percent from methane, and 40 percent from HFCs from the 2030 Business as Usual (BAU) inventory for these pollutants.⁷

The short-lived climate pollutants include three main components: black carbon, fluorinated gases, and methane. Fluorinated gases and methane are described in **Error! Reference source not found.** of Appendix B and are already included in the California GHG inventory. Black carbon has not been included in past GHG inventories; however, ARB will include it in its comprehensive strategy.⁸

Ozone is another short-lived climate pollutant that will be part of the strategy. Ozone affects evaporation rates, cloud formation, and precipitation levels. Ozone is not directly emitted, so its

⁷ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 41.

⁸ Ibid. Page 42.

precursor emissions—VOC and NO_x on a regional scale and CH₄ on a hemispheric scale—will be subject of the strategy.⁹

Black carbon is a component of fine particulate matter. Black carbon is formed by incomplete combustion of fossil fuels, biofuels, and biomass. Sources of black carbon within a jurisdiction may include exhaust from diesel trucks, vehicles, and equipment, as well as smoke from biogenic combustion. Biogenic combustion sources of black carbon include the burning of biofuels used for transportation, the burning of biomass for electricity generation and heating, prescribed burning of agricultural residue, and natural and unnatural wildfires. Black carbon is not a gas but an aerosol—particles or liquid droplets suspended in air. Black carbon only remains in the atmosphere for days to weeks, whereas other GHGs can remain in the atmosphere for years. Black carbon can be deposited on snow, where it absorbs sunlight, reduces sunlight reflectivity, and hastens snowmelt. Direct effects include absorbing incoming and outgoing radiation; indirectly, black carbon can also affect cloud reflectivity, precipitation, and surface dimming (cooling).

Global warming potentials for black carbon were not defined by the IPCC in its Fourth Assessment Report. The ARB has identified a global warming potential of 3,200 using a 20-year time horizon and 900 using a 100-year time horizon from the IPCC Fifth Assessment. Sources of black carbon are already regulated by ARB, and air district criteria pollutant and toxic regulations that control fine particulate emissions from diesel engines and other combustion sources. Additional controls on the sources of black carbon specifically for their GHG impacts beyond those required for toxic and fine particulates are not likely to be needed.

Water vapor is also considered a GHG. Water vapor is an important component of our climate system and is not regulated. Increasing water vapor leads to warmer temperatures, which causes more water vapor to be absorbed into the air. Warming and water absorption increase in a spiraling cycle. Water vapor feedback can also amplify the warming effect of other greenhouse gases, such that the warming brought about by increased CO₂ allows more water vapor to enter the atmosphere.¹⁰

Emissions Inventories

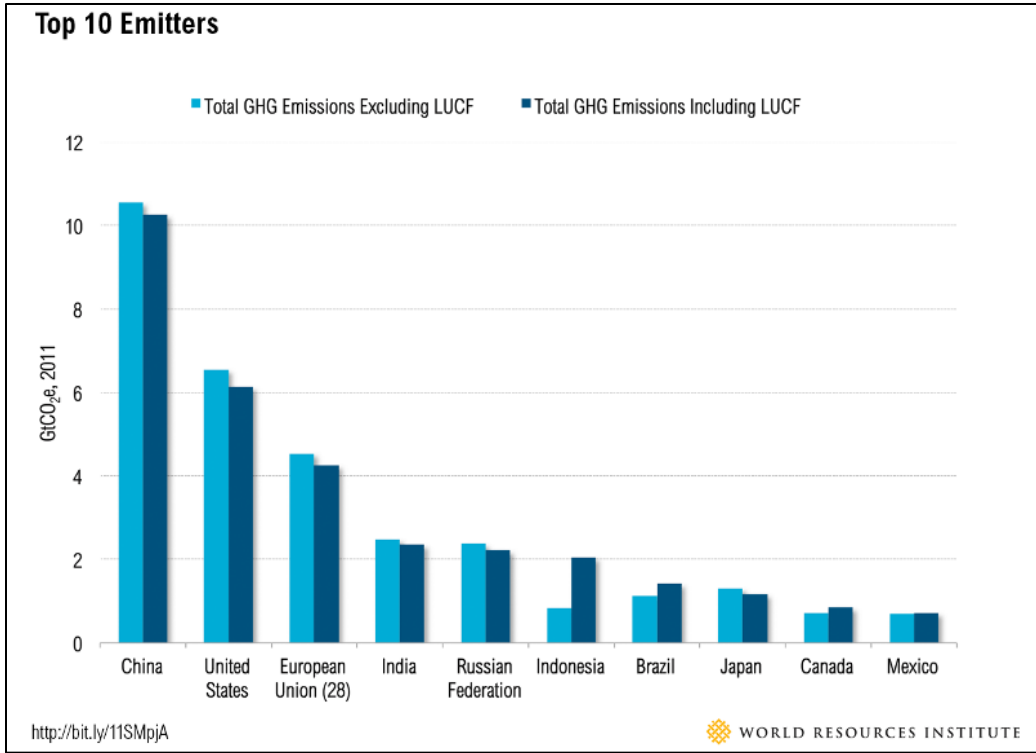
An emissions inventory is a database that lists, by source, the amount of air pollutants discharged into the atmosphere of a geographic area during a given time period. Emissions worldwide were

⁹ Ibid.

¹⁰ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 42.

approximately 43,286 million metric tons of carbon dioxide equivalents (MMTCO₂e) in 2012. As shown in **Error! Reference source not found.**, China was the largest GHG emitter with over 10 billion metric tons of CO₂e, and the United States was the second largest GHG emitter with over 6 billion metric tons of CO₂e.¹¹

**Figure 3.8-2
Greenhouse Gas Emission Trends¹²**



Error! Reference source not found. shows the contributors of GHG emissions in California between years 2000 and 2017 by Scoping Plan category. The main contributor was transportation. The second-highest sector was industrial, which includes sources from refineries, general fuel use, oil and gas extraction, cement plants, and cogeneration heat output. ARB reported that California’s GHG emissions inventory was 424.1 MMTCO₂e in 2017. This amount is below the State’s 2020 emission target of 431 MMTCO₂e.¹³

¹¹ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 42.

¹² Ibid. Page 43.

¹³ Ibid.

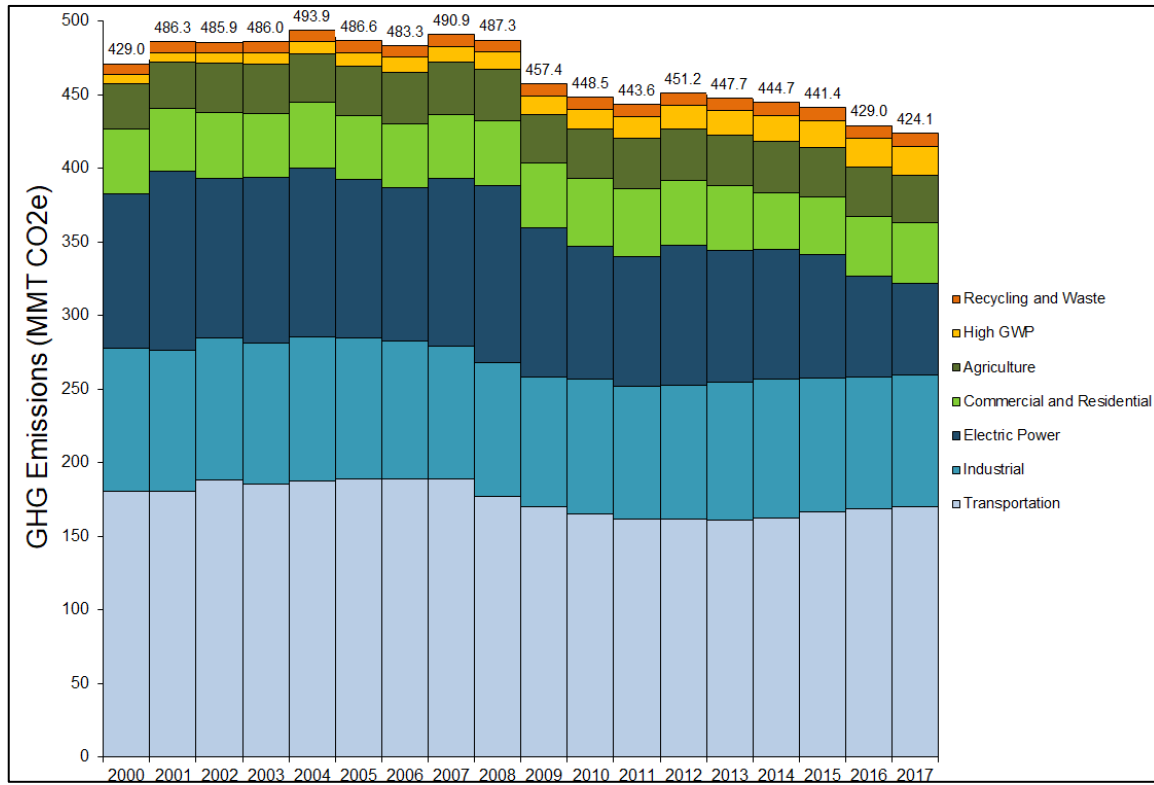


Figure 3.8-3 Greenhouse Gas Emissions Trends by Scoping Plan Category in California¹⁴

¹⁴ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 43.

Regulatory Setting

Federal Regulations

Prior to the last decade, there were no concrete federal regulations of GHGs or major planning for climate change adaptation. Since then, federal activity has increased. The following are actions regarding the federal government, GHGs, and fuel efficiency.

Greenhouse Gas Endangerment

Massachusetts v. EPA (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four GHGs, including CO₂, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section “Clean Vehicles” below. After a lengthy legal challenge, the United States Supreme Court declined to review an Appeals Court ruling upholding the EPA Administrator findings.¹⁵

Clean Vehicles

¹⁵ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 46.

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light-duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

Mandatory Reporting of Greenhouse Gases

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the United States, and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA.

New Source Review

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs, which will define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the federal code of regulations, the EPA states:

This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the Clean Air Act, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to greenhouse gas sources, starting with the largest greenhouse gas emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources, but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for greenhouse gas emissions until at least April 30, 2016.

The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

State of California Regulations

Legislative Actions to Reduce GHGs

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 California Global Warming Solutions Act of 2006 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include CO₂, methane, NO_x, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. The ARB is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB approved the 1990 GHG emissions level of 427 MMTCO₂e on December 6, 2007. Therefore, to meet the State's target, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO₂e. Emissions in 2020 in a BAU scenario were estimated to be 596 MMTCO₂e, which do not account for reductions from AB 32 regulations. At that rate, a 28 percent reduction was required to achieve the 427 MMTCO₂e 1990 inventory. In October 2010, ARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. The 2020 inventory without the benefits of adopted regulation is now estimated

at 545 MMTCO_{2e}. Therefore, under the updated forecast, a 21.7 percent reduction from BAU is required to achieve 1990 levels.¹⁶

ARB Scoping Plan. The ARB’s Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State’s emissions to 1990 levels by the year 2020 to comply with AB 32. The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State’s long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between “capped” and “uncapped” strategies. Capped strategies are subject to the proposed Cap-and-Trade Program. The Scoping Plan states that the inclusion of these emissions within the Cap-and-Trade Program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the Cap-and-Trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.

¹⁶ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 49.

The Scoping Plan included no measures that would apply to pistachio processing operations. Scoping Plan Measure No. A-1—Methane Capture at Large Dairies is the only agricultural measure that was assigned an emission reduction target (1.0 MMTCO₂e in 2020). Emissions of nitrous oxide (N₂O) from nitrogen fertilizers was expected to be the subject of research to understand the variables affecting fertilizer N₂O emissions and based on the findings, the ARB would explore opportunities for reductions.

The ARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identifies the next steps for California’s climate change strategy. The Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report establishes a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. The Update identifies progress made to meet the near-term objectives of AB 32 and defines California’s climate change priorities and activities Climate for the next several years. The Update does not set new targets for the State, but describes a path that would achieve the long term 2050 goal of Executive Order S-05-03 for emissions to decline to 80 percent below 1990 levels by 2050. The Update includes an estimate that reductions averaging 5.2 percent per year would be required after 2020 to achieve the 2050 goal.

Cap-and-Trade Program. The Cap-and-Trade Program is a key element of the Scoping Plan. It sets a statewide limit on sources responsible for 85 percent of California’s greenhouse gas emissions, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The program is designed to provide covered entities the flexibility to seek out and implement the lowest cost options to reduce emissions. The program conducted its first auction in November 2012. Compliance obligations began for power plants and large industrial sources in January 2013. Other significant milestones include linkage to Quebec’s Cap-and-Trade system in January 2014 and starting the compliance obligation for distributors of transportation fuels, natural gas, and other fuels in January 2015.¹⁷

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade Program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are guaranteed only on an accumulative basis. As summarized by ARB in the First Update:

¹⁷ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 50.

The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative.¹⁸

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California’s direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California’s direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate:

The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the “capped sectors.” Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33 percent [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap. The Cap-and-Trade Regulation provides assurance that California’s 2020 limit will be met because the regulation sets a firm limit on 85 percent of California’s GHG emissions. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by ARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State’s emissions forecasts and the effectiveness of direct regulatory measures.

AB 398. The Governor signed AB 398 on July 25, 2017, to extend the Cap-and-Trade Program to 2030. The legislation includes provisions to ensure that offsets used by sources are limited to 4

¹⁸ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 50.

percent of their compliance obligation from 2021 through 2025 and 6 percent from 2026 through 2030. AB 398 also prevents Air Districts from adopting or implementing emission reduction rules from stationary sources that are also subject to the Cap-and-Trade Program.¹⁹

SB 32. The Governor signed SB 32 on September 8, 2016. SB 32 gives ARB the statutory responsibility to include the 2030 target previously contained in Executive Order B-30-15 in the next Scoping Plan update. SB 32 states that “In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the state [air resources] board shall ensure that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide greenhouse gas emissions limit no later than December 31, 2030.” The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. The major elements of the framework proposed to achieve the 2030 target are as follows:

ARB approved the 2017 Scoping Plan Update in December 2017. The Scoping Plan Update provides the emission inventories and strategies that will enable cities and counties to develop local greenhouse gas targets and CEQA thresholds based on consistency with the 2030 State mandate.

1. SB 350
 - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
 - Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard (LCFS)
 - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
 - Maintaining existing GHG standards for light- and heavy-duty vehicles.
 - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
 - Increase ZEV buses, delivery and other trucks.
4. Sustainable Freight Action Plan
 - Improve freight system efficiency.

¹⁹ Ibid. Page 51.

- Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
 - Deploy over 100,000 zero-emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant (SLCP) Reduction Strategy
 - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
 - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
 6. SB 375 Sustainable Communities Strategies
 - Increased stringency of 2035 targets.
 7. Post-2020 Cap-and-Trade Program
 - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
 - ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
 8. 20 percent reduction in greenhouse gas emissions from the refinery sector.
 9. By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

SB 375—The Sustainable Communities and Climate Protection Act of 2008. SB 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40 percent of the total GHG emissions in California. SB 375 states, “Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32.” SB 375 does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

Concerning CEQA, SB 375—as codified in Public Resources Code Section 21159.28—states that CEQA findings determinations for certain projects are not required to reference, describe, or discuss (1) growth-inducing impacts or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved Sustainable Communities Strategy or an alternative planning strategy that the ARB accepts as achieving the greenhouse gas emission reduction targets;
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies); and
3. Incorporates the mitigation measures required by an applicable prior environmental document.

The 2018 RTP/SCS was adopted by Fresno COG on July 26, 2018, and reflects its latest regional vehicle miles traveled (VMT) targets.²⁰

AB 1493 Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA’s denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011.

The standards are to be phased in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in an approximately 22 percent reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30 percent reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation, rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.²¹

²⁰ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 52.

²¹ Ibid. Page 53.

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The new rules will reduce pollutants from gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles, and hydrogen fuel cell cars. The regulations will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

SB 1368—Emission Performance Standards. In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Because of the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, of 1,100 lbs CO₂ per megawatt-hour (MWh).

SB 1078—Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23. In 2011, the state legislature adopted this higher standard in SB X1-2. Renewable sources

of electricity subject to the legislation include wind, small hydropower, solar, geothermal, biomass, and biogas.

SB 350—Clean Energy and Pollution Reduction Act of 2015. The legislature recently approved and the governor signed SB 350, which reaffirms California’s commitment to reducing its GHG emissions and addressing climate change. Key provisions include: an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Provisions for a 50 percent reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill’s passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.²²

SBX 7-7—The Water Conservation Act of 2009. The legislation directs urban retail water suppliers to set individual 2020 per capita water use targets and begin implementing conservation measures to achieve those goals. Meeting this statewide goal of 20 percent decrease in demand will result in a reduction of almost 2 million acre-feet in urban water use in 2020.

SB 100 California Renewable Portfolio Standard (2018). The goal of the program is to achieve that 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. The bill approved by Governor Brown on September 10, 2018, would require that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that

²² Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 54.

the total kilowatt-hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs through the use of executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05. On June 1, 2005, former California Governor Arnold Schwarzenegger announced through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order B-30-15. On April 29, 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The executive order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050, and directs the ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMCO_{2e}. The executive order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this executive order is not legally enforceable against local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

Executive Order S-01-07—Low Carbon Fuel Standard. The governor signed Executive Order S 01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020. In particular, the executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the “life-cycle carbon intensity” of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by California Energy Commission on December 24, 2007) and was submitted to ARB for consideration as an “early action” item under AB 32. The ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

The Low Carbon Fuel Standard was subject to legal challenge in 2011. Ultimately, ARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The Office of Administrative Law (OAL) approved the regulation on November 16, 2015.²³

Executive Order S-13-08. Executive Order S-13-08 states that “climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California’s economy, to the health and welfare of its population and to its natural resources.” Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy (California Natural Resources Agency 2009) was adopted, which is the “. . . first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Orders B-55-18 Carbon Neutrality by 2045 (2018). This Executive Order signed on September 10, 2018, sets a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the statewide targets of reducing greenhouse gas emissions.

²³ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 55.

California Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California’s energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations. California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Sections 1601–1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.²⁴

Title 24 Energy Efficiency Standards. California Code of Regulations Title 24 Part 6: California’s Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California’s energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The most current 2016 Building Energy Efficiency Standards approved on January 19, 2016, went into effect on January 1, 2017 (CEC 2016). The CEC adopted the 2019 Building Energy Efficiency Standards on May 9, 2018. The updated standards are effective as of January 1, 2020.²⁵

Title 24 California Green Building Standards Code (California Code of Regulations Title 24, Part 11 code) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect January 1, 2011. The code is updated on a regular basis, with the most recent update consisting of the 2016 California Green Building Code Standards that became effective January 1, 2017. Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided the ordinances include a

²⁴ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 56.

²⁵ Ibid.

minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy, which is generally enforced by the local building official.

The California Green Building Standards Code (California Code of Regulations Title 24, Part 11 code) requires:

- **Short-term bicycle parking.** If a commercial project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for five percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- **Long-term bicycle parking.** For buildings with over 10 tenant-occupants, provide secure bicycle parking for five percent of tenant-occupied motorized vehicle parking capacity, with a minimum of one space (5.106.4.1.2).
- **Designated parking.** Provide designated parking in commercial projects for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- **Recycling by Occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling. (5.410.1).
- **Construction waste.** A minimum 50-percent diversion of construction and demolition waste from landfills, increasing voluntarily to 65 and 80 percent for new homes and 80-percent for commercial projects. (5.408.1, A5.408.3.1 [nonresidential], A5.408.3.1 [residential]). All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled (5.408.3).
- **Wastewater reduction.** Each building shall reduce the generation of wastewater by one of the following methods:
 - The installation of water-conserving fixtures or
 - Using nonpotable water systems (5.303.4).
- **Water use savings.** Twenty percent mandatory reduction in indoor water use with voluntary goal standards for 30, 35, and 40 percent reductions (5.303.2, A5303.2.3 [nonresidential]).
- **Water meters.** Separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day (5.303.1).
- **Irrigation efficiency.** Moisture-sensing irrigation systems for larger landscaped areas (5.304.3).

- **Materials pollution control.** Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particleboard (5.404).
- **Building commissioning.** Mandatory inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies (5.410.2).

Model Water Efficient Landscape Ordinance. The Model Water Efficient Landscape Ordinance (Ordinance) was required by AB 1881 Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20 percent consistent with (SBX-7-7) 2020 mandate are expected for the ordinance. Governor Brown’s Drought Executive Order of April 1, 2015 (EO B-29-15) directed DWR to update the ordinance through expedited regulation. The California Water Commission approved the revised ordinance on July 15, 2015, which became effective on December 15, 2015. New development projects that include landscaped areas of 500 square feet or more are subject to the ordinance. The update requires:

- More efficient irrigation systems
- Incentives for graywater usage
- Improvements in on-site stormwater capture
- Limiting the portion of landscapes that can be planted with high water use plants
- Reporting requirements for local agencies.

California Supreme Court GHG Ruling

In a November 30, 2015, ruling, the *California Supreme Court in Center for Biological Diversity (CBD) v. California Department of Fish and Wildlife (CDFW)* on the Newhall Ranch project, concluded that whether the project was consistent with meeting statewide emission reduction goals is a legally permissible criterion of significance, but the significance finding for the project was not supported by a reasoned explanation based on substantial evidence. The Court offered potential solutions on pages 25 to 27 of the ruling to address this issue summarized below.

Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU.** A lead agency may use a BAU comparison based on the Scoping Plan’s methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court

suggested a lead agency could examine the “data behind the Scoping Plan’s business-as-usual model” to determine the necessary project-level reductions from new land use development at the proposed location (p. 25).

- **Compliance with Regulatory Programs or Performance Based Standards.** “A lead agency might assess consistency with A.B. 32’s goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities. (See Final Statement of Reasons, *supra*, at p. 64 [greenhouse gas emissions ‘may be best analyzed and mitigated at a programmatic level.’].) To the extent a project’s design features comply with or exceed the regulations outlined in the Scoping Plan and adopted by the Air Resources Board or other state agencies, a lead agency could appropriately rely on their use as showing compliance with ‘performance based standards’ adopted to fulfill ‘a statewide . . . plan for the reduction or mitigation of greenhouse gas emissions.’ (CEQA Guidelines § 15064.4(a)(2), (b)(3); see also *id.*, § 15064(h)(3) [determination that impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including ‘plans or regulations for the reduction of greenhouse gas emissions’].)” (p. 26).
- **Compliance with GHG Reduction Plans or Climate Action Plans (CAPs).** A lead agency may utilize “geographically specific GHG emission reduction plans” such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis (p. 26).
- **Compliance with Local Air District Thresholds.** A lead agency may rely on “existing numerical thresholds of significance for greenhouse gas emissions” adopted by, for example, local air districts (p. 27).

Therefore, consistent with CEQA Guidelines Appendix G, the three factors identified in CEQA Guidelines Section 15064.4 and the recently issued Newhall Ranch opinion, the GHG impacts would be considered significant if the project would:

- Conflict with a compliant GHG Reduction Plan if adopted by the lead agency;
- Exceed the SJVAPCD GHG Reduction Threshold; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

San Joaquin Valley Air Pollution Control District Regulations

Climate Change Action Plan

On August 21, 2008, the SJVAPCD Governing Board approved a proposal called the Climate Change Action Plan (CCAP). The CCAP began with a public process bringing together stakeholders, land use agencies, environmental groups, and business groups to conduct public workshops to develop comprehensive policies for CEQA guidelines, a carbon exchange bank, and voluntary GHG emissions mitigation agreements for the Board's consideration. The CCAP contains the following goals and actions:

- Develop GHG significance thresholds to address CEQA projects with GHG emission increases.
- Develop the San Joaquin Valley Carbon Exchange for banking and trading GHG reductions.
- Authorize use of the SJVAPCD's existing inventory reporting system to allow use for GHG reporting required by AB 32 regulations.
- Develop and administer GHG reduction agreements to mitigate proposed emission increases from new projects.
- Support climate protection measures that reduce greenhouse gas emissions as well as toxic and criteria pollutants. Oppose measures that result in a significant increase in toxic or criteria pollutant emissions in already impacted areas.

On December 17, 2009, the SJVAPCD Governing Board adopted "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," and the policy "District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency." The SJVAPCD concluded that the existing science is inadequate to support quantification of the impacts that project-specific GHG emissions have on global climatic change. The SJVAPCD found the effects of project-specific emissions to be cumulative, and without mitigation, their incremental contribution to global climatic change could be considered cumulatively considerable. The SJVAPCD found that this cumulative impact is best addressed by requiring all projects to reduce their GHG emissions, whether through project design elements or mitigation.²⁶

The SJVAPCD's approach is intended to streamline the process of determining if project-specific GHG emissions would have a significant effect. Projects exempt from the requirements of CEQA, and projects complying with an approved plan or mitigation program would be determined to have a less than significant cumulative impact. Such plans

²⁶ Air Quality and Greenhouse Gas Analysis Report for the Kamm Avenue Pistachio Processing Plant. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 60.

or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources, and must have a certified final CEQA document.

For non-exempt projects, those projects for which there is no applicable approved plan or program, or those projects not complying with an approved plan or program, the lead agency must evaluate the project against performance-based standards and would require the adoption of design elements, known as Best Performance Standards (BPS), to reduce GHG emissions. The BPS have not yet fully been established, though they must be designed to achieve a 29 percent reduction when compared with the BAU projections identified in ARB's AB 32 Scoping Plan.

BAU represents the emissions that would occur in 2020 if the average baseline emissions during the 2002–2004 period were grown to 2020 levels, without control. Thus, these standards would carry with them pre-quantified emissions reductions, eliminating the need for project-specific quantification. Therefore, projects incorporating BPS would not require specific quantification of GHG emissions, and automatically would be determined to have a less than significant cumulative impact for GHG emissions.

For stationary source permitting projects, BPS means, "The most stringent of the identified alternatives for control of GHG emissions, including type of equipment, design of equipment and operational and maintenance practices, which are achieved-in-practice for the identified service, operation, or emissions unit class." The SJVAPCD has identified BPS for the following sources: boilers; dryers and dehydrators; oil and gas extraction; storage, transportation, and refining operations; cogeneration; gasoline dispensing facilities; volatile organic compound control technology; and steam generators.

For development projects, BPS means, "Any combination of identified GHG emission reduction measures, including project design elements and land use decisions that reduce project-specific GHG emission reductions by at least 29 percent compared with business as usual."

Projects not incorporating BPS would require quantification of GHG emissions and demonstration that BAU GHG emissions have been reduced or mitigated by 29 percent. As stated earlier, ARB's adjusted inventory reduced the amount required by the State to achieve 1990 emission levels from 29 percent to 21.7 percent to account for slower growth experienced since the 2008 recession. According to SJVAPCD guidance, quantification of GHG emissions would be required for all projects for which the lead agency has determined that an environmental impact report is required, regardless of whether the project incorporates BPS.

The SJVAPCD has not yet adopted BPS for development projects, so quantification of project emissions is required.²⁷

San Joaquin Valley Carbon Exchange

The SJVAPCD initiated work on the San Joaquin Valley Carbon Exchange in November 2008. The purpose of the carbon exchange is to quantify, verify, and track voluntary GHG emissions reductions generated within the San Joaquin Valley. However, the SJVAPCD has pursued an alternative strategy that incorporates the GHG emissions into its existing Rule 2301—Emission Reduction Credit Offset Banking that formerly only addressed criteria pollutants. The SJVAPCD is also participating with the California Air Pollution Control Officers Association (CAPCOA), of which it is a member, in the CAPCOA Greenhouse Gas Reduction Exchange (GHG Rx). The GHG Rx is operated cooperatively by air districts that have elected to participate. Participating districts have signed a Memorandum of Understanding (MOU) with CAPCOA and agree to post only those credits that meet the Rx standards for quality. The objective is to provide a secure, low-cost, high-quality greenhouse gas exchange for credits created in California. The GHG Rx is intended to help fulfill compliance obligations or mitigation needs of local projects subject to environmental review, reducing the uncertainty of using credits generated in distant locations. The SJVAPCD currently has no credits posted to the GHG Rx as of this writing.²⁸

Rule 2301

While the Climate Change Action Plan indicated that the GHG emission reduction program would be called the San Joaquin Valley Carbon Exchange, the District incorporated a method to register voluntary GHG emission reductions into its existing Rule 2301—Emission Reduction Credit Banking through amendments of the rule. Amendments to the rule were adopted on January 19, 2012. The purposes of the amendments to the rule include the following:

- Provide an administrative mechanism for sources to bank voluntary GHG emission reductions for later use.

²⁷ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 62.

²⁸ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 62.

- Provide an administrative mechanism for sources to transfer banked GHG emission reductions to others for any use.
- Define eligibility standards, quantitative procedures, and administrative practices to ensure that banked GHG emission reductions are real, permanent, quantifiable, surplus, and enforceable.

Local Regulations

Fresno Council of Governments Regional Transportation Plan

The Fresno Council of Governments (Fresno COG) is the Regional Transportation Planning Agency (RTPA) for the Fresno County region. The Fresno COG adopted the 2014 Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS) that included the County's first Sustainable Community Strategy to comply with SB 375. The RTP is a planning document prepared in cooperation with the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), the California Department of Transportation (Caltrans), and other stakeholders, including transportation system users. The SCS is intended to show how integrated land use and transportation planning can lead to lower greenhouse gas (GHG) emissions from autos and light trucks. SB 375 includes the following four primary findings related to the RTP/SCS development process:

- SB 375 required the ARB to develop regional GHG emission reduction targets for cars and light trucks for each of the 18 MPOs in California, including Fresno COG. ARB approved targets for the San Joaquin Valley in January 2013. The target for Fresno is a per capita reduction in GHG emissions from passenger vehicle travel of five percent by 2020 and 10 percent by 2035 relative to 2005 levels. The 2018 RTP indicates that the County continues to pursue the 5 percent reduction by 2020 and 10 percent reduction by 2035.
- SB 375 required the preparation of an SCS. Fresno COG included a SCS that specifies how the GHG emission reduction target set by ARB will be achieved in the RTP. If the target cannot be met through the SCS, then an Alternative Planning Strategy (APS) shall be prepared by Fresno COG. Chapter 4 of the 2014 RTP includes the SCS for Fresno COG. Chapter 3 of the 2018 RTP includes the updated SCS.

- SB 375 streamlines CEQA requirements for specific residential and mixed-use developments that are consistent with the Fresno County SCS or APS (as determined by ARB) to achieve regional GHG emissions reduction target.

The 2018 RTP/SCS was adopted by Fresno COG on July 26, 2018, and reflects its latest per capita GHG reduction targets of 5 percent by 2020, 10 percent by 2035, and 12 percent by 2042.²⁹

City of Fresno General Plan

The City of Fresno General Plan includes numerous objectives and policies in the Urban Form, Land Use, Design, Transportation, Park and Open Space, and Resource Conservation Elements. A list of the relevant policies was compiled in the Greenhouse Gas Reduction Plan. A qualitative policy consistency analysis of relevant General Plan policies is included in the Greenhouse Gas section.

City of Fresno General Plan Master Environmental Impact Report (MEIR)

The General Plan MEIR relies on General Plan goals and policies to mitigate GHG emissions to the extent feasible. The policies are similar to the strategies and actions included in plan. The following policies are applicable to the project:

- **RC-5-a Support State Goal to Reduce Statewide GHG Emissions.** As is consistent with State law, strive to meet AB 32 goal to reduce greenhouse gas emissions to 1990 levels by 2020 and strive to meet a reduction of 80 percent below 1990 levels by 2050 as stated in Executive Order S-03-05. As new statewide GHG reduction targets and dates are set by the State update the City's Greenhouse Gas Reduction Plan to include a comprehensive strategy to achieve consistency with those targets by the dates established.
- **RC-5-c GHG Reduction through Design and Operations.** Increase efforts to incorporate requirements for GHG emission reductions in land use entitlement decisions, facility design, and operational measures subject to City regulation through the following measures and strategies:
 - Promote the expansion of incentive-based programs that involve certification of projects for energy and water efficiency and resiliency. These certification programs and scoring systems may include public agency "Green" and

²⁹ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 62.

conservation criteria, Energy Star™ certification, CALGreen Tier 1 or Tier 2, Leadership in Energy Efficient Design (LEED™) certification, etc.

- Promote appropriate energy and water conservation standards and facilitate mixed-use projects, new incentives for infill development, and the incorporation of mass transit, bicycle and pedestrian amenities into public and private projects.
- **RC-5-d SCS and CAP Conformity Analysis.** Ensure that the City includes analysis of a project's conformity to an adopted regional Sustainable Community Strategy or Alternative Planning Strategy (APS), an adopted Climate Action Plan (CAP), and any other applicable City and regional greenhouse gas reduction strategies in affect at the time of project review.
- **RC-5-e Ensure Compliance.** Ensure ongoing compliance with GHG emissions reduction plans and programs by requiring that air quality measures are incorporated into projects' design, conditions of approval, and mitigation measures.
- **RC-5-g Evaluate Impacts with Models.** Continue to use computer models such as those used by SJVAPCD to evaluate greenhouse gas impacts of plans and projects that require such review.³⁰

City of Fresno Greenhouse Gas Reduction Plan

The General Plan Update includes a Greenhouse Gas Reduction Plan (GHG Plan) that provides the City's primary strategy for reductions greenhouse gas emissions. The intent of the GHG Plan is to achieve compliance with state GHG reduction mandates by focusing on feasible actions the City can take to minimize the adverse impacts of growth and development on climate change. The GHG Plan does not reinvent the wheel; rather, it builds on the General Plan policies and implementation measures. Where needed, the GHG Plan provides more details to clarify and focus action and to ensure implementation.³¹

The GHG Plan shows that the City will achieve a reduction of 26.8 percent from BAU by 2020 through compliance with regulations only, which exceeds the 21.7 percent required to show consistency with AB 32 targets. The local measures contained in the GHG Plan were expected to achieve an additional 3.0 percent reduction from BAU for a total reduction of 29.8 percent from BAU by 2020.

³⁰ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 65.

³¹ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 65.

The GHG Plan includes criteria that would allow projects to qualify for permit streamlining provisions and incentives and would receive a less than significant finding for GHG impacts. The checklist is intended as an incentive program and is not feasible for all projects. Projects that meet the Fresno Green Checklist point totals receive the following incentives:

- 25 percent fee reductions of many planning fees (Site Plans, CUPs, EAs, etc.)
- 20 percent minor deviation from development standards, if needed (25% if public art is incorporated into the project)
- Expedited processing through the “Green Team”
- Eligibility for a Fresno Green award and use of the Fresno Green brand for the project

In addition, projects that meet the criteria listed below do not need a quantitative greenhouse gas analysis in some cases. Projects that comply with the four actions listed below would not need to prepare a quantitative GHG analysis to demonstrate consistency with the GHG Plan and to be considered to have less than significant impacts. Projects requiring a General Plan Amendment would require a quantitative analysis of GHG emissions to demonstrate that the project would achieve at least a 21.7 percent GHG emission reduction compared to business as usual (BAU) in 2020 to be considered less than significant.

The GHG Plan includes the following guidance for determining project consistency with the GHG Plan:

1. Review General Plan Policies listed in the GHG Plan to determine applicability to the project.
2. Incorporate design features or mitigation measures into the project as needed to demonstrate consistency.
 - a. Street and pedestrian design complies with complete streets concepts.
 - b. Review project against Development Code for mandatory design features required for the project.
 - c. Consider alternative energy generation (solar) if appropriate for the project and site. (The State is working towards zero net energy development that will require increasing efficiency and self-generation over time).
 - d. Review water conservation building and landscape design features for compliance with City water conservation standards.
3. Implement project design features suitable for the development type and location.

- a. Projects within core/center areas and BRT corridors should meet minimum density and design requirements to ensure pedestrian and transit orientation is met.
 - b. Maintain and enhance connections to regional bikeways and trail system.
4. Complete the latest version of the Fresno Green Residential or Non-Residential Checklist
 - a. Meet the Fresno Green checklist point requirements.
 - b. Alternatively, meet the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Programs, or qualify for Build It Green's GreenPoint rating system for residential building.

Many of the points available on the Fresno Green Checklist and the LEED Program apply to measures not related to greenhouse gas emissions or are specific to certain areas of the City such as redevelopment areas. Projects that do not choose to pursue the Fresno Green streamlining benefits may prepare a quantitative analysis to demonstrate that the project achieves emission reductions consistent with the GHG Plan and AB 32 reduction targets (21.7 percent reduction from BAU in 2020). This project has provided a quantitative analysis of project emissions under the BAU scenario and 2020 with emission reductions scenario to demonstrate that the project would achieve the 21.7 percent reduction required to demonstrate consistency with AB 32 reduction targets and the 29 percent reduction from BAU recommended by the SJVAPCD that is based on reductions required in the AB 32 Scoping Plan. In addition, an analysis of 2030 emissions is included to address SB 32 2030 targets and compliance with the Newhall Ranch California Supreme Court ruling.

City of Fresno Waste Diversion

With the passage of SB 1016, the Per Capita Disposal Measurement System, only per capita disposal rates are measured. Targets are based on the per capita disposal rates. The City's disposal rate for 2019 was 6.2 pounds per person per day, which is well below the target of 6.6 pounds per person per day. The disposal rate per employee was 14 pounds per day, which is below the target of 15.6 pounds per employee per day.³²

Thresholds of Significance

³² Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 66.

The significance criteria for assessing the impacts from GHG emissions are derived from the CEQA Environmental Checklist. According to the CEQA Checklist, a project causes a potentially significant impact if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Impacts and Mitigation Measures

Impact 3.8-1: *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less Than Significant. Section 15064.4(b) of the CEQA Guidelines' 2018 amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- **Consideration #1:** The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration #2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration #3:** The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or

strategies, provided that substantial evidence supports the agency’s analysis of how those goals or strategies address the project’s incremental contribution to climate change and its conclusion that the project’s incremental contribution is not cumulatively considerable.

The City of Fresno adopted a Greenhouse Gas Reduction Plan in 2014 that includes procedures for certain qualified projects to demonstrate consistency with the plan and use the streamlining provisions allowed under CEQA. In addition to the plan consistency analysis, a quantitative analysis that shows that reductions from BAU emissions would exceed 21.7 percent in 2020 was prepared to show consistency with State reduction targets. The SJVAPCD’s *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* provides guidance for preparing a BAU analysis (SJVAPCD 2009b). Under the SJVAPCD guidance, projects meeting one of the following would have a less than significant impact on climate change:

- Exempt from CEQA;
- Complies with an approved GHG emission reduction plan or GHG mitigation program;
- Project achieves 29 percent GHG reductions by using approved Best Performance Standards; and
- Project achieves AB 32 targeted 29 percent GHG reductions compared with “business as usual.”

The 29 percent GHG reduction level is based on the target established by ARB’s AB 32 Scoping Plan, approved in 2008. The GHG reduction level for the State to reach 1990 emission levels by 2020 was reduced to 21.7 percent from BAU in 2020 in the 2014 First Update to the Scoping Plan to account for slower than projected growth after the 2008 recession.³³ In addition, the State has reported that the 2016, 2017, and 2018 greenhouse gas inventories are all below the 2020 target. Copper River Ranch is an ongoing project with new homes and businesses added continuously to meet market demand with or without the proposed plan revisions. For analysis purposes, construction is expected to begin in September 2021 and would reach buildout of the residential portion of the project by 2026 and the commercial portion of the project by 2028. Since buildout will occur after the AB 32 target year, and no new City of Fresno or SJVAPCD threshold has

³³ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 100.

been adopted, progress toward achieving the SB 32 2030 target is the most relevant criteria for determining significance.

A quantitative analysis was prepared for this project to determine the extent to which it may increase or reduce greenhouse gas emissions as compared to the existing environmental setting to fulfill Consideration 1.

Consideration 2 requires the identification of BPS that are determined to meet the 29 percent reduction from BAU. The SJVAPCD intended to develop a list of BPS for development projects that were pre-determined to achieve a 29 percent reduction from BAU, but has not completed the list. However, since the SJVAPCD guidance was adopted in 2009, regulations on sources of GHG emissions applicable to development projects have been implemented that will achieve in excess of a 29 percent reduction from BAU for most projects. A BAU analysis is provided to demonstrate that the project would exceed the current 21.7 percent reduction and the previous SJVAPCD 29 percent reduction threshold.

The analysis also addresses consistency with the SB 32 targets and the 2017 Scoping Plan Update with an assessment of the project's reduction from BAU based on emissions in 2030 compared with the 21.7 percent reduction and with a consistency analysis. This approach provides estimates of project emissions in the new 2030 milestone year with the existing threshold to address Considerations 1 and 2 above.

The ARB adopted the 2017 Scoping Plan Update on December 14, 2017. The plan provides the State's strategy to achieve the SB 32 2030 target of a 40 percent reduction in emissions compared to 1990 levels. The plan includes existing and new measures that when implemented are expected to achieve the SB 32 2030 target. The 2017 Scoping Plan achieves substantial reductions beyond 2020 through continued implementation of existing regulations. Other regulations will be adopted to implement recently enacted legislation including SB 350, which requires an increase in renewable energy from 33 percent to 50 percent and doubling the efficiency of existing buildings by 2030. The Legislature extended the Cap-and-Trade Program through 2030. Cap-and-Trade provides a mechanism to make up shortfalls in other strategies if they occur (ARB 2017c). In addition, the strategy relies on reductions achieved in implementing the ARB Short-Lived Climate Pollutant (SLCP) Reduction Strategy to reduce pollutants not previously controlled for climate change such as black carbon, CH₄, and hydrofluorocarbons.³⁴

³⁴ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 101.

Newhall Ranch

On November 30, 2015, the California Supreme Court issued its decision in *Newhall Ranch*, invalidating the GHG analysis for a large master planned residential development in Los Angeles County consisting of over 20,000 residential dwelling units and other uses. In particular, the Court upheld: (1) use of the statewide emissions reduction goal in AB 32 as a significance criterion (pp. 15–19), (2) use of the Scoping Plan’s BAU model “as a comparative tool for evaluating efficiency and conservation efforts” of the Project (pp. 18–19), and (3) a comparison of the project’s expected emissions to a BAU model rather than a baseline of pre-project conditions (pp. 15–19). The Court invalidated the GHG analysis on the grounds that the “administrative record discloses no substantial evidence that the Newhall Ranch’s project-level reduction of 31 percent in comparison to [BAU] is consistent with achieving AB 32’s statewide goal of a 29 percent reduction from [BAU].” The Court indicated that a lead agency may use a BAU comparison based on the Scoping Plan’s methodology if it also substantiates the reduction a particular project must achieve to comply with statewide goals. The Court suggested a lead agency could examine the “data behind the Scoping Plan’s business-as-usual model” to determine the necessary project-level reductions from new land use development at the proposed location (p. 25). A lead agency “might assess consistency with A.B. 32’s goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities.”

The substantial evidence needed to support a project BAU threshold can be derived from data used to develop the Scoping Plan inventory and control strategy, and from analysis conducted by the ARB to track progress in achieving the AB 32 2020 target. The critical factor in determining the appropriate project threshold is whether the State requires additional reductions beyond those achieved by existing regulations in order to achieve its target. If no additional reductions are required from individual projects, no nexus exists to require a project to mitigate its emissions. In that case, the percentage reductions achieved by projects through compliance with regulations is the amount needed to reach the AB 32 target. As discussed above, the State GHG inventory has been below the AB 32 target since 2016. Therefore, no additional reductions are needed to achieve AB 32 targets. Now that the AB 32 target has been achieved, the focus turns to achieving the SB 32 2030 target.

The Supreme Court was concerned that new development may need to do more than existing development to reduce GHGs to demonstrate that it is doing its fair share of reductions. As will be shown below, new development does do more than existing development and, because of the nature of the sources of GHG emissions related to development, existing development is

equally responsible for reducing emissions from the most important sources of emissions. It is important to note that most of the State's regulatory program applies to both new and existing development.

The Scoping Plan reduction from BAU accounts for growth projected in the State and assumes that existing development would continue to emit GHGs at the same rate that occurred in the base year. The DOF forecasts California's population will grow by 8.1 percent between 2020 and 2030, so existing development will be responsible for 92 percent of the emissions that occur in 2030 and new development for 8 percent of the emissions that occur in 2030. If measures to reduce emissions from existing development were not available, new development could not provide sufficient reductions to reach the 2030 target even if their emissions were reduced to net zero.

The State's regulatory program is able to target both new and existing development because the two most important strategies—motor vehicle fuel efficiency and emissions from electricity generation—obtain reductions equally from existing and new sources. This is because all vehicle operators use cleaner low carbon fuels and buy vehicles subject to the fuel efficiency regulations, and all building owners or operators purchase cleaner energy from the grid that is produced by increasing percentages of renewable fuels. This includes regulations on mobile sources such as: The Pavley standards that apply to all vehicles purchased in California, the Low Carbon Fuel Standard (LCFS) that applies to all fuel used in California, and the Renewable Portfolio Standard and Renewable Energy Standard that apply to utilities providing electricity to all California homes and businesses. The reduction strategy where new development is required to do more than existing development is building energy efficiency and energy use related to water conservation regulations. For example, new projects are subject to Title 24 Energy Efficiency standards and CALGreen Code and Model Water Efficient Landscape Ordinance (MWELo) water conservation requirements. Residential buildings constructed to the 2013 Title 24 standards use 25 percent less energy than buildings complying with the 2008 standards. The version of Title 24 effective January 1, 2017, improves energy efficiency in residential buildings by 28 percent compared to the 2013 Title 24 standards and 46 percent compared with 2008 Title 24 standards. New buildings and landscapes are much more energy efficient and water efficient than the development that has been built over the past decades and will require much less energy. The 2019 Title 24 standards effective January 2020 makes progress toward achieving net zero energy use through requirements for on-site renewable generation for most projects. The project buildings would be constructed after 2020 and would be required to comply with 2019 or later Title 24 standards.

As described above, the State requires an average reduction from all sources of the emission inventory of approximately 40 percent from 1990 levels to achieve the 2030 target. The Scoping Plan strategy will achieve greater than average reductions from energy and mobile source sectors that are the primary sources related to development projects, and lower than average reductions from other sources such as agriculture. The amount of reduction estimated by the ARB for each sector was based on technical feasibility and cost effectiveness. The 2017 Scoping Plan Update identifies a range of reductions expected from each emission sector, but an amount needed for development's fair share of reductions have not been determined.

As suggested by the Court, a project BAU analysis was prepared for this project that assesses "consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities." The analysis shows the extent to which the project complies with adopted regulations and the additional amount that will be achieved through project design features. At this point in time, it appears that the State has achieved the 2020 target, so no additional reductions are required from new development beyond regulations for the State to achieve and maintain the 2020 target. The 2030 target will require a reduction from 431 MTCO_{2e} to 260 MTCO_{2e} or 40 percent from 1990 levels. After accounting for projected growth of approximately 0.8 percent per year an average decrease of 5.2 percent per year from the State GHG inventory will be required to achieve the target. The 2017 Scoping Plan Update includes a strategy for achieving the needed reductions, but does not identify an amount required specifically from new development. However, all GHG emission sources within development projects are subject to GHG regulations.

Therefore, this analysis shows progress toward achieving the 2030 target. The quantitative analysis prepared for the project provides the reduction from BAU in the 2030 target year to show the progress anticipated prior to applying reductions from new strategies contained in the 2017 Scoping Plan Update. The new reduction strategies from the plan are designed to close the gap between existing commitments and those needed to achieve the 2030 target, but many of the strategies must go through a regulatory process to be implemented. Therefore, the reductions needed from new development beyond regulations, if any, is uncertain.

The analysis prepared for the project also includes qualitative assessments of compliance with 2008 Scoping Plan, the 2017 Scoping Plan Update, and City of Fresno General Plan to support GHG significance findings under Impact GHG-2.

To determine significance, the analysis first quantifies project-related GHG emissions under a BAU scenario, and then compares these emissions with emissions that would occur when all project-related design features are accounted for, and when compliance with applicable

regulatory measures is assumed. The standard and methodology is explained in further detail below.

Construction Impact Analysis

Total GHG emissions generated during construction are presented in **Error! Reference source not found.**. Two model runs were prepared for the project at buildout. One run covered the remaining residential development and the second run covered the remaining commercial development. The SJVAPCD does not recommend assessing the significance of construction-related emissions. However, other jurisdictions, such as the SCAQMD and the SMAQMD, have concluded that construction emissions should be included since they may remain in the atmosphere for years after construction is complete.

**Table 3.8-2
Construction Greenhouse Gas Emissions³⁵**

Year	MTCO ₂ e per year		
	Residential	Commercial	Total
2021	519.89	54.65	574.54
2022	877.91	795.35	1673.26
2023	2,566.51	962.05	3528.56
2024	2,546.98	952.18	3499.15
2025	2,499.37	931.92	3,431.29

³⁵ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 104.

Year	MTCO ₂ e per year		
	Residential	Commercial	Total
2026	1,050.54	918.76	1,969.30
2027	0.00	905.55	905.55
2028	0.00	391.48	391.48
Total	10,061.19	5911.94	15,973.13
<i>Amortized over 30 years</i>	<i>335.37</i>	<i>197.06</i>	<i>532.44</i>
Notes: Calculation totals use unrounded numbers from CalEEMod output. MTCO ₂ e = metric tons of carbon dioxide equivalents			

In order to account for the construction emissions, amortizations of the total emissions generated during construction were based on the life of the development (30 years) and added to the operational emissions.

Operation Impact Analysis

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation, and area sources, such as landscaping activities and residential wood burning.

Business As Usual Operational Emissions. Operational emissions under the BAU scenario were modeled using CalEEMod 2016.3.2. Modeling assumptions for the year 2005 were used to represent 2026, 2028, and 2030 BAU conditions (without the benefit of regulations adopted to reduce GHG emissions). The SJVAPCD guidance recommends using emissions in 2002–2004 in the baseline scenario to represent conditions—as if regulations had not been adopted—to allow the effect of projected growth on achieving reduction targets to be clearly defined. CalEEMod defaults were used for project energy usage, water usage, waste generation, and area sources

(architectural coating, consumer products, and landscaping). The vehicle fleet mix was revised to reflect the residential fleet mix approved by SJVAPCD for 2026, which is when buildout of the residential areas of the project is assumed to be complete. The default vehicle fleet mix for the commercial land uses was revised to land use specific fleet mixes to more accurately account for project truck trips. Full assumptions and CalEEMod model outputs are provided in Appendix A of Appendix B.

2026, 2028, and 2030 Operational Emissions. Operational emissions were modeled using CalEEMod for the years 2026 for residential development and 2028 for commercial development. The project was also modeled for both residential and commercial development for 2030 to show progress towards SB 32 reduction targets. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide.³⁶ The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

Emissions Accounting for Applicable Regulations. The following regulations are incorporated into the CalEEMod emission factors:

- Pavley I and Pavley II (LEV III) motor vehicle emission standards
- ARB Medium and Heavy-Duty Vehicle Regulation
- 2005, 2008, 2013, and 2016 Title 24 Energy Efficiency Standards

The following regulations have not been incorporated into the CalEEMod emission factors and require alternative methods to account for emission reductions provided by the regulations:

- Renewable Portfolio Standards (RPS)
- Low Carbon Fuel Standard (LCFS)
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (Outdoor Water)

³⁶ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 105.

Pavley II/LEV III standards have been incorporated in the latest version of CalEEMod. ARB estimates a 3 percent reduction in 2020 and a 19 percent reduction from the vehicle categories subject to the regulation by 2030.³⁷

The ARB GHG Regulation for Medium and Heavy-Duty Engines and Vehicles applies to trucks that will be accessing the project site. The benefits of the regulation were incorporated into CalEEMod 2016.3.2. The ARB estimates that this regulation will reduce GHG emissions from the affected vehicles by 7.2 percent.³⁸

The Low Carbon Fuel Standard (LCFS) is estimated to achieve a 10 percent reduction in emissions by 2020 and an 18 percent reduction by 2030.³⁹ CalEEMod does not include credit for the LCFS.

Title 24 reductions for 2013 and 2016 updates were added to CalEEMod 2016.3.2. The California Energy Commission (CEC) estimates that 2013 Title 24 standards would result in an increase in energy efficiency of 25 percent in residential buildings compared to 2008 Title 24.⁴⁰ An additional 28 percent reduction from the 2008 standards have been claimed for compliance with 2016 Title 24. This results in a combined reduction of 46 percent. Compliance with 2019 Title 24 is expected to reduce residential energy use by 7 percent beyond 2016 Title 24 prior to accounting for the installation of solar panels. 2019 Title 24 requires new residential development include solar panels to generate electricity. The project is expected to include solar panels on each residential unit in quantities that meet or exceed Title 24 requirements. 2019 Title 24 is expected to reduce electricity consumption by 10.7 percent and natural gas by 1.0 percent for nonresidential uses.

RPS is not accounted for in CalEEMod 2016.3.2. Reductions from RPS are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2020.⁴¹ PG&E provides emission factors for the electricity it provides to customers and projections for its energy portfolio for 2020 that is used to estimate project emissions. No data to reflect compliance in 2030 was included in the PG&E projections. The utilities will be required by SB 100 to increase the use of renewable energy sources to 60 percent by 2030, but details on individual utility compliance have not been determined.

³⁷ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 105.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Ibid.

Energy savings from water conservation resulting from the Green Building Code Standards for indoor water use and California Model Water Efficient Landscape Ordinance for outdoor water use are not included in CalEEMod. The Water Conservation Act of 2009 mandates a 20 percent reduction in urban water use that is implemented with these regulations. Benefits of the water conservation regulations are applied in the CalEEMod mitigation component.

Reductions in emissions from solid waste are based on the City achieving the CalRecycle 75 Percent Initiative by 2020 compared with a 50 percent baseline for 2005. Reductions are taken using the CalEEMod mitigation component.

Regulations applicable to project sources and the percent reduction anticipated from each source are shown in Error! Reference source not found.3.8-3. The percentage reductions are only applied to the specific sources subject to the regulations. For example, the Pavley LEV Standards apply only to light duty cars and trucks.

**Table 3.8-3
Reductions from Greenhouse Gas Regulations⁴²**

Regulation	Project Applicability	Reduction Source	Percent Reduction in 2020 and 2030
Pavley Low Emission Vehicle Standards	Light-duty cars and trucks accessing the site are subject to the regulation.	CalEEMod defaults (Pavley I)	25.1 ¹
		Adjusted GHG emission factor (Pavley II/LEV III) in CalEEMod.	3% 2020 19.5% 2030 ²
Truck and Bus Regulation	Heavy-duty trucks accessing the site for deliveries and services are subject to the	Adjusted GHG emission factors for the regulation in CalEEMod	7.2% ³

⁴² Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 106.

Regulation	Project Applicability	Reduction Source	Percent Reduction in 2020 and 2030
	regulation.		
Low Carbon Fuel Standard (LCFS)	Vehicles accessing the site will use fuel subject to the LCFS	CalEEMod defaults	10% 2020 20% 2030 ¹
Title 24 Energy Efficiency Standards	Project buildings will be constructed to meet the latest version of Title 24 (currently 2016). Reduction applies only to energy consumption subject to the regulation.	CalEEMod defaults	35% ^{4,5}
Green Building Code Standards	The project will include water conservation features required by the standard	CalEEMod mitigation component	20% ⁶
Water Efficient Land Use Ordinance	The project landscaping will comply with the regulation	CalEEMod mitigation component	20% ⁷
Renewable Portfolio Standard (RPS)	Electricity purchased for use at the project site is subject to the 33 percent RPS mandate	CalEEMod adjusted energy intensity factors with PG&E emission factors that show the company exceeds the 33 percent 2020 mandate and is progressing toward 60 percent 2030 mandate.	54.5% ⁸
Solid waste	The solid waste service provider will need to provide programs to increase diversion and recycling to meet the 75 percent mandate.	CalEEMod mitigation component	25% ⁹

Regulation	Project Applicability	Reduction Source	Percent Reduction in 2020 and 2030
<p>Notes:</p> <p>Regulations are described in Section 2.3 Regulatory Environment. The source of the percentage reductions from each measure are from the following sources:</p> <ol style="list-style-type: none"> 1 Pavley 1 + Low Carbon Fuel Standard Postprocessor Version 1.0 User’s Guide 2 ARB Staff Report for LEV III Amendments 3 ARB Staff Report for GHG Regulations for Medium and Heavy-Duty Engines and Vehicles 4 California Energy Commission News Release: New Title 24 Standards Will Cut Residential Energy Use by 25 Percent, Save Water, and Reduce Greenhouse Gas Emissions 5 California Energy Commission Adoption Hearing Presentation: 2016 Buildings Energy Efficiency Standards 6 2013 California Green Building Standards Code Section 5.303.2 7 California Water Plan Update 2013 8 Based on CalEEMod default PG&E rate for 2005 and PG&E projected emission factor for 2020 9 CalRecycle 75 Percent Initiative: Defining the Future 			

In addition to rules and regulations, the Project would incorporate design features and would obtain benefits from its location and infrastructure that would reduce project vehicle miles traveled (VMT) compared with default values. The Project would construct pedestrian infrastructure connecting to adjacent land uses. Copper River Ranch incorporates bike lanes and roundabouts into the internal road network. In addition, the Project would provide electrical outlets for landscaping equipment that would be used in accordance with statewide usage rates for this type of equipment. The Project is located approximately 8.9 miles from existing employment centers on Herndon Avenue and in the Palm Bluffs Business Park and 4.7 miles from businesses at Friant Road and Audobon Avenue in North Fresno, providing shorter-than-average trip lengths to important destinations. The neighborhood commercial components of the project will provide local shopping and services to residents that will help reduce VMT.

Note that CalEEMod nominally treats these design elements and conditions as “mitigation measures,” despite their inclusion in the project description. Therefore, reported operational emissions are considered to represent unmitigated project conditions. Full assumptions and model outputs are provided in Appendix B. The residential and commercial projects were

modeled in separate model runs with the results for each provided in **Table 4** and **Error! Reference source not found.5**. The combined results for the full Project are presented in **Table 6**.

**Table 3.8-4
Project Operational Greenhouse Gases Residential 2026⁴³**

Source	Emissions (MTCO _{2e} per year)		
	Business as Usual	2026 (with Regulation and Design Features)	Percent Reduction
Area	1,820.34	939.43	48.39%
Energy	6,744.79	4,212.38	37.5%
Mobile	23,685.66	12,734.36	46.9%
Waste	842.01	631.51	25.0%
Water	489.70	258.95	47.1%
Amortized Construction Emissions	335.37	335.37	0.0%
Total	33,918.69	19,111.99	43.7%
Reduction from BAU		14,963.10	—
Percent Reduction		43.7%	—
Significance Threshold		21.7%	—
Are emissions significant?	No		
Notes:			
MTCO _{2e} = metric tons of carbon dioxide equivalents			
The project achieves the SJVAPCD 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets.			

**Table 3.8-5
Project Operational Greenhouse Gases Commercial 2028⁴⁴**

⁴³ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 108.

Source	Emissions (MTCO _{2e} per year)		
	Business as Usual	2028 (with Regulation and Design Features)	Percent Reduction
Area	0.00	0.00	4.66%
Energy	717.97	416.45	42.0%
Mobile	8,413.74	3,009.10	64.2%
Waste	119.18	89.39	25.0%
Water	69.24	36.82	46.8%
Amortized Construction Emissions	197.06	197.06	0.0%
Total	9,517.20	3,748.82	60.6%
Reduction from BAU		5,768.38	—
Percent Reduction		60.6%	—
Significance Threshold		21.7%	—
Are emissions significant?	No		
Notes:			
MTCO _{2e} = metric tons of carbon dioxide equivalents			
The project achieves the SJVAPCD 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets.			

⁴⁴ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 108.

**Table 3.8-6
Project Operational Greenhouse Gases Full Project 2028⁴⁵**

Source	Emissions (MTCO _{2e} per year)		
	Business as Usual	2028 (with Regulation and Design Features)	Percent Reduction
Area	1,820.35	939.43	48.39%
Energy	7,462.76	4,628.82	38.0%
Mobile	32,099.40	15,743.46	51.0%
Waste	961.19	720.89	25.0%
Water	558.94	295.77	47.1%
Amortized Construction Emissions	51.99	51.99	0.0%
Total	42,954.62	22,380.37	47.9%
Reduction from BAU		20,574.26	—
Percent Reduction		47.9%	—
Significance Threshold		21.7%	—
Are emissions significant?		No	
Notes:			
MTCO _{2e} = metric tons of carbon dioxide equivalents			
The project achieves the SJVAPCD 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets. No new target has been set for 2030.			

As shown in **Table 6**, the Project operations for the full Project would achieve a reduction from BAU of 47.9 percent, which exceeds the 21.7 percent reduction required by the State to achieve the 2020 target by 26.2 percent and the SJVAPCD 29.0 percent target by 18.9 percent. No new

⁴⁵ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 109.

threshold has been adopted by the City of Fresno for the 2030 target, so in the interim the Project must make continued progress toward the 2030 goal to be considered less than significant for this criterion. The Project includes design features that would result in reductions in energy use and support walking and bicycling. Measures that are part of the Project design do not require additional mitigation measures to ensure they are accomplished.

The 47.9 percent reduction from BAU is 26.2 percent beyond the average reduction required by the State from all sources to achieve the AB 32 2020 target and therefore addresses the concern expressed in Newhall Ranch that projects should likely do more than the average to ensure they are providing a fair share of emission reductions.

Since the Project buildout would occur after 2020, additional analyses summarized in Table 7, **Table**, and **Table** were prepared to show continued progress toward meeting the SB 32 2030 target.

Table 3.8-7
Project Operational Greenhouse Gases Residential 2030⁴⁶

Source	Emissions (MTCO _{2e} per year)		
	Business as Usual	2030 (with Regulation and Design Features)	Percent Reduction
Area	1,820.34	939.43	48.39%
Energy	6,744.79	4,212.38	37.5%
Mobile	23,685.66	10,958.03	53.7%
Waste	842.01	631.51	25.0%
Water	489.70	258.95	47.1%
Amortized Construction Emissions	335.37	335.37	0.0%
Total	33,917.87	17,335.66	48.9%
Reduction from BAU		16,582.21	—
Percent Reduction		48.9%	—

⁴⁶ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 110.

Source	Emissions (MTCO ₂ e per year)		
	Business as Usual	2030 (with Regulation and Design Features)	Percent Reduction
Significance Threshold		21.7%	—
Are emissions significant?	No		
Notes:			
MTCO ₂ e = metric tons of carbon dioxide equivalents			
The project achieves the SJVAPCD 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets. No new target has been set for 2030.			

**Table 3.8-8
Project Operational Greenhouse Gases Commercial 2030⁴⁷**

Source	Emissions (MTCO ₂ e per year)		
	Business as Usual	2030 (with Regulation and Design Features)	Percent Reduction
Area	0.00	0.00	4.66%
Energy	717.97	416.45	42.0-%
Mobile	8,413.74	2,781.03	66.9%
Waste	119.18	89.39	25.0%
Water	69.24	36.82	46.8%
Amortized Construction Emissions	197.06	197.06	0.0%
Total	9,517.20	3,520.75	63.0%
Reduction from BAU		5,996.45	—
Percent Reduction		63.0%	—

⁴⁷ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 110.

Source	Emissions (MTCO _{2e} per year)		
	Business as Usual	2030 (with Regulation and Design Features)	Percent Reduction
Significance Threshold		21.7%	—
Are emissions significant?	No		
Notes:			
MTCO _{2e} = metric tons of carbon dioxide equivalents			
The project achieves the SJVAPCD 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets. No new target has been set for 2030.			

**Table 3.8-9
Project Operational Greenhouse Gases Full Project 2030⁴⁸**

Source	Emissions (MTCO _{2e} per year)		
	Business as Usual	2030 (with Regulation and Design Features)	Percent Reduction
Area	1,820.35	939.43	48.39%
Energy	7,462.76	4,628.82	38.0%
Mobile	32,099.40	13,739.06	57.2%
Waste	961.19	720.89	25.0%
Water	558.94	295.77	47.1%
Amortized Construction Emissions	532.44	532.44	0.0%
Total	43,435.07	20,856.41	52.0%
Reduction from BAU		22,578.66	—
Percent Reduction		52.0%	—

⁴⁸ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 111.

Source	Emissions (MTCO _{2e} per year)		
	Business as Usual	2030 (with Regulation and Design Features)	Percent Reduction
Significance Threshold		21.7%	—
Are emissions significant?	No		
Notes: MTCO _{2e} = metric tons of carbon dioxide equivalents The project achieves the SJVAPCD 29 percent reduction from BAU threshold and the 21.7 percent required to show consistency with AB 32 targets. No new target has been set for 2030.			

As shown in **Table 3.8-9**, the full Project at buildout would achieve a 52.0 percent reduction from BAU that would exceed the 21.7 percent reduction required by the State to achieve the 2020 target by 30.3 percent and the SJVAPCD 29.0 percent target by 23.0 percent by 2030.

The analysis presented above does not include credit for new strategies proposed in the 2017 Scoping Plan Update. The update was adopted in December 2017. The update provides alternatives in terms of their likelihood of implementation and ranges of reduction from the strategies. Measures already authorized by legislation are highly likely to be implemented, while measures requiring new legislation are less likely to go forward. The State is highly likely to incorporate zero net energy buildings in future updates to Title 24 and now requires solar panels in most residential development. A new round of motor vehicle fuel efficiency standards beyond 2025 when LEV III standards are at their maximum reduction level is highly likely. Changing heavy-duty trucks and off-road equipment to alternative fuels face greater technological hurdles and are less likely to provide dramatic reductions by 2030; however, ARB recently approved the Advanced Clean Trucks regulation that requires increasing percentages of zero emission trucks between 2024 and 2035 (ARB 2020b).

The 2030 emission limit is 260 MMTCO_{2e}. The ARB estimates that the 2030 BAU (reference) Inventory will be 392 MMTCO_{2e}—a reduction of 132 MMCO_{2e}, including existing policies and programs but not including known commitments that are already underway. The 2017 Scoping Plan Update includes the estimated GHG emissions by sector compared with 1990 levels that is presented in **Error! Reference source not found.**¹⁰ The proposed plan would achieve the bulk of the reductions from Electric Power, Industrial fuel combustion, and Transportation. Cap-and-

Trade would provide between 10 and 20 percent of the required reductions depending on the amounts achieved by the other reduction measures.

Although 2017 Scoping Plan Update focuses on state agency actions necessary to achieve the 2030 GHG limit, the ARB considers local governments essential partners in achieving California’s goals to reduce GHG emissions. The 2030 target will require an increase in the rate of emission reductions compared to what was needed to achieve the 2020 limit, and this will require action and collaboration at all levels, including local government action to complement and support State-level actions. For individual projects, the 2017 Scoping Plan Update suggests that all new land use development implement all feasible measures to reduce GHG emissions. The Scoping Plan does not define all feasible measures or attribute an amount of reductions required from new development beyond compliance with regulations.

**Table 3.8-10
2017 Scoping Plan Update Estimated Change in GHG Emissions by Sector⁴⁹**

Scoping Plan Sector	Emissions (MMTCO ₂ e per year)		
	1990	2030 Proposed Plan Ranges	Percent Change form 1990
Agriculture	26	24–25	-4 to -8
Residential and Commercial	44	38–40	-9 to -14
Electric Power	108	42–62	-43 to -61
High GWP	3	8–11	167 to 267
Industrial	98	77–87	-11 to -21
Recycling and Waste	7	8–9	14 to 29

⁴⁹ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 112.

Scoping Plan Sector	Emissions (MMTCO ₂ e per year)		
	1990	2030 Proposed Plan Ranges	Percent Change form 1990
Transportation (including TCU)	152	103–111	-27 to -32
Net Sink	-7	TBD	TBD
Subtotal	431	300–345	-20 to -30
Cap-and-Trade Program	N/A	40–85	N/A
Total	431	260	-40

When requiring mitigation of a project’s fair share of a cumulative impact, the Lead Agency must show the nexus between the project contribution and its fair share of mitigation to reduce the impact to less than cumulatively considerable. A threshold based on local support and collaboration with State actions as described in the 2017 Scoping Plan Update does not lend itself to a quantitative determination of fair share. Requiring developers and future residents and businesses within the development to fully mitigate emissions without accounting for compliance with regulations would result in double mitigation, first by the developer and then by the residents purchasing electricity, fuel, and vehicles compliant with regulations in effect at the time of purchase and beyond that would violate constitutional nexus requirements.

In conclusion, the Project would achieve reductions of 30.3 percent beyond the ARB 2020 21.7 percent target and 23.0 percent beyond the SJVAPCD 29 percent reduction from BAU requirements from adopted regulations and on-site design features. No new threshold has been adopted by the City of Fresno for the SB 32 2030 target; however, the reductions from BAU by 2030 are 30.3 percent beyond the 21.7 percent required for the 2020 target. Based on this progress and the strong likelihood that the measures included in the 2017 Scoping Plan Update will be implemented, it is reasonable to conclude that the Project is consistent with the 2017 Scoping Plan and will contribute a reasonable fair-share contribution to achieving the 2030 target. The fair share may very well be achieved through compliance with increasingly stringent State regulations that apply to new development, such as Title 24 and CALGreen; regulations

on energy production, fuels, and motor vehicles that apply to both new and existing development; and voluntary actions to improve energy efficiency in existing development. In addition, compliance with the VMT targets adopted to comply with SB 375 and implemented through the RTP/SCS may be considered to adequately address GHG emissions from passenger cars and light-duty trucks. As shown in **Error! Reference source not found.**¹⁰, the State strategy relies on the Cap-and-Trade Program to make up any shortfalls that may occur from the other regulatory strategies. The costs of Cap-and-Trade emission reductions will ultimately be passed on to the consumers of fuels, electricity, and products produced by regulated industries, which include future residents and businesses located within the Copper River Ranch project and other purchasers of products and services. Therefore, the impact in terms of Considerations #1 and #2 would be *less than significant*.

Impact 3.8-2: *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?*

Less Than Significant. The following analysis assesses the Project's compliance with Consideration #3 regarding consistency with adopted plans to reduce GHG emissions. The City of Fresno adopted its GHG Reduction Plan as part of the General Plan Update in 2014. The project's consistency with applicable GHG policies from the GHG Reduction Plan policies is assessed below.

The Project is also assessed for its consistency with ARB's adopted Scoping Plans. This would be achieved with an assessment of the project's compliance with Scoping Plan measures contained in the 2008 Scoping Plan and the 2017 Scoping Plan Update.

City of Fresno GHG Plan

The GHG Plan includes procedures to use when assessing the impacts of project's requiring a general plan amendment. The following requirements apply.

1. Review General Plan policies listed in the GHG Reduction Plan to identify those that apply to the project and prepare a consistency analysis for compliance with the applicable policies.
2. Ensure project is consistent with the City's Development Code as it relates to complete streets and design standards for multi-family projects

3. Prepare a GHG technical study to quantify project emissions and emission reductions through compliance with regulations and project design features.

Table 11 provides a consistency analysis with applicable GHG policies from the GHG Reduction Plan. The Project is consistent with all applicable policies.

**Table 3.8-11
Consistency with Fresno Greenhouse Gas Reduction Plan⁵⁰**

Climate Action Plan Policy	Project Consistency
<p>Policy RC-2-a Link Land Use to Transportation. Promote mixed-use, higher density infill development in multi-modal corridors. Support land use patterns that make more efficient use of the transportation system and plan future transportation investments in areas of higher-intensity development. Discourage investment in infrastructure that would not meet these criteria.</p>	<p>Consistent. The project will provide some higher-density, compact development associated with the multi-family developments within the site and neighborhood shopping and services at a partially developed site, making more efficient use of the existing infrastructure.</p>
<p>Objective UF-12 Locate roughly one-half of future residential development in infill areas—defined as being within the City on December 21, 2012—including the Downtown core area and surrounding neighborhoods, mixed-use centers and transit-oriented development along major BRT corridors, and other non-corridor infill areas, and vacant land.</p>	<p>Consistent. The Copper River Ranch plan area is partially built out and all land within the expanded area is already designated for urban development in the Fresno General Plan. The project provides a mix of uses and development densities conducive to future service with transit connections to the BRT corridors.</p>
<p>Policy LU-2-b Infill Development for Affordable Housing. Consider a priority infill incentive program for residential infill development of existing vacant lots and underutilized sites within the City as a strategy to help to meet the affordable housing needs of the community.</p>	<p>Not Applicable. The project will provide multi-family housing and a variety of higher-density, compact single-family development at a partially developed site. The project would provide market-based housing. Although not classified as “affordable housing,” development of the project would provide housing that helps the City meet the needs of the community.</p>
<p>Policy LU-5-f High Density Residential Uses. Promote high-density residential uses to support Activity Centers and BRT corridors, affordable housing and walkable access to transit stops.</p>	<p>Not Applicable. The project is not within a designated Activity Center or BRT corridor.</p>

⁵⁰ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 114.

Climate Action Plan Policy	Project Consistency
<p>Policy UF-14-a Design Guidelines for Walkability. Use design guidelines and standards for a walkable and pedestrian-scaled environment with a network of streets and connections for pedestrians and bicyclists, as well as transit and autos.</p>	<p>Consistent. The project will comply with the City Development Code, which requires appropriate pedestrian infrastructure in new development projects. The project connects to the existing street network that includes sidewalks, bike lanes, and roundabouts with pedestrian-friendly street crossings.</p>
<p>Objective MT-9 Provide public transit opportunities to the maximum number and diversity of people practicable in balance with providing service that is high in quality, convenient, frequent, reliable, and financially feasible.</p>	<p>Consistent. The project is not on an existing FAX transit line; however, there are approximately 14 potential transit stop locations within the Copper River Ranch Development that have been identified for potential future transit stops when transit ridership demand and available funding enable FAX to expand service to the area. The Project provides development density that will help support future transit in the area.</p>
<p>Policy MT-6-a Link Residences to Destinations. Design a pedestrian and bicycle path network that links residential areas with Activity Centers, such as parks and recreational facilities, educational institutions, employment centers, cultural sites, and other focal points of the city environment.</p>	<p>Consistent. The project will provide pedestrian infrastructure connecting to neighboring uses. The project bike lanes and pedestrian paths connects to the San Joaquin River Bike Path and Woodward Park as well as to the commercial developments (existing and proposed) within the Development.</p>
<p>Objective RC-8 Reduce the consumption of non-renewable energy resources by requiring and encouraging conservation measures and the use of alternative energy sources.</p>	<p>Consistent. The project will comply with Title 24 Energy Efficiency Standards and CalGreen Code requirements for solar panels, electric vehicle charging, and water conservation. The 2019 Title 24 Standards include a solar photovoltaic systems requirement for new low-rise residential homes.</p>
<p>Policy RC-8-a Existing Standards and Programs. Continue existing beneficial energy conservation programs, including adhering to the California Energy Code in new construction and major renovations.</p>	<p>Consistent. The project will comply with all applicable energy standards such as Title 24 Building Energy Standards and home appliance purchased for the homes will comply with Title 20 Appliance Standards.</p>
<p>Policy RC-8-b Energy Reduction Targets. Strive to reduce per capita residential electricity use to 1,800 kWh per year and nonresidential electricity use to 2,700 kWh per year per capita by developing and implementing incentives, design and operation standards, promoting alternative energy sources, and cost-effective savings.</p>	<p>Consistent. The project will comply with the Title 24 energy standards in effect at the time building permits are processed for approval. With the new solar panel requirements, homes are expected to meet or exceed this target.</p>

AB 32 Scoping Plan

The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, the ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The 2008 Scoping Plan calls for an “ambitious but achievable” reduction in California’s GHG emissions, cutting approximately 30 percent from BAU emission levels projected for 2020, or about 10 percent from 2008 levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020. As stated earlier, the State emission inventory was below the target in 2016, 2017, and 2018, and is expected to remain below the target in 2020.

Although, the Scoping Plan is now fully implemented and has achieved its goal, many of the strategies remain in effect. The Scoping Plan contains a variety of strategies to reduce the State’s emissions. As shown in Table , the Project is consistent with most of the strategies, while others are not applicable to the Project. As discussed earlier, the 2017 Scoping Plan Update strategies primarily rely on increasing the stringency of existing regulations with which the Project would continue to comply, support through the Project’s design, and implementation of the General Plan goals and policies.

**Table 3.8-12
Project Consistency with AB 32 Scoping Plan⁵¹**

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation	California Cap-and-Trade Program Linked to Western Climate Initiative	Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanism October 20, 2015 (CCR 95800)	Consistent. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers. However, the regulation indirectly affects people who use the products and services produced by these industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.
	California Light-Duty Vehicle Greenhouse Gas Standards	Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles 2012 LEV III Amendments to the California Greenhouse Gas and Criteria Pollutant Exhaust and Evaporative Emission Standards	Consistent. This measure applies to all new vehicles starting with model year 2012. The project would not conflict with its implementation as it would apply to all new passenger vehicles purchased in California. Passenger vehicles, model year 2012 and later, associated with construction and operation of the project would be required to comply with the Pavley emissions standards.

⁵¹ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 117.

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
	Low Carbon Fuel Standard.	2009 readopted in 2015. Regulations to Achieve Greenhouse Gas Emission Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	Consistent. This measure applies to transportation fuels utilized by vehicles in California. The project would not conflict with implementation of this measure. Motor vehicles associated with construction and operation of the project would utilize low carbon transportation fuels as required under this measure.
	Regional Transportation-Related Greenhouse Gas Targets.	SB 375. Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28	Consistent. The project will provide residential and mixed use development in the region that is consistent with the increased development densities promoted in the 2018 Regional Transportation Plan/Sustainable Communities Strategy (SCS). The project is not within an SCS priority area and so is not subject to requirements applicable to those areas.
	Goods Movement	Goods Movement Action Plan January 2007.	Not applicable. The project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
	Medium/Heavy-Duty Vehicles	2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer Greenhouse Gas Regulation	Consistent. This measure applies to medium- and heavy-duty vehicles that operate in the State. The project would not conflict with implementation of this measure. Medium- and heavy-duty vehicles associated with construction and operation of the project would be required to comply with the requirements of this regulation.
	High Speed Rail	Funded under SB 862	Not applicable. This is a statewide measure that cannot be implemented by a project applicant or lead agency.

Electricity and Natural Gas	Energy Efficiency	Title 20 Appliance Efficiency Regulation	Consistent. The project would not conflict with implementation of this measure. The project will comply with the latest energy efficiency standards and incorporate applicable energy efficiency features designed to reduce project energy consumption.
		Title 24 Part 6 Energy Efficiency Standards for Residential and Non-Residential Building	
		Title 24 Part 11 California Green Building Code Standards	
Renewable Standard/Renewable Standard.	Portfolio Electricity	2010 Regulation to Implement the Renewable Electricity Standard (33% 2020)	Consistent. PG&E obtained 33 percent of its power supply from renewable sources such as solar and geothermal in 2017, and about 70 percent of the electricity it delivers is carbon-free, including nuclear and large hydroelectric facilities. The owners of residences and businesses within the project would purchase power that consists of a greater percentage of renewable sources and could install renewable solar power systems that will assist the utility in achieving exceeding the renewable mandate.
		SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030) SB 100 now requires 60% by 2030.	
Million Solar Roofs Program		Tax incentive program	Consistent. This measure is intended to increase solar throughout California by means of a variety of electricity providers and existing solar programs. Projects within the plan area will be able to take advantage of incentives that are in place at the time of construction. The project includes installation of solar panels.
Water	Water	Title 24 Part 11 California Green Building Code Standards	Consistent. The project will comply with the California Green Building Standards Code, which requires a 20 percent

		SBX 7-7—The Water Conservation Act of 2009	reduction in indoor water use. The project will also comply with the MWELO as required by the City’s development code and water ordinance.
		Model Water Efficient Landscape Ordinance	
Green Buildings	Green Building Strategy	Title 24 Part 11 California Green Building Code Standards	Consistent. The State will increase the use of green building practices. The project would implement required green building strategies through existing regulation that requires the project to comply with various CALGreen requirements. The project includes sustainability design features that support the Green Building Strategy.
Industry	Industrial Emissions	2010 ARB Mandatory Reporting Regulation	Not applicable. The project is not an industrial land use.
Recycling and Waste Management	Recycling and Waste	Title 24 Part 11 California Green Building Code Standards	Consistent. The project would not conflict with implementation of these measures. The project is required to achieve the recycling mandates via compliance with the CALGreen code. The project would utilize City of Fresno recycling services.
		AB 341 Statewide 75 Percent Diversion Goal	
Forests	Sustainable Forests	Cap-and-Trade Offset Projects	Not applicable. The project site is in an area designated for urban uses. No forested lands exist on-site.
High Global Warming Potential	High Global Warming Potential Gases	ARB Refrigerant Management Program CCR 95380	Not applicable. The regulations are applicable to refrigerants used by large air conditioning systems and large commercial and industrial refrigerators and cold storage system. Homes and neighborhood commercial

			developments do not use large systems subject to the refrigerant management regulations adopted by ARB.
Agriculture	Agriculture	Cap-and-Trade Offset Projects for Livestock and Rice Cultivation	Not applicable. The project site is proposed for urban development. No grazing, feedlot, or other agricultural activities that generate manure occur currently exist on-site or are proposed to be implemented by the project.

In summary, the Project incorporates a number of features that would minimize GHG emissions. These features are consistent with project-level strategies identified by the ARB's 2008 Scoping Plan and the City of Fresno GHG Reduction Plan. As demonstrated in the impact analysis above, the Project would achieve a 47.9 percent reduction from the BAU inventory by 2028 and 52.0 percent from the BAU inventory by 2030; therefore, the Project would not significantly hinder or delay the State's ability to meet the reduction targets contained in AB 32 or SB 32 or conflict with implementation of the Scoping Plan. The Project promotes the goals of the Scoping Plan through implementation of design measures that reduce energy consumption, water consumption, and reduction in VMT. Therefore, the Project does not conflict with any plans to reduce GHG emissions. The impact would be *less than significant*.

Consistency with California's Post-2020 Targets

The State's executive branch adopted several Executive Orders related to GHG emissions. Executive Orders S-3-05 and B-30-15 are two examples. Executive Order S-3-05 sets goals to reduce emissions to 1990 levels by 2020 and 80 percent below 1990 levels by 2050. The goal of Executive Order S-3-05 to reduce GHG emissions to 1990 levels by 2020 was codified by AB 32. The Project, as analyzed above, is consistent with AB 32. Therefore, the Project does not conflict with this component of Executive Order S-3-05. Executive Order B-30-15 establishes an interim goal to reduce GHG emissions to 40 percent below 1990 levels by 2030.

The 2030 goal was codified under SB 32 and is now addressed by the 2017 Scoping Plan Update. The new plan provides a strategy that is capable of reaching the SB 32 target if the measures included in the plan are implemented and achieve reductions within the ranges expected. Under the Scoping Plan Update, local government plays a supporting role through its land use authority and control over local transportation infrastructure. The Plan Update includes reductions from implementation of SB 375 that applies to VMT from passenger vehicles. Fresno County targets for SB 375 are a 5 percent reduction by 2020 and a 10 percent reduction by 2035. SB 375 is implemented with the Fresno COG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The RTP/SCS envisions an increase in development density that would encourage fewer and shorter trips and more trips by transit, walking, and bicycling in amounts sufficient to achieve the SB 375 targets.

Now that the 2017 Scoping Plan has been adopted, new methodologies and threshold approaches are required to determine the fair-share contributions City development projects would need to make to achieve the 2030 target. In the meantime, however, the discussion under "Consistency with SB 32" below addresses the consistency of the proposed project with SB 32, which provides the statutory underpinning of the 2017 Scoping Plan. The SB 32 target requires

GHG emissions to be reduced from 1990 levels. No consensus has been reached around the State on a new quantitative target for new development based on consistency with the SB 32 targets.

The Executive Order S-3-05 2050 target has not been codified by legislation. Studies have shown that, in order to meet the 2050 target, aggressive pursuit of technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. Because of the technological shifts required and the unknown parameters of the regulatory framework in 2050, quantitatively analyzing the project's impacts further relative to the 2050 goal is speculative for purposes of CEQA.⁵²

The ARB recognized that AB 32 established an emissions reduction trajectory that will allow California to achieve the more stringent 2050 target: "These [greenhouse gas emission reduction] measures also put the State on a path to meet the long-term 2050 goal of reducing California's GHG emissions to 80 percent below 1990 levels. This trajectory is consistent with the reductions that are needed globally to stabilize the climate." In addition, ARB's First Update "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050," and many of the emission reduction strategies recommended by ARB would serve to reduce the proposed project's post-2020 emissions level to the extent applicable by law:

Energy Sector: Continued improvements in California's appliance and building energy efficiency programs and initiatives, such as the State's zero net energy building goals, would serve to reduce the proposed project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the project's emissions level.

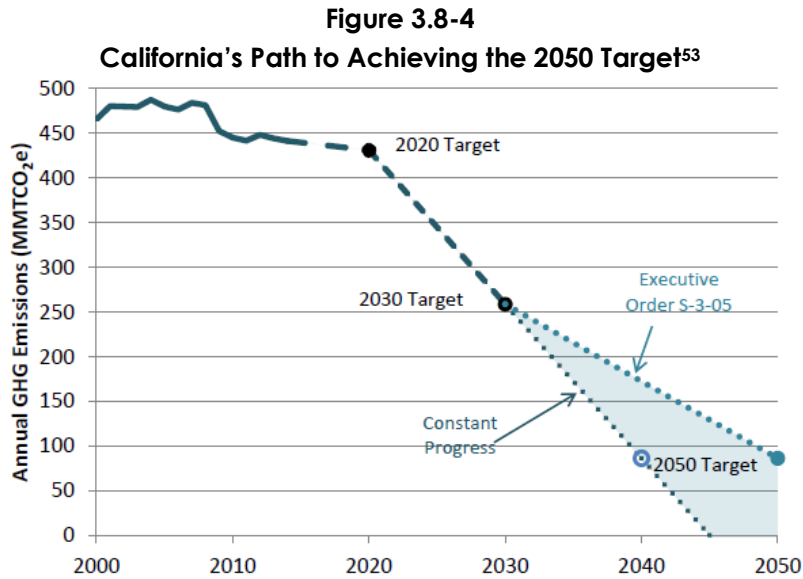
Transportation Sector: Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the project's emissions level.

Water Sector: The project's emissions level will be reduced as a result of further desired enhancements to water conservation technologies.

⁵² Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 121.

Waste Management Sector: Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the project’s emissions level.

For the reasons described above, the Project’s post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets. The trajectory required to achieve the post-2020 targets is shown in Figure .



In his January 2015 inaugural address, Governor Brown expressed a commitment to achieve “three ambitious goals” that he would like to see accomplished by 2030 to reduce the State’s GHG emissions:

- Increasing the State’s Renewable Portfolio Standard from 33 percent in 2020 to 50 percent in 2030;
- Cutting the petroleum use in cars and trucks in half; and
- Doubling the efficiency of existing buildings and making heating fuels cleaner.

These expressions of executive branch policy may be manifested in adopted legislative or regulatory action through the state agencies and departments responsible for achieving the State’s environmental policy objectives, particularly those relating to global climate change. Further, recent studies show that the State’s existing and proposed regulatory framework will

⁵³ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 122.

allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target.⁵⁴

Given the proportional contribution of mobile source-related GHG emissions to the State’s inventory, recent studies also show that relatively new trends—such as the increasing importance of web-based shopping, the emergence of different driving patterns by the “millennial” generation, and the increasing effect of web-based applications on transportation choices—are beginning to substantially influence transportation choices and the energy used by transportation modes. These factors have changed the direction of transportation trends in recent years and will require the creation of new models to effectively analyze future transportation patterns and the corresponding effect on GHG emissions. For the reasons described above, the proposed project’s post-2020 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets.

Consistency with SB 32

The 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) includes the strategy that the State intends to pursue to achieve the 2030 targets of Executive Order S-3-05 and SB 32. The 2017 Scoping Plan includes the following summary of its overall strategy for reaching the 2030 target:

- SB 350
 - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030 (Now 60% in SB 100).
 - Doubling of energy efficiency savings by 2030.
- Low Carbon Fuel Standard (LCFS)
 - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).

⁵⁴ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 123.

- Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
 - Maintaining existing GHG standards for light- and heavy-duty vehicles.
 - Put 4.2 million zero-emission vehicles (ZEVs) on the roads.
 - Increase ZEV buses, delivery and other trucks.
- Sustainable Freight Action Plan
 - Improve freight system efficiency.
 - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
 - Deploy over 100,000 zero-emission trucks and equipment by 2030.
- Short-Lived Climate Pollutant (SLCP) Reduction Strategy
 - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels by 2030.
 - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
- SB 375 Sustainable Communities Strategies
 - Increased stringency of 2035 targets.
- Post-2020 Cap-and-Trade Program
 - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
 - ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
- By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Table 3 provides an analysis of the project’s consistency with the 2017 Scoping Plan Update measures.

**Table 3.8-13
Consistency with SB 32 2017 Scoping Plan Update⁵⁵**

Scoping Plan Measure	Project Consistency
SB 350 50% Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030 (Now 60% in SB 100).	Consistent: The project will purchase electricity from a utility subject to the SB 350 Renewable Mandate and SB 100 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels	Not Applicable. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency until residential housing achieves zero net energy.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030 (Now 20 percent with current regulation).	Consistent. Vehicles accessing the project site will use fuel containing lower carbon content as the fuel standard is implemented.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario) Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	Consistent. Project residents and businesses can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year. The 2016 CALGreen Code requires electrical service in new single-family housing to be EV charger-ready. Home and business deliveries will be made by increasing numbers of ZEV delivery trucks.
Sustainable Freight Action Plan The plan’s target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	Not Applicable. The measure applies to owners and operators of trucks and freight operations. However, home and business deliveries are expected to be made by increasing number of ZEV delivery trucks.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the	Consistent. The project residences will include only natural gas hearths that produce very little black carbon compared to woodburning fireplaces and

⁵⁵ Air Quality and Greenhouse Gas/Energy Analysis Report for Copper River Ranch Project. Prepared by Mitchell Air Quality Consulting. See Appendix B, page 124.

Scoping Plan Measure	Project Consistency
reduction of black carbon by 50 percent from 2013 levels by 2030.	heaters.
<p>SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled. The targets for Fresno County are</p>	<p>Consistent. The project will provide residential and commercial development in the region that is consistent with the Regional Transportation Plan/Sustainable Communities Strategy (SCS) strategy to increase development densities to reduce VMT. The project is not within an SCS priority area and so is not subject to requirements applicable to those areas.</p>
<p>Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.</p>	<p>Consistent. The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.</p>
<p>Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.</p>	<p>Not Applicable. The project is residential and commercial development and will not be considered natural or working lands.</p>

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the project would comply with whatever measures are enacted that state lawmakers decide would lead to an 80 percent reduction below 1990 levels by 2050. In its 2008 Scoping Plan, ARB acknowledged that the “measures needed to meet the 2050 are too far in the future to define in detail.” In the First Scoping Plan Update;

however, ARB generally described the type of activities required to achieve the 2050 target: “energy demand reduction through efficiency and activity changes; large scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately.” The 2017 Scoping Plan provides an intermediate target that is intended to achieve reasonable progress toward the 2050 target.

Accordingly, taking into account the proposed Project’s emissions, Project design features, and the progress being made by the State towards reducing emissions in key sectors such as transportation, industry, and electricity, the project would be consistent with State GHG Plans and would further the State’s goals of reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment.

Applicability of 2003 FEIR Mitigation Measures

The 2003 FEIR did not include an analysis of greenhouse gas impacts, thus there were no previous mitigation measures pertaining to greenhouse gas emissions.

Cumulative Impacts

Less Than Cumulatively Considerable. The State of California, through AB 32, has acknowledged that GHG emissions are a statewide impact. Emissions generated by the proposed Project combined with past, present, and reasonably probable future projects could contribute to this impact. The CEQA Guidelines emphasize that effects of GHG emissions are cumulative in nature and should be analyzed in the context of CEQA’s existing cumulative impacts analysis. The California Governor’s Office of Planning and Research acknowledges that although climate change is cumulative in nature, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment.

As discussed above, the proposed Project would not generate significant GHG emissions and would be consistent with GHG reduction plans. Therefore, the proposed Project’s incremental contribution would be *less than cumulatively considerable*.

3.9 Hazards and Hazardous Materials

This section of the SEIR identifies potential impacts of the proposed Project pertaining to hazards and hazardous materials, proximity to airports/schools, and assessment of wildfire risk. No NOP comment letters were received pertaining to this topic.

Determination of Adequacy of 2003 FEIR

The topic of Hazards was not included in the analysis in the 2003 FEIR. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	✓	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	✓	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	✓	
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	✓	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	✓	

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	✓	
g. Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	✓	

Environmental Setting

Hazards include man--made or natural materials or man--made or natural conditions that may pose a threat to human health, life, property, or the environment. Hazardous materials and waste present health hazards for humans and the environment. These health hazards can result during the manufacture, transportation, use, or disposal of such materials if not handled properly. Hazards to humans can also existing from natural or human induce wildfire and air traffic accidents.

Hazardous Materials

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported, or disposed of.

Hazardous materials include a variety of substances such as lubricants, herbicides and pesticides, solvents, gasoline, household cleaning products, refrigerants and radioactive substances. Some are common to industrial and commercial process, while others are commonly used in households. A hazardous waste is simply the spent or used hazardous material that requires disposal. Improper transport, storage, handling, use and disposal of hazardous wastes can have significant impacts on the environment and human health.

Hazardous Sites

The Cortese List is a planning document used by the State, local agencies, and land owners to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an

updated Cortese List. California Department of Toxic Substances Control (DTSC) and the State Water Resources Board are responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

DTSC maintains the *Envirostor Data Management System*, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. This site cleanup information includes: Federal Superfund Sites (NPL), State Response Sites, Voluntary Cleanup Sites, School Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, and Evaluation / Investigation Sites. The hazardous waste facilities includes: Permitted–Operating, Post–Closure Permitted, and Historical Non–Operating.

According to the DTSC, there are six cleanup sites within a two-mile radius of the Project site. All six sites are school investigation sites with no action required.¹

GeoTracker is the California Water Resource Control Board’s data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. There are three locations that are listed in the GeoTracker database for Leaking Underground Storage Tanks (LUST) within a two mile radius. All three locations have undergone LUST cleanup and the State has closed the case.

Wildfire Hazards

As described in Chapter 3.20, *Wildfire*, the existing 706-acre Copper River Ranch Development has been largely built out with a combination of residential land uses (both single- and multi-family) and a variety of non-residential uses including a golf course, office and commercial land uses. The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation. The proposed new development area is surrounded by residential development to the north; residential development, portions of a gold course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west. The Project area (which consists of the existing 706-

¹ California Department of Toxic Substances Control. EnviroStor data management. <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=copper+ave+and+willow+ave+fresno>. Accessed November 2020.

acre development and the additional 109-acres of new development) does not contain any lands within the State Responsibility Area or lands classified as Very High Fire Hazard Severity Zone within the Local Responsibility Area.

Airports

The nearest commercial airport is Fresno Yosemite International Airport. Fresno Yosemite International Airport is a joint civil-military public airport in eastern Fresno, approximately 7.5 miles south of the Project site.

The airport covers 2,150 acres and has two runways and one helipad. The airport is the air transport center for the San Joaquin Valley, with flights to airline hubs throughout the Western United States. International flights to/from Mexico are also available. Fresno Yosemite International Airport is also home to the Fresno Air National Guard Base and the 144th Fighter Wing (114 FW) of the California Air National Guard.

Schools

Clovis Unified School District provides public education facilities in the proposed Project area. More than 20% of the City of Fresno lies within Clovis Unified School District, along with the majority of the City of Clovis.² Clovis North High School is located within ¼ mile of the proposed Project site and Granite Ridge Intermediate School, and Fugman Elementary are within approximately ½ mile and ¾ mile, respectively.

Regulatory Setting

Federal Regulations

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act of 1975 (HMTA) as amended, is the major transportation-related statute that regulates the transportation of hazardous materials. The objective of the HMTA according to the policy stated by Congress is "... to improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against risks to life and property which are inherent in the transportation of hazardous materials in commerce." The HMTA empowered the Secretary of Transportation to

² Clovis Unified School District. Demographics. <https://www.cusd.com/Demographics.aspx>. Accessed November 2020.

designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property."

Regulations apply to "... any person who transports, or causes to be transported or shipped, a hazardous material; or who manufactures, fabricates, marks, maintains, reconditions, repairs, or tests a package or container which is represented, marked, certified, or sold by such person for use in the transportation in commerce of certain hazardous materials."³

Federal Insecticide, Fungicide and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) provides for federal regulation of pesticide distribution, sale, and use. All pesticides distributed or sold in the United States must be registered (licensed) by EPA. Before EPA may register a pesticide under FIFRA, the applicant must show, among other things, that using the pesticide according to specifications "will not generally cause unreasonable adverse effects on the environment." 7 U.S.C. Section 136 et seq.

Federal Emergency Management Act (FEMA)

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

HSWA - the Federal Hazardous and Solid Waste Amendments - are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

³ United States Department of Labor. Occupational Safety and Health Administration. Transporting Hazardous Materials. https://www.osha.gov/SLTC/trucking_industry/transportinghazardousmaterials.html. Accessed November 2020.

State of California Regulations

California Environmental Protection Agency (Cal/EPA) Department of Toxic Substance Control (DTSC)

Cal/EPA has regulatory responsibility under Title 22 of the California Code of Regulations (CCR) for administration of the state and federal Superfund programs for the management and cleanup of hazardous materials. The DTSC is responsible for regulating hazardous waste facilities and overseeing the cleanup of hazardous waste sites in California. The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement and Unified Program activities. HWMP maintains the EPA authorization to implement the RCRA program in California, and develops regulations, policies, guidance and technical assistance/ training to assure the safe storage, treatment, transportation and disposal of hazardous wastes. The State Regulatory Programs Division of DTSC oversees the technical implementation of the state's Unified Program, which is a consolidation of six environmental programs at the local level, and conducts triennial reviews of Unified Program agencies to ensure that their programs are consistent statewide and conform to standards.

Hazardous Substance Account Act (1984), California Health and Safety Code Section 25300 ET SEQ (HSAA)

This act, known as the California Superfund, has three purposes: 1) to respond to releases of hazardous substances; 2) to compensate for damages caused by such releases; and 3) to pay the state's 10 percent share in CERCLA cleanups. Contaminated sites that fail to score above a certain threshold level in the EPA's ranking system may be placed on the California Superfund list of hazardous wastes requiring cleanup.

California Code of Regulations

Title 3 of the CCR pertains to the application of pesticides and related chemicals. Parties applying regulated substances must continuously evaluate application equipment, the weather, the treated lands and all surrounding properties. Title 3 prohibits any application that would:

- Contaminate persons not involved in the application
- Damage non---target crops or animals or any other public or private property
- Contaminate public or private property or create health hazards on said property

Title 8 of the CCR establishes California Occupational Safety and Health Administration (Cal OSHA) requirements related to public and worker protection. Topics addressed in Title 8 include materials exposure limits, equipment requirements, protective clothing, hazardous materials, and accident prevention. Construction safety and exposure standards for lead and asbestos are set forth in Title 8.

Title 14 of the CCR establishes minimum standards for solid waste handling and disposal.

Title 17 of the CCR establishes regulations relating to the use and disturbance of materials containing naturally occurring asbestos.

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

Title 22 of the CCR sets forth definitions of hazardous waste and special waste. The section also identifies hazardous waste criteria and establishes regulations pertaining to the storage, transport, and disposal of hazardous waste.

Title 26 of the CCR is a medley of State regulations pertaining to hazardous materials and waste that are presented in other regulatory sections. Title 26 mandates specific management criteria related to hazardous materials identification, packaging, and disposal. In addition, Title 26 establishes requirements for hazardous materials transport, containment, treatment, and disposal. Finally, staff training standards are set forth in Title 26.

California Fire Code

The California Fire Code (CFC) is Part 9 of Title 24, California Code of Regulations, also referred to as the California Building Standards Code. The CFC incorporates the 2009 International Fire Code of the International Code Council with necessary California amendments. The purpose of the CFC is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety and general welfare from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations.

California Health and Safety Code

Division 11 of the Health and Safety Code establishes regulations related to a variety of explosive substances and devices, including high explosives and fireworks. Section 12000 et seq. establishes regulations related to explosives and explosive devices, including permitting, handling, storage, and transport (in quantities greater than 1,000 pounds).

Division 12 establishes requirements for buildings used by the public, including essential services buildings, earthquake hazard mitigation technologies, school buildings, and postsecondary buildings.

Division 20 of the Health and Safety Code establishes Department of Toxic Substances Control (DTSC) authority and sets forth hazardous waste and underground storage tank regulations. In addition, the division creates a State superfund framework that mirrors the Federal program.

Division 26 of the Health and Safety Code establishes California Air Resources Board (CARB) authority. The division designates CARB as the air pollution control agency per Federal regulations and charges the Board with meeting Clean Air Act requirements.

California Health and Safety Code and UBC Section 13000 et seq.

State fire regulations are set forth in §13000 *et seq.* of the California Health and Safety Code, which is divided into “Fires and Fire Protection” and “Buildings Used by the Public.” The regulations provide for the enforcement of the UBC and mandate the abatement of fire hazards.

The code establishes broadly applicable regulations, such as standards for buildings and fire protection devices, in addition to regulations for specific land uses, such as childcare facilities and high-rise structures.

Cal/EPA Cortese List

The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the Legislator who authored the legislation that enacted it). The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA). The Cortese List identifies the following:

- Hazardous Waste and Substance Sites
- Cease and desist order Sites
- Waste Constituents above Hazardous Waste Levels outside the Waste Management Unit Sites
- Leaking Underground Tank (LUST) Cleanup Sites
- Other Cleanup Sites
- Land Disposal Sites
- Military Sites
- WDR Sites

- Permitted Underground Storage Tank (UST) Facilities Sites
- Monitoring Wells Sites
- DTSC Cleanup Sites
- DTSC Hazardous Waste Permit Sites

Local Regulations

Fresno County

The Fresno County Environmental Health Department implements the Hazardous Waste Generator Program and the Hazardous Waste Treatment/Tiered Permit Program throughout Fresno County. The purpose of these programs is to ensure that all hazardous waste generated in Fresno County businesses are properly handled, recycled, treated, stored and disposed. Environmental Health staff inspects facilities that generate hazardous waste, investigates reports of illegal hazardous waste disposal, and responds to emergency spills of hazardous chemicals. Environmental Health staff also participates in public education programs to inform industries and residents about the laws and regulations relating to the safe disposal of hazardous waste.

San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air District (SJVAPCD) is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and entrepreneurial air quality-management strategies. SJVAPCD's ten core values include: protection of public health; active and effective air pollution control efforts with minimal disruption to the Valley's economic prosperity; outstanding customer service; ingenuity and innovation; accountability to the public; open and transparent public process; recognition of the uniqueness of the Valley; continuous improvement; effective and efficient use of public funds; and respect for the opinions and interests of all Valley residents.⁴ To achieve these core values the SJVAPCD has adopted air quality plans pursuant to the California CAA and a comprehensive list of rules to limit air quality impacts. The air plans currently in effect in the SJVAB and specific rules that apply to the proposed Project are listed and described further below.

⁴ San Joaquin Valley Air Pollution Control District. About the District. http://www.valleyair.org/General_info/aboutdist.htm#Mission. Accessed November 2020.

The SJVAPCD is responsible for controlling emissions primarily from stationary sources. The SJVAPCD, in coordination with the eight countywide transportation agencies, is also responsible for developing, updating, and implementing air quality attainment plans for the SJVAB. The SJVAPCD also regulates asbestos demolition and other hazardous materials handling.

City of Fresno Municipal Code

Chapter 10, Article 14 of the City of Fresno Municipal Code pertains to the recovery of expenses associated with hazardous spills. Specifically, section 10-1404(a) states that “Any person causing a release or threatened release which results in an emergency action shall be liable to the City of Fresno for the recoverable costs resulting from the emergency action...”

City of Fresno General Plan

The City of Fresno General Plan, Noise and Safety Element contains objectives and policies to reduce Hazards and impacts from the use of Hazardous Materials that pertain to the Project.

- Objective NS-4: Minimize the risk of loss of life, injury, serious illness, and damage to property resulting from the use, transport, treatment, and disposal of hazardous materials and hazardous wastes.
- Objective NS-6: Foster an efficient and coordinated response to emergencies and natural disasters.
- Policy NS-6-f: Emergency Vehicles Access. Require adequate access for emergency vehicles in all new development, including adequate widths, turning radii, hard standing areas, and vertical clearance.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

- Create a significant hazard through transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials?

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- Emit hazardous emissions within one-quarter mile of an existing or proposed school
- Located on a list of hazardous materials site
- Located within an airport land use plan
- Interfere with an adopted emergency response plan or emergency evacuation plan
- Wildland Fire Risk

Impacts and Mitigation Measures

Impact 3.9-1: *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Less Than Significant Impact. This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Construction

Proposed Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the submission and implementation of a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the Project site. Therefore, no significant impacts would occur during construction activities.

Operation

The operational phase of the proposed Project would occur after construction is completed and residents move in to occupy the structures on a day-to-day basis. The proposed Project includes land uses that are considered compatible with the surrounding uses, including single and multi-family residential uses, open space and neighborhood commercial. None of these land uses

routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential grade hazardous materials such as cleaners, paint, petroleum products, etc. The proposed Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur.

Any new hazardous materials transportation, use, and disposal would be subject to state and federal hazardous materials laws and regulations. The transport of hazardous materials is regulated by the U.S. DOT. Hazardous materials use, storage, and disposal would be subject to hazardous materials programs administered by the Fresno County Environmental Health Department.

Hazardous materials objectives and policies contained in the proposed General Plan would further ensure the safe transport of hazardous materials. In addition, state codes require all businesses to disclose the use, handling, or storage of hazardous materials, and/or waste. This information is essential to the City's fire fighters, health officials, planners, elected officials, workers and their representatives so that they can plan for and respond to potential exposures to hazardous materials.

Compliance with all federal, State and local regulations, and proposed General Plan objectives and policies such as these would ensure that the Project would not cause an adverse effect on the environment with respect to the use, storage, or disposal of general household and commercial hazardous substances generated from future development or uses.

Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be *less than significant*.

Mitigation Measures: None are required.

Impact 3.9-2: *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?*

Less Than Significant Impact. As described in Impact 3.9-1, the proposed Project includes land uses that are considered compatible with the surrounding uses, including single and multi-family residential uses, open space and neighborhood commercial. None of these land uses

routinely transport, use, or dispose of hazardous materials, or present a reasonably foreseeable release of hazardous materials, with the exception of common residential grade hazardous materials such as cleaners, paint, petroleum products, etc.

Compliance with all federal, State and local regulations, and proposed General Plan objectives and policies such as these would ensure that the Project would not cause an adverse effect on the environment with respect to the use, storage, or disposal of general household and commercial hazardous substances generated from future development or uses.

Therefore, the proposed Project will not 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 and any impacts would be *less than significant*.

Impact 3.9-3: *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less Than Significant Impact. Clovis North High School is located within $\frac{1}{4}$ mile of the proposed Project site and Granite Ridge Intermediate School, and Fugman Elementary are within approximately $\frac{1}{2}$ mile and $\frac{3}{4}$ mile, respectively. However, because of the type of development being proposed (residential, commercial, office, open space, recreation) within both the existing 706-acre development and the proposed 109-acres of additional development, it is not reasonably foreseeable that the proposed Project will cause a significant impact by emitting hazardous waste or bringing hazardous materials within one-quarter mile of an existing or proposed school. Developments of this type typically do not generate, store, or dispose of significant quantities of hazardous materials. Such uses also do not normally involve dangerous activities that could expose persons onsite or in the surrounding areas to large quantities of hazardous materials. See the responses to a) and b) above regarding hazardous material handling. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

Impact 3.9-4: *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Less Than Significant Impact. The proposed Project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. According to the DTSC, there are six cleanup sites within a two-mile radius of the Project site. All six sites are school investigation sites with no action required.⁵

There are three locations that are listed in the GeoTracker database for Leaking Underground Storage Tanks (LUST) within a two mile radius. All three locations have undergone LUST cleanup and the State has closed the case.

There are no hazardous materials sites that impact the Project and therefore there is *a less than significant impact*.

Mitigation Measures: None are required.

Impact 3.9-5: *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

No Impact. The nearest commercial airport is Fresno Yosemite International Airport, approximately 7 ½ miles south of the Project site. The Project site is not within an airport land use plan. There is *no impact*.

Mitigation Measures: None are required.

Impact 3.9-6: *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant Impact. The Project will be designed for adequate emergency access and will be reviewed by the City, including the Fire Department, prior to final design and approval. Therefore, the Project will not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Any impacts are *less than significant*.

Mitigation Measures: None are required.

⁵ California Department of Toxic Substances Control. EnviroStor data management. <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=copper+ave+and+willow+ave+fresno>. Accessed November 2020.

Impact 3.9-7: *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Less Than Significant Impact. As described in the environmental setting of this Chapter, and further discussed in Section 3.20, the Project is located such that it has minimal risk of wildland fires. As such, any impacts resulting from wildland fires would be *less than significant*.

Mitigation Measures: None are required.

Applicability of 2003 FEIR Mitigation Measures

The 2003 FEIR did not include an analysis of hazards impacts. However, in the 2003 FEIR under the topic of Public Facilities and Services (Section 2.10 of the 2003 FEIR), a mitigation measure pertaining to Hazards was included. The determination of the applicability of that mitigation measure is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
2.10.8-a: Where a storage tank may be located, appropriate sampling shall be performed by a qualified technician to evaluate potential of soil contamination. Removal of tanks and any contaminated soil shall be accomplished consistent with all applicable regulations of Fresno County.	Ongoing as applicable.	Mitigation measure 2.10.8-a shall be ongoing as applicable.

Cumulative Impacts

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to hazards and hazardous materials is generally site-specific rather than cumulative in nature because each project site has different hazardous considerations that would be subject to

review. Project construction may involve the transportation, use, and/or disposal of hazardous materials, which may involve the use of equipment that contains hazardous materials (e.g., solvents and fuels, diesel-fueled equipment). Furthermore, some will inevitably transport or use hazardous materials within ¼ mile of a school, or other sensitive receptors such as hospitals and residences.

While some cumulative impacts will occur in the region as the Project is constructed, the City's objectives and policies, as well as State and federal regulations, will reduce the risk to people in the City and surrounding area. Considering the protection granted by local, State and federal agencies and their requirements for the use of hazardous materials in the region, as discussed above, the overall cumulative impact would be less than significant. As such, the proposed project's incremental contribution to cumulative hazards and human health impacts would be *less than cumulatively considerable*.

3.10 Hydrology and Water Quality

This section of the SEIR evaluates the potential impacts to Hydrology and Water Quality associated with implementation of the proposed Project. Two comment letters on the NOP were received by the City (See Appendix A). The first letter was from the Fresno Metropolitan Flood Control District. The letter provided information on flood control facilities in the Project area, applicable regulations, and methodologies that should be used when evaluating flood/stormwater impacts associated with the Project. The second letter was from the County of Fresno Department of Public Health. The letter provided pertaining to destruction of any existing water wells and septic systems not intended for use.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated hydrology and water quality impacts associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a less than significant impact, with mitigation, on hydrology and water quality (Pages 2.9.1 – 2.9.26 of the 2003 FEIR). The Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, additional evaluation is required. Additional information is being provided herein regarding impacts to hydrology and water quality associated with the additional 109 acres and the changes to the existing land uses within the 706-acre Copper River Ranch Development. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	✓	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project	✓	

may impede sustainable groundwater management of the basin?		
<p>c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:</p> <p>i. Result in substantial erosion or siltation on- or off- site;</p> <p>ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;</p> <p>iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or</p> <p>iv. impede or redirect flood flows?</p>	✓	
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	✓	
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	✓	

Environmental Setting

Regional Hydrology

The greater Fresno area, including the Project site, is underlain by the Kings River Sub-basin, which, along with six other sub-basins, comprises the San Joaquin Valley Groundwater Basin. In turn, the San Joaquin Basin is located within the Tulare Lake Hydrologic Region. The Tulare Lake Hydrologic Region spans approximately 10.9 million acres (17,000 square miles) and includes most of Fresno County. The Region encompasses the southern one-third of the Central Valley Regional Water Quality Control Board (RWQCB) jurisdiction.

The Kings River Sub-basin extends from the Sierra Nevada foothills on the east to the San Joaquin Valley trough on the west, and from the San Joaquin River on the north to roughly the Fresno County line on the south. Historically, water demand within the City’s jurisdiction has been met by extracting groundwater from the Kings Sub-basin. Groundwater levels since 1990 have

declined from less than 0.5 feet per year in the southwest portion of the downtown area, to a rate of 1.5 feet per year for northern and southern areas of the City, to a maximum of 3 feet per year in the northeastern area of the City.¹

The San Joaquin River and the Kings River are the principal rivers that influence the hydrology in the Fresno area. The western slopes of the Sierra Nevada drain to the west via the San Joaquin and Kings Rivers. The Kings River is connected to the San Joaquin River by the James Bypass, a manmade canal. Floodwater from the Kings River is diverted to the San Joaquin River. Three dams control flows on the two rivers. The Friant and Mendota Dams are located on the San Joaquin River. These two dams provide some flood control; however, these two dams were not designed for the purpose of flood control. The Pine Flat Dam on the Kings River was built for the purpose of flood control. In addition to the dams on the two rivers, there are reservoirs and detention basins that have been constructed on streams within the urban core to prevent flooding. These facilities include the Redbank Dam and the Redbank-Fancher Creeks Flood Control Project on local streams. The region includes two dams (Big Dry Creek Dam and Fancher Creek Dam), three detention basins (Redbank Creek, Pup Creek, and Alluvial Drain Detention Basins), and canals to convey discharges in and around the City of Fresno. These facilities were designed to protect developed areas from a 200-year storm event.²

Groundwater used by the City to meet its demands is replenished by three different methods:

- Natural recharge
- Net Subsurface inflow
- Intentional groundwater recharge

Natural recharge occurs through rainfall, irrigation, canal and stream flows that seep into the soil and replenish the aquifer below. Based on City data, the City estimated the natural recharge was approximately 25,400 acre feet in 2015. As additional development occurs throughout the Fresno area, there will be less pervious surfaces to allow natural recharge to occur. However, as the City annexes portions of surrounding areas, the amount of natural recharge allocated to the City will increase. At buildout, the natural recharge is estimated to be approximately 27,000 AF/year.

Subsurface recharge occurs from the movement of groundwater from external sources such as the Sierra Nevada moving into the local aquifer. Since the groundwater table surrounding the

¹ Fresno General Plan Draft EIR (2020), page 4.10-3.

² Fresno General Plan Draft EIR (2020), page 4.10-2.

City of Fresno is higher than inside the City planning boundaries, subsurface water tends to flow from surrounding areas with a higher groundwater table into the aquifer within the City's planning boundaries that has a lower groundwater table. Based on City data, the annual subsurface inflow to the City is approximately 48,900 AF in 2020. By the year 2040, the City and the North Kings Groundwater Sustainability Agency (NKGSA) anticipates that groundwater operations (i.e., subsurface inflows and outflows) would be balanced and subsurface flows will not be directed to within the City's planning boundaries.

Intentional recharge is provided by directing surface water into the underground aquifer by means of groundwater recharge basins located throughout the City. Currently, the City's primary recharge facility is Leaky Acres, located just northwest of Fresno-Yosemite International Airport. The City also owns the Nielsen Recharge Facility in west Fresno. Other recharge facilities include FMFCD storm drainage basins and the Alluvial Groundwater Recharge System (AGRS) owned and operated by the City of Clovis. Based on the 2015 UWMP, the average intentional recharge between 2000 and 2013 was approximately 50,000 AF/year. The total groundwater recharge at General Plan buildout in 2056 is expected to be approximately 102,100 AF/year.

In 2004, the Northeast Surface Water Treatment Facility (NESWTF) located at Chestnut and Behymer Avenues began operation. The treatment facility is designed to treat 30 million gallons of water per day (mgd). In 2018, the Southeast Surface Water Treatment Facility (SESWTF) located at East Floradora Avenue and North Armstrong Avenue began operation. The treatment facility is fed with surface water from the Kings River through a thirteen-mile-long Kings River Pipeline and is designed to have initial treatment capacity of 54 mgd and ultimate treatment capacity of 80 mgd. The City also owns and operates the T-3 Surface Water Treatment and Storage Facility (T-3SWTF), which provides 2 mgd.

The NESWTF, SESWTF and T-3SWTF have reduced the dependence on groundwater pumping by the City needed to meet water demand. Prior to operation of the NESWTF, 100 percent of the City's water demand was met through groundwater pumping.

Groundwater will continue to be an important part of the City's supply but will not be relied upon as heavily as has historically been the case. The 2015 UWMP stated that groundwater pumped by the City decreased from approximately 128,578 AF/year in 2010 to approximately 83,360 AF/year in 2015. This would represent a decrease in the groundwater percentage of total water supply from 87 percent to 75 percent. In order to meet this projection, the City is planning to rely on expanding their delivery and treatment of surface water supplies and groundwater

recharge activities.³ As of Year 2020, the City obtains approximately 50% of its water from groundwater pumping and approximately 50% from surface water treatment.

Drainage and Flood Control

Storm drainage facilities within the Fresno-Clovis Metropolitan area are planned, implemented, operated and maintained by the Fresno Metropolitan Flood Control District (FMFCD). The storm drainage facilities are documented in the Storm Drainage and Flood Control Master Plan (SDFCMP), which is developed and updated by FMFCD. The master plan drainage system for the City's Planning Area consists of over 158 individual drainage areas or urban watersheds. Drainage area boundaries are determined by geographic and topographic features and the economics of providing storm drainage service to the watershed. The storm drainage facilities within a drainage area consist of storm drain inlets, pipeline, retention basins, urban detention (water quality) basins, and stormwater pump stations.

Surface grading improvements such as streets, curbs, gutters, and valley gutters are part of the City of Fresno infrastructure, but the general grading of these features is governed by the SDFCMP to provide a coherent implementation of drainage within the City.⁴

According to current FEMA maps, the majority of the Project site located within Zone X, which is not within a floodplain or flood prone area and there are no natural drainage courses on the Project site. Zone X is the flood insurance rate zone that corresponds to (1) areas outside the 100-year floodplain, (2) areas of 100-year sheet flow flooding where average depths are less than one foot, (3) areas of 100-year stream flooding where the contributing drainage area is less than one square mile, or (4) areas protected from the 100-year flood by levees. No base flood elevation or depths are shown within this zone. There is a small area located primarily within the existing golf course (holes 5, 6, 7, and 9 located generally north of where Chestnut Avenue ends within the development) that is within Zone A. Areas within Zone A are subject to inundation by a 1-percent annual chance of a flood event. Refer to Section 3.10-4 for more information regarding flooding.

Project Site

The Project site is within the northeastern City limits of Fresno in an area characterized by urban development. The site ranges in elevation from 340 to 400 feet above sea level and consists of

³ Fresno General Plan Draft EIR (2020), page 4.10-4.

⁴ Fresno General Plan Draft EIR (2020), page 4.10-2.

gently rolling hills sloped generally southwesterly toward the San Joaquin River. There are some lower lying areas and flat areas throughout the proposed Project site. Runoff from precipitation currently either percolates into the ground where there are no impervious surfaces or drains into the City's stormwater system and eventually into drainage basins that serve the area.

The Project intends to connect to the City's water system to provide potable water for the development. According to the City's adopted Urban Water Management Plan (2015), the City's existing water system consists of about 1,799 miles of transmission and distribution pipelines, 260 active municipal groundwater wells, 224 of which registered flows in the past year, three surface water treatment facilities of rated capacities of 2, 30 and 54 mgd, 3 water storage facilities, and three booster pump facilities. The distribution system was previously divided into four quasi-pressure zones to help regulate and optimize system pressures as there is an approximate 120 feet of elevation decrease running across the City from the northeast to the southwest.

The total project area considered for water supply requirements consists of an original Project area of 706.5 acres and new Project area of 109 acres. The City has previously established water supply requirements for the original Project area of 706.5 acres and memorialized them in a Water Supply Implementation Agreement. For the new Project area, the Developer shall pay the Water Capacity Fee, as specified in the City's Master Fee Schedule, for all new connections to the City's water system. Refer to Section 3.10-2 for a description of existing site water use and anticipated Project water use.

In addition to water infrastructure, the Project will be required to tie into City infrastructure for sewer (refer to Section 3.19-3 for the evaluation related to sewer) and FMFCD storm water facilities (refer to Section 3.10-a for the evaluation related to storm water). . These facilities are located proximate to and within the Project site.

Regulatory Setting

Federal Agencies and Regulations

Clean Water Act

The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant

Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

Federal Emergency Management Agency (FEMA)

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

State Agencies & Regulations

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The proposed Project site is located within the Central Valley Region.

California Water Code

The Federal CWA places the primary responsibility for the control of surface water pollution and for planning the development and use of water resources with the states, although this does establish certain guidelines for the States to follow in developing their programs and allows the Environmental Protection Agency to withdraw control from states with inadequate implementation mechanisms.

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and

other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region the regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

- (a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:
 - (1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.
 - (2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.
 - (3) A person operating, or proposing to construct, an injection well.
- (b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.
- (c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

Water Code section 10910 (SB 610)

Water Code section 10910 (SB 610) requires a water supply assessment to evaluate whether total projected water supplies will meet the projected water demand for certain development projects that are otherwise subject to CEQA review. Existing law identifies those projects as (a) a residential development of more than 500 dwelling units; (b) a shopping center or business

employing more than 1,000 persons or having more than 500,000 square feet of floor space; (c) a commercial office building employing more than 1,000 persons or having more than 250,000 square feet; (d) a hotel or motel with more than 500 rooms; (e) an industrial or manufacturing establishment housing more than 1,000 persons or having more than 650,000 square feet or 40 acres; (f) a mixed use project containing any of the foregoing; or (g) any other project that would have a water demand at least equal to a 500 dwelling unit project. The proposed Project is subject to the provision of Water Code section 10910 (SB 610) because it exceeds 500 dwelling units. Refer to Impact Section 3.10-2 herein for the discussion pertaining to the Water Supply Assessment that was prepared for the Project.

Regional Water Quality Board

The Regional Water Quality Control Board (RWQCB) administers the National Pollutant Discharge Elimination System (NPDES) storm water-permitting program in the Central Valley region, including Fresno. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The plan will include specifications for Best Management Practices (BMPs) that will be implemented during proposed Project construction to control degradation of surface water by preventing the potential erosion of sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established by the RWQCB in the California Storm Water Best Management Practice Handbook (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP will describe measures to prevent or control runoff degradation after construction is complete, and identify a plan to inspect and maintain these facilities or project elements.

Sustainable Groundwater Management Act of 2014

On September 16, 2014, a three-bill legislative package was signed into law, composed of AB 1739, SB 1168, and SB 1319, collectively known as the Sustainable Groundwater Management Act (SGMA). The Governor's signing message states "a central feature of these bills is the recognition that groundwater management in California is best accomplished locally".

The SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with the potential for state intervention if necessary to protect the resource.

The act requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally-based management plans. The groundwater basin that serves Fresno has been designated by the Department of Water Resources as high priority and subject to a condition of critical overdraft.

Local Regulations

City of Fresno General Plan Policies

The following City of Fresno General Plan policies have been adopted to address water quality, groundwater supplies and recharge, storm drainage and flood hazards:

Parks, Opens Space, & Schools Element

- Policy POSS-6-b: Effects of Stormwater Discharge. Support efforts to identify and mitigate cumulative adverse effects on aquatic life from stormwater discharge to the San Joaquin River.
- Avoid discharge of runoff from urban uses to the San Joaquin River or other riparian corridors.
 - Approve development on sites having drainage (directly or indirectly) to the San Joaquin River or other riparian areas only upon a finding that adequate measures for preventing pollution of natural bodies of water from their runoff will be implemented.
 - Periodically monitor water quality and sediments near drainage outfalls to riparian areas. Institute remedial measures promptly if unacceptable levels of contaminant(s) occur.

Public Utilities and Services Element

- Policy PU-5-a: Mandatory Septic Conversion. Continue to evaluate and pursue where determined appropriate the mandatory abatement of existing private wastewater disposal (septic) systems and mandatory connection to the public sewage collection and disposal system.
- Policy PU-5-b: Non-Regional Treatment. Discourage, and when determined appropriate, oppose the use of private wastewater (septic) disposal systems, community wastewater disposal systems, or other non-regional sewage treatment and disposal systems within or adjacent to the Metropolitan Area if these types of wastewater treatment facilities would cause discharges that could result in groundwater degradation.
- Policy PU-5-c: Satellite Facilities. Work with the Regional Water Quality Control Board to ensure that approval of any satellite treatment and reclamation facility proposal is consistent with governing statutes and regulations.

- Policy PU-7-a: Reduce Wastewater. Identify and consider implementing water conservation standards and other programs and policies, as determined appropriate, to reduce wastewater flows.
- Policy PU-7-b: Reduce Stormwater Leakage. Reduce storm water infiltration into the sewer collection system, where feasible, through a program of replacing old and deteriorated sewer collection pipeline; eliminating existing stormwater sewer cut-ins to the sanitary sewer system; and avoiding any new sewer cut-ins except when required to protect health and safety.
- Policy PU-7-c: Biosolid Disposal. Investigate and consider implementing economically effective and environmentally beneficial methods of biosolids handling and disposal.
- Policy PU-7-d: Wastewater Recycling. Pursue the development of a recycled water system and the expansion of beneficial wastewater recycling opportunities, including a timely technical, practicable, and institutional evaluation of treatment, facility siting, and water exchange elements.
- Policy PU-7-e: Infiltration Basins. Continue to rehabilitate existing infiltration basins, and if determined appropriate, pursue acquiring additional sites for infiltration basins, as needed.
- Policy PU-7-f: Food and Drink Industry. Ensure adequate provision of facilities for the appropriate management of wastewater from wineries and food processing and beverage facilities, including conformance with Waste Discharge Requirements issued by the Regional Water Quality Control Board.
- Objective PU-8. Manage and develop the City's water facilities on a strategic timeline basis that recognizes the long life cycle of the assets and the duration of the resources, to ensure a safe, economical, and reliable water supply for existing customers and planned urban development and economic diversification.
- Policy PU-8-a: Forecast Need. Use available and innovative tools, such as computerized flow modeling to determine system capacity, as necessary to forecast demand on water production and distribution systems by urban development, and to determine appropriate facility needs.
- Policy PU-8-b: Potable Water Supply and Cost Recovery. Prepare for provision of increased potable water capacity (including surface water treatment

capacity) in a timely manner to facilitate planned urban development consistent with the General Plan. Accommodate increase in water demand from the existing community with the capital costs and benefits allocated equitably and fairly between existing users and new users, as authorized by law, and recognizing the differences in terms of quantity, quality and reliability of the various types of water in the City's portfolio.

- Policy PU-8-c: Conditions of Approval. Set appropriate conditions of approval for each new development proposal to ensure that the necessary potable water production and supply facilities and water resources are in place prior to occupancy.
- Policy PU-8-d: CIP Update. Continue to evaluate Capital Improvement Programs and update them, as appropriate, to meet the demands of both existing and planned development consistent with the General Plan.
- Policy PU-8-e: Repairs. Continue to evaluate existing water production and distribution systems and plan for necessary repair or enhancement of damaged or antiquated facilities.
- Policy PU-8-f: Water Quality. Continue to evaluate and implement measures determined to be appropriate and consistent with water system policies, including prioritizing the use of groundwater, installing wellhead treatment facilities, constructing above-ground storage and surface water treatment facilities, and enhancing transmission grid mains to promote adequate water quality and quantity.
- Policy PU-8-g: Review Project Impact on Supply. Mitigate the effects of development and capital improvement projects on the long-range water budget to ensure an adequate water supply for current and future uses.

Resource Conservation and Resilience Element

- Objective RC-6. Ensure that Fresno has a reliable, long-range source of drinkable water.
- Policy RC-6-a: Regional Efforts. Support cooperative, multi-agency regional water resource planning efforts and activities on developing and implementing the Upper Kings Basin Integrated Regional Water Management Plan.
- Policy RC-6-b: Water Plans. Adopt and implement ordinances, standards, and policies to achieve the intent of the City of Fresno Urban Water Management Plan, Fresno-Area Regional Groundwater Management Plan, and City of Fresno

Metropolitan Water Resources Management Plan to ensure a dependable supply of water.

- Policy RC-6-c: Land Use and Development Compliance. Ensure that land use and development projects adhere to the objective of the Fresno Metropolitan Water Resources Management Plan to provide sustainable and reliable water supplies to meet the demand of existing and future customers through 2025.
- Policy RC-6-d: Recycled Water. Prepare, Adopt, and implement a City of Fresno Recycled Water Master Plan.
- Policy RC-6-e: Protect Aquifer. Oppose urban development in unincorporated areas that are not served by a wastewater treatment/management system capable of preventing the buildup of compounds that would degrade the aquifer.
- Policy RC-6-f: Regulate Sewage Disposal Facilities. Oppose development of new sewage disposal facilities either within the Planning Area or upgradient (north and east) of the Planning Area, unless the treatment facilities produce effluent that:
- Will not degrade the aquifer in the long term;
 - Will not introduce contaminants into surface water that would negatively affect its potential economic use for drinking water;
 - Will not deleteriously affect downstream agricultural and urban uses; and
 - Will not degrade sensitive riparian habitat.
- Policy RC-6-g: Protect Recharge Areas. Continue to protect areas of beneficial natural groundwater recharge by preventing uses that can contaminate soil or groundwater.
- Policy RC-6-h: Conditions of Approval. Include in the Development Code standards for imposing conditions of approval for development projects to ensure long-term maintenance of adequate clean water resources. Require findings that adequate water supply must exist prior to any discretionary project approval for residential and commercial development requiring annexation, as required by law.
- Policy RC-6-i: Natural Recharge. Support removal of concrete from existing canals and change the practice of lining new and existing canals with concrete to allow for natural recharge.
- Objective RC-7. Promote water conservation through standards, incentives and capital investments.

- Policy RC-7-a: Water Conservation Program Target. Maintain a comprehensive conservation program to help reduce per capita water usage in the city’s water service area to 243 gallons per capita per day (gpcd) by 2020 and 190 gpcd by 2035, by adopting conservation standards and implementing a program of incentives, design and operation standards, and user fees.
- Support programs that result in decreased water demand, such as landscaping standards that require drought-tolerant plants, rebates for water conserving devices and systems, turf replacement, xeriscape landscape for new homes, irrigation controllers, commercial/industrial/institutional water conserving programs, prioritized leak detection program, complete water system audit, landscape water audit and budget program, and retrofit upon resale ordinance.
 - Implement the U.S. Bureau of Reclamation Best Management Practices for water conservation as necessary to maintain the City’s surface water entitlements.
 - Adopt and implement policies in the event that an artificial lake is proposed for development.
 - Work cooperatively toward effective uniform water conservation measures that would apply throughout the Planning Area.
 - Expand efforts to educate the public about water supply issues and water conservation techniques.
- Policy RC-7-b: Water Pricing and Metering. Develop a tiered water cost structure for both residential and commercial users that will properly price water based on its true cost; require all new development to be metered for water use; and charge all customers the true, full cost of their water supply, including costs of acquisition, initial treatment, conveyance, wastewater treatment, operations, maintenance, and remediation.
- Policy RC-7-c: Best Practices for Conservation. Require all City facilities and all new private development to follow U.S. Bureau of Reclamation Best Management Practices for water conservation, as warranted and appropriate.
- Policy RC-7-d: Update Standards for New Development. Continue to refine water saving and conservation standards for new development.
- Policy RC-7-e: Retrofit City Facilities, and Consider Incentives Programs to Encourage Retrofitting of Other Existing Public and Private Residential and Non-Residential Facilities and Sites. Reduce water use in municipal buildings and City operations by developing a schedule and budget for the retrofit of existing municipal buildings with water conservation features, such as auto shut-off faucets and water saving irrigation systems. Prepare a

comprehensive incentive program for other existing public and private residential and nonresidential buildings and irrigation systems.

- Policy RC-7-f: Implementation and Update Conservation Program. Continue to implement the City of Fresno Water Conservation Program, as may be updated, and periodically update restrictions on water uses, such as lawn and landscape watering and the filling of fountains and swimming pools, and penalties for violations. Evaluate the feasibility of a 2035 conservation target of 190 gpcd in the next comprehensive update of the City of Fresno Water Conservation Program.
- Policy RC-7-g: Educate on State Requirements. Educate the residents and businesses of Fresno on the requirements of the California Water Conservation Act of 2009.
- Policy RC-7-h: Landscape Water Conservation Standards. Refine landscape water conservation standards that will apply to new development installed landscapes, building on the State Model Water Efficient Landscape Ordinance and other State regulations.
- Evaluate and apply, as appropriate, augmented xeriscape, “water-wise,” and “green gardening” practices to be implemented in public and private landscaping design and maintenance.
 - Facilitate implementation of the State’s Water Efficient Landscape Ordinance by developing alternative compliance measures that are easy to understand and observe.

Noise and Safety Element

- Objective NS-2.: Minimize risks of property damage and personal injury posed by geologic and seismic risks.
- Policy NS-2-a: Seismic Protection. Ensure seismic protection is incorporated into new and existing construction, consistent with the Fresno Municipal Code.
- Policy NS-2-b: Soil Analysis Requirement. Identify areas with potential geologic and/or soils hazards, and require development in these areas to conduct a soil analysis and mitigation plan by a registered civil engineer (or engineering geologist specializing in soil geology) prior to allowing on-site drainage or disposal for wastewater, stormwater runoff, or swimming pool/spa water.
- Policy NS-2-d: Bluff Preservation Overlay Zone. Per the requirements of the Bluff Preservation Overlay Zone District and Policy POSS-7-f (Chapter 5, Parks and Open Space), the following standards shall be applicable for property located within the Bluff Preservation zone:

- Require proposed development within 300 feet of the toe of the San Joaquin River bluffs to undertake an engineering soils investigation and evaluation report that demonstrates that the site is sufficiently stable to support the proposed development, or provide mitigations to provide sufficient stability; and
- Establish a minimum setback of 30 feet from the San Joaquin River bluff edge for all buildings, structures, decks, pools and spas (which may be above or below grade), fencing, lighting, steps, etc.
 - An applicant may request to reduce the minimum setback to 20 feet from the bluff edge if it can be demonstrated, to the satisfaction of the City’s Building Official and the Planning Director, that the proposed building, structure, deck, pool and/or spas (which may be above or below grade), fencing, steps, etc., will meet the objectives of the Bluff Preservation Overlay Ordinance. In no case shall the setback be reduced to less than 20 feet.

Objective NS-3: Minimize the risks to property, life, and the environment due to flooding and stormwater runoff hazards.

Policy NS-3-a: Stormwater Drainage and Flood Control Master Plan. Support the full implementation of the FMFCD Storm Drainage and Flood Control Master Plan, the completion of planned flood control and drainage system facilities, and the continued maintenance of stormwater and flood water retention and conveyance facilities and capacities. Work with the FMFCD to make sure that its Storm Drainage and Flood Control Master Plan is consistent with the General Plan.

Policy NS-3-b: Curb and Gutter Installation. Coordinate with Fresno Metropolitan Flood Control District (FMFCD) to install curbing, gutters, and other drainage facilities with priority to existing neighborhoods with the greatest deficiencies and consistent with the Storm Drainage and Flood Control Master Plan.

Policy NS-3-d: Landscaped Buffer. City will support the development of FMFCD ponding basins including the landscaping and irrigation for the top one third of the side sloped areas consistent with the FMFCD Basin Design Criteria.

Policy NS-3-e: Pollutants. Work with FMFCD to prevent and reduce the existence of urban stormwater pollutants pursuant to the requirements of the National Pollution Discharge Elimination Systems Act.

Policy NS-3-f: Flooding Emergency Response Plans. Work with responsible agencies to

update emergency dam failure inundation plans, evacuation plans and other emergency response plans for designated flood-prone areas, including the San Joaquin river bottom.

- Policy NS-3-h: Runoff Controls. Implement grading regulations and related development policies that protect area residents from flooding caused by urban runoff produced from events that exceed the capacity of the Storm Drainage and Flood Control Master Plan system of facilities. Place all structures and/or flood-proofing in a manner that does not cause floodwaters to be diverted onto adjacent property, increase flood hazards to other property, or otherwise adversely affect other property.
- Policy NS-3-i: New Development Must Mitigate Impact. Require new development to not significantly impact the existing storm drainage and flood control system by imposing conditions of approval as project mitigation, as authorized by law. As part of this process, closely coordinate and consult with the FMFCD to identify appropriate conditions that will result in mitigation acceptable and preferred by FMFCD for each project.
- Policy NS-3-j: National Flood Insurance Program. Continue to participate in the National Flood Insurance Program (NFIP) by ensuring compliance with applicable requirements. Review NFIP maps periodically to determine if areas subject to flooding have been added or removed and make adjustments to the Land Use Diagram Figure LU-1.
- Policy NS-3-k: 100-Year Floodplain Policy. Require developers of residential subdivisions to preserve those portions of development sites as open space that may be subject to 100-year flood events, unless the flood hazard can be substantially mitigated by development project design.
- Policy NS-3-l: 200-Year Floodplain Protection. Promote flood control measures that maintain natural conditions within the 200-year floodplain of rivers and streams and, to the extent possible, combine flood control, recreation, water quality, and open space functions. Discourage construction of permanent improvements that would be adversely affected by periodic floods within the 200-year floodplain, particularly in the San Joaquin river bottom.
- Policy NS-3-m: Flood Risk Public Awareness. Continue public awareness programs to inform the general public and potentially affected property owners of flood hazards and potential dam failure inundation. Remind households and businesses located in flood-prone areas of opportunities to purchase flood insurance.

Policy NS-3-n: Precipitation Changes. Work with FMFCD to evaluate the planned and existing stormwater conveyance system in light of possible changes to precipitation patterns in the future.

Methodology

The analysis considered current conditions of the Project site and applicable laws, regulations and guidelines pertaining to hydrology and water quality. Various databases, planning documents (including the City's adopted Urban Water Management Plan), and maps were reviewed to assist in the environmental evaluation. This evaluation also incorporates the previous Water Supply Assessment and related documentation prepared for the 2003 FEIR. Specific references are noted in the text. In addition, a technical memorandum was prepared by Provost & Pritchard for the Project which calculated Project-related water supply and water demand (See Appendix E).

Thresholds of Significance

In accordance with the CEQA Guidelines, a project impact would be considered significant if the project would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - i. result in substantial erosion or siltation on- or offsite;
 - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv. impede or redirect flood flows

- In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

Impacts and Mitigation Measures

Impact 3.10-1: *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Less Than Significant With Mitigation. The Project has the potential to impact water quality standards and/or waste discharge requirements during construction (temporary impacts) and operation (polluted stormwater runoff due to an increase in impervious surfaces). Impacts are discussed below.

Construction

Grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed Project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of common sense, “good housekeeping” procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These best management practices

(BMPs) would be required in the Storm Water Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction activities. When properly designed and implemented, these “good-housekeeping” practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the NPDES Stormwater Program, and as described in the Section 3.7 - Geology and Soils, the Project will be required to comply with existing regulatory requirements to prepare a SWPPP designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the RWQCB has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement. Implementation of Mitigation Measure HYD - 1 would ensure that the proposed Project would have a less than significant impact relative to this topic.

Operation

The long-term operations of the proposed Project could result in long-term impacts to surface water quality from urban stormwater runoff. The proposed Project would result in new impervious areas associated with site improvements, including new asphalt, concrete and the proposed structures on site. Urban runoff typically contains oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals) and other household pollutants. Precipitation early in the rain season displaces these pollutants into storm water resulting in high pollutant concentrations in initial wet weather runoff. This initial runoff with peak pollutant levels can be referred to as the "first flush" of storm events.

The proposed Project would install storm water drainage facilities (e.g. storm drainage mechanisms and storm water pipes) that would be in compliance with the City of Fresno and FMFCD Design Standards. See Section 3.10-3 for more information pertaining to Project-related storm water drainage.

In accordance with the City’s storm water management regulations and NPDES Stormwater Program (General Stormwater Permit), BMPs would be implemented to reduce the amount of pollution in stormwater discharged from the Project site. The management of water quality through the requirement to obtain a General Stormwater Permit and implement appropriate BMPs would ensure that water quality does not degrade to levels that would violate water quality standards. These are existing regulatory requirements.

In addition, the Project will generate typical wastewater (sewer) associated with residential developments and will connect to the City’s sewer system. See Section 3.19 – Utilities for a

discussion regarding waste discharge requirements, wastewater characteristics and water quality standards pertaining to Project-related wastewater. The Project will not result in a violation of any water quality standards or waste discharge requirements. Therefore, with mitigation, impacts related to this specific resource result in a *less than significant impact*.

Mitigation Measures:

HYD - 1: Prior to clearing, grading, and disturbances to the ground such as stockpiling, or excavation, the Project proponent shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ). The SWPPP shall be designed with Best Management Practices (BMPs) that the RWQCB has deemed as effective at reducing erosion, controlling sediment, and managing runoff. These include: covering disturbed areas with mulch, temporary seeding, soil stabilizers, binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Sediment control BMPs, installing silt fences or placing straw wattles below slopes, installing berms and other temporary run-on and runoff diversions. These BMPs are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed. Final selection of BMPs will be subject to approval by City of Fresno and the RWQCB. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the RWQCB.

Impact 3.10-2: *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Less Than Significant With Mitigation. The proposed Project would add demand for potable water to the City of Fresno water system, which is reliant on a combination of surface water and groundwater to serve its customers. Information is being provided herein regarding the previous SB 610 Water Supply Assessment (WSA) associated with the 2003 FEIR; a July 2021 *Provost & Pritchard* Technical Memorandum that estimated the full buildout water demand projections of the proposed Project (See Appendix E), as well as other information, such as the City's General Plan EIR.

The 2003 FEIR and associated WSA analyzed the water demand / water supply requirements of:

- Up to 2,837 residential units
 - 1,560 single family homes
 - 1,277 multifamily units
- Up to 250,000 sq. ft. (60 acres) of mixed-use commercial
- Open Space / Recreation
- 706.5 total acres of development

This SEIR is evaluating the water demand / water supply requirements of the previously approved 2003 FEIR Project plus the additional 109 acres of development. This evaluation also takes into account the proposed land use changes to the existing Development as identified in Chapter Two – Project Description. At full buildout, the proposed Project could result in up to 3,216 residential units (379 more units than previously analyzed in 2003), but would result in less commercial uses due to the proposed land use changes.

2003 FEIR Water Supply Analysis History

The City of Fresno adopted a Water Supply Assessment (WSA) in September 2002 for the then-proposed Copper River Ranch Development Project/Original Project. The WSA was used in the water supply evaluation of the 2003 FEIR. Information from the WSA and the 2003 FEIR is summarized as follows:

- Analyzed water demand and water supply information for buildout of up to 2,837 residential units, approximately 190 acres of Open Space, the 18-hole golf course, and approximately 60 acres of mixed-use commercial development on 706.5 acres.⁵
- Determined the following water demand factors⁶:
 - 1,600 AFY for residential
 - 150 AFY for commercial, hotel and club house
 - 50 AFY to fill the lake
 - Reclaimed treated effluent (approximately 750 AFY) would be used for irrigation of the golf course and common landscaping areas
 - Total water use would be approximately 1,800 AFY

⁵ 2003 Copper River Ranch Final EIR, page 2.19.17.

⁶ Ibid.

- Determined that a capacity of approximately 4,900 gallons per minute (GPM) would be needed to meet the estimated peak daily demand for potable water and fire flow⁷.

Water Demand Factors

A Technical Memorandum was prepared by Provost & Pritchard (See Appendix E) to aid in the water demand calculation process, the results of which is summarized herein. The Memorandum estimated water demand based on actual meter usage data in Year 2020. The City of Fresno provided 2020 water meter usage data for the constructed lots within the Copper River Ranch development area. The meter data included most residential tracts within the original 706 acres covered by the 2003 FEIR as well as some of the constructed meters from the 109 acres that are proposed to be added to the development. Meter connections, average day, and maximum day demand were used to determine the proposed Project water demand (inclusive of both the original 706 acres and the additional 109 acres).

Project Water Demand

The average day demand for each water meter was calculated by dividing the total volume of water used by the number of days the meter was on-line (generally 365 days for a full year's operation). In contrast, the maximum day demand serves as an extreme condition occurring once a year when total water demand across the development is the highest for the year. In 2020, that day occurred on July 25, per City staff. The arithmetic mean of the average and maximum day flow per connection and can be found in Table 3.10-1.

⁷ 2003 Copper River Ranch Final EIR, page 2.9.18.

**Table 3.10-1
Demand Per Connection Based on 2020 Meter Data**

Average Flow Per Connection		
Land Use Designation	Average Day Flow/Connection	Max Day Flow/Connection
	(AVG)	(AVG)
Low Density Residential, RL	0.65 gpm	1.31 gpm
Medium-Low Density Residential, RML	0.25 gpm	0.42 gpm
Medium Density Residential, RM	0.16 gpm	0.26 gpm
Medium-High Density Residential, RMH	0.16 gpm	0.26 gpm
Commercial, CC	2.85 gpm	0.26 gpm

Each tract in the commercial, low, medium-low, medium, and medium-high density residential land-use subcategories were calculated separately due to the differences in dwelling unit densities. In order to produce data that was most representative, it was necessary to remove tracts that were less than 50% built out from the typical flow-per-connection calculation presented in Table 3.10-1. When calculating total demand for the Development, actual demand by tract was used for tracts that were at least 50% built out. For partially developed tracts less than 50% built out, demand was estimated using the average per-connection calculation from Table 3.10-1.

When calculating full build-out demand, the demand estimates are divided between the original 706-acre development and the proposed new 109-acre development.

Demand Projections

The Year 2020 Meter Data was examined to determine an average flow per connection by land use type. The maximum number of connections in each tract was determined based on the Project Description. Meter data was used for tracts that are constructed, while averaged values shown in Table 3.10-1 were used for undeveloped areas. There are several tracts, generally planned for urban neighborhood developments, that have not yet been assigned a unit count. In these cases, the General Plan densities were used to determine the projected buildout connection count. The projected demand for the Copper River Ranch Development was determined by multiplying the flow per connection by the projected, or existing, connections depending on the status of construction. The final result is summarized in Table 3.10-2. Table 3.10-3 provides the total

demand by land use type of the original 706 acres and Table 3.10-4 provides the total demand by land use type for the additional 109 acres. The Peak Hour demand is calculated by multiplying the Maximum Day Demand by a peaking factor of 1.53.

**Table 3.10-2
Total Demand Calculation**

	706 Acre Development	109 Acre Development
Average Day, GPM	789	137
Max Day, GPM	1,428	247
Peak Hour, GPM	2,185	379

**Table 3.10-3
Total Demand by Land Use Type (706 Acres)**

Original 706 Acres				
Land Use	Designation	Projected Avg. Day Demand, gpm	Projected Max Day Demand, gpm	Projected Peak Hour Demand, gpm
Commercial	CC	77	123	189
Residential Urban Neighborhood	RUN	106	217	332
Low Density Residential	RL	267	538	822
Medium-Low Density Residential	RML	206	338	518
Medium Density Residential	RM	103	162	248
Medium-High Density Residential	RMH	30	50	76
Total		789	1,428	2,185

**Table 3.10-4
Total Demand by Land Use Type (109 Acres)**

Original 109 Acres				
Land Use	Designation	Projected Avg. Day Demand, gpm	Projected Max Day Demand, gpm	Projected Peak Hour Demand, gpm
Commercial	CC	-	-	-
Residential Urban Neighborhood	RUN	-	-	-
Low Density Residential	RL	38	68	105
Medium-Low Density Residential	RML	99	179	274
Medium Density Residential	RM	-	-	-
Medium-High Density Residential	RMH	-	-	-
Total		137	247	379

In addition to the water demand summarized above, the original 706 acre area (2003 FEIR) water demand includes sufficient water to meet firefighting requirements. A fire flow demand of 2,500 gallons per minute should be added to the maximum day demand to generate a total demand estimate for the original 706 acres. Using that value, the total water demand for the original 706 acres covered by the 2003 FEIR is:

$$\begin{aligned} \text{Total Demand} &= \text{MDD} + \text{Fire Flow} \\ &= 1,428 \text{ gpm} + 2,500 \text{ gpm} = 3,928 \text{ gpm} \end{aligned}$$

A fire flow demand of 1,500 gallons per minute should be added to the maximum day demand estimate for the new 109 acre area. Using that value, the total water demand for the new 109 acre area evaluated under this SEIR is:

$$\begin{aligned} \text{Total Demand} &= \text{MDD} + \text{Fire Flow} \\ &= 247 \text{ gpm} + 1,500 \text{ gpm} = 1,747 \text{ gpm} \end{aligned}$$

Water demand for the new 109 acres will be covered through payment of water capacity fees as indicated in Mitigation Measure HYD – 2A (see mitigation measures herein).

Note: The 2003 FEIR included a discussion of water use associated with the existing golf course within the Development. The 2003 FEIR stated that the Copper River golf course annual usage was anticipated to be 1,070 acre-ft per year (AFY) plus 100 AFY for the clubhouse. The 2003 FEIR originally anticipated that the golf course demand would be primarily met with a combination of reclaimed water from the nearby wastewater treatment plant and raw water supplied by Fresno Irrigation District (FID). It was anticipated that FID would supply 480 AFY, and the remainder of the demand (about 690 AFY) would come from reclaimed water. Currently, due to more precise water management, the demand is approximately 762 AFY. The existing golf course demand is met with reclaimed water (183 AFY), raw FID water (283 AFY, assuming a 3-month water delivery window) and groundwater pumped from two irrigation wells (296 AFY). As development continues, the amount of reclaimed water would increase proportionally up to the current plant capacity of 450 AFY (400,000 GPD).

Current Available Water

The Project Applicant (CRD East, Inc.) is contracted to provide water supply infrastructure improvements to meet the 4,900 GPM requirement from the 2003 FEIR (for the 706 acre area). As indicated in the previous section, the total water demand of the 706 acres (not including the additional 109 acre area) is 3,928 GPM. Refer to Table 3.10-5 for the list of applicable water sources that have been constructed or funded by the Project Developer to meet the demand of the original 706 acres covered by the 2003 FEIR.

**Table 3.10-5
Developed Water Supplies (706 Acres)**

Water / Well Source	Actual Max Capacity (GPM)	Notes
Well 330	1,800	Expanded capacity
Well 369	1,000	
Well 370	1,250	Well 370 was recently completed but it has only operated intermittently. The City is completing start-up testing to confirm proper operation of the well controls.
Well 371	N/A	Well 371 has not been constructed at the time of this analysis.

Totals:	4,050	A required capacity of 4,900 GPM was originally determined in the 2003 FEIR for Copper River Ranch. Agreements with the City indicated that the 4,900 GPM would be supplied by groundwater wells.
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As shown in Table 3.10-5, the Project Applicant has constructed sufficient water capacity to serve the 706 acre area. The water demand associated with the 706 acres is approximately 3,928 GPM and water supplies have been developed to produce approximately 4,050 GPM (excess capacity of 122 GPM). As previously discussed, the total Project area considered for water supply requirements consists of an original Project area of 706 acres and new Project area of 109 acres. The City has previously established water supply requirements for the original Project area of 706 acres and memorialized them in a Water Supply Implementation Agreement. For the new Project area, the Developer shall pay the Water Capacity Fee, as specified in the City’s Master Fee Schedule, for all new connections to the City’s water system.

Summary and Determination

Table 3.10-6 summarizes the water demand and supply calculations for the original 706 acre area and the additional 109 acre area.

**Table 3.10-6
Demand and Supply Calculation Summary**

	706 Acre Development	109 Acre Development	Notes
Full Buildout Connections	2,799	453	See Attachment 2 and 3A of Appendix E for connections by Tract.
Average Day Demand (GPM)	789	134	Based on water meter data
Maximum Day Demand (GPM)	1,428	247	Based on water meter data
Peak Hour Demand (GPM)	2,185	379	Maximum day demand X 1.53
Fire Flow (GPM)	2,500	1,500	Per City staff, 2,500 gpm should be applied to the original 706 acre development.

Total Demand (MDD + Fire Flow)	3,928	1,747	
Constructed Water Supply (GPM)	4,067	N/A	Water supply for the additional 109 acres will be addressed by payment of the City's Water Capacity Fees.
Excess/Deficit Capacity (GPM/[GPM])	122	N/A	

As shown in Table 3.10-6, water supplies constructed for the original 706 acres (as analyzed in the 2003 FEIR) are sufficient to meet the currently proposed Project build-out water demands for the 706 acre area. For the new 109 acre area, the Developer shall pay the Water Capacity Fee, as specified in the City's Master Fee Schedule, for all new connections to the City's water system (See Mitigation Measure HYD – 2B).

As such, there is *a less than significant impact* to this impact area. Mitigation Measures HYD – 2A and HYD – 2B will help ensure that impacts remain less than significant.

Mitigation Measures:

HYD – 2A: The Project will implement the City of Fresno Water Conservation Program, including implementation of the State's Water Efficient Landscape Ordinance. The California Water Conservation Act mandates a 20 percent reduction in water usage. The Developer will demonstrate how they will meet the reduction target with measures applicable to new and existing development. Reductions beyond the state mandated 20 percent are possible with the use of building and landscaping water conservation features. The reductions from buildings can be achieved with high efficiency toilets, low-flow faucets, and water-efficient appliances such as dishwashers. Water savings from landscaping would be achieved primarily through the use of drought-tolerant landscaping or xeriscaping.

HYD – 2B: The total Project area considered for water supply requirements consists of an original Project area of 706 acres and new Project area of 109 acres. The City has previously established water supply requirements for the original Project area of 706 acres and memorialized them in a Water Supply Implementation Agreement. For the new Project area, the Developer shall pay the Water Capacity

Fee, as specified in the City's Master Fee Schedule, for all new connections to the City's water system.

Impact 3.10-3: *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

- i. result in substantial erosion or siltation on- or offsite;*
- ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;*
- iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*
- iv. impede or redirect flood flows?*

Less Than Significant. The Project site consists of gently rolling hills sloped generally southwesterly toward the San Joaquin River. The site contains some lower lying areas and flat areas throughout the Development. Runoff from precipitation currently either percolates into the ground where there are no impervious surfaces or drains into the FMFCD's stormwater system and eventually into drainage basins that serve the area.

Development of the site will result in the addition of impervious surfaces in the form of foundations, buildings, roadways, and other paved surfaces. This will result in an increase in storm water runoff from the site, and will increase the potential for contaminated runoff to enter FMFCD drainage basins or for drainage basins to overflow and cause flooding. However, the proposed Project will be designed to FMFCD and City of Fresno standards to prevent drainage overflow and flooding and the potential for contaminated runoff. The Project site has been anticipated for urban use, primarily as residential development, by the City of Fresno General Plan. As with all developments, existing policies and standards are required to be complied with, which are assessed during design and review of entitlements by the City and FMFCD to ensure that none of the water quality standards are violated and that waste discharge requirements are adhered to during construction and operation of the Project.

Mitigation Measure HYD – 3 requires the Project Applicant to prepare a drainage/grading plan subject to review and approval by FMFCD and the City Planning and Development Department.

The Project would not otherwise degrade water quality and therefore the impact is *less than significant with mitigation*.

Mitigation Measures:

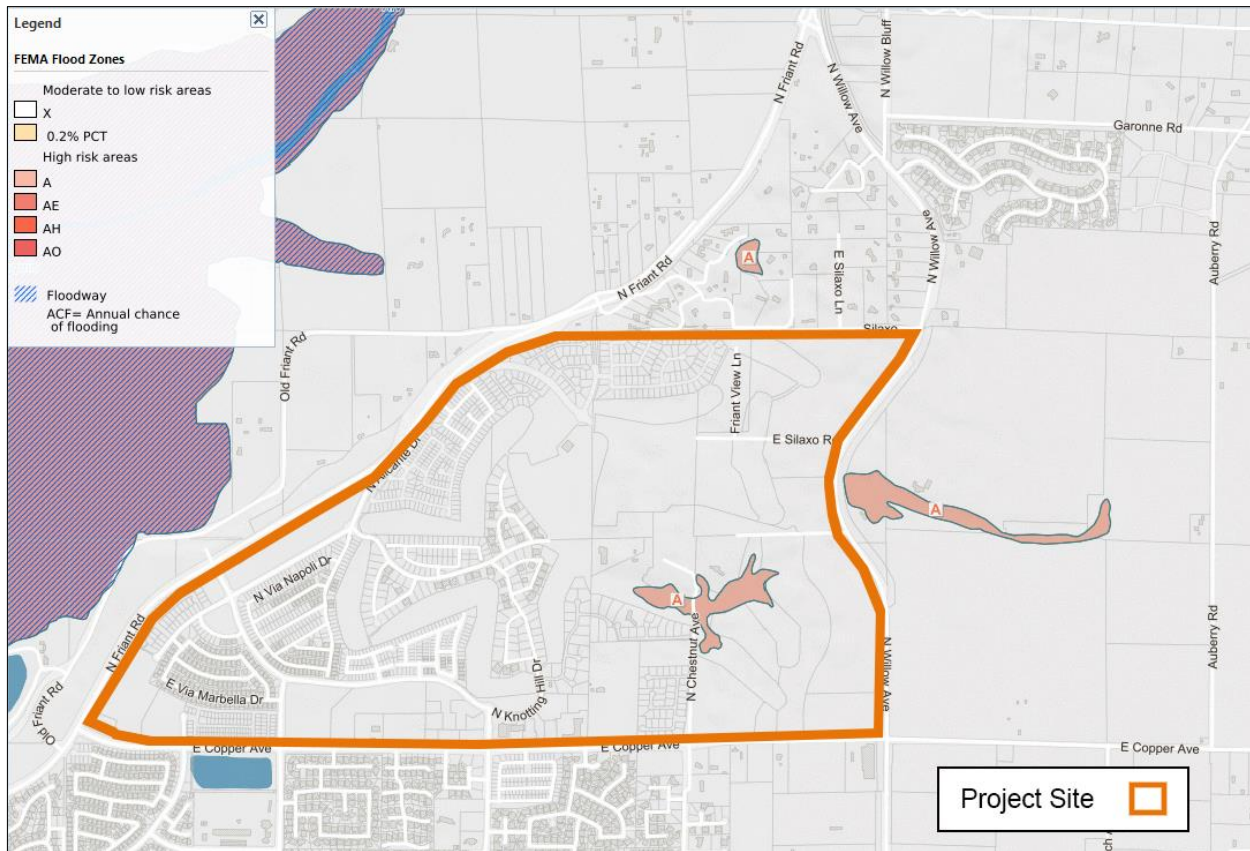
HYD – 3: The Project proponent shall retain a qualified consultant to prepare a drainage / grading plan prior to the issuance of any grading and/or building permit. The design-level analysis shall be prepared to the satisfaction of the City of Fresno and FMFCD.

Impact 3.10-4: *In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?*

Less Than Significant. According to current FEMA maps, the majority of the Project site is located within Zone X, which is not within a floodplain or flood prone area and there are no natural drainage courses on the Project site. Zone X is the flood insurance rate zone that corresponds to (1) areas outside the 100-year floodplain, (2) areas of 100-year sheet flow flooding where average depths are less than one foot, (3) areas of 100-year stream flooding where the contributing drainage area is less than one square mile, or (4) areas protected from the 100-year flood by levees. No base flood elevation or depths are shown within this zone. There is a small area located primarily within the existing golf course (holes 5, 6, 7, and 9 located generally north of where Chestnut Avenue ends within the development) that is within Zone A. Areas within Zone A are subject to inundation by a 1-percent annual chance of a flood event. See the Figure 3.10-1 for a map showing Project area flood zones.

Friant Dam, the closest dam to the City of Fresno, is located approximately 6.5 miles northeast of the Project site on the San Joaquin River and is owned and operated by the United States Bureau of Reclamation (USBR). Friant Dam was built in 1942 and is a concrete gravity dam with a capacity of 520,528 af. The dam is 319 feet high, 3,488 feet long and 20 feet wide and constructed of concrete (Dams Owned and Operated by Federal Agencies, May 2007).

**Figure 3.10-1
Project Area Flood Zones**



An inundation study completed in 1997 by the Bureau of Reclamation redefined a worst-case scenario dam break of Friant Dam to include inundation of a significant portion of the City of Fresno, including the Project site, and a much larger portion of Fresno County than previously described. In addition, failure of upstream dams such as Shaver Lake, Lake Thomas A. Edison and Huntington, Florence, Mammoth Pool, Wishon, and Courtright Reservoirs, could contribute to flooding conditions on local rivers including the San Joaquin River (the closest river to the proposed Project), if downstream capacity of the major dams is exceeded.

In addition, there are no substantial bodies of water located in the Project area that could result in a tsunami or seiche. Thus, the proposed Project will have a *less than significant impact* with regard to placing housing or structures in a 100-year flood, tsunami or seiche zone.

Mitigation Measures: None are required.

Impact 3.10-5: *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The 2003 FEIR evaluated groundwater utilization and replenishment associated with the Original Project. This analysis continues to be applicable to avoid groundwater overdraft and impacting adjacent private domestic wells west and north of the Project. The utilization of surface water for recharge remains a vital component of attaining the groundwater balance within the Project boundaries, which will ensure it is in compliance with the goals of the North Kings Groundwater Sustainability Plan, as prepared by the North Kings Groundwater Sustainability Agency, and submitted to the California Department of Water Resources. Other measures to attaining groundwater balance include using tertiary treated wastewater for irrigation of turf areas, specifically the Copper River Country Club golf course, which will continue to utilize the treated wastewater for the foreseeable future.

Less than Significant Impact. Development of the Project includes maintaining the balanced use of groundwater supplies and implementation of the mitigation measures identified in the Mitigation Monitoring Checklist. If the City determines that the Project Applicant shall pay Water Capacity Fees according to the City of Fresno Master Fee Schedule, and the City provides water supply sufficient to meet the water demands of the proposed Project, then the City shall comply with the requirements of the North Kings Groundwater Sustainability Agency (GSA) which is one of the seven GSA's within the Kings Groundwater Subbasin. The North Kings GSA submitted the Groundwater Sustainability Plan to the CA Department of Water Resources in January 2020. As the City of Fresno will provide water to the proposed Project (upon approval), and the City will be subject to the requirements of the GSA, the proposed Project does not conflict with any adopted water quality or sustainable groundwater management plan.

Mitigation Measures: The Project Applicant will continue to implement mitigation measures identified in the Mitigation Monitoring Checklist as determined by the City.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to hydrology and water quality. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>The developer shall be responsible for the following mitigation measures through the subsequent master use permit and associated development plan:</p> <p>2.9.1-a: Establish a development fee for the project’s fair share of the City’s surface water treatment plant construction and expansion.</p> <p>2.9.1-b: The project shall commit to a water conservation program which shall include low-flow water fixtures, water conserving landscaping of public spaces, and water conserving practices for golf course irrigation.</p> <p>2.9.1-c: Technical water supply information shall be submitted which demonstrates residential and commercial uses and corresponding water requirements.</p> <p>2.9.1-d: The developer shall commit to plan and maintain on-site recharge basins and lakes to ensure that necessary recharge can be accomplished over the life of the project.</p> <p>2.9.1-e: The developer shall prepare a water master plan for approval by the City in accordance with City requirements.</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.9.1-a: On-going throughout development.</p> <p>2.9.1-b: On-going throughout development and operation. This will be replaced with MM HYD-2A.</p> <p>2.9.1-c: On-going throughout development and operation.</p> <p>2.9.1-d: On-going throughout development and operation.</p> <p>2.9.1-e: On-going throughout development.</p>	<p>Mitigation measures 2.9.1-a, 2.9.1-c, 2.9.1-d, and 2.9.1-e shall continue to be applicable.</p> <p>Mitigation measure 2.9.1-b will be replaced with HYD-2A as follows:</p> <p>HYD-2A: The Project will implement the City of Fresno Water Conservation Program, including implementation of the State’s Water Efficient Landscape Ordinance. The California Water Conservation Act mandates a 20 percent reduction in water usage. The Developer will meet the reduction target with measures applicable to new and existing development. Reductions beyond the state mandated 20 percent are possible with the use of building and landscaping water conservation features. The reductions from buildings can be achieved with high efficiency toilets, low-flow faucets, and water-efficient appliances such as dishwashers. Water savings from landscaping would be achieved primarily through the use of drought-tolerant landscaping or xeriscaping.</p> <p>HYD – 2B: The total Project area considered for water supply requirements consists of an original Project area of 706 acres and new Project area of 109 acres. The City has previously</p>

		<p>established water supply requirements for the original Project area of 706 acres and memorialized them in a Water Supply Implementation Agreement. For the new Project area, the Developer shall pay the Water Capacity Fee, as specified in the City’s Master Fee Schedule, for all new connections to the City’s water system.</p>
<p>The developer shall be responsible for the following mitigation measure through the subsequent development agreement and associated specific plan or development plan:</p> <p>2.9.2-a: New wells shall be placed a minimum of 500 feet from the project boundaries where there is an adjoining proximate off-site well, in order to preclude drawdown in off-site wells due to pumpage of new public supply wells in the project. In addition, new public supply wells on the project site shall include a test well and monitoring of a sufficient number of adjoining proximate off-site wells as determined by the City to determine potential drawdown in the off-site wells. Should adverse effects on adjoining proximate off-site wells be determined, the public</p>	<p>The determination of completion for each component of these mitigation measures is as follows:</p> <p>2.9.2-a: On-going throughout construction as applicable.</p> <p>2.9.2-b: On-going throughout construction as applicable.</p> <p>2.9.2-c: On-going throughout construction and operation as applicable.</p>	<p>Mitigation measures 2.9.2-a, 2.9.2-b, and 2.9.2-c shall continue to be applicable.</p>

<p>supply wells shall be relocated or otherwise mitigated to preclude such adverse impacts.</p> <p>2.9.2-b: Locate domestic water wells in accordance with the recommendations contained in the report <i>Groundwater Conditions at the Copper River Ranch</i>, prepared by Kenneth D. Schmidt and Associates, May, 2000.</p> <p>2.9.2-c: If water yields from adjacent private wells are determined by the City Department of Public Utilities in consultation with the Fresno County Department of Community Health to have been adversely affected by the project, the developer shall improve the private well to standards acceptable to the City, or connect the user to the project water system.</p>		
<p>The developer shall be responsible for the following mitigation measures based on required water-well monitoring:</p> <p>2.9.3-a: Should any existing community water supply well exceed the DBCP MCL as detected in regular monitoring, granular activated carbon treatment or other acceptable technology shall be required to be consistent with CCR Title 22 requirements.</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.9.3-a: On-going monitoring.</p> <p>2.9.3-b: On-going monitoring.</p> <p>2.9.3-c: On-going monitoring.</p>	<p>Mitigation measures 2.9.3-a, 2.9.3-b and 2.9.3-c shall continue to be applicable.</p>

<p>2.9.3-b: Should any existing community water supply well exceed the uranium MCL as detected in regular monitoring, the contaminated well water shall be blended with other on-site groundwater supplies to reduce the contamination level below the MCL at all times. A State DHS-approved blending program shall be implemented to meet this requirement. The effectiveness of the program shall be supported by on-going monitoring at State-specified frequencies and locations.</p> <p>2.9.3-c: Should other contaminants be identified in the future, remediation shall be resolved in accordance with CCR Title 22 requirements.</p>		
<p>The developer shall be responsible for the following mitigation measure to be included as a condition of approval of the conditional use permit for the wastewater treatment plant:</p> <p>2.9.4-a: Monitoring groundwater, including nitrogen content, has been proposed as a mitigation measure for this project (see mitigation for groundwater degradation caused by infiltration of diluted treated effluent, in Section 2.8). Measurements shall be taken each calendar quarter by City of</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.9.4-a: On-going monitoring</p>	<p>Mitigation measure 2.9.4-a shall continue to be applicable.</p>

<p>Fresno personnel or a qualified consultant. Should the monitoring tests exceed nitrogen standards, a denitrification process shall be started at the wastewater treatment facility. The plant design shall incorporate a denitrification process that shall denitrify the treated effluent to the 10 mg/l total nitrogen level.</p>		
<p>The developer shall be responsible for the following mitigation measure to be included as a condition of approval for all conditional use permits, tentative tract maps, or site plans:</p> <p>2.9.6-a: Grading plans shall demonstrate that all areas of irrigated turf or other open space receiving reclaimed water drain away from FMFCD basins, except in extraordinary wet years (10-year frequency storms) when on-site lakes may fill from stormwater and utilize the FMFCD basins.</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.9.6-a: On-going as development occurs.</p>	<p>Mitigation measure 2.9.6-a shall continue to be applicable.</p>
<p>The developer shall be responsible for the following mitigation measure to be included as a condition of approval on each conditional use permit, tentative tract map, or site plan:</p> <p>2.7.2-a: The master storm water plan developed and</p>	<p>This mitigation measure is implemented/completed with each tract. The measure is similar to the currently proposed mitigation measured HYD-3, therefore HYD-3 shall replace this previous 2003 mitigation measure.</p>	<p>HYD – 3: The Project proponent shall retain a qualified consultant to prepare a drainage / grading plan prior to the issuance of any grading and/or building permit. The design-level analysis shall be prepared to the satisfaction of the City of Fresno and FMFCD.</p>

<p>implemented for the project shall include all applicable best management practices identified in the Construction and Post-Construction Guidelines to ensure that pollutants are controlled to standards required by the City of Fresno and the State of California.</p>		
		<p>The 2003 FEIR did not include a mitigation measure to prepare a SWPPP. HYD – 1 is a new mitigation measure being implemented on the Project.</p> <p>HYD – 1: Prior to clearing, grading, and disturbances to the ground such as stockpiling, or excavation, the Project proponent shall submit a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) to the RWQCB to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ amended by 2010-0014-DWQ & 2012-0006-DWQ). The SWPPP shall be designed with Best Management Practices (BMPs) that the RWQCB has deemed as effective at reducing erosion, controlling sediment, and managing runoff. These include: covering disturbed areas with mulch, temporary seeding, soil stabilizers, binders, fiber rolls or blankets, temporary vegetation, and permanent seeding. Sediment</p>

		<p>control BMPs, installing silt fences or placing straw wattles below slopes, installing berms and other temporary run-on and runoff diversions. These BMPs are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed. Final selection of BMPs will be subject to approval by City of Fresno and the RWQCB. The SWPPP will be kept on site during construction activity and will be made available upon request to representatives of the RWQCB.</p>
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Cumulative Impacts

The geographic area for cumulative hydrology analysis is the land area included in the Kings River Sub-basin (Basin), which underlies the Project site as well as the surrounding region.

Stormwater / Drainage / Water Quality

Development of the Project in combination with future projects associated with buildout of the General Plan would increase the amount of impervious surfaces in the area. Stormwater runoff is typically directed into adjacent streets where it flows to the nearest drainage system. As with the Project, each new development would be required to design and develop a stormwater collection system that ensures appropriate water quality protection measures and sufficient capacity. All projects would be required to implement Best Management Practices and to conform to the existing NPDES water quality regulations. Therefore, cumulative impacts associated with stormwater collection and water quality is *less than cumulatively considerable*.

Water Supply

The Kings Subbasin is in overdraft condition due to pumping for agricultural and urban uses. Growth in the subbasin will increase demands for groundwater pumping, potentially resulting in continued drawdown of water levels leading to localized cones of depression, changes in

groundwater flow direction, concentration of contaminants, and land subsidence. This is a regional problem that is being addressed through several means including the formation of GSA's and the development of GSPs. Buildout of the City's approved General Plan would occur in 2056 with an ultimate population of approximately 970,000 residents. In addition, other areas that rely on the Kings Subbasin would continue to grow resulting in greater demands for water.

As discussed in Impact Section 3.10-5, the Original Project is required to use groundwater in a balanced manner as outlined in the 2003 FEIR.

Should the Project be required to pay Water Capacity Fees according to the City of Fresno Master Fee Schedule, and the City provides water supply sufficient to meet the water demands of the proposed additional 109 acres, then the City shall comply with the requirements of the North Kings Groundwater Sustainability Agency (GSA) which is one of the seven GSA's within the Kings Groundwater Subbasin. The City of Fresno is a member agency of the North Kings GSA, which is required to halt groundwater overdraft and bring groundwater basins into balanced level of pumping and recharge. Continued participation and compliance with the North Kings GSA by the City of Fresno and other member agencies would ensure balance of the basin by 2040. Although the proposed Project, with an additional 109 acres has less than significant impacts at the project-level, if the City does not continue to implement programs and policies identified in the North Kings GSP, a *cumulatively considerable impact* would occur.

3.11 Land Use and Planning

This section of the SEIR evaluates the potential environmental effects related to land use and planning associated with implementation of the proposed Project. No comments pertaining to this topic were received during the NOP public review period.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated potential impacts to land use and planning associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres (pages 2.1.1 – 2.1.16 of the 2003 FEIR). The 2003 FEIR determined that the original Project would have a less than significant impact on land use and planning with mitigation. The Project Applicant, however, is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. Additionally, the Project is proposing some land use designation changes within the existing Copper River Ranch Development as described in Chapter Two – Project Description. Since the Project is proposing an additional 109 acres to the development and is proposing some land use changes within the unbuilt portions of the existing development, additional information is being provided herein regarding impacts to land use associated with the additional 109 acres as well as the proposed land use changes within the existing development. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Physically divide and established community?	✓	
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	✓	

Environmental Setting

Regional Setting

The City of Fresno is located in Fresno County, which is in central San Joaquin Valley. The City is located approximately 200 miles north of the Los Angeles and 170 miles south of

Sacramento. The City is located on State Route (SR) 99 corridor that links it to other Central Valley cities. To the north of Fresno is Madera County. The City of Clovis is located northeast and adjacent to the City. East, south, and west of the City is unincorporated land.

Project Area Setting

The Project proposes to develop the remaining unbuilt portions of the existing 706-acre Copper River Ranch Development and to add approximately 109 acres that are proposed to be developed immediately adjacent to and east of the existing development. The existing 706-acre Copper River Ranch Development includes a combination of residential land uses (both single- and multi-family) and a variety of non-residential land uses including a golf course, office and commercial land uses. The proposed additional 109 acres is located adjacent to and east of the existing development. The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation.

The proposed Project site (inclusive of both the existing Copper River Ranch Development and the additional 109 acres) is located in northern Fresno and is situated generally between Friant Road, Copper Avenue, Willow Avenue and Silaxo Road. The site is surrounded by agriculture, scattered residences, open space and recreational facilities to the north and west; agriculture and scattered residences to the east; and primarily residential land uses to the south.

Regulatory Setting

Federal Regulations

Federal Aviation Regulation Title 14 Part 77

The Federal Aviation Administration regulates airspace around civil airports. The three existing airports located within the Planning Area are required to be consistent with Part 77 of the Federal Aviation Regulation (FAR). Part 77 requires the airspace to be free of obstructions to air navigation during critical flight phases and states that obstructions shall not penetrate the “imaginary surfaces” surrounding an airfield as defined in FAR Part 77. The “imaginary surfaces” are determined by runway length and type of navigational approach instrumentation available.

State Regulations and Policies

The Cortese-Knox-Hertzberg Local Government Reorganization Act

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Section 56300 et seq.) governs the establishment and revision of local government boundaries. The Act was a comprehensive revision of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 1985. The Act is a policy of the state to encourage orderly growth and development that are essential to the social, fiscal, and economic well-being of the state. The intent of the Act is promote orderly development while balancing competing state interests of discouraging urban sprawl, preserving open space and prime agricultural lands, and efficiently extending government services. The Act had previously established the County Local Agency Formation Commission (LAFCO), which gave it authority to consider and approve city and special district annexation, dissolution, and formation.

California Land Conservation Act

The California Land Conservation Act, better known as the Williamson Act, was enacted by the State Legislature in 1965 to encourage the preservation of agricultural lands. Under the provisions of the act, landowners agreeing to keep their lands under agricultural production for a minimum of ten years receive property tax adjustments. Williamson Contracts limit the use of the properties to agricultural, open space, and other compatible use, Williamson Act lands are assessed based on their agricultural value, rather than their potential market value under nonagricultural uses.

California's 2017 Legislative Housing Package

The 2017 Housing Package provides new regulatory and financial resources to provide for housing opportunities throughout the State. Components include funding sources for new affordable housing and creation of streamlined processes to increase housing supply. The new legislation holds local jurisdictions accountable for addressing housing needs by increasing enforcement by the California Department of Housing and Community Development (HCD) and creates new opportunities to develop new affordable homes and preserve existing affordable homes.

Senate Bill 330

Senate Bill 330 "The Housing Crisis Act of 2019" is a statewide bill intended, in part, to limit a city's ability to adopt zoning that reduces residential density or to impose design standards that limit the housing units allowed. Any such zoning changes made by a city after January 1, 2020,

in residential or mixed-use areas, would be preempted, unless another property within the jurisdiction of a city is simultaneously “up-zoned” (increase in residential density) which results in an increase in density sufficient enough to offset any reduction in density.

Local Regulations and Policies

City of Fresno Housing Element

California Housing Element law requires every jurisdiction to prepare and adopt a housing element as part of a City’s General Plan. State Housing Element requirements are framed in the California Government Code, Sections 65580 through 65589, Chapter 1143, Article 10.6. The law requires the State Department of Housing and Community Development (HCD) to administer the law by reviewing housing elements for compliance with State law and by reporting its written findings to the local jurisdiction. Although State law allows local governments to decide when to update their general plans, State Housing Element law mandates that housing elements be updated every eight years. The City’s Housing Element was adopted in April of 2017, and contains information on housing needs, land inventory, constraints, and a program of action.

City of Fresno General Plan

California law requires that each city in the state develop and adopt a General Plan. The General Plan consists of a statement of development policies and text setting forth objectives, principles standards, and plan proposals. It is a comprehensive long-term plan for the physical development of the City. The City of Fresno’s current General Plan was adopted in 2014. A General Plan Update and corresponding Draft General Plan Environmental Impact Report were released for public review in March 2020.

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, the project would have a significant impact on land use as follows:

- Physically divide an established community?
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Impacts and Mitigation Measures

Impact 3.11-1: *Physically divide an established community?*

Less Than Significant. As described earlier, the proposed Project consists of two areas of development. The first consists of adding approximately 109 acres to the Copper River Ranch development that were not included in the original 2003 Copper River Ranch EIR. The second consists of proposed land use designation changes within the existing 706.5-acre Copper River Ranch Development. These Project components are described below. The corresponding parcel numbers are identified in the maps shown in Figure 3.11-1 and Figure 3.11-2.

New Areas of Development

The approximately 109 acres of new development areas are proposed to be developed with a variety of housing types. The breakdown of the approximately 109 acres of new development is shown in Table 3.14-1 and Table 3.14-2 and is summarized as follows:

- 11.86 acres of Parcel 14 – existing medium-low density residential with no proposed land use change
- 48.27 acres of Parcel 15 – existing medium-low density residential with no proposed land use change
- 3.6 acres of Parcel 7 – existing medium density residential to low density residential
- 15.16 acres of Tract 6246 (portion) - existing medium-low density residential with no proposed land use change
- 13.79 acres of Tract 6248 (portion) – Estimated 53 SFD (not yet mapped), medium density residential
- 2.2 acres between holes 3 and 4 – existing medium-low density residential with no proposed land use change
- 13.96 acres of Tract 6087

Existing Copper River Ranch Development Land Use Changes

The Applicant is proposing to modify the existing General Plan designations to reflect both the actual built out conditions of Copper River Ranch today and to identify any proposed land use designations and zone districts that are planned for the future. The proposed changes to the existing land use designations, zoning, and tentative tract maps are shown in Table 3.11-1 (Proposed Land Use Changes) and Table 3.11-2 (No Proposed Land Use Changes).

**Table 3.11-1
Proposed Land Use Changes**

Parcel No.	Acres	Existing Land Use Designation	Proposed Land Use Designation	Existing Zoning	Proposed Zoning
1	10.16	Med DR	Low DR	RS5	RS3
2	4.53	Gen Comm	Low DR	GC	RS3
3	1.17	Comm Comm	Low DR	CC	RS3
4**	2.07	Golf Course	Med Low DR	OS	RS3
5	16.21	Med DR	Low DR	RS5	RS3
7**	9.22	Med DR	Low DR	RS5	RS4
9	7.23	Med High DR	Med DR	RM1	RS5
10***	0.79	Med High DR	Med Low DR	RM1	RS3
10***	2.68	Med High DR	Comm Comm	RM1	CC
11	7.11	Comm Comm	Urban Neighbor	CC	RM2
12****	2.68	Comm Comm	Med Low DR	CC	RS3
19	1.06	Comm Comm	Urban Neighbor	CC	RM2
20	0.93	Med DR	Urban Neighbor	RS5	RM2
Total Acres:	65.84				

* See Figures 1 and 2 for parcel locations

** Portions not within the original 2003 EIR study area.

*** Portion of a total 3.47 acres for Parcel 10

**** Portion of a total 9.45 acres for Parcel 12

**Table 3.11-2
No Proposed Land Use Changes**

Parcel No.	Acres	Existing Land Use Designation	Existing Zoning
6	6.11	Med DR	RS5
8**	28.46	Med Low DR	RS4
12***	6.77	Comm Comm	CC

13	32.61	Med DR	RS5
14**	11.86	Med Low DR	RS4
15**	48.27	Med Low DR	RS4
16**	32.59	Med Low DR	RS4
17**	12.23	Med Low DR	RS4
Total Acres:	178.9		

* See Figures 1 and 2 for parcel locations

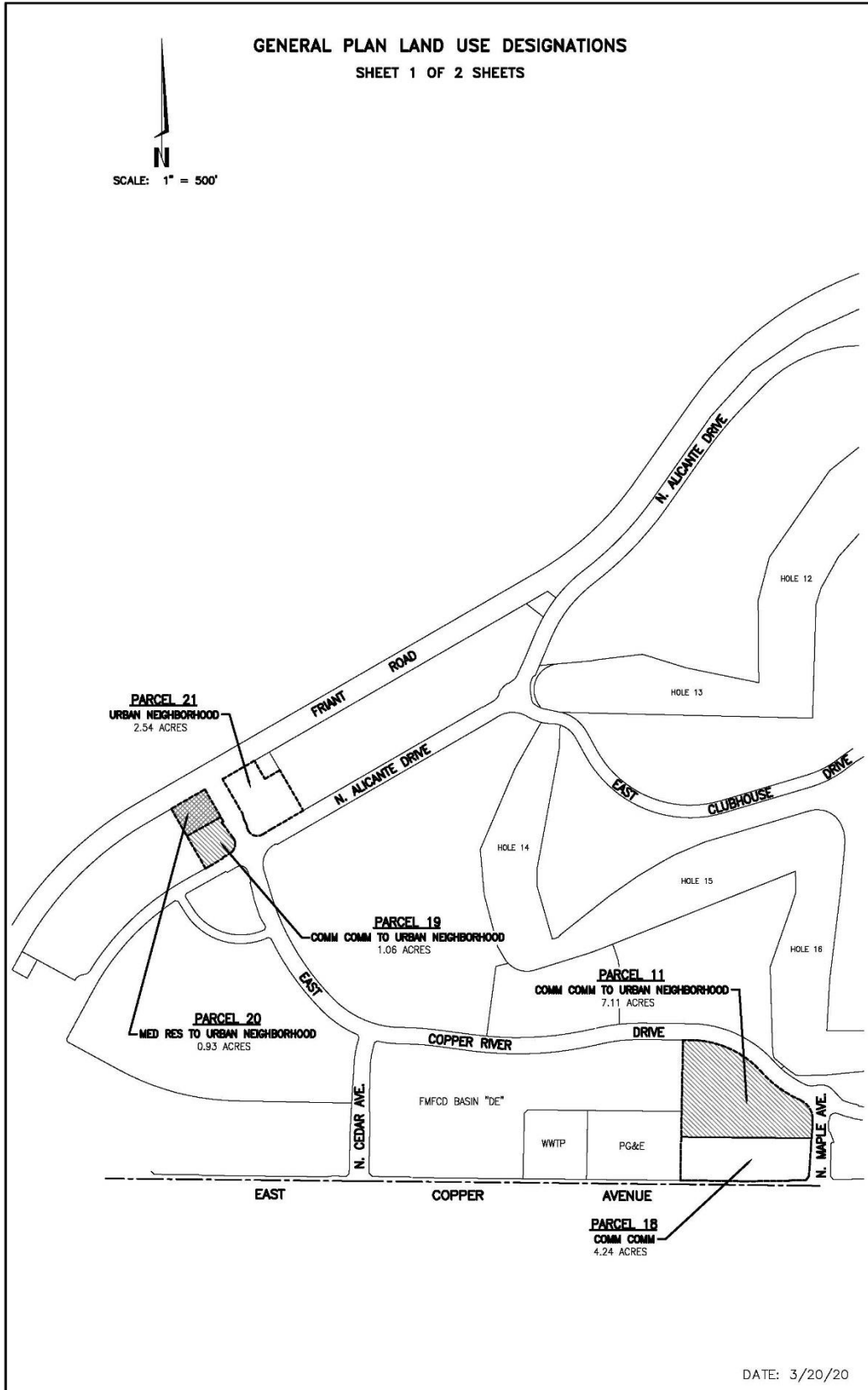
** Portions not within the original 2003 EIR study area.

*** Portion of a total 9.45 acres for Parcel 12

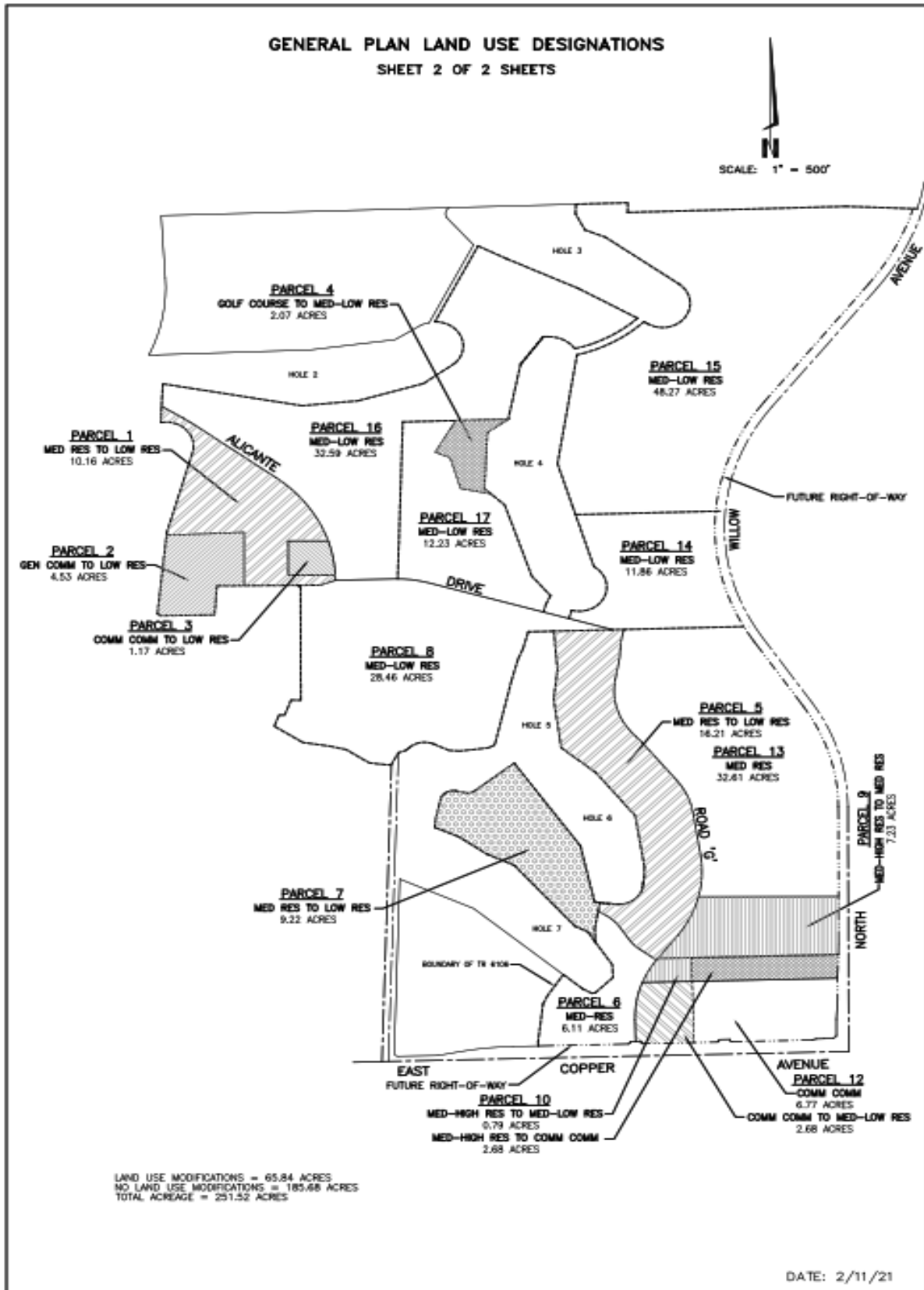
The Project is proposing a development consisting of residential, commercial, and recreational/open space land uses in an area that has been partially built-out and that is planned for urban uses. Since the Project is proposing to develop parcels that are already designated for urban development, there are no components of the Project that would cause a physical barrier so as to divide an established community. Access to and from surrounding land uses would not be restricted as a result of the Project nor would it cause any land use changes in the surrounding vicinity that would result in a physically divided community. New roadways will also be created, thereby resulting in additional methods of vehicle and pedestrian movement in this area of the City. Therefore, the impact is considered to be *less than significant*.

Mitigation Measures: None required.

Figure 3.11-1
Parcel Locations and General Plan Land Use Designations (1 of 2)



**Figure 3.11-2
Parcel Locations and General Plan Land Use Designations (2 of 2)**



Impact 3.11-2: *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

Less Than Significant Impact. Potential conflicts between the proposed Project and the City of Fresno General Plan and other regional plans and documents adopted for the purpose of avoiding or mitigating an environmental effect could result in a potentially significant impact with regard to land use and planning. However, the proposed Project includes proposed amendments to the City of Fresno General Plan and Zoning designations in order to accommodate the intended uses associated with the proposed Project.

City of Fresno General Plan

Based upon compliance with the goals, objectives and policies referenced herein below, the proposed project is determined to be consistent with the City of Fresno General Plan *Urban Form, Land Use, and Design Element* goals and objectives related to land use and the urban form as follows:

Goal No. 1 of the Fresno General Plan: Increase opportunity, economic development, business and job creation.

Consistent: The project will provide temporary construction jobs during construction as well as permanent jobs associated with the proposed commercial components of the Project.

Goal No. 3 of the Fresno General Plan: Emphasize conservation, successful adaptation to climate and changing resource conditions, and performance effectiveness in the use of energy, water, land, buildings, natural resources, and fiscal resources required for the long-term sustainability of Fresno.

Consistent: The Project is located in an area that is being developed. The area contains existing infrastructure (water, sewer, stormdrain, and electrical/gas services) and the Project will require connection to these services. The Project is required to implement measures to minimize impacts to these resource areas. These include requirements for implementation of San Joaquin Valley Air Pollution District rules and regulations; use of energy efficient building materials/methods; implementation of water-use reduction measures; participation in wastewater recycling (North Fresno Wastewater Reclamation Facility uses treated effluent from Copper River Ranch and other land

uses in the area to irrigate the nearby Copper River Country Club); and similar measures that conserve resources.

Goal No. 7 of the Fresno General Plan: Provide for a diversity of districts, neighborhoods, housing types (including affordable housing), residential densities, job opportunities, recreation, open space, and educational venues that appeal to a broad range of people throughout the City.

Consistent: This Goal contributes to the establishment of a comprehensive city-wide land use planning strategy to meet economic development objectives, achieve efficient and equitable use of resources and infrastructure, and create an attractive living environment. The proposed Project will provide a variety of housing types, commercial development, recreational facilities, and related features.

Goal No. 8 of the Fresno General Plan: Develop Complete Neighborhoods and districts with an efficient and diverse mix of residential densities, building types, and affordability which are designed to be healthy, attractive, and centered by schools, parks, and public and commercial services to provide a sense of place and that provide as many services as possible within walking distance.

Consistent: The Project includes a mix of residential housing types and sizes, is proposing trails within the development that connect to other City trails in the area, is near public schools, and is in an area planned for additional residential development. In addition, some commercial shopping areas are within walking distance of the proposed Project.

Goal No. 9 of the Fresno General Plan: Promote a city of healthy communities and improve quality of life in established neighborhoods.

Consistent: The Project proposes several features within the development that promote a healthy community and improve the quality of life. The Project includes the installation of trails / park space and provides commercial development in the area within walking distance of the Project site.

Goal No. 10 of the Fresno General Plan: Emphasize increased land use intensity and mixed-use development at densities supportive of greater use of transit in Fresno.

Consistent: The Project provides a variety of development consisting of single-family and multi-family residential, commercial/office space, recreational facilities and associated improvements in a growing area of the City of Fresno. Fresno Area Express (FAX) is the transit operator in the City of Fresno. At present, there are no FAX transit routes that operate in the vicinity of the proposed Project. The closest is FAX Route 58, which runs on Champlain Drive and Perrin Avenue, approximately 2.7 miles southwest of the proposed Project. However a Park & Ride was installed at the southwest corner of Friant Road and Copper Avenue. In addition, areas for bus stops within the development have been identified for when transit ridership demand and available funding enable FAX to expand services to the area. Currently, there are potential bus stop locations within the development as follows:

- Five locations along Copper Avenue between Friant Road and Chestnut Avenue
- One location at Copper Avenue / Friant Road
- Three locations in the area of Friant Road / Copper River Drive / Alicante Drive
- One location near Alicante Drive / Clubhouse Drive
- Three locations in the area of Copper Avenue / Maple Avenue / Copper River Drive
- One location at Alicante Drive / Crest View Drive

Goal No. 12 of the Fresno General Plan: Resolve existing public infrastructure and service deficiencies, make full use of existing infrastructure, and invest in improvements to increase competitiveness and promote economic growth.

Consistent: The Project will tie into existing infrastructure (water, sewer and storm water) located in the Project vicinity. The Project will be responsible for procurement of such services.

Therefore, it is determined that the proposed project is consistent with the applicable goals of the City's General Plan and will not significantly conflict with applicable land use plans, policies or regulations of the City of Fresno.

Fresno County Airport Land Use Compatibility Plan

On December 3, 2018, the Airport Land Use Commission (ALUC) adopted the Fresno County Airport Land Use Compatibility Plan. The proposed Project is not within the Airport Influence Area of the nearest airport, Sierra Sky Park Airport, thus review by the ALUC is not necessary.

SB 330 Consistency

Senate Bill 330 “The Housing Crisis Act of 2019” is a statewide bill intended, in part, to limit a city’s ability to adopt zoning that reduces residential density or to impose design standards that limit the housing units allowed. Any such zoning changes made by a city after January 1, 2020, in residential or mixed-use areas, would be preempted. As described earlier, the Project is proposing some land use designation changes that would result in a residential density reduction for some parcels. However, the Project is also proposing to change some existing commercial parcels to a residential land use designations. An evaluation of the parcels that have proposed land use changes and the corresponding gain/loss of residential units is shown in Table 3.11-3.

**Table 3.11-3
Proposed Land Use Changes / SB 330 Consistency**

Parcel No.	Acres	Existing Land Use Designation	Proposed Land Use Designation	Existing Maximum Capacity (Number of Units)	Proposed Maximum Capacity (Number of Units)	Maximum Capacity (Gain / Loss)
1	10.16	Med DR	Low DR	121.9	35.6	-86.4
2	4.53	Gen Comm	Low DR	0	15.9	+15.9
3	1.17	Comm Comm	Low DR	0	4.1	+4.1
4	2.07	Golf Course	Med Low DR	0	12.4	+12.4
5	16.21	Med DR	Low DR	194.5	56.7	-137.8
7	9.22	Med DR	Low DR	110.6	32.3	-78.4
9	7.23	Med High DR	Med DR	115.7	86.8	-28.9
10	3.47	Med High DR	Med Low DR	55.5	20.8	-34.7
11	7.11	Comm Comm	Urban Neighbor	0	213.3	+213.3

19	1.06	Comm Comm	Urban Neighbor	0	31.8	+31.8
20	0.93	Med DR	Urban Neighbor	11.2	27.9	+16.7
Total Acres:	63.16					-72.0

As shown in the Table, the proposed Project would result in a net loss of approximately 72 dwelling units compared to the existing maximum buildout density of the existing land use designations. In order to help offset the loss of “potential” residential density, the Project Applicant is proposing to concurrently “upzone” the residential density of other off-site lands owned by the Project Applicant within the City limits of Fresno to help offset the reduction in residential density that is being proposed by the Project. The Project Applicant will work with the City to determine the location and density of the other land(s) within the City limits of Fresno that the Project Applicant controls that would be “upzoned” in conjunction with the proposed Project. The Project Applicant intends to schedule the off-site “upzone” and the proposed Copper River Ranch Project at the same City Council meeting in order to allow the Project to take credit for the additional residential units being made available by the off-site “upzone.”

As previously stated, the proposed Project will result in the loss of density of approximately 72 residential units. Applying at least 72 units of “upzoned” land at an off-site location would result in no net loss of residential density associated with the proposed Project. Thus, the proposed Project is consistent with the requirements of SB 330.

Conclusion

The proposed Project is consistent with the goals of the City’s General Plan and will not significantly conflict with applicable land use plans, policies or regulations of the City of Fresno. Furthermore, the proposed Project, once approved, would result in the following findings: (1) The Project is consistent with the goals, objectives and policies of the applicable Fresno General Plan; (2) The Project is suitable for the type and density of development; (3) The Project is safe from potential cause or introduction of serious public health problems; and, (4) The Project would not conflict with any public interests in the subject property or adjacent lands.

Mitigation Measures: See below.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to land use and planning. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>2.1.4-a: The developer shall ensure through the subsequent master use permit and associated development plan, that the project is designed in a compact nature consistent with the principles of <i>A Landscape of Choice</i> to maximize the use of land, thereby reducing the pressure on productive agricultural land to the west, southwest, east and southeast of the Fresno/Clovis metropolitan area.</p>	<p>The development principles identified in the document <i>A Landscape of Choice</i> have been superceded by various development guidelines as identified in the City's General Plan.</p>	<p>Not applicable.</p>
<p>2.1.7-a: The developer shall ensure through the subsequent master permit and associated development plan, that the following measures are incorporated in the design of future plans at the interface with adjacent residential properties:</p> <ul style="list-style-type: none"> • All lots shall back onto the common property line on the northern boundary of the project. • All lots shall be fenced. • All lots along these common property lines 	<p>The determination of completion for this mitigation measure is as follows:</p> <p>2.1.7-a: On-going with each tentative map/CUP along the northern boundary.</p>	<p>Mitigation Measure 2.1.7-a shall continue to be applicable.</p>

<p>shall include a backyard landscaping plan to provide for continuous screening with evergreen and deciduous trees.</p>		
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Cumulative Impacts

Cumulative Land Use and Planning impacts are typically site- and project-specific. As discussed above, the Project would not conflict with applicable land use plans or policies. Therefore, the Project has a less than significant impact at the project level. As development increases in the area, individual projects will be subject to similar requirements that require consistency with planning documents and policies. The City of Fresno and Fresno County General Plans include policies to ensure land use and planning consistency for new development. Compliance with the City and County General Plans pertaining to Land Use and Planning would be required for all future projects, which would ensure that these projects would not significantly affect Land Use and Planning or contribute to a cumulatively significant impact to such resources in the area. Implementation of the proposed Project would have a less than significant cumulative impact relative to this environmental topic. As such, cumulative impacts to Land Use and Planning would be *less than cumulatively considerable*. The Project’s contribution to cumulative Land Use and Planning are *less than cumulatively considerable*.

3.12 Mineral Resources

This section of the SEIR identifies potential impacts of implementing the proposed Project on mineral resources. No NOP comment letters were received pertaining to this topic.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated potential impacts to mineral resources associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a less than significant impact on mineral resources. However, the Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, additional information is being provided herein regarding impacts to mineral resources. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Would the project 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?	✓	
b. Would the project 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?	✓	

Environmental Setting

Fresno County has been a leading producer of minerals because of the abundance and wide variety of mineral resources that are present in the County. Extracted resources include aggregate products (sand and gravel), fossil fuels (oil and coal), metals (chromite, copper, gold, mercury, and tungsten), and other minerals used in construction or industrial applications (asbestos, high-

grade clay, diatomite, granite, gypsum, and limestone).¹ The Kings River is a principal sand and gravel producing location; however, aggregate and petroleum are considered Fresno County's most significant extractive mineral resources.²

Within the City of Fresno, MRZ-1 and MRZ-2 classified areas are found along the banks of the San Joaquin River³, approximately one mile to the west of the proposed Project at its nearest point.

Regulatory Setting

State of California Regulations

Mineral Resource Zones

Sections 2761(a) and (b) and 2790 of the Surface Mining and Reclamation Act (SMARA) provide for a mineral lands inventory process termed classification-designation. The California Division of Mines and Geology, and the State Mining and Geology Board are the state agencies responsible for administering this process. The primary objective of the process is to provide local agencies, such as cities and counties, with information on the location, need, and importance of minerals within their respective jurisdictions. It is also the intent of this process, through the adoption of Draft General Plan mineral resource management policies, that this information be considered in future local land-use planning decisions. Areas are classified on the basis of geologic factors, without regard to existing land use and land ownership. The areas are categorized into four MRZs. Of the four categories, lands classified as MRZ-2 are of the greatest importance because they identify significant mineral deposits of a particular commodity. MRZ-3 areas are also of interest because they identify areas that may contain additional resources of economic importance. Areas designated by the Mining and Geology Board as "regionally significant" are incorporated by regulation into Title 14, Division 2 of the California Code of Regulations. Such designations require that a lead agency's land use decisions involving designated areas are made in accordance with its mineral resource management policies, and that they consider the importance of the mineral resource to the region or the state as a whole and not just the lead agency's jurisdiction.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Appendix G Checklist:

¹ Fresno County General Plan Update EIR, February 2002. Page 4.11-1.

² Fresno County General Plan Update Background Report, October 2000. Figure 7-8 and page 7-64.

³ Ibid. Figure 7-7.

- 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?
- 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?

Impacts and Mitigation Measures

Impact 3.12-1: *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. As described in the Environmental Setting, there are no known mineral resources within the proposed Project site. The Fresno General Plan includes implementing policy RC-10-d which states that the City will “Prohibit land uses and development projects that preclude mineral extraction in potential high-quality mineral resource areas designated MRZ-2 by the California Department of Conservation Division of Mines and Geology.”

Adherence to local policy will ensure that there is no loss of a known mineral resource or resource recovery site. There are *no impacts*.

Mitigation Measures

None are required.

Cumulative Impacts

The scope for considering cumulative impacts to mineral resources is generally site-specific rather than cumulative in nature. As discussed above, there are no known mineral resources within the Project area and as such, Project implementation would not cumulatively impact any known mineral resource. While some cumulative impacts may occur in the region as individual projects are constructed, State and federal regulations, as well as local policy documents such as the City of Fresno General Plan / EIR and County of Fresno General Plan / EIR will reduce impacts to mineral resources in the region. Therefore, the proposed Project’s incremental contribution to cumulative mineral resource impacts would be *less than cumulatively considerable*.

3.13 Noise

This section of the SEIR identifies potential impacts of implementing the proposed Project relative to generation of noise and vibration. No NOP comment letters were received pertaining to this topic.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated potential noise impacts associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The original Copper River Ranch Project 2003 FEIR identified that Project implementation would result in significant and unavoidable impacts regarding traffic-related noise on adjacent roadways (pages 2.6.12 – 2.6.15 of the 2003 FEIR). However, the Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, a new noise technical study was prepared (See Appendix F). Additional information is being provided herein regarding impacts to noise impacts associated with the additional 109 acres and the changes to the existing land uses. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	✓	
b. Generation of excessive groundborne vibration or groundborne noise levels?	✓	
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working	✓	

in the project area to excessive noise levels?		
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Fundamentals of Sound and Environmental Noise

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound. A typical noise environment consists of a base of steady ambient noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Table 3.13-1, Representative Environmental Noise Levels, illustrates representative noise levels in the environment.

Table 3.13-1: Representative Environmental Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock Band
Jet Fly-over at 100 feet		
	—100—	
Gas Lawnmower at 3 feet		
	—90—	
		Food Blender at 3 feet
Diesel Truck going 50 mph at 50 feet	—80—	Garbage Disposal at 3 feet
Noisy Urban Area during Daytime		
Gas Lawnmower at 100 feet	—70—	Vacuum Cleaner at 10 feet
Commercial Area		Normal Speech at 3 feet
Heavy Traffic at 300 feet	—60—	
		Large Business Office
Quiet Urban Area during Daytime	—50—	Dishwasher in Next Room
Quiet Urban Area during Nighttime	—40—	Theater, Large Conference Room (background)
Quiet Suburban Area during Nighttime		
	—30—	Library
Quiet Rural Area during Nighttime		Bedroom at Night, Concert Hall (background)
	—20—	
		Broadcast/Recording Studio
	—10—	
Lowest Threshold of Human Hearing	—0—	Lowest Threshold of Human Hearing
<i>Source: California Department of Transportation, Technical Noise Supplement, October 1998.</i>		

Several rating scales have been developed to analyze the adverse effect of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:

- Leq – An Leq, or equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- Lmax – The maximum instantaneous noise level experienced during a given period of time.
- Lmin – The minimum instantaneous noise level experienced during a given period of time.
- Ldn – The Day-Night Average Level, is a 24-hour average Leq with a 10 dBA “weighting” added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24 hour Leq would result in a measurement of 66.4 dBA Ldn.
- CNEL – The Community Noise Equivalent Level is a 24-hour average Leq with a 5 dBA “weighting” during the hours of 7:00 P.M. to 10:00 P.M. and a 10 dBA “weighting” added to noise during the hours of 10:00 P.M. to 7:00 A.M. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24 hour Leq would result in a measurement of 66.7 dBA CNEL.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day, night, or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60–70 dBA range, and high above 70 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet suburban residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate level noise environments are urban residential or semi-commercial areas (typically 55–60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse,

but most will accept the higher levels associated with more noisy urban residential or residential-commercial areas (60–75 dBA) or dense urban or industrial areas (65–80 dBA).

Under controlled conditions, in an acoustics laboratory, the trained (enhanced listening abilities) healthy human ear is able to discern changes in sound levels of 1 dBA, when exposed to steady, single frequency “pure tone” signals in the mid-frequency range. Outside of such controlled conditions, the trained ear can detect changes of 2 dBA in normal environmental noise. It is widely accepted that in the community noise environment the average healthy ear can barely perceive CNEL noise level changes of 3 dBA. CNEL changes from 3 to 5 dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A 5 dBA CNEL increase is readily noticeable, while the human ear perceives a 10 dBA CNEL increase as a doubling of sound.

Noise levels from a particular source generally decline as distance to the receptor increases. Other factors, such as the weather and reflecting or barriers, also help intensify or reduce the noise level at any given location. A commonly used rule of thumb for roadway noise is that for every doubling of distance from the source, the noise level is reduced by about 3 dBA at acoustically “hard” locations (i.e., the area between the noise source and the receptor is nearly complete asphalt, concrete, hard-packed soil, or other solid materials) and 4.5 dBA at acoustically “soft” locations (i.e., the area between the source and receptor is normal earth or has vegetation, including grass). Noise from stationary or point sources is reduced by about 6 to 7.5 dBA for every doubling of distance at acoustically hard and soft locations, respectively. Noise levels are also generally reduced by 1 dBA for each 1,000 feet of distance due to air absorption. Noise levels may also be reduced by intervening structures – generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The normal noise attenuation within residential structures with open windows is about 17 dBA, while the noise attenuation with closed windows is about 25 dBA.¹

Fundamentals of Environmental Groundborne Vibration

Vibration is sound radiated through the ground. Vibration can result from a source (e.g., train operations, motor vehicles, machinery equipment, etc.) causing the adjacent ground to move, thereby, creating vibration waves that propagate through the soil to the foundations of nearby buildings. This effect is referred to as groundborne vibration. The peak particle velocity (PPV) or the root mean square (RMS) velocity is usually used to describe vibration levels. PPV is

¹ National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971.

defined as the maximum instantaneous peak of the vibration level, while RMS is defined as the square root of the average of the squared amplitude of the level. PPV is typically used for evaluating potential building damage, while RMS velocity in decibels (VdB) is typically more suitable for evaluating human response.

The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

The general human response to different levels of groundborne vibration velocity levels is described in Table 3.13-2, Human Response to Different Levels of Groundborne Vibration.

Table 3.13-2: Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.
<i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.</i>	

Environmental Setting

The Project site is located in the northern portion of the City of Fresno, and is generally bound to the south by E. Copper Avenue, to the east by N. Willow Avenue and to the northwest by N. Friant Road. Originally approved in 2003, the project site has been in various states of construction and buildout since 2004. The project includes a combination of residential land uses (both single- and multi-family) and mixed-use (including a golf course, office and commercial land uses).

Surrounding land uses include residential land uses to the south and the north, agricultural land uses to the east and a concrete/asphalt recycling and materials facility to the west. The closest existing off-site sensitive receptors to the project site are considered to be residential land uses north and south of the Project site.

Background Noise Level Measurements

Existing noise levels in the Project vicinity are dominated by traffic noise along local roadways, aircraft overflights associated with Fresno-Yosemite International Airport and other noise sources associated with residential and urban environments (human voices, landscaping activities, barking dogs, etc.). As various components of the overall project are currently under construction, noise associated with construction activities was also observed. Such noise sources are considered to be temporary and would not occur at the current extent once full project buildout is complete.

Measurements of existing ambient noise levels in the project vicinity were conducted by WJV acoustics between October 6, 2020 and October 7, 2020. The general sources of noise in the Project area were traffic, aircrafts, construction, voices, and barking dogs. Measurement methodology and the summary of short-term noise measurement data is provided in Table VI of Appendix F.

Regulatory Setting

Federal Regulations

Noise Standards

There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the proposed Project. With regard to noise exposure and workers, the Office of Safety and Health Administration (OSHA) regulations safeguard the hearing of workers exposed to occupational noise.

Vibration Standards

The Federal Transit Administration (FTA) has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by the FTA are shown in Table 3.13-3, Construction Vibration Damage Criteria.

Table 3.13-3: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
<i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.</i>	

In addition, the FTA has also adopted standards associated with human annoyance for groundborne vibration impacts for the following three land-use categories: (1) Vibration Category 1 – High Sensitivity, (2) Vibration Category 2 – Residential, and (3) Vibration Category 3 – Institutional. The FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

Under conditions where there are an infrequent number of events per day², the FTA has established thresholds of 65 VdB for Category 1 buildings, 80 VdB for Category 2 buildings, and 83 VdB for Category 3 buildings.

Under conditions where there are an occasional number of events per day³, the FTA has established thresholds of 65 VdB for Category 1 buildings, 75 VdB for Category 2 buildings, and 78 VdB for Category 3 buildings. No federal thresholds have been adopted or recommended for commercial, office, and industrial uses.

² The Federal Transit Administration, Transit Noise and Vibration Impact Assessment (May 2006) defines “Infrequent Events” as “fewer than 30 vibration events of the same kind per day.” Page 8-3.

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed December 2020.

³ The Federal Transit Administration, Transit Noise and Vibration Impact Assessment (May 2006) defines “Occasional Events” as “between 30 and 70 vibration events of the same source per day.” Page 8-3.

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed December 2020.

State Regulations

California State Building Code

The State Building Code, Title 24, Part 2 of the State of California Code of Regulations establishes uniform minimum noise insulation performance standards to protect persons within new buildings which house people, including hotels, motels, dormitories, apartment houses and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room.

Title 24 also mandates that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment

Local Regulations

City of Fresno General Plan and Municipal Code

Both the City of Fresno General Plan and City of Fresno Municipal code establishes noise standards, as discussed below.

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, the project would have a significant impact on noise if it would cause any of the following conditions to occur:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Generation of excessive groundborne vibration or groundborne noise levels?
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

City of Fresno Noise Level Standards

Municipal Code

Section 15-2506 of the City of Fresno Municipal code establishes hourly acoustical performance standards for non-transportation noise sources. The standards, provided below, are made more restrictive during the nighttime hours of 10:00 p.m. to 7:00 a.m. Additionally, the municipal code states that when ambient noise levels exceed or equal the levels described in the table below, mitigation shall only be required to limit noise to the existing ambient noise levels, plus five (5) dB. Section 15-2506 of the Municipal Code is consistent with Implementing Policy NS-1-I of the Noise Element of the City of Fresno General Plan (adopted 12/18/14).

Non-Transportation Noise Level Standards, dBA

- Daytime (7 a.m. – 10 p.m.) 50 Leq, 70 Lmax
- Nighttime (10 p.m. – 7 a.m.) 45 Leq, 60 Lmax

Additional guidance is provided in Section 10-102(b) of the City’s Municipal Code. Section 10 provides existing ambient noise levels to be applied to various districts, further divided into various hours of the day. The assumed minimum ambient noise levels by district and time is described below. Section 10-102(b) states *“For the purpose of this ordinance, ambient noise level is the level obtained when the noise level is averaged over a period of fifteen minutes, without inclusion of the offending noise, at the location and time of day at which a comparison with the offending noise is to be made. Where the ambient noise level is less than that designated in this section, however, the noise level specified herein shall be deemed to be the ambient noise level for that location”*.

Assumed Minimum Ambient Noise Level, dBA

- Residential (10 p.m. to 7 a.m.) 50 dB Leq
- Residential (7 p.m. to 10 a.m.) 55 dB Leq
- Residential (7 a.m. to 7 p.m.) 60 dB Leq
- Commercial (10 p.m. to 7 a.m.) 60 dB Leq
- Commercial (7 a.m. to 10 p.m.) 65 dB Leq
- Commercial (10 p.m. to 7 a.m.) 70 dB Leq

Section 10-106 (Prima Facie Violation) States *“Any noise or sound exceeding the ambient noise level at the properly line of any person offended thereby, or, if a condominium or apartment house, within any adjoining living unit, by more than five decibels shall be deemed to prima facie evidence of a violation of Section 8-305.”*

For noise sources that are not transportation related, which usually includes commercial or industrial activities and other stationary noise sources (such as amplified music), it is common to assume that a 3-5 dB increase in noise levels represents a substantial increase in ambient noise levels. This is based on laboratory tests that indicate that a 3 dB increase is the minimum change perceptible to most people, and a 5 dB increase is perceived as a “definitely noticeable change.”

City of Fresno General Plan

The City of Fresno General Plan Noise Element provides noise level criteria for land use compatibility for both transportation and non-transportation noise sources. The General Plan sets noise compatibility standards for transportation noise sources in terms of the Day-Night Average Level (Ldn). The Ldn represents the time-weighted energy average noise level for a 24-hour day, with a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m.-7:00 a.m.). The Ldn represents cumulative exposure to noise over an extended period of time and are therefore calculated based upon *annual average* conditions. The General Plan noise level standards for transportation noise sources are provided below.

Noise-Sensitive Land Use	Outdoor Activity Areas*	Interior Spaces	
	L _{dn} /CNEL, dB	L _{dn} /CNEL, dB	L _{eq} dB**
Residential	65	45	--
Transient Lodging	65	45	--
Hospitals, Nursing Homes	65	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	65	--	45
Office Buildings	--	--	45
Schools, Libraries, Museums	--	--	45

* Where the location of the outdoor activity areas is unknown or is not applicable, the exterior noise level standard shall be applied to the property line of the receiving land use.

** As determined for a typical worst-case hour during periods of use.

Implementation Policy NO-1-a of the General Plan provides guidance in regards to the development of new noise sensitive land uses (including residential developments).

***Desirable and Generally Acceptable Exterior Noise Environment.** Establish 65 dBA Ldn or CNEL as the standard for the desirable maximum average exterior noise levels for defined usable exterior areas of residential and noise-sensitive uses for noise, but designate 60 dBA Ldn or CNEL (measured at the property line) for noise generated by stationary sources impinging upon residential and noise-sensitive uses. Maintain 65 dBA Ldn or CNEL as the maximum average exterior noise levels for non-sensitive commercial land uses, and maintain 70 dBA Ldn or CNEL as maximum average exterior noise level for industrial land uses, both to be measured at the property line of parcels where noise is generated which may impinge on neighboring properties.*

The General Plan also provides noise level standards for non-transportation (stationary) noise sources. The General Plan noise level standards for non-transportation noise sources are identical to those provided in the City's Municipal code, as provided above.

Implementation Policy NS-1-i of the General Plan Noise Element provides guidance in regards to mitigation for new developments and projects that have potential to result in a noise-related impact at existing noise-sensitive land uses.

***Mitigation by New Development.** Require an acoustical analysis where new development of industrial, commercial or other noise generating land uses (including transportation facilities such as roadways, railroads, and airports) may result in noise levels that exceed the noise level exposure criteria established to determine impacts and require developers to mitigate these impacts in conformance with Tables 9-2 and 9-3 as a condition of permit approval through appropriate means.*

Noise mitigation measures may include:

- *The screening of noise sources such as parking and loading facilities, outdoor activities, and mechanical equipment;*
- *Providing increased setbacks for noise sources from adjacent dwellings;*
- *Installation of walls and landscaping that serve as noise buffers;*
- *Installation of soundproofing materials and double-glazed windows; and*
- *Regulating operations, such as hours of operation, including deliveries and trash pickup.*

Alternative acoustical designs that achieve the prescribed noise level reduction may be approved by the City, provided a qualified Acoustical Consultant submits information demonstrating that the alternative designs will achieve and maintain the specific targets for outdoor activity areas and interior spaces. As a last resort, developers may propose to construct noise walls along roadways when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility, with no City funding.

Implementation Policy NS-1-j of the General Plan Noise Element provides guidance in regards to the establishment of a significance threshold when determining an increase in noise levels over existing ambient noise levels.

Significance Threshold. *Establish, as a threshold of significance for the City's environmental review process, that a significant increase in ambient noise levels is assumed if the project would increase noise levels in the immediate vicinity by 3 dB Ldn or CNEL or more above the ambient noise limits established in this General Plan Update.*

Commentary: When an increase in noise would result in a "significant" impact (increase of three dBA or more) to residents or businesses, then noise mitigation would be required to reduce noise exposure. If the increase in noise is less than three dBA, then the noise impact is considered insignificant and no noise mitigation is needed. By setting a specific threshold of significance in the General Plan, this policy facilitates making a determination of environmental impact, as required by the California Environmental Quality Act. It helps the City determine whether (1) the potential impact of a development project on the noise environment warrants mitigation, or (2) a statement of overriding considerations will be required.

Construction Noise and Vibration

There are no known state or federal standards that specifically address construction noise or vibration. The City of Fresno Municipal Code does not explicitly provide guidance on construction noise or vibration. However, Section 10.109 (Exceptions) of the Municipal Code states that the noise provisions shall not apply to "Construction, repair or remodeling work accomplished pursuant to a building, electrical, plumbing, mechanical, or other construction permit issued by the city or other governmental agency, or to site preparation and grading, provided such work takes place between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday." Although not specifically stated in the Noise Element or the Municipal Code, it is also a standard requirement of many jurisdictions that all construction equipment be properly maintained and muffled to minimize noise generation at the source.

The City of Fresno does not have regulations that define acceptable levels of vibration. One of the most recent references suggesting vibration guidelines is the California Department of Transportation (Caltrans) Transportation and Construction Vibration Guidance Manual. The Manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Tables 3.13-4 and 3.13-5 are presented in terms of peak particle velocity (PPV) in inches per second (in/sec). The PPV levels reported in Tables 3.13-4 and 3.13-5 represent those measured at the potential receiver location.

Table 3.13-4: Guideline Vibration Annoyance Potential Criteria⁴

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.1
Severe	2.0	0.4

Table 3.13-5: Guideline Vibration Damage Potential Threshold Criteria⁵

Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile, historic buildings, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1

⁴ Environmental Noise Assessment for the Copper River Ranch SEIR. WJV Acoustics, Inc. December 3, 2020. See Appendix F. Page 8.

⁵ Ibid.

Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Impacts and Mitigation Measures

Impact 3.13-1: *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Existing noise levels in the Project vicinity are dominated by traffic noise along local roadways, aircraft overflights associated with Fresno-Yosemite International Airport and other noise sources associated with residential and urban environments (human voices, landscaping activities, barking dogs, etc.). As various components of the overall project are currently under construction, noise associated with construction activities was also observed. Such noise sources are considered to be temporary and would not occur at the current extent once full project buildout is complete.

Measurements of existing ambient noise levels in the project vicinity were conducted between October 6, 2020 and October 7, 2020. Long-term (24-hour) ambient noise level measurements were conducted at four (4) locations (sites LT-1, LT-2, LT-3 and LT-4). Ambient noise levels were measured for a period of 24 continuous hours at each of the four locations. Site LT-1 was located south of E. Copper River Drive and west of N. Maple Avenue, in an undeveloped area originally designated commercial that would be redesignated to residential as part of the project. Site LT- 2 was located east of N. Chestnut Avenue, adjacent to Hole 7 of the Copper River County Club Golf Course. Site LT-3 was located west of N. Willow Avenue and south of the future extension of Alicante Drive. Site LT-4 was located west of N. Willow Avenue, approximately 900 feet south of Silaxo (private drive). All four sites were exposed to noise associated with vehicle traffic on roadways, construction activities and aircraft overflights. The locations of the four long-term measurement sites are provided on Figure 3.13-1.

Additionally, short-term (15-minute) ambient noise level measurements were conducted at six (6) locations (Sites ST-1 through ST-6). Two (2) individual measurements were taken at each of the six short-term sites to quantify ambient noise levels in the morning and afternoon hours. The locations of the long-term and short-term noise monitoring sites are shown as Figure 3.13-1.

Short-term noise measurements were conducted for 15-minute periods at each of the six sites. Sites ST-1 and ST-2 were located north of E. Copper Avenue and were exposed to traffic noise associated with vehicles along E. Copper Avenue and other local roadways, as well as noise associated with aircraft overflights and construction activities. Sites ST-3 and ST-4 were located west of N. Willow Avenue and were exposed to traffic noise associated with vehicles along N. Willow Avenue and noise associated with construction activities. Site ST-5 was located in the vicinity of the Copper River Country Club tennis courts, golf course and clubhouse and was exposed to noise associated with human voices, parking lot movements, amplified music, construction activities and aircraft overflights. Site ST-6 was located between Alicante Drive and N. Friant Road, and was exposed to traffic noise associated with both roadways, as well as noise associated with construction activities and aircraft overflights.

Figure 3.13-1: Project Vicinity and Ambient Noise Monitoring Sites



Table 3.13-6 summarizes short-term noise measurement results. The noise measurement data included energy average (Leq) maximum (Lmax) as well as five individual statistical parameters. Observations were made of the dominant noise sources affecting the measurements. The statistical parameters describe the percent of time a noise level was exceeded during the measurement period. For instance, the L90 describes the noise level exceeded 90 percent of the time during the measurement period and is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft and other local noise sources.

Table 3.13-6: Summary of Short-Term Noise Measurement Data⁶

Site	Time	A-Weighted Decibels, dBA							Sources
		Leq	Lmax	L ₂	L ₈	L ₂₅	L ₅₀	L ₉₀	
ST-1	8:12 am	54.7	64.3	62.2	59.0	55.2	52.3	47.3	TR,AC
ST-1	4:25 pm	56.9	78.2	65.4	56.4	52.7	50.8	47.7	TR,AC
ST-2	8:35 am	59.7	78.6	69.0	62.5	53.4	50.2	46.7	TR,C,AC
ST-2	4:46 pm	60.3	71.1	67.4	61.0	53.1	50.1	48.8	TR,AC
ST-3	8:57 am	64.9	78.5	75.8	69.6	63.7	52.3	40.2	TR,C
ST-3	5:03 pm	66.1	82.4	46.3	67.2	64.8	53.0	41.1	TR
ST-4	9:18 am	69.3	82.4	79.1	75.5	66.9	50.6	38.7	TR,AC
ST-4	5:25 pm	67.4	78.6	77.7	74.5	65.2	52.1	40.2	TR
ST-5	9:40 am	45.1	50.4	48.1	47.3	46.1	45.1	43.2	V,C
ST-5	5:45 pm	46.3	61.1	50.4	47.7	44.5	41.1	39.8	V,C
ST-6	10:00 am	53.2	59.4	58.8	56.9	54.6	52.0	46.4	TR,C,AC,D
ST-6	6:05 pm	52.7	69.0	62.1	52.0	49.8	48.5	46.2	TR,AC
TR: Traffic AC: Aircraft C: Construction V: Voices D: Barking Dogs									

⁶ Environmental Noise Assessment for the Copper River Ranch SEIR. WJV Acoustics, Inc. December 3, 2020. See Appendix F. Page 11.

Project Traffic Noise Impacts on Existing Noise- Sensitive Land Uses Outside Project Site

Significant and Unavoidable. WJVA utilized the FHWA Traffic Noise Model⁴ to quantify expected project-related increases in traffic noise exposure along roadways in the project vicinity. The FHWA Model is a standard analytical method used by state and local agencies for roadway traffic noise prediction. The model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly Leq values for free-flowing traffic conditions, and is generally considered to be accurate within ± 1.5 dB. To predict Ldn values, it is necessary to determine the hourly distribution of traffic for a typical day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Average Daily Traffic (ADT) volumes for the analyzed receptor locations were provided by JLB Traffic Engineering in conjunction with Fresno Council of Governments (Fresno COG). ADT traffic volumes were provided for Existing (without project) and Existing plus project traffic scenarios.

The percentage of trucks and the day/night distribution of traffic on local roadways used for modeling was approximated based upon data previously obtained by WJVA from previous projects in the project vicinity. The Noise modeling assumptions used to calculate project traffic noise are provided as Appendix F.

Traffic noise exposure levels for specific scenarios were calculated based upon the FHWA Model and the above-described model inputs and assumptions. Project-related significant impacts would occur if an increase in traffic noise associated with the project would result in noise levels exceeding the City's applicable noise level standards at the location(s) of sensitive receptors. Additionally, a significant impact would occur if project-related traffic noise levels were to result in an increase of 3 dB or more (over existing ambient noise levels) at sensitive receptor locations.

The City's exterior noise level standard for residential land uses is 65dB Ldn. Traffic noise was modeled at thirteen (13) representative receptor locations in the Project vicinity. The thirteen modeled receptors are located at roadway setback distances representative of the sensitive receptors along each analyzed roadway segment. The receptor locations are described below and provided graphically on Figure 3.13-2.

- R-1: Residential land use located approximately 430 feet from the centerline of Friant Rd.

- R-2: Residential land use located approximately 215 feet from the centerline of Friant Rd.
- R-3: Residential land use located approximately 700 feet from the centerline of Friant Rd.
- R-4: Residential land use located approximately 75 feet from the centerline of Maple Ave.
- R-5: Residential land use located approximately 80 feet from the centerline of Chestnut Ave.
- R-6: Residential land use located approximately 75 feet from the centerline of 5th St.
- R-7: Church land use located approximately 700 feet from the centerline of Willow Ave.
- R-8: Residential land use located approximately 170 feet from the centerline of Copper Ave.
- R-9: Residential land use located approximately 170 feet from the centerline of Minnewawa Ave.
- R-10: Residential land use located approximately 100 feet from the centerline of Friant Rd.
- R-11: Residential land use located approximately 95 feet from the centerline of Copper Ave.
- R-12: Residential land use located approximately 95 feet from the centerline of Copper Ave.
- R-13: Residential land use located approximately 100 feet from the centerline of Copper Ave.

Figure 3.13-2: Modeled Traffic Noise Receptor Locations



Existing Conditions

Table 3.13-7 provides Existing and Existing Plus Project traffic noise exposure levels at the thirteen analyzed receptor locations. The receptor locations are representative of existing residential land uses (and one church) located along the analyzed roadway segments. Receptor locations R-1, R-4, R-5 and R-8 through R-13 have existing acoustical shielding provided by existing sound walls, intervening topography or residential structures, and a conservative offset (-5 dB) was applied to more accurately reflect noise levels within the outdoor activity areas of these receptor locations. Noise levels described in Table 3.13-7 include the offset provided by the existing acoustical shielding at these receptor locations.

Table 3.13-7: Project-Related Increases in Traffic Noise, dB, L_{dn}⁷

Modeled Receptor	Existing	Existing Plus Project	Change (Maximum)	Significant Impact?
R-1	51	50	-1	No
R-2	61	59	-2	No
R-3	53	52	+1	No
R-4	59	60	+1	No
R-5	49	50	+1	No
R-6	59	62	+3	Yes
R-7	44	45	+1	No
R-8	51	52	+1	No
R-9	51	52	+1	No
R-10	60	62	+2	No
R-11	61	62	+2	No
R-12	60	61	+1	No
R-13	57	58	+1	No

Reference to Table 3.13-7 indicates that project-related traffic would not result in noise levels at any sensitive receptors to exceed the City's noise level standard of 65 dB L_{dn}. However, noise levels at sensitive receptor R-6 (Church land use) would be expected to increase by approximately 3 dB as a result of project-related increase in traffic volumes along N. Willow Avenue. The City of Fresno General Plan Noise Element considers an increase of 3 dB or more to be a significant impact. It should be noted, since the 2014 update of the City of Fresno General Plan, the CEQA guidelines have been revised, and the noise impact determination requirement of *"substantial permanent or temporary increase in noise levels above levels existing*

⁷ Environmental Noise Assessment for the Copper River Ranch SEIR. WJV Acoustics, Inc. December 3, 2020. See Appendix F. Page 13.

without the project” has been omitted. However, as the language remains in the City of Fresno General Plan it is applied to impact determination within this analysis.

It is important to note that project buildout would likely occur over several years (possibly decades), and as such project-related noise increases would not be realized for numerous years; however, Project-related traffic applied to existing traffic conditions would result in exterior noise levels at one modeled receptor location (R-6) to increase by approximately 3dB, which is considered a significant impact per the City of Fresno General Plan Noise Element. While it may be possible by means of the construction of an individual sound wall at this receptor location, mitigation of traffic noise impacts is more difficult to achieve for existing noise-sensitive uses due to the many complications associated with working with individual landowners to implement noise mitigation measures such as sound wall construction and often create access issues. It therefore may not be feasible to achieve successful noise mitigation for this noise sensitive use that could be impacted by the project. Impacts are therefore considered *significant and unavoidable*.

Construction Noise

Less Than Significant with Mitigation. Construction noise would occur at various locations within the project site through the buildout period. Existing sensitive receptors could be located as close as 100 feet from construction activities. Table 3.13-8 provides typical construction-related noise levels at distances of 100 feet, 200 feet, and 300 feet.

Construction noise is not considered to be a significant impact if construction is limited to the allowed hours and construction equipment is adequately maintained and muffled. Extraordinary noise-producing activities (e.g., pile driving) are not anticipated. The City of Fresno limits hours of construction to occur only between the hours of 7:00 a.m. to 10:00 p.m., Monday through Saturday. Construction noise impacts could result in annoyance or sleep disruption for nearby residents if nighttime operations were to occur or if equipment is not properly muffled or maintained. Implementation of mitigation measure NOI-1 will reduce any construction-related noise impacts to *less than significant*.

Table 3.13-8: Typical Construction Equipment⁸

Type of Equipment	100Ft.	200 Ft.	300 Ft.
Backhoe	80	74	70
Concrete Saw	84	78	74
Excavator	75	69	65
Front End Loader	73	67	63
Jackhammer	83	77	73
Paver	71	65	61
Pneumatic Tools	79	73	69
Dozer	76	70	66
Rollers	74	68	64
Scrapers	81	75	71
Portable Generators	74	68	64
Front Loader	73	67	63
Backhoe	80	74	70
Excavator	75	69	65
Grader	80	74	70

Mitigation Measures:**NOI-1**

- Per the City of Fresno Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 10:00 p.m. Monday through Saturday and all day on Sunday.
- All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source.
- Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor.
- All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest possible distance from any noise-sensitive land uses.
- Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses.
- Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.

⁸ Environmental Noise Assessment for the Copper River Ranch SEIR. WJV Acoustics, Inc. December 3, 2020. See Appendix F. Page 16.

Impact 3.13-2: *Generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant. The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed project. Vibration from construction activities could be detected at the closest sensitive land uses, especially during movements by heavy equipment or loaded trucks and during some paving activities (if they were to occur). Typical vibration levels at distances of 100 feet and 300 feet are summarized by Table 3.13-9. These levels would not be expected to exceed any significant threshold levels for annoyance or damage, as provided above in Table 3.13-4 and Table 3.13-5.

Table 3.13-9: Typical Vibration Levels During Construction⁹

Equipment	PPV (in/sec)	
	@ 100'	@ 300'
Bulldozer (Large)	0.011	06
Bulldozer (Small)	0.0004	0.00019
Loaded Truck	0.01	0.005
Jackhammer	0.0005	0.002
Vibratory Roller	0.03	.013
Caisson Drilling	0.01	.0006

After full Project build out, it is not expected that ongoing operational activities will result in any vibration impacts at nearby sensitive uses. Activities involved in trash bin collection could result in minor on-site vibrations as the bin is placed back onto the ground. Such vibrations would not be expected to be felt at the closest off-site sensitive use. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

Impact 3.13-3: *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

⁹ Environmental Noise Assessment for the Copper River Ranch SEIR. WJV Acoustics, Inc. December 3, 2020. See Appendix F. Page 17.

No Impact. The proposed Project is not located within two miles of a public airport or private airstrip. The nearest airport to the Project site is the Fresno Yosemite International Airport, at approximately 7.5 miles to the south. There is *no impact*.

Mitigation Measures: None are required.

Applicability of 2003 FEIR Mitigation Measures

The 2003 FEIR provided the mitigation measures related to noise impacts. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>The developer shall be responsible for the following mitigation measures to be included as a condition of approval on each conditional use permit, tentative tract map, or site plan:</p> <ol style="list-style-type: none"> 1. The contractor shall limit noise generating construction to a time schedule of 7:00am to 7:00pm Monday through Saturday. 2. Properly muffled construction equipment shall be used. 	<p>This previous mitigation measure from the 2003 FEIR is similar to the currently proposed mitigation measures (i.e. limiting hours of construction). However, the proposed new mitigation measure (NOI - 1) shall supersede the noise mitigation measure contained in the 2003 FEIR.</p>	<p>NOI -1</p> <ul style="list-style-type: none"> • Per the City of Fresno Municipal Code, construction activities should not occur outside the hours of 7:00 a.m. to 10:00 p.m. Monday through Saturday and all day on Sunday. • All construction equipment shall be properly maintained and muffled as to minimize noise generation at the source. • Noise-producing equipment shall not be operating, running, or idling while not in immediate use by a construction contractor. • All noise-producing construction equipment shall be located and operated, to the extent possible, at the greatest

		<p>possible distance from any noise-sensitive land uses.</p> <ul style="list-style-type: none"> • Locate construction staging areas, to the extent possible, at the greatest possible distances from any noise-sensitive land uses. • Signs shall be posted at the construction site and near adjacent sensitive receptors displaying hours of construction activities and providing the contact phone number of a designated noise disturbance coordinator.
<p>2.6.2-a: Site-specific acoustical analyses, conducted by a qualified acoustical consultant, shall be required when actual lot design is proposed and a grading plan is approved, so that noise attenuation measures can be applied based on specific design, including setbacks, sound walls, and location of non-noise sensitive land uses.</p>	<p>This previous mitigation measure from the 2003 FEIR is still applicable.</p>	<p>Not applicable.</p>
<p>2.6.3-a: The developer shall be responsible for the following mitigation measure to be included as a condition of approval on each conditional use permit, tentative tract map, or site</p>	<p>This previous mitigation measure from the 2003 FEIR is still applicable.</p>	<p>Not applicable.</p>

<p>plan:</p> <ol style="list-style-type: none"> The developer shall pay a proportionate share, based on contribution to traffic in 2020 as determined in the project-specific traffic study prepared for projects within Copper River Ranch, of the costs of constructing appropriate noise mitigation on Maple Avenue between International Avenue and Copper Avenue. Noise improvements shall be installed, as necessary, to reduce outdoor levels to 60 dBL or lower. 		
<p>2.6.4-a: The developer shall be responsible for the following mitigation measure to be included as a condition of approval on each conditional use permit, tentative tract map, or site plan:</p> <ol style="list-style-type: none"> Site-specific acoustical analysis, conducted by a qualified acoustical consultant, shall be required when actual design and a grading plan is approved, so that abatement measures can be applied based on 	<p>This previous mitigation measure from the 2003 FEIR is still applicable.</p>	<p>Not applicable.</p>

specific design, including setbacks, sound walls, and location of non-noise sensitive land uses.		
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Cumulative Impacts

Cumulatively Considerable. The scope for considering cumulative impacts to noise is generally site-specific rather than cumulative in nature because each project site has different noise considerations that would be subject to review. Impacts from Project-generated elevated noise would exist at 11 of the 13 modeled receptors, as indicated in Table 3.13-7. Construction of the individual development projects allowed under the proposed Project may result in the generation of site-specific noise increases from stationary noise sources, and may contribute incrementally to noise from mobile sources. Additionally construction noise from individual development projects allowed under the proposed Project may result in the generation of site-specific noise increases.

As indicated herein, the Project will result in significant permanent increases in noise levels and as such, the proposed Project’s incremental contribution to cumulative noise impacts would be *cumulatively considerable*.

3.14 Population and Housing

This section of the SEIR identifies potential impacts of the proposed Project pertaining to population and housing. No NOP comment letters were received pertaining to this topic.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated potential impacts to aesthetics associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The original Copper River Ranch Project 2003 FEIR did not identify any significant impacts associated with population and housing. However, the Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. Additionally, the Project is proposing some land use designation changes within the existing Copper River Ranch Development as described in Chapter Two – Project Description. Since the Project is proposing an additional 109 acres to the development and is proposing some land use changes within the unbuilt portions of the existing development, additional information is being provided herein regarding impacts to population and housing associated with the additional 109 acres as well as the proposed land use changes within the existing development. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Would the project induce substantial unplanned population growth in an area, either directly or indirectly?	✓	
b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	✓	

Environmental Setting

Fresno was incorporated in 1885 and had a population of 10,000 by 1890. Fresno is now the fifth largest city in the state of California. Centrally located, Fresno is the financial, industrial, trade,

and commercial capital in the Central San Joaquin Valley. The Department of Finance estimates the January 2020 population of the City of Fresno to be 545,769¹.

An important indicator of providing adequate housing and employment within a community is to determine the number of employees who currently reside in the County of Fresno. Based on a review of 2000-2010 Fresno County data from the U. S. Census Bureau, the employees to occupied housing ratio for 2010 has increased since the year 2000 from 1.19 to 1.28. This data shows that the number of employees residing within each occupied housing unit has increased in Fresno County.²

An additional employment indicator for Fresno County is to determine the number of jobs within the County compared to the number of housing units within the County. The number of jobs increased between the year 2000 to 2008 and then decrease between 2008 and 2010 due to the economic recession. The number of housing units within the County has increased between the year 2000 and 2010. Furthermore, the jobs to housing ratio began at 1.14 in 2000 and dropped to 1.01 in the year 2010 which shows that there were fewer jobs per housing unit.³

The proposed Project consists of a residential and commercial development in northern Fresno in a primarily residential area. The site is designated for urban development by the City's General Plan and is zoned for such use.

Regulatory Setting

Federal Regulations

US Department of Housing and Urban Development (HUD)

HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes: utilize housing as a

¹ California Department of Finance. E-4 Population Estimates for Cities, Counties, and the State, 2011-2020 with 2010 Census Benchmark. <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-4/2010-20/>. Accessed November 2020.

² City of Fresno. General Plan and Development Code Update. Master Environmental Impact Report. <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/Sec-05-12-Pop-and-Housing-Fresno-MEIR.pdf>. Page 5.12-2. Accessed November 2020.

³ Ibid. Page 5.12-3.

platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business.⁴

State of California Regulations

California Department of Housing and Community Development (HCD)

HCD’s mission is to “[p]rovide leadership, policies and programs to preserve and expand safe and affordable housing opportunities and promote strong communities for all Californians.”⁵ “In 1977, the State Department of Housing and Community Development (HCD) adopted regulations under the California Administrative Code, known as the Housing Element Guidelines, which are to be followed by local governments in the preparation of local housing elements. AB 2853, enacted in 1980, further codified housing element requirements. Since that time, new amendments to State Housing Law have been enacted.

State Housing Law also mandates that local governments identify existing and future housing needs in a Regional Housing Needs Assessment (RHNA).

Senate Bill 330

Senate Bill 330 “The Housing Crisis Act of 2019” is a statewide bill intended, in part, to limit a city’s ability to adopt zoning that reduces residential density or to impose design standards that limit the housing units allowed. Any such zoning changes made by a city after January 1, 2020, in residential or mixed-use areas, would be preempted, unless another property within the jurisdiction of a city is simultaneously “up-zoned” (increase in residential density) which results in an increase in density sufficient enough to offset any reduction in density.

California Relocation Assistance Act

The State of California adopted the California Relocation Assistance Act (*California Government Code* §7260 et seq.) in 1970. This State law, which follows the federal Uniform Relocation Assistance and Real Property Acquisition Act, requires public agencies to provide procedural protections and benefits when they displace businesses, homeowners, and tenants in the process of implementing public programs and projects. This State law calls for fair, uniform, and equitable treatment of all affected persons through the provision of relocation benefits and assistance to minimize the hardship of displacement on the affected persons.

⁴ U.S. Department of Housing and Urban Development, Mission, <http://portal.hud.gov/hudportal/HUD?src=/about/mission>. Accessed October 2020.

⁵ California Department of Housing and Community Development, Mission, <http://www.hcd.ca.gov/mission.html>. Accessed October 2020.

Local Regulations

City of Fresno Housing Element

California Housing Element law requires every jurisdiction to prepare and adopt a housing element as part of a City's General Plan.

State Housing Element requirements are framed in the California Government Code, Sections 65580 through 65589, Chapter 1143, Article 10.6. The law requires the State Department of Housing and Community Development (HCD) to administer the law by reviewing housing elements for compliance with State law and by reporting its written findings to the local jurisdiction. Although State law allows local governments to decide when to update their general plans, State Housing Element law mandates that housing elements be updated every eight years. The City's Housing Element was adopted in April of 2017, and contains information on housing needs, land inventory, constraints, and a program of action.

Thresholds of Significance

In accordance with the CEQA Guidelines, a project impact would be considered significant if the project would:

- Induce substantial unplanned population growth in an area, either directly or indirectly
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere

Impacts and Mitigation Measures

Impact 3.14-1: *Induce substantial unplanned population growth in an area, either directly or indirectly?*

Less Than Significant Impact. CEQA Guidelines Section 15126.2(d) requires that a CEQA document discuss the ways in which the proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines provide the example of a major expansion of a wastewater treatment plant that may allow for more construction within the service area. The CEQA Guidelines also note that the evaluation of growth inducement should consider the characteristics of a project that may encourage or facilitate other activities that could

significantly affect the environment. The evaluation herein will discuss the potential for direct and indirect growth inducement and then address consistency with regional population and growth projections.

Direct and Indirect Growth Inducement

Direct growth consists of activities that directly facilitate population growth. The construction of new dwelling units is considered an activity that directly results in population growth. Indirect growth inducements consist of activities that in themselves do not facilitate population growth, but instead indirectly cause growth. Examples include the creation of new jobs in a sparsely populated area that results in workers moving into the area or the removal of a physical barrier to growth, such as the extension of sewer service to an unserved area.

A key consideration in evaluating growth inducement is whether the activity in question constitutes “planned growth”. A residential project that is consistent with the underlying General Plan and zoning designations would generally be considered planned growth because it was previously contemplated by these long-range documents, and, thus, would not be deemed to have a significant growth-inducing effect. The primary concern with significant change in population and housing is whether the change will result in a significant impact associated with unplanned growth. In addition to environmental impacts, unplanned growth can have other deleterious effects, by thwarting the implementation of General Plan and other applicable policies designed to ensure orderly development, or by occurring at a rate that would outpace the availability of essential public services.

Project Impacts

As described earlier, the proposed Copper River Ranch Project consists of two areas of development. The first consists of adding approximately 109 acres to the Copper River Ranch development that were not included in the original 2003 Copper River Ranch EIR. The second consists of proposed land use designation changes within the existing 706.5-acre Copper River Ranch Development. These Project components are described below. The corresponding parcel numbers are identified in the maps shown in Figure 3.14-1 and Figure 3.14-2.

New Areas of Development

The approximately 109 acres of new development areas are proposed to be developed with a variety of housing types. The breakdown of the approximately 109 acres of new development is shown in Table 3.14-1 and Table 3.14-2 and is summarized as follows:

- 11.86 acres of Parcel 14 – existing medium-low density residential with no proposed land use change
- 48.27 acres of Parcel 15 – existing medium-low density residential with no proposed land use change
- 3.6 acres of Parcel 7 – existing medium density residential to low density residential
- 15.16 acres of Tract 6246 (portion) - existing medium-low density residential with no proposed land use change
- 13.79 acres of Tract 6248 (portion) – Estimated 53 SFD (not yet mapped), medium density residential
- 2.2 acres between holes 3 and 4 – existing medium-low density residential with no proposed land use change
- 13.96 acres of Tract 6087

Existing Copper River Ranch Development Land Use Changes

The Applicant is proposing to modify the existing General Plan designations to reflect both the actual built out conditions of Copper River Ranch today and to identify any proposed land use designations and zone districts that are planned for the future. The proposed changes to the existing land use designations, zoning, and tentative tract maps are shown in Table 3.14-1 (Proposed Land Use Changes) and Table 3.14-2 (No Proposed Land Use Changes).

**Table 3.14-1
Proposed Land Use Changes**

Parcel No.	Acres	Existing Land Use Designation	Proposed Land Use Designation	Existing Zoning	Proposed Zoning
1	10.16	Med DR	Low DR	RS5	RS3
2	4.53	Gen Comm	Low DR	GC	RS3
3	1.17	Comm Comm	Low DR	CC	RS3
4**	2.07	Golf Course	Med Low DR	OS	RS3
5	16.21	Med DR	Low DR	RS5	RS3

7**	9.22	Med DR	Low DR	RS5	RS4
9	7.23	Med High DR	Med DR	RM1	RS5
10***	0.79	Med High DR	Med Low DR	RM1	RS3
10***	2.68	Med High DR	Comm Comm	RM1	CC
11	7.11	Comm Comm	Urban Neighbor	CC	RM2
12****	2.68	Comm Comm	Med Low DR	CC	RS3
19	1.06	Comm Comm	Urban Neighbor	CC	RM2
20	0.93	Med DR	Urban Neighbor	RS5	RM2
Total Acres:	65.84				

* See Figures 1 and 2 for parcel locations

** Portions not within the original 2003 EIR study area.

*** Portion of a total 3.47 acres for Parcel 10

**** Portion of a total 9.45 acres for Parcel 12

**Table 3.14-2
No Proposed Land Use Changes**

Parcel No.	Acres	Existing Land Use Designation	Existing Zoning
6	6.11	Med DR	RS5
8**	28.46	Med Low DR	RS4
12***	6.77	Comm Comm	CC
13	32.61	Med DR	RS5
14**	11.86	Med Low DR	RS4
15**	48.27	Med Low DR	RS4
16**	32.59	Med Low DR	RS4
17**	12.23	Med Low DR	RS4
Total Acres:	178.9		

* See Figures 1 and 2 for parcel locations

** Portions not within the original 2003 EIR study area.

*** Portion of a total 9.45 acres for Parcel 12

Figure 3.14-1
Parcel Locations and General Plan Land Use Designations (1 of 2)

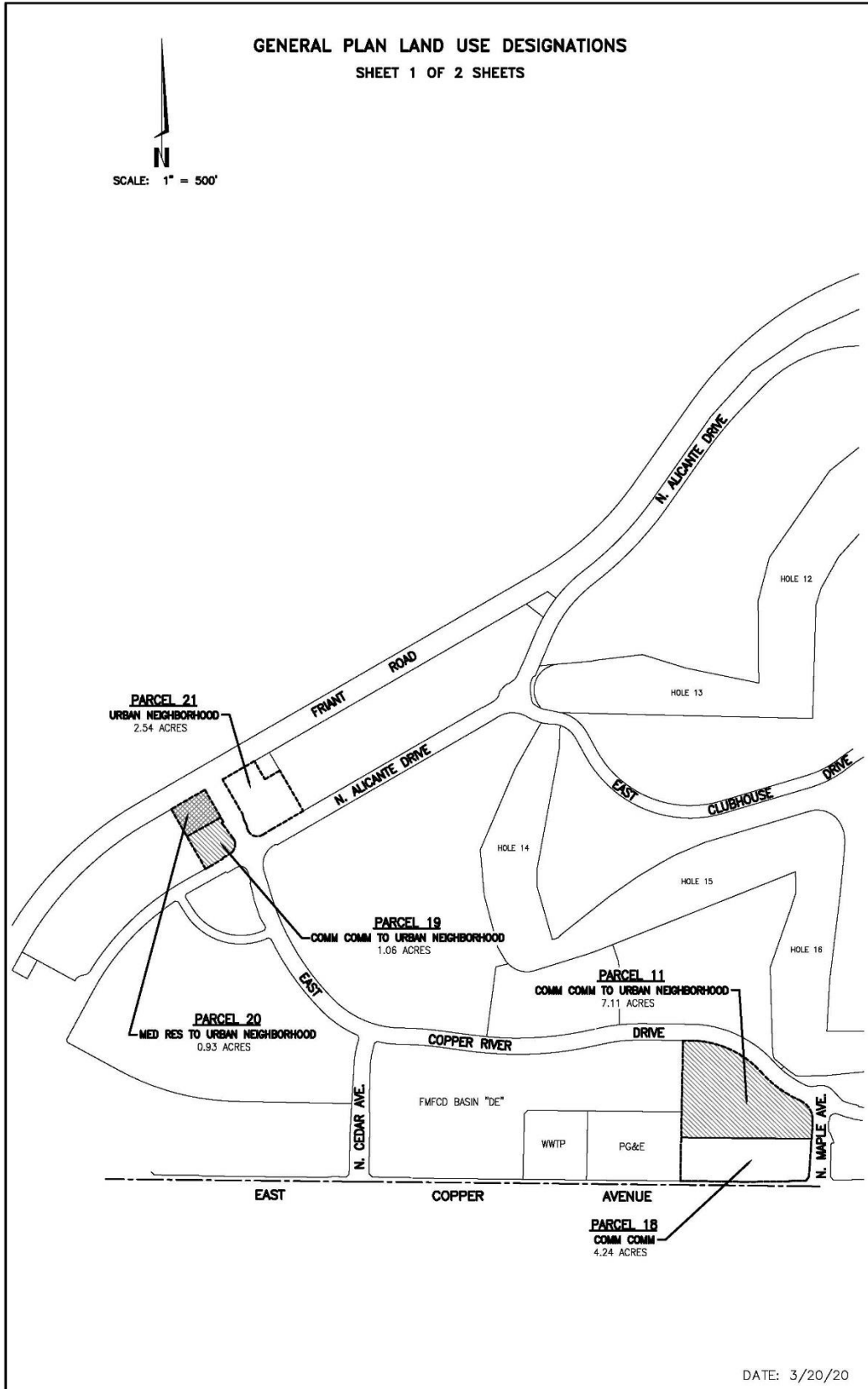
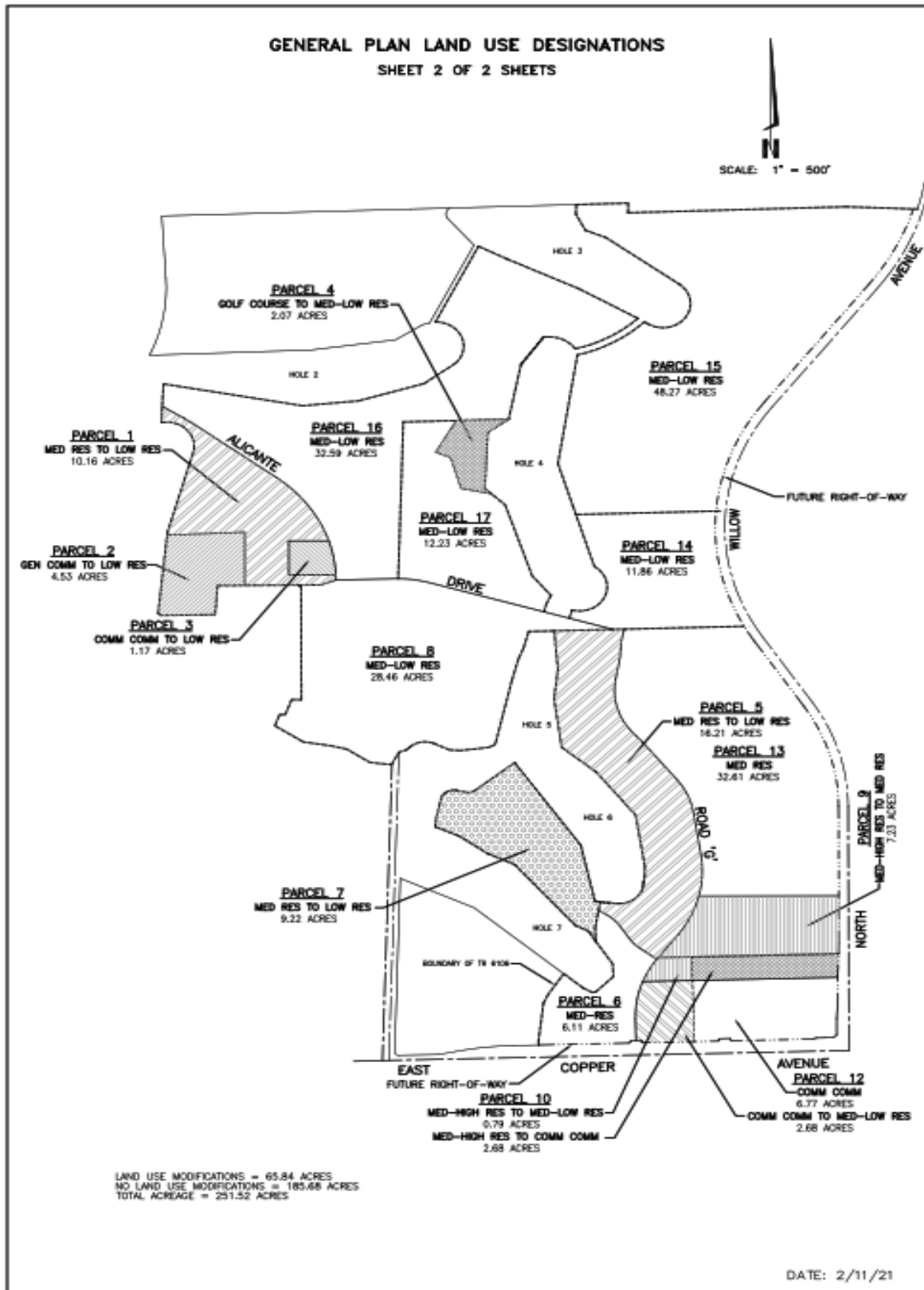


Figure 2 - Parcel Locations and General Plan Land Use Designations (2 of 2)



As previously discussed, the 2003 FEIR evaluated the impacts of development of up to 2,837 residential units (1,192 single-family units and 1,645 multi-family units) with an estimated a population buildout of 7,950 (based on 2.8 persons per unit).

The proposed Project will have a direct, growth inducing impact on the area’s population and housing stock by facilitating the development of up to 3,216 total households within the proposed Development. Thus, the total number of “new” units at full buildout beyond what was analyzed in the 2003 FEIR is 379 additional units. The additional 379 units is derived by taking the difference between the 2003 FEIR total buildout (2,837 units) and the proposed number of units (3,216). Although only 379 units are being added to the development, this SEIR evaluates the population impacts of all 3,216 units. According to Article 37 of the City of Fresno Development Code, single-family dwelling units are assigned 3.11 people per unit and multi-family dwelling units are assigned 2.53 people per unit. Therefore, the total future buildout population is estimated to be 9,587 persons, which is broken down in Table 3.14-3.

**Table 3.14-3
Full Buildout Population Estimate**

Residential Land Use Type	Number of Units	Persons per Unit	Estimated Population
Single-Family	2,502	3.11	7,781
Multi-Family	714	2.53	1,806
TOTALS:	3,216	N/A	9,587

The proposed Project would result in the extension of urban infrastructure (water, sewer and stormdrain) to some areas within the Development that are not currently serviced. However, this would not be considered removal of a barrier to growth, because the Project site is designated for urban development by the General Plan. It is expected that the infrastructure extended to the Project site would be sized to serve the Project, and will not be “over-sized” to serve any additional development in the area. As such, the extension of this urban infrastructure is “growth accommodating” because it is intended to facilitate planned growth.

For purposes of evaluating the environmental impact of population growth associated with the proposed Project under CEQA, the question becomes whether or not the Project will induce population beyond what the City has or will plan for and/or can accommodate at full buildout

of the Project. The assessment takes into account Project-related impacts to topics like traffic, water supply, public services (police, fire, etc.), sewer / storm drain capacity, and other related topics. The 2003 FEIR estimated the population buildout would be 7,950. Based on the proposed land use changes within the Development and the additional 109 acres being added to the Project, the total population at buildout would be up to 9,587 persons, which would result in an additional 1,637 persons.

The Project site (both the existing Copper River Ranch Development and the additional 109 acres) and designated by the City's General Plan for urban development, including residential, mixed-use commercial, open space/recreation, stormwater basins, and related designations. Since the area has been anticipated for urban development by the General Plan, the proposed Project will not result in population growth beyond what was anticipated by City policy documents. The environmental impacts of Project-induced population growth within the City is evaluated within this SEIR in other sections (e.g. air quality, traffic, noise, water use, biological impacts, etc.). For instance, Project-related impacts to the local water supply are addressed in Section 3.10 – Hydrology; sewer/storm drain impacts are addressed in Section 3.19 – Utilities; and police/fire/school impacts are described in Section 3.15 – Public Services. Please refer to those individual sections as well as other sections for specific discussions on Project-related impacts in relation to cumulative population effects on the City and surrounding area.

Based on the City's General Plan and related policy documents, it is determined that the proposed Project will not induce unplanned population growth beyond that which can be accommodated by the City. It has been determined that the City has adequate capacity to serve the Project and therefore, the Project will have a *less than significant* impact occurring from inducement of unplanned population.

SB 330 Consistency

Senate Bill 330 “The Housing Crisis Act of 2019” is a statewide bill intended, in part, to limit a city's ability to adopt zoning that reduces residential density or to impose design standards that limit the housing units allowed. Any such zoning changes made by a city after January 1, 2020, in residential or mixed-use areas, would be preempted. As described earlier, the Project is proposing some land use designation changes that would result in a residential density reduction for some parcels. However, the Project is also proposing to change some existing commercial parcels to a residential land use designations. An evaluation of the parcels that have proposed land use changes and the corresponding gain/loss of residential units is shown in Table 3.14-4.

**Table 3.14-4
Proposed Land Use Changes / SB 330 Consistency**

Parcel No.	Acres	Existing Land Use Designation	Proposed Land Use Designation	Existing Maximum Capacity (Number of Units)	Proposed Maximum Capacity (Number of Units)	Maximum Capacity (Gain / Loss)
1	10.16	Med DR	Low DR	121.9	35.6	-86.4
2	4.53	Gen Comm	Low DR	0	15.9	+15.9
3	1.17	Comm Comm	Low DR	0	4.1	+4.1
4**	2.07	Golf Course	Med Low DR	0	12.4	+12.4
5	16.21	Med DR	Low DR	194.5	56.7	-137.8
7**	9.22	Med DR	Low DR	110.6	32.3	-78.4
9	7.23	Med High DR	Med DR	115.7	86.8	-28.9
10	3.47	Med High DR	Med Low DR	55.5	20.8	-34.7
11	7.11	Comm Comm	Urban Neighbor	0	213.3	+213.3
19	1.06	Comm Comm	Urban Neighbor	0	31.8	+31.8
20	0.93	Med DR	Urban Neighbor	11.2	27.9	+16.7
Total Acres:	63.16					-72.0

As shown in the Table, the proposed Project would result in a net loss of approximately 72 dwelling units compared to the existing maximum buildout density of the existing land use designations. In order to help offset the loss of “potential” residential density, the Project Applicant is proposing to concurrently “upzone” the residential density of other off-site lands owned by the Project Applicant within the City limits of Fresno to help offset the reduction in residential density that is being proposed by the Project. The Project Applicant will work with the City to determine the location and density of the other land(s) within the City limits of Fresno that the Project Applicant controls that would be “upzoned” in conjunction with the

proposed Project. The Project Applicant intends to schedule the off-site “upzone” and the proposed Copper River Ranch Project at the same City Council meeting in order to allow the Project to take credit for the additional residential units being made available by the off-site “upzone.”

As previously stated, the proposed Project will result in the loss of density of approximately 72 residential units. Applying at least 72 units of “upzoned” land at an off-site location would result in no net loss of residential density associated with the proposed Project. Thus, the proposed Project is consistent with the requirements of SB 330.

Mitigation Measures: None are required.

Impact 3.14-2: *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. As described in Chapter Two – Project Description, the new areas of development associated with the Project will be located on vacant/undeveloped land that has no people or housing located on the site. Since the areas of development have no people living on the site or existing housing on the site, none will be displaced and there is no necessity to construct replacement housing elsewhere. Therefore, there is *no impact*.

Mitigation Measures: None are required.

Applicability of 2003 FEIR Mitigation Measures

The 2003 FEIR did not include mitigation measures related to population and housing.

Cumulative Impacts

Less Than Cumulatively Considerable. Cumulative population and housing are typically site- and project-specific. As discussed above, the Project would not induce population growth beyond what was anticipated by the City and there are no houses on-site that would be displaced with Project implementation. The Project’s contribution to cumulative population and housing impacts are *less than cumulatively considerable*.

3.15 Public Services

This section of the SEIR identifies potential impacts of implementing the proposed Project on public services. No NOP comment letters were received pertaining to this topic.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated impacts to public services associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a less than significant impact, with mitigation, on public services (Pages 2.10.1 – 2.10.9 of the 2003 FEIR). The Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, additional evaluation is required. Additional information is being provided herein regarding impacts to public services associated with the additional 109 acres and the changes to the existing land uses within the 706-acre Copper River Ranch Development. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
<p>a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</p> <ul style="list-style-type: none"> • Fire protection? • Police protection? • Schools? 	✓	

<ul style="list-style-type: none"> • Parks? • Other public facilities? 		
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Environmental Setting

Fire Services

The City of Fresno Fire Department (Fire Department) provides fire suppression, fire prevention, hazardous material mitigation, rescue, and emergency medical services to 115 square miles through five divisions. The five divisions that comprise the City’s Fire Department are the Emergency Operations Division; the Prevention and Support Services Division; the Training Division; and the Personnel and Investigations Division.

As of March 2021, Fire Department staffing consists of 304 sworn firefighting personnel, 19 sworn non-safety personnel, and 27 civilian positions. Daily staffing for the Fire Department and FGFPD service area consists of a minimum of 81 on-duty firefighters. Other services provided by the Fire Department include hazardous material services, swift water rescue, and heavy rescue apparatus.

The Fire Department aims to provide response to the scene of an emergency within four minutes from the time the station receives notification. In 2020, depending on the specific service area, the Fire Department was able to respond to structure fires within four minutes 72 percent of the time, and to calls for medical aid within four minutes 62 percent of the time. Given the population of the served area in 2020 (545,000) and the number of sworn fire-fighting personnel, the Fire Department has a staffing level of 0.56 firefighters per 1,000 persons.¹

The proposed Project would be served by the current Fire Station 17, which is located at 10512 N. Maple Avenue, Fresno, CA approximately one half mile south of the Project site.

Police Services

The City of Fresno Police Department (Police Department) provides a full range of police services, including: uniformed patrol response to calls for service, crime prevention, tactical crime enforcement (such as gang/violent crime suppression), as well as traffic

¹ Fresno General Plan Draft EIR (2020), page 4.15-2. (Some information was updated in April 2021 based on input from City Fire Department).

enforcement/accident prevention. Other services and special units include the Explosive Ordinance Disposal Unit (EOD), Internal Affairs, the K9 Unit, horse-mounted Mounted Patrol, Skywatch, Specialized Weapons and Tactics (SWAT), and the Records Bureau. The Department consists of four divisions: The Support Division, the Investigations Division, the Patrol Division, and the Administration Division. The Police Department has a target staffing ratio of 1.5 unrestricted officers per 1,000 residents. Given the 2018 staffing level of 825 sworn officers and the Planning Area population of 545,000, the staffing ratio is currently 1.5 officers per 1,000 residents. However, of the 825 sworn officers, 64 are restricted. As a result, the staffing ration is currently 1.4 unrestricted officers per 1,000 residents, and the Police Department's Standard is currently not being met.

The Police Department Patrol Division is divided into five policing districts. The Southwest Policing District is located south of McKinley Avenue and West of East Avenue and SR 99. The Northwest Policing District is located north of McKinley Avenue to the San Joaquin River to and west of Blackstone Avenue to the western city limits. The Southeast Policing District is located south of Ashlan Avenue (east of Clovis Avenue), south of McKinley Avenue between East Avenue and Clovis Avenue, and east of SR 99 south of Church Avenue to the southern city limits. The Northeast Policing District is located north of McKinley Avenue to the San Joaquin River and east of Blackstone Avenue to the city of Clovis. The Central Policing District encompasses the area south of Ashlan to Belmont and from SR99 to First Street.²

Protection services would be provided to the Project site from the existing Northeast Policing District, which is approximately three and a half miles (driving distance) from the Project site at 1450 E. Teague Avenue, Fresno, CA.

Schools

The Clovis Unified School District (CUSD) serves the proposed Project area. CUSD is the City's second largest school District. Of CUSD's 50 schools/campuses, 33 are elementary schools, five are intermediate schools, and five are high schools. CUSD also has one adult school and six alternative education campuses. Approximately 40 percent of the students in CUSD are residents of the City of Fresno, and approximately 20 percent of the City of Fresno is located within CUSD's boundaries. CUSD currently serves nearly 44,000 students, and has a maximum capacity of 49,915 students. The District has a staff of approximately 6,400. CUSD

² Fresno General Plan Draft EIR (2020), page 4.15-5.

predominantly serves Fresno's northeast and north-central areas, and the City of Clovis, which is not included in the City of Fresno Planning Area.³

Parks

As identified in the City's Parks Master Plan, the City of Fresno owns and operates a park system that includes more than 80 public parks, trails, regional parks, neighborhood parks, educational facilities, community pools, splash parks, and dual-use ponding basins. Many of the public parks include additional amenities. School facilities supplement the City's park system by adding acreage and facilities that are available for recreational use through Joint-Use agreements⁴.

The most significant park in the Project area is Woodward Park, located west of Friant Road approximately two miles southwest of the Project site. Woodward Park is an approximately 300-acre regional facility designed primarily for passive recreational activities including picnicking, nature study, bike riding and hiking. Lost Lake Park is an approximately 300-acre park located approximately five miles north of the Project site near the unincorporated community of Friant adjacent to the San Joaquin River. The park is a regional facility designed for passive recreational activities and includes camping facilities. The San Joaquin River Parkway has also been partially developed with a trail system along the river and other areas near or adjacent to the river. Although only six miles of the trail are currently completed, the ultimate goal of the trail system is to provide a 22-mile paved path spanning from Friant Dam to Highway 99.

Libraries

Libraries in the Planning Area are provided by the Fresno County Public Library System. This library system consists of thirty nine libraries and one Community Bookmobile throughout Fresno County.

³ Fresno General Plan Draft EIR (2020), page 4.15-6.

⁴ Ibid, page 4.15-8.

Regulatory Setting

State Regulations

California Occupational Safety and Health Administration

In accordance with California Code of Regulations Title 8 Sections 1270 “Fire Prevention” and 6773 “Fire Protection and Fire Equipment,” the California Occupational Safety and Health Administration (Cal- OSHA) has established minimum standards for fire suppression and emergency medical services (EMS). The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

City Emergency Response/Evacuation Plans

The State of California passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

California Fire Code

The California Fire Code (CFC) contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The CFC also contains specialized technical regulations related to fire and life safety.

California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards, fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise buildings, childcare facility standards, and fire suppression training.

Senate Bill 50

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding, and whether the school district meets certain additional criteria involving bonding capacity, year-round school, and the percentage of moveable classrooms in use.

Local**City of Fresno General Plan and Municipal Code**

The City of Fresno General Plan and Municipal Code establish the following applicable goals, objectives, and policies with regard to public services:

Fire Protection**Public Utilities and Services Element**

- Objective PU-2:* Ensure that the Fire Department's staffing and equipment resources are sufficient to meet all fire and emergency service level objectives and are provided in an efficient and cost effective manner.
- PU-2-a: Unify Fire Protection. Pursue long-range transfer of fire protection service agreements with adjacent fire districts that, in concert with existing automatic aid agreements, will lead to the eventual unification of fire protection services in the greater Fresno area.
- PU-2-b: Maintain Ability. Strive to continually maintain the Fire Department's ability to provide staffing and equipment resources to effectively prevent and mitigate emergencies in existing and new high-rise buildings and in other high-density residential and commercial development throughout the city.
- PU-2-c: Rescue Standards. Develop appropriate standards, as necessary, for rescue operations, including, but not limited to, confined space, high

angle, swift water rescues, and the unique challenges of a high speed train corridor.

PU-2-d: Station Siting. Use the General Plan, community plans, Specific Plans, neighborhood plans, and Concept Plans, the City's Geographic Information Systems (GIS) database, and a fire station location program to achieve optimum siting of future fire stations.

PU-2-e: Service Standards. Strive to achieve a community wide risk management plan that include the following service level objectives 90 percent of the time:

- First Unit on Scene – First fire unit arriving with minimum of three firefighters within 5 minutes and 20 seconds from the time the unit was alerted to the emergency incident.
- Effective Response Force – Provide sufficient number of firefighters on the scene of an emergency within 9 minutes and 20 seconds from the time of unit alert to arrival. The effective response force is measured as 15 firefighters for low risk fire incidents and 21 firefighters for high risk fire incidents and is the number of personnel necessary to complete specific tasks required to contain and control fire minimizing loss of life and property.

Objective PU-3: Enhance the level of fire protection to meet the increasing demand for services from an increasing population.

Policy PU-3-a: Fire Prevention Inspections. Develop strategies to enable the performance of annual fire and life safety inspection of all industrial, commercial, institutional, and multifamily residential buildings, in accordance with nationally recognized standards for the level of service necessary for a large Metropolitan Area, including a self-certification program.

Policy PU-3-b: Reduction Strategies. Develop community risk reduction strategies that target high service demand areas, vulnerable populations (e.g. young children, older adults, non-English speaking residents, persons with disabilities, etc.), and high life hazard occupancies.

Policy PU-3-c: Public Education Strategies. Develop strategies to re-establish and enhance routine public education outreach to all sectors of the community.

Policy PU-3-d: Review Development Applications. Continue Fire Department review of development applications, provide comments and recommend condition

of approval that will ensure adequate on-site and off-site fire protection systems and features are provided.

Policy PU-3-e: Building Codes. Adopt and enforce amendments to construction and fire codes, as determined appropriate, to systematically reduce the level of risk to life and property from fire, commensurate with the City’s fire suppression capabilities.

Policy PU-3-f: Adequate Infrastructure. Continue to pursue the provision of adequate water supplies, hydrants, and appropriate property access to allow for adequate fire suppression throughout the City.

Policy PU-3-g: Cost Recovery. Continue to evaluate appropriate codes, policies, and methods to generate fees or other sources of revenue to offset the ongoing personnel and maintenance costs of providing fire prevention and response services.

City of Fresno Municipal Code

Section 12-4.901: In order to implement the goals, objectives and policies of the City’s approved General Plan, and to mitigate the impacts caused by future development in the city, certain fire department facilities must be constructed. The City Council has determined that a Fire Facilities Fee is needed in order to pay for (a) land acquisition for, and design, engineering, and construction of the public facilities designated in the Council resolution and reasonable costs of outside consultant studies related thereto; (b) to reimburse the City for designated public facilities construction by the City with funds (other than gifts or grants) from other sources together with accrued interest; (c) to reimburse developers who have designed and constructed designated public facilities which are oversized and supplemental size, length, or capacity; and/or (d) to pay for and/or reimburse costs of program development and ongoing administration of the Fire Facilities Fee program. The information below provides the Fire Facilities Fee by type of development as established in the City’s Master Fee Schedule.

Fire Facilities Fee Program

<u>Type</u>	<u>Fee</u>
Single-family residential/per unit	\$1,893
Multi-family residential (>7.5 units/acre)/per unit	\$1,429
Industrial (fee per 1,000 sq. ft. of building)	\$379

Retail (per 1,000 sq. ft. of building)	\$662
Office (per 1,000 sq. ft. of building)	\$757

Police Protection

Public Utilities and Services Element

- Objective PU-1:* Provide the level of law enforcement and crime prevention services necessary to maintain a safe, secure, and stable urban living environment through a Police Department that is dedicated to providing professional, ethical, efficient and innovative service with integrity, consistency and pride.
- PU-1-b: Involvement in General Plan. Facilitate Police Department participation in the implementation of General Plan policies, including citizen participation efforts and the application of crime prevention design measures to reduce the exposure of neighborhoods to crime and to promote community security.
- Facilitate Police Department communication with citizen advisory committees.
 - Refer appropriate development entitlements to the Police Department for review and comment.
- PU-1-c: Safety Considerations in Development Approval. Continue to identify and apply appropriate safety, design and operational measures as conditions of development approval, including, but not limited to, street access control measures, lighting and visibility of access points and common areas, functional and secure on-site recreational and open space improvements within residential developments, and use of State licensed, uniformed security.
- PU-1-d: New Police Station Locations. Consideration will be given to co-locating new police station facilities with other public property including, but not limited to, schools, parks, playgrounds, and community centers to create a synergy of participation in the neighborhood with the potential result of less vandalism and promotion of a better sense of security for the citizens using these facilities.
- PU-1-e: Communication with Public. Maximize communication and cooperative efforts with residents and businesses in order to identify crime problems

and optimize the effectiveness of crime prevention measures and law enforcement programs.

PU-1-g: Plan for Optimum Service. Create and adopt a program to provide targeted police services and establish long-term steps for attaining and maintaining the optimum levels of service - 1.5 unrestricted officers per 1,000 residents.

City of Fresno Municipal Code

Section 12-4.801: In order to implement the goals, objectives and policies of the City’s General Plan, and to mitigate the impacts caused by future development in the city, certain police facilities must be constructed. The City Council has determined that a Police Facilities Fee is needed in order to pay for (a) land acquisition for, and design, engineering, and construction of the public facilities designated in the Council resolution and reasonable costs of outside consultant studies related thereto; (b) to reimburse the city for designated public facilities construction by the city with funds (other than gifts or grants) from other sources together with accrued interest; (c) to reimburse developers who have designed and constructed designated public facilities which are oversized and supplemental size, length, or capacity; and/or (d) to pay for and/or reimburse costs of program development and ongoing administration of the Police Facilities Fee program. The information below describes the Police Facilities Fee by type of development as established in the City’s Master Fee Schedule.

Police Facilities Fee Program

<u>Type</u>	<u>Fee</u>
Single-family residential/per unit	\$618
Multi-family residential (>7.5 units/acre)/per unit	\$466
Industrial (fee per 1,000 sq. ft. of building)	\$313
Retail (per 1,000 sq. ft. of building)	\$658
Office (per 1,000 sq. ft. of building)	\$626

Schools

Public Utilities and Services Element

Objective POSS-8: Work cooperatively with school districts to find appropriate locations for schools to meet the needs of students and neighborhoods.

POSS-8-a: Support School Districts' Programs. Support strategies and programs of school districts and the Fresno County Office of Education to provide access to and use of the highest quality educational programs and support services.

POSS-8-b: Appropriate School Locations. Support school locations that facilitate safe and convenient access by pedestrian and bicycle routes, are compatible with surrounding land uses, and contribute to a positive neighborhood identity and Complete Neighborhoods. Commit to the following:

- Work with representatives of public and private schools during the preparation and amendment of plans and the processing of development proposals to ensure that General Plan policies are implemented.
- Require school districts to provide necessary street improvements, pedestrian facilities, public facilities, and public services at each new school site as authorized by law.
- Continue to designate known school sites on the Land Use Diagram (Figure LU-1), and in community plans, Specific Plans, and other plans compatible with the locational criteria of each school district, and to facilitate safe and convenient walking and biking to schools in neighborhoods.
- Meet regularly with school district staff and trustees to provide ongoing communication and coordination of plans, projects, and priorities.
- Collaborate with school districts to plan and implement new school sites in a manner that supports and reinforces objectives to develop walkable Complete Neighborhoods.

POSS-8-c: Park and School Site Coordination. Pursue the cooperative development and use of school sites with adjacent neighborhood parks for both school activities and non-school related recreational activities.

Parks

Parks, Open Space, and Schools Element

Objective POSS-1: Provide an expanded, high quality and diversified park system, allowing for varied recreational opportunities for the entire Fresno community.

POSS-1-a: Parkland Standard. Implement a standard of at least three acres of public parkland per 1,000 residents for Pocket, Neighborhood, and Community

parks throughout the city, while striving for five acres per 1,000 residents for all parks throughout the city, subject to identifying additional funding for Regional Parks, Open Space/Natural Areas, and Special Use Parks/Facilities.

POSS-1-b: Parks Implementation Planning. Conduct ongoing planning to implement park policies established in this General Plan and continue to strive for well-maintained and fully accessible playgrounds, with accessible amenities, throughout the city.

- Keep an up-to-date inventory of existing and planned parks, including locations mapped on the Parks and Open Space Diagram;
- Plan for acquiring new parkland designated in the General Plan, as shown in Figure POSS-1;
- Establish a standard protocol for working with new development to arrange for parkland acquisition and dedication;
- Establish a protocol for working with established neighborhoods to provide needed parks, including the fostering of neighborhood and district associations to help plan, acquire, improve and care for public parks, and coordinating new City service facilities to provide new open space;
- Establish detailed design, construction, and maintenance standards;
- Prepare an assessment of the recreation needs of existing and future residents;
- Create an action plan defining priorities, timeframes, and responsibilities;
- Adopt and implement a comprehensive financing strategy for land acquisition, park development, operations, and maintenance;
- Identify opportunities for using existing or planned park space as passive stormwater storage, treatment, and conservation areas that also provide scenic and/or recreational opportunities;
- Identify opportunities for siting and using existing or planned park space as passive “purple pipe” waste water storage, treatment, and conservation areas that also provide scenic and/or recreational opportunities; and
- Update the Parks Master Plan.

POSS-1-c: Public Input in Park Planning. Continue to provide opportunities for public participation in the planning and development of park facilities and in creation of social, cultural, and recreational activities in the community.

POSS-1-d: Additional Parkland in Certain Areas. Strive to obtain additional parkland of sufficient size to adequately serve underserved neighborhood areas and along BRT corridors in support of new and intense residential and mixed use infill development.

- Identify, where appropriate, joint use opportunities in siting parks with other City service facility needs.

POSS-1-e: Criteria for Parks in Development Areas. Continue to use park size and service area criteria for siting new parks and planning for parks in Development Areas:

<u>Park Type</u>	<u>Size Range (Acreage)</u>	<u>Population Served</u>	<u>Service Area Radius</u>
Neighborhood	2.01 to 10	10,000–15,000	Up to 1 mile
Community	10.01 to 40	50,000–80,000	Up to 4 miles
Regional	More than 40	100,000	100,000 residents

POSS-1-f: Parks and Open Space Diagram. Require parks to be sited and sized as shown on the Parks and Open Space Diagram (Figure POSS-1) of the General Plan, subject to the following:

- All new park designations carry dual land use designations, so that if a park is not needed, private development consistent with zoning and development standards may be approved. (See Figure LU-2: Dual Designation Diagram in the Urban Form, Land Use, and Design Element);
- Revised and/or additional park sites will be identified through subsequent implementation and planning in established neighborhoods and Development Areas;
- Locations for future park sites as shown on Figure POSS-1 are schematic to the extent that park sites may be relocated as necessity and opportunity dictate, and a General Plan amendment is not required if the park continues to serve the target areas as determined by the Planning Director; and
- A park may be located on any suitable land in the general vicinity of the sites depicted. However, the zoning of potential park sites must be made consistent with the General Plan.

Objective POSS-2: Ensure that adequate land, in appropriate locations, is designated and acquired for park and recreation uses in infill and growth areas.

POSS-2-b: Park and Recreation Priorities. Use the following priorities and guidelines in acquiring and developing parks and recreation facilities:

- Acquire and develop neighborhood park space in existing developed neighborhoods that are deficient of such space and in areas along BRT corridors that are designated as priorities for encouraging new mixed-use transit-oriented development;
- Provide accessible recreation facilities in established neighborhoods with emphasis on those neighborhoods currently underserved by recreation facilities;
- Improve established neighborhood parks with emphasis on those neighborhoods with the greatest need;
- Acquire and develop neighborhood and community parks in new Development Areas;
- Recognize community parks as a special need in areas that lack these facilities or are planned for transit supportive urban densities, and explore all potential sources of revenue to secure and develop appropriate sites including joint use facilities;
- Develop new special purpose parks, such as outdoor gym equipment, natural resource based trail parks, equestrian centers, dog parks, and amphitheaters, as well as alternative recreation facilities, such as community recreation centers, passive wildlife observation park, cultural heritage and diversity park, military veterans memorial park, and universal access open space park; and
- Acquire and develop park and open space in established neighborhoods and Development Areas, prioritizing existing neighborhoods with the greatest deficiencies, so that all residents have access to park or open space within one-half mile of their residence. Develop these facilities to be fully accessible to individuals with disabilities as required by law.

POSS-2-c: Review of Development Applications. Coordinate review of all development applications (i.e., site plans, conditional use permits, and subdivision maps) in order to implement the parks and open space standards of this Plan.

- Assure the provision of adequate active and passive open spaces and facilities as appropriate within residential subdivisions through Development Code requirements for mandatory dedication and improvement of land and/or development fees.
- Require the provision of appropriate outdoor living areas or private open space in multifamily residential developments not subject to the Subdivision Map Act.
- Request open space easements where feasible and warranted to secure appropriate public use of sensitive areas with scenic or recreation values, and for buffering space for sensitive areas.

- Require provision of appropriate open space areas in private projects, in the form of trails, enhanced landscaped setbacks, parks, and water features.
- Evaluate the merits of establishing a development bonus entitlement program in which development incentives (i.e., bonus densities, bonus floor area square footage) are provided for contributions to public recreational facilities on-site or in the vicinity of the development project.

POSS-2-d: Creation Opportunities near Freeway Corridors. Negotiate with Caltrans, other public agencies, and private property owners to develop remnant parcels along freeway corridors for appropriate recreational uses.

POSS-2-e: Open Space Dedication for Residential Development. Ensure new residential developments provide adequate land for parks, open space, landscaping, and trails through the dedication of land or otherwise providing for Pocket Parks, planned trails, and other recreational space, maintained by an HOA, CFD, or other such entity.

Objective POSS-3: Ensure that park and recreational facilities make the most efficient use of land; that they are designed and managed to provide for the entire Fresno community; and that they represent positive examples of design and energy conservation.

POSS-3-a: Centralized Park Locations. Site parks central and accessible to the population served, while preserving the integrity of the surrounding neighborhood.

POSS-3-b: Park Location and Walking Distance. Park Location and Walking Distance. Site Pocket and Neighborhood Parks within a half-mile walking distance of new residential development.

POSS-3-c: Link Parks with Walkways. Link public open space to adjacent, schools, and residential uses and Activity Centers through a series of landscaped linear walkways and bikeways that enhance and encourage pedestrian use.

POSS-3-e: Minimum Park Size for Active Recreation. Minimize City acquisition or acceptance of dedication of park sites less than two acres in size for active recreational uses, except where maintenance costs are secured through a CFD, HOA, or other such mechanism.

POSS-3-f: Park Design Guidelines. Park Design Guidelines. Create, maintain, and apply park design guidelines, with provisions for appropriate amenities for each park type, which may include:

- Minimum and maximum shade.
- Protections from shading by adjacent buildings.
- Accessibility to persons with disabilities.
- Street trees and landscaped median strips in adjacent arterial roads.
- Art and points of attraction.
- Landscape and hardscape features.
- Street furniture, signage, and lighting.
- Food sales and entertainment.
- Restroom facilities, play structures, and picnic shelters.
- Landscape design synthesis with input from civil engineers and hydrologists, educators and daycare providers, fitness trainers and coaches, police officers and experts in crime prevention through environmental design, as appropriate.
- Solar panels, new LED lighting, and water efficiency improvements.
- Sports field areas designed to allow periodic changes in field locations to minimize wear areas and provide sufficient fields to host regional, state, or national tournaments.
- Using topography to create interesting and visually appealing spaces and forms.
- Use of waterways as a key design influence, a focus of restoration, and an opportunity to provide for public enjoyment of views.
- Reflecting the agricultural and horticultural heritage of the site or area.
- Connecting with surrounding areas in a way that encourages expanded pedestrian activity.
- Creating individual places within a park that respond to the needs of a broad range of park users, from youth to the elderly.
- Creating places of delight that engage the senses.
- Creating places that engage the mind, by treating park features as opportunities for interpretation and questioning.
- Using sustainable design practices, and highlighting these as opportunities for learning.

POSS-3-g: Park Security and Design. Park Security and Design. Promote safety, attractiveness, and compatibility between parks and adjacent residential areas through design, maintenance, and enforcement of park regulations.

- Require the installation of security lighting for parking, points of access, and building areas at all public recreation and park sites.

- Keep neighborhood eyes on parks to increase security.

POSS-3-h:	Coordination with School Districts. Continue to coordinate with school districts to explore opportunities for joint use of both outdoor and indoor recreation facilities, such as playgrounds, play fields, and gymnasiums, for City recreation programs.
POSS-3-i:	Joint Use with Drainage Facilities. Continue to seek joint use agreements for use of FMFCD stormwater drainage facilities.
<i>Objective POSS-4:</i>	Pursue sufficient and dedicated funding for parks acquisition, operations, and maintenance.
POSS-4-a:	Supplemental Revenue. Seek revenue sources to supplement General Fund support for basic park maintenance and basic recreational services.
POSS-4-b:	Operation and Maintenance Financing. Continue to require new residential development to form lighting and landscaping maintenance districts or community facility districts or ensure other means of financing to pay for park operations and maintenance.
POSS-4-c:	Improvements in Established Neighborhoods. Seek agreements with formal neighborhood associations and institutions for improvements and ongoing maintenance of parks in established neighborhoods.

City of Fresno Municipal Code

Section 12-4.701:	In order to implement the Goals, objectives and policies of the City's General Plan, and to mitigate the impacts caused by future development in the city, certain park facilities must be constructed. The City Council has determined that a Park Facilities Fee is needed in order to pay for (a) land acquisition for, and design, engineering, and construction of the public facilities designated in the Council resolution and reasonable costs of outside consultant studies related thereto; (b) to reimburse the city for designated public facilities construction by the city with funds (other than gifts or grants) from other sources together with accrued interest; (c) to reimburse developers who have designed and constructed designated public facilities which are oversized and supplemental size, length, or capacity; and/or (d) to pay for and/or reimburse costs of program development and ongoing administration of the Park Facilities Fee program. The information below describes the Park Facilities Fees under different fee programs by type of development, as established in the City's Master Fee Schedule.
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Park Facilities Fee Program

<u>Type</u>	<u>Fee</u>	<u>Quimby Parkland Dedication Fee</u>
Single-family residential/per unit	\$4,027	\$1,153
Multi-family residential (>7.5 units/acre)/per unit	\$3,037	\$879

Clovis Unified School District

Funding for schools and impacts for school facilities impacts is preempted by State law (Proposition 1A/SB 50, 1998, Government Code Section 65996) which governs the amount of fees that can be levied against new development. These fees are used to construct new schools. Payment of fees authorized by the statute is deemed “full and complete mitigation.”

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

- o Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- Fire protection?
- Police protection?
- Schools?
- Parks?
- Other public facilities?

Impacts and Mitigation Measures

Impact 3.4-1: *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order*

to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

Less Than Significant With Mitigation. As previously discussed, the 2003 FEIR analyzed the public services requirements of:

- Up to 2,837 residential units
- Up to 250,000 sq. ft. (60 acres) of mixed-use commercial
- Open Space / Recreation
- 706.5 total acres of development

This SEIR is evaluating the public services requirements of the previously approved Project plus the additional 109 acres of development. This evaluation also takes into account the proposed land use changes to the existing Development as identified in Chapter Two – Project Description. At full buildout, the proposed Project could result in up to 3,216 residential units (379 more units than previously analyzed in 2003), but will result in less commercial uses due to the proposed land use changes.

As with other areas of the City, the Project will require fire and police protection services. The Project will also increase student enrollment in the Clovis Unified School District and will potentially increase the use of public parks. These topics are addressed individually below.

Police Protection: Protection services would be provided to the Project site from the existing Northeast Policing District, which is approximately three and a half miles (driving distance) from the Project site at 1450 E. Teague Avenue, Fresno, CA. The Fresno Police Department provides a full range of police services including uniformed patrol response to calls for service, crime prevention, tactical crime and enforcement (including gang and violent crime suppression), and traffic enforcement/accident prevention.

The Project site is located in an area currently served by the Police Department, and the Department would not need to expand its existing service area. However, the proposed Project will have a direct, growth inducing impact on the area’s population by facilitating the development of up to 3,216 total households within the proposed Development. The total number of “new” units at full buildout beyond what was analyzed in the 2003 FEIR is 379 additional units. Although only 379 units are being added to the development, this SEIR evaluates the population impacts of all 3,216 units. According to Article 37 of the City of Fresno Development Code, single-family dwelling units are assigned 3.11 people per unit and multi-family dwelling units are assigned 2.53 people per unit. Therefore, the total future buildout population is estimated to be 9,587 persons, which is broken down in Table 3.15-1.

**Table 3.15-1
Full Buildout Population Estimate**

Residential Land Use Type	Number of Units	Persons per Unit	Estimated Population
Single-Family	2,502	3.11	7,781
Multi-Family	714	2.53	1,806
TOTALS:	3,216	N/A	9,587

According to the City’s stated goal of 1.5 police personnel per 1,000 people, the proposed Project will be required to provide the equivalent of 14.38 police personnel (9,587 / 1,000 X 1.5 = 14.38). Based on this, the Project will be subject to development impact fees as determined by the City. See Mitigation Measure PUB – 1. In addition, the Project is required to provide a site for a “Community Service Center” within the development that is acceptable to the Fresno Police and Fire Departments. Refer also to the end of this section titled “Applicability of 2003 FEIR Mitigation Measures” for the list of mitigation measures from the 2003 FEIR and their applicability to the currently proposed Project.

Fire Protection: The City of Fresno Fire Department (Fire Department) offers a full range of services including fire prevention, suppression, emergency medical care, hazardous materials, urban search, and rescue response, as well as emergency preparedness planning and public education coordination within the Fresno City limit, in addition to having mutual aid agreements with the Fresno County Fire Protection District, and the City of Clovis Fire Departments.

The City of Fresno Fire Department operates its facilities under the guidance set by the National Fire Protection Association in NFPA 1710, the Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operation to the Public by Career Fire Departments. NFPA 1710 sets standards for turnout time, travel time, and total response time for fire and emergency medical incidents, as well as other standards for operation and fire service. The Fire Department has established the objectives set forth in NFPA 1710 as department objectives to ensure the public health, safety, and welfare.

The proposed Project would be served by the current Fire Station 17, which is located at 10512 N. Maple Avenue, Fresno, CA approximately one half mile south of the Project site.

The proposed Project, as a condition of approval, will be required to comply with provisions set forth by the Fire Department. Additionally, the Project would be required to comply with all applicable fire and building safety codes (California Building Code and Uniform Fire Code) to ensure fire safety elements are incorporated into final Project design, including the providing minimum turning radii for fire equipment. Proposed interior streets will be required to provide appropriate widths and turning radii to safely accommodate emergency response and the transport of emergency/public safety vehicles. The Project will also be designed to meet Fire Department requirements regarding water pressure flow (See Section 3.10 for information pertaining to water pressure requirements), water storage requirements, hydrant spacing, infrastructure sizing, and emergency access. As a result, appropriate fire safety considerations will be included as part of the final design of the Project. The Fire Department reviewed the proposed Project and determined that full buildout of the Project has the potential for increased call volumes for fire and emergency medical services. Construction of additional facilities is not needed, but the increased responses to incidents may require additional staffing and equipment. The Fire Department determined that the purchase and staffing of a 2-person Squad responding from Fire Station 17 (located at 10512 N Maple Avenue, Fresno, CA) would accommodate the increase in call volume and associated response times. Therefore, the Project will be subject to development impact fees as determined by the City for additional staffing/equipment as determined by the Fire Department. In addition, the Project is required to provide a site for a "Community Service Center" within the development that is acceptable to the Fresno Police and Fire Departments. See Mitigation Measure PUB – 1. Refer also to the end of this section titled "Applicability of 2003 FEIR Mitigation Measures" for the list of mitigation measures from the 2003 FEIR and their applicability to the currently proposed Project.

Schools: Educational services for the proposed Project will be provided by the Clovis Unified School District. Schools that serve the Project area include:

- Fugman Elementary School
- Granite Ridge Intermediate School
- Clovis North High School

Funding for schools and school facilities impacts is outlined in Education Code Section 17620 and Government Code Section 65995 et. seq., which governs the amount of fees that can be levied against new development. These fees are used to construct new or expanded schools facilities. Payment of fees authorized by the statute is deemed “full and complete mitigation.” As discussed in Section 3.14 – Population and Housing, the 2003 FEIR analyzed the impacts of the development of up to 2,837 residential units. The proposed Project would facilitate the development of up to 3,216 total residential units within the proposed Development. Thus, the total number of “new” units at full buildout beyond what was analyzed in the 2003 FEIR is 379 additional units. The additional 379 units is derived by taking the difference between the 2003 FEIR total buildout (2,837 units) and the proposed number of units (3,216).

According to the *School Facilities Needs Analysis* (April 2021), prepared for CUSD, residential projects would general 0.5744 students per residential unit⁵. Thus, the proposed Project would generate approximately 218 additional students beyond what was analyzed in the 2003 FEIR (379 units X 0.5744 students per unit = approximately 218 students).

CUSD provided a letter to the City of Fresno (dated May 6, 2021) indicating they have reviewed the proposed Project and determined that a new school site would not be required within the proposed Project boundaries. However, the proposed Project will be required to pay impact fees from new development based on the Developer Fee rates that are in place at the time payment is due. The payment amount is determined by the School District and the State Allocation Board (SAB) who sets the maximum per-square-foot Level 1 school impact fees every two (even) years at its January meeting. Payment of the applicable impact fees by the Project applicant would fund capital and labor costs associated with providing school services to the Project.

⁵ School Facilities Needs Analysis (April 2021), Odell Planning & Research, Inc., page 5.

See Mitigation Measure PUB – 1. Refer also to the end of this section titled “Applicability of 2003 FEIR Mitigation Measures” for the list of mitigation measures from the 2003 FEIR and their applicability to the currently proposed Project.

Parks: Policy POSS-1-a of the City’s General Plan states that the City of Fresno will continue to pursue implementation of an open space standard of 3.0 acres of public park land for every 1,000 persons. The proposed Project could have a total population of 9,587 persons at build-out which equates to a need for approximately 28.8 acres of parkland based on the City’s standard. The proposed Project will provide the required 28.8 acres of park/recreational facilities through a combination of park space and trails. See Section 3.16 - Recreation for the full evaluation of recreational facilities and impacts. Refer also to the end of this section titled “Applicability of 2003 FEIR Mitigation Measures” for the list of mitigation measures from the 2003 FEIR and their applicability to the currently proposed Project.

Other Public Facilities: Development of the Project will increase the demand for other public services such as libraries. However, the relatively small increase in demand will not in and of itself require construction of additional facilities. As such, implementation of mitigation measure PUB - 1 and General Plan Objectives and Policies, as identified above would ensure adequate public services can be provided.

The City has determined that it can accommodate the Project with existing facilities and personnel. The Project Applicant will be required to pay development impact fees for fire protection, police protection, schools, parks or other public facilities as determined by the City to receive such services (Mitigation Measure PUB-1). Refer also to the end of this section titled “Applicability of 2003 FEIR Mitigation Measures” for the list of mitigation measures from the 2003 FEIR and their applicability to the currently proposed Project. Therefore, there is a *less than significant impact with mitigation*.

Mitigation Measures:

PUB-1: The Project Applicant shall pay development impact fees for police, fire, schools, recreation and other public services as determined by the City of Fresno.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to public services. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>2.10.1-a: The developer shall ensure through the subsequent master use permit and associated development plan, that a site for a “community service center” is provided within the project acceptable to the Fresno Police Department.</p> <p>2.10.1-b: Maximize visibility and natural surveillance abilities through the placement and design of physical features including building orientation, windows, entrances and exits, parking lots, walkways, guard gates, low-maintenance landscaping (trees and shrubs), fences or walls, signage and any other physical obstructions.</p> <p>2.10.1-c: Implement design features to clearly identify public/private spaces and to facilitate natural access control and territorial reinforcement, to include, but not limited to, the following measures:</p> <ul style="list-style-type: none"> • Identify public entrances and exits through the implementation of 	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.10.1-a: Not yet completed. This mitigation measure is also being updated to include reference to the City Fire Department in addition to the Police Department.</p> <p>2.10.1-b: Ongoing. To be provided with each commercial project.</p> <p>2.10.1-c: Ongoing with each tract/project.</p> <p>2.10.1-d: Ongoing with each tract/project.</p>	<p>Mitigation measures 2.10.1-a, 2.10.1-b, 2.10.1-c, and 2.10.1-d shall continue to be applicable.</p> <p>Mitigation measure 2.10.1-a is updated as follows:</p> <p>The developer shall ensure through the subsequent master use permit and associated development plan, that a site for a “community service center” is provided within the project acceptable to the Fresno Police and Fire Departments.</p>

<p>sidewalks, pavement, lighting and landscaping to clearly guide the public.</p> <ul style="list-style-type: none"> • Discourage/prevent public access to and from dark and/or unmonitored areas through the use of fences, walls or landscaping. • All residential and commercial addresses shall be clearly visible from the street and shall be illuminated. • Incorporate access control, including parking lot barriers, fenced rear and side yards, and entry telephones for gated neighborhoods. • Implement exterior nighttime lighting of display areas, parking lots, walkways, entrances and exits. These areas shall be illuminated, at a minimum, one-half hour after sunset and one-half hour before sunrise during hours of operation. • Incorporate measures that provide off-street parking to discourage auto-related crimes, graffiti-resistant paints and surfaces, and view fences. 		
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<p>2.10.1-d: The Fresno Police Department shall be consulted during site planning and subdivision design to ensure that adequate provisions acceptable to the Police Department for crime prevention are designed into the project.</p>		
<p>2.10.2-a: The geometric sections of all interior roads shall, at a minimum, be improved to City of Fresno standards to adequately provide for emergency vehicles. Any deviations from the standards shall be accomplished through modifications or exceptions requested at the Vesting Tentative Subdivision Map or site plan review stage.</p> <p>2.10.2-b: A water supply and distribution system, including fire hydrants, shall be designed and constructed to meet the adopted fire protection standards of the City of Fresno.</p> <p>2.10.2-c: All residential and commercial development shall be provided with fire control systems as required by Fresno Fire Department regulations. The tertiary wastewater treatment facility shall also be provided with a fire control system.</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.10.2-a: Ongoing with each tract/project.</p> <p>2.10.2-b: Ongoing with each tract/project.</p> <p>2.10.2-c: Ongoing with each tract/project.</p>	<p>Mitigation measures 2.10.2-a, 2.10.2-b, and 2.10.2-c shall continue to be applicable.</p>
<p>2.10.3-a: The developer shall</p>	<p>The determination of</p>	<p>PUB-1: The Project Applicant shall</p>

<p>identify the location of an elementary school site within the boundaries of Copper River Ranch acceptable to CUSD. Should CUSD select an off-site location to serve Copper River Ranch, the agreed upon site and any necessary agreements shall be in place prior to approval of the first final subdivision map.</p> <p>2.10.3-b: The developer shall pay current impact fees to the CUSD in effect at the time of specific project approval.</p>	<p>completion for each component of this mitigation measure is as follows:</p> <p>2.10.3-a: CUSD evaluated the location of an elementary school within the boundaries of Copper River Project and determined that a school would not be needed within the Development. Therefore, this mitigation measure is no longer applicable. However, the Project will be required to pay school development impact fees under mitigation measure PUB – 1.</p> <p>2.10.3-b: This mitigation measure is similar to the currently proposed mitigation measure PUB – 1. Therefore, mitigation measure 2.10.3-b shall be replaced with mitigation measure PUB – 1.</p>	<p>pay development impact fees for police, fire, schools, recreation and other public services as determined by the City of Fresno.</p>
<p>2.10.4-a: A minimum of 24 acres of park space shall be provided within the Copper River Ranch project.</p>	<p>Because of the increased population associated with the proposed Project, the amount of required park space acreage has increased from 24 acres to 28.8 acres. Therefore, Mitigation Measure 2.10.4-a shall be replaced with Mitigation Measure REC – 1.</p>	<p>REC – 1</p> <p>A minimum of 28.8 acres of park space shall be provided within the Copper River Ranch Project. As shown on Figure 3.16-1, the ponding basin is notated as future (optional) open space. Should the</p>

		<p>ponding basin not be utilized for open space, an alternative location(s) must be provided elsewhere within the Copper River Ranch development in a location(s) approved by the Planning and Development Department.</p>
<p>2.10.5-a: The FMFCD flood control basin/community park shall be bounded on at least one side by a street. Parking facilities shall be located off of a public street.</p> <p>2.10.5-b: Road improvements shall be made to adequately accommodate vehicle traffic that shall be generated by the parks, recreation an open space uses within the project.</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.10.5-a: Completed.</p> <p>2.10.5-b: Ongoing with each tract/project.</p>	<p>Mitigation measure 2.10.5-a was completed. Mitigation measure 2.10.5-b shall continue to be implemented.</p>
<p>2.10.6-a: The developer shall ensure through the subsequent master use permit and associated development plan, that the following measures are incorporated in the design of future conditional use permits, tentative tract maps, and site plans:</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.10.6-a: Completed.</p>	<p>Mitigation measure 2.10.6-a shall continue to be implemented.</p>

<ul style="list-style-type: none"> • In cooperation with the San Joaquin River Parkway Conservancy, the developer shall design and construct a staging area for access to the parkway for Copper River Ranch residents. The staging area shall include parking for vehicles, bicycles and equestrian vehicles. The staging area shall also include provisions for safe crossing of Friant Road. Both the City of Fresno Public Works Department and Parkway representatives shall be involved in design review of the facilities early-on, including scoping sessions. 		
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Cumulative Impacts

The geographic area for cumulative Public Services analysis is the land area covered by the City’s General Plan (including areas outside the City limits but within the Sphere of Influence).

As discussed herein, the proposed Project will have a less than significant impact on public services (police, fire, schools, public facilities). The Project is required to mitigate its impacts to these services by payment of fees or equivalent in-lieu as determined by the City. As future development occurs in within the General Plan area, the City will review projects on a case-by-case basis to determine potential future impacts on public services. Compliance with the City’s General Plan policies and procedures, as well as payment of public service mitigation fees (or

in-lieu equivalent) will ensure that future developments do not exceed the City's ability to provide services. As such, cumulative impacts to public services would be *less than cumulatively considerable*.

3.16 Recreation

This section of the SEIR identifies potential impacts of implementing the proposed Project on recreation. No NOP comment letters were received pertaining to this topic.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated potential impacts to recreational facilities associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a less than significant impact, with mitigation, on recreational facilities (Section 2.10, pages 2.10.6 – 2.10.8 of the 2003 FEIR). However, the Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. Additionally, the Project is proposing some land use designation changes within the existing Copper River Ranch Development as described in Chapter Two – Project Description. Since the Project is proposing an additional 109 acres to the development and is proposing some land use changes within the unbuilt portions of the existing development, additional information is being provided herein regarding impacts to recreational facilities associated with the additional 109 acres, the proposed land use changes within the existing development, and the corresponding increase in population associated with the Project. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	✓	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	✓	

Environmental Setting

Project Site

The existing 706.5-acre Copper River Ranch Development is located at the northeastern edge of the City limits of Fresno in an area that has been largely developed with urban uses. The existing development consists of partially built residential tracts, multi-family developments, commercial developments, park/recreational facilities, a wastewater treatment facility and a golf course. Some of the unbuilt areas of the existing development have been graded for future development.

The proposed additional 109 acres is located adjacent to and east of the existing development. Elevations of the proposed new development area range from 340 to 400 feet above sea level. The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation. The proposed new development area is surrounded by residential development to the north; residential development, portions of a gold course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west.

Local Parks and Recreational Facilities

As identified in the City's Parks Master Plan, the City of Fresno owns and operates a park system that includes more than 80 public parks, trails, regional parks, neighborhood parks, educational facilities, community pools, splash parks, and dual-use ponding basins. Many of the public parks include additional amenities. School facilities supplement the City's park system by adding acreage and facilities that are available for recreational use through Joint-Use agreements. Overall, there are more than 9,000 acres of planned open space in the City's Planning Area.¹

The most significant park in the Project area is Woodward Park, located west of Friant Road approximately two miles southwest of the Project site. Woodward Park is an approximately 300-acre regional facility designed primarily for passive recreational activities including picnicking, nature study, bike riding and hiking. Lost Lake Park is an approximately 300-acre park located approximately five miles north of the Project site near the unincorporated community of Friant adjacent to the San Joaquin River. The park is a regional facility designed for passive recreational

¹ City of Fresno General Plan EIR (2020), page 4.15-8.

activities and includes camping facilities. The San Joaquin River Parkway has also been partially developed with a trail system along the river and other areas near or adjacent to the river. Although only six miles of the trail are currently completed, the ultimate goal of the trail system is to provide a 22-mile paved path spanning from Friant Dam to Highway 99.

Regulatory Setting

The following is a summary of the applicable policies included in the City's General Plan that are related to recreation and that are applicable to the proposed Project.

Parks, Open Space, and Schools Element

Objective POSS-1. Provide an expanded, high quality and diversified park system, allowing for varied recreational opportunities for the entire Fresno community.

POSS-1-a: Parkland Standard. Implement a standard of at least three acres of public parkland per 1,000 residents for Pocket, Neighborhood, and Community parks throughout the city, while striving for five acres per 1,000 residents for all parks throughout the city, subject to identifying additional funding for Regional Parks, Open Space/Natural Areas, and Special Use Parks/Facilities.

POSS-1-b: Parks Implementation Planning. Conduct ongoing planning to implement park policies established in this General Plan and continue to strive for well-maintained and fully accessible playgrounds, with accessible amenities, throughout the city.

- Keep an up-to-date inventory of existing and planned parks, including locations mapped on the Parks and Open Space Diagram;
- Plan for acquiring new parkland designated in the General Plan, as shown in Figure POSS-1;
- Establish a standard protocol for working with new development to arrange for parkland acquisition and dedication;
- Establish a protocol for working with established neighborhoods to provide needed parks, including the fostering of neighborhood and district associations to help plan, acquire, improve and care for public parks, and coordinating new City service facilities to provide new open space;
- Establish detailed design, construction, and maintenance standards;

- Prepare an assessment of the recreation needs of existing and future residents;
- Create an action plan defining priorities, timeframes, and responsibilities;
- Adopt and implement a comprehensive financing strategy for land acquisition, park development, operations, and maintenance;
- Identify opportunities for using existing or planned park space as passive stormwater storage, treatment, and conservation areas that also provide scenic and/or recreational opportunities;
- Identify opportunities for siting and using existing or planned park space as passive “purple pipe” waste water storage, treatment, and conservation areas that also provide scenic and/or recreational opportunities; and
- Update the Parks Master Plan.

POSS-1-c: Public Input in Park Planning. Continue to provide opportunities for public participation in the planning and development of park facilities and in creation of social, cultural, and recreational activities in the community.

POSS-1-d: Additional Parkland in Certain Areas. Strive to obtain additional parkland of sufficient size to adequately serve underserved neighborhood areas and along BRT corridors in support of new and intense residential and mixed use infill development.

- Identify, where appropriate, joint use opportunities in siting parks with other City service facility needs.

POSS-1-f: Parks and Open Space Diagram. Require parks to be sited and sized as shown on the Parks and Open Space Diagram (Figure POSS-1) of the General Plan, subject to the following:

- All new park designations carry dual land use designations, so that if a park is not needed, private development consistent with zoning and development standards may be approved. (See Figure LU-2: Dual Designation Diagram in the Urban Form, Land Use, and Design Element);
- Revised and/or additional park sites will be identified through subsequent implementation and planning in established neighborhoods and Development Areas;
- Locations for future park sites as shown on Figure POSS-1 are schematic to the extent that park sites may be relocated as necessity and opportunity dictate, and a General Plan amendment is not required if the park continues to serve the target areas as determined by the Planning Director; and

- A park may be located on any suitable land in the general vicinity of the sites depicted. However, the zoning of potential park sites must be made consistent with the General Plan.

Objective POSS-2. Ensure that adequate land, in appropriate locations, is designated and acquired for park and recreation uses in infill and growth areas.

POSS-2-b: Park and Recreation Priorities. Use the following priorities and guidelines in acquiring and developing parks and recreation facilities:

- Acquire and develop neighborhood park space in existing developed neighborhoods that are deficient of such space and in areas along BRT corridors that are designated as priorities for encouraging new mixed-use transit-oriented development;
- Provide accessible recreation facilities in established neighborhoods with emphasis on those neighborhoods currently underserved by recreation facilities;
- Improve established neighborhood parks with emphasis on those neighborhoods with the greatest need;
- Acquire and develop neighborhood and community parks in new Development Areas;
- Recognize community parks as a special need in areas that lack these facilities or are planned for transit supportive urban densities, and explore all potential sources of revenue to secure and develop appropriate sites including joint use facilities;
- Develop new special purpose parks, such as outdoor gym equipment, natural resource based trail parks, equestrian centers, dog parks, and amphitheaters, as well as alternative recreation facilities, such as community recreation centers, passive wildlife observation park, cultural heritage and diversity park, military veterans memorial park, and universal access open space park; and
- Acquire and develop park and open space in established neighborhoods and Development Areas, prioritizing existing neighborhoods with the greatest deficiencies, so that all residents have access to park or open space within one-half mile of their residence. Develop these facilities to be fully accessible to individuals with disabilities as required by law.

POSS-2-c: Review of Development Applications. Coordinate review of all development applications (i.e., site plans, conditional use permits, and subdivision maps) in order to implement the parks and open space standards of this Plan.

- Assure the provision of adequate active and passive open spaces and facilities as appropriate within residential subdivisions through Development Code requirements for mandatory dedication and improvement of land and/or development fees.
- Require the provision of appropriate outdoor living areas or private open space in multifamily residential developments not subject to the Subdivision Map Act.
- Request open space easements where feasible and warranted to secure appropriate public use of sensitive areas with scenic or recreation values, and for buffering space for sensitive areas.
- Require provision of appropriate open space areas in private projects, in the form of trails, enhanced landscaped setbacks, parks, and water features.
- Evaluate the merits of establishing a development bonus entitlement program in which development incentives (i.e., bonus densities, bonus floor area square footage) are provided for contributions to public recreational facilities on-site or in the vicinity of the development project.

POSS-2-d: Creation Opportunities near Freeway Corridors. Negotiate with Caltrans, other public agencies, and private property owners to develop remnant parcels along freeway corridors for appropriate recreational uses.

POSS-2-e: Open Space Dedication for Residential Development. Ensure new residential developments provide adequate land for parks, open space, landscaping, and trails through the dedication of land or otherwise providing for Pocket Parks, planned trails, and other recreational space, maintained by an HOA, CFD, or other such entity.

Objective POSS-3. Ensure that park and recreational facilities make the most efficient use of land; that they are designed and managed to provide for the entire Fresno community; and that they represent positive examples of design and energy conservation.

POSS-3-a: Centralized Park Locations. Site parks central and accessible to the population served, while preserving the integrity of the surrounding neighborhood.

POSS-3-b: Park Location and Walking Distance. Park Location and Walking Distance. Site Pocket and Neighborhood Parks within a half-mile walking distance of new residential development.

POSS-3-c: Link Parks with Walkways. Link public open space to adjacent, schools, and residential uses and Activity Centers through a series of landscaped linear walkways and bikeways that enhance and encourage pedestrian use.

POSS-3-e: Minimum Park Size for Active Recreation. Minimize City acquisition or acceptance of dedication of park sites less than two acres in size for active recreational uses, except where maintenance costs are secured through a CFD, HOA, or other such mechanism.

POSS-3-f: Park Design Guidelines. Park Design Guidelines. Create, maintain, and apply park design guidelines, with provisions for appropriate amenities for each park type, which may include:

- Minimum and maximum shade.
- Protections from shading by adjacent buildings.
- Accessibility to persons with disabilities.
- Street trees and landscaped median strips in adjacent arterial roads.
- Art and points of attraction.
- Landscape and hardscape features.
- Street furniture, signage, and lighting.
- Food sales and entertainment.
- Restroom facilities, play structures, and picnic shelters.
- Landscape design synthesis with input from civil engineers and hydrologists, educators and daycare providers, fitness trainers and coaches, police officers and experts in crime prevention through environmental design, as appropriate.
- Solar panels, new LED lighting, and water efficiency improvements. Sports field areas designed to allow periodic changes in field locations to minimize wear areas and provide sufficient fields to host regional, state, or national tournaments.
- Using topography to create interesting and visually appealing spaces and forms.
- Use of waterways as a key design influence, a focus of restoration, and an opportunity to provide for public enjoyment of views.
- Reflecting the agricultural and horticultural heritage of the site or area.
- Connecting with surrounding areas in a way that encourages expanded pedestrian activity.
- Creating individual places within a park that respond to the needs of a broad range of park users, from youth to the elderly.
- Creating places of delight that engage the senses.

- Creating places that engage the mind, by treating park features as opportunities for interpretation and questioning.
- Using sustainable design practices, and highlighting these as opportunities for learning.

POSS-3-g: Park Security and Design. Park Security and Design. Promote safety, attractiveness, and compatibility between parks and adjacent residential areas through design, maintenance, and enforcement of park regulations.

- Require the installation of security lighting for parking, points of access, and building areas at all public recreation and park sites.
- Keep neighborhood eyes on parks to increase security.

POSS-3-h: Coordination with School Districts. Continue to coordinate with school districts to explore opportunities for joint use of both outdoor and indoor recreation facilities, such as playgrounds, play fields, and gymnasiums, for City recreation programs.

POSS-3-i: Joint Use with Drainage Facilities. Continue to seek joint use agreements for use of FMFCD stormwater drainage facilities.

Objective POSS-4. Pursue sufficient and dedicated funding for parks acquisition, operations, and maintenance.

POSS-4-a: Supplemental Revenue. Seek revenue sources to supplement General Fund support for basic park maintenance and basic recreational services.

POSS-4-b: Operation and Maintenance Financing. Continue to require new residential development to form lighting and landscaping maintenance districts or community facility districts or ensure other means of financing to pay for park operations and maintenance.

POSS-4-c: Improvements in Established Neighborhoods. Seek agreements with formal neighborhood associations and institutions for improvements and ongoing maintenance of parks in established neighborhoods.

City of Fresno Municipal Code

Section 12-4.701 of the Municipal Code: In order to implement the Goals, objectives and policies of the City's General Plan, and to mitigate the impacts caused by future development in the city, certain park facilities must be constructed. The City Council has determined that a Park Facilities Fee is needed in order to pay for (a) land acquisition for, and design, engineering, and construction of the public facilities designated in the Council resolution and reasonable costs of outside consultant studies related thereto; (b) to reimburse the city for designated public facilities construction by the city with funds (other than gifts or grants) from other sources together with accrued interest; (c) to reimburse developers who have designed and constructed designated public facilities which are oversized and supplemental size, length, or capacity; and/or (d) to pay for and/or reimburse costs of program development and ongoing administration of the Park Facilities Fee program.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Impacts and Mitigation Measures

Impact 3.16-1: *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? OR Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Less Than Significant Impact With Mitigation. Policy POSS-1-a of the City's General Plan states that the City of Fresno will continue to pursue implementation of an open space standard of 3.0

acres of public park land for every 1,000 persons. According to Article 37 of the City of Fresno Development Code, single-family dwelling units are assigned 3.11 people per unit and multi-family dwelling units are assigned 2.53 people per unit. Therefore, the total future buildout population is estimated to be 9,587 persons, which is broken down in Table 3.16-1.

**Table 3.16-1
Full Buildout Population Estimate**

Residential Land Use Type	Number of Units	Persons per Unit	Estimated Population
Single-Family	2,502	3.11	7,781
Multi-Family	714	2.53	1,806
TOTALS:	3,216	N/A	9,587

The proposed Project could have a total population of 9,587 persons at build-out which would equate to a need for a minimum of 28.8 acres of parkland based on the City’s standard (9,587 divided by 1,000 and multiplied by 3.0).

As previously described, the existing Copper River Ranch Development has been partially built out. Currently, there are approximately 17.84 acres of recreational trails and park areas within the existing development and an additional 0.21 acres of landscaped area (for a total of 18.05 acres). Table 3.16-2 shows the acreage of existing parks and recreational facilities as well as proposed new areas for parks and recreational facilities. Figure 3.16-1 depicts the location of such facilities. In Figure 3.16-1, the additional 109 acres of proposed development is shown in the blue hatched area. The green areas depict the location of existing parks/trails and the red areas depict proposed future parks and recreational facilities throughout the proposed development. To meet the requirement of 28.8 acres, the Project will need an additional 10.75 acres of parks/recreational facilities. Future trails (along Alicante Drive, North Willow and East Copper Avenues) are proposed on 7.38 acres and there are two options to achieve the additional 3.37 acres (10.75 – 7.38 = 3.37) as follows: Option 1: Utilize approximately 3.4 acres of the FMFCD basin at the corner of N. Cedar Avenue and E. Copper River Drive, or Option 2: Develop an additional 3.37 acres of pocket parks or other parks within the Development. Refer to Table 3.16-2 for the breakdown of the acreages.

**Table 3.16-2
Existing and Proposed Park Areas / Recreational Facilities**

Type	Existing	Future	Total
Park Area	7.16 acres	-	7.16 acres
Trail Area	10.68 acres	7.38 acres	18.06 acres
FMFCD Park Area (Potential Site – Option 1)	-	3.40 acres	3.40 acres
Pocket Park and Other Park Areas (Potential Sites – Option 2)	-	3.37 acres	3.37 acres
Landscape Area	0.21 acres	-	0.21 acres
Total:	18.05 acres	Option 1 Total: 10.78 acres	Option 1 Total: 28.83 acres
		Option 2 Total: 10.75 acres	Option 2 Total: 28.80 acres

Per POSS-1-a, the proposed Project will require the installation of at least 28.8 acres of parks / recreational facilities. Since there are 18.05 acres of existing facilities, the Project will be required to construct at least an additional 10.75 acres of park and/or recreational facilities to meet the Project’s recreational needs based on the City’s requirements of 28.8 acres. The proposed park / recreational acreage is expected to meet or exceed the City’s minimum requirements.

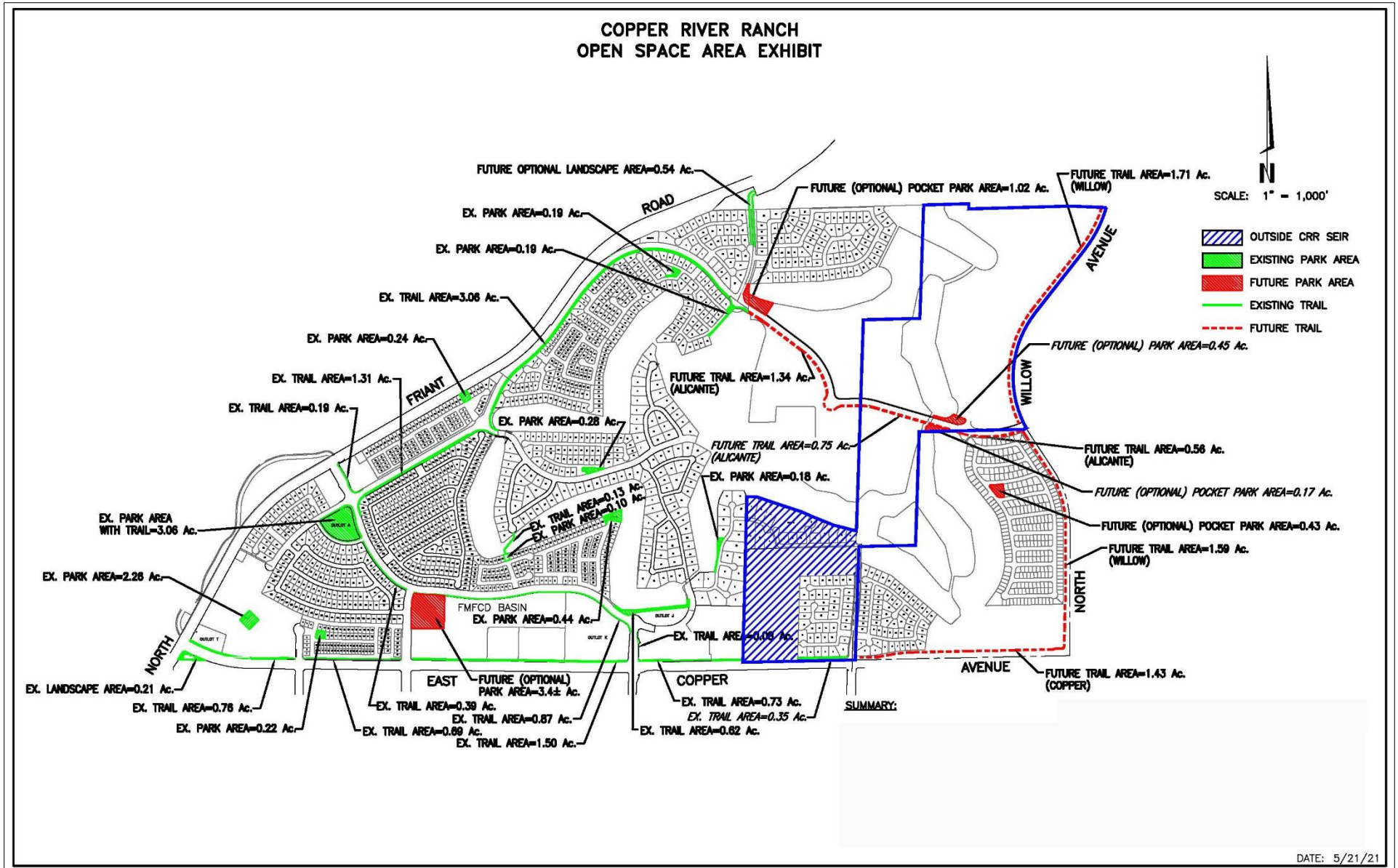
The environmental impacts associated with construction and operation of the proposed future parks and recreational facilities are included within the environmental evaluation within this SEIR. For instance, Section 3.17 – Transportation provides the traffic analysis associated with parks/recreation, Section 3.3 – Air Quality included air calculations associated with parks/recreation, etc. The impact determinations that were made within each environmental topic of this EIR also apply to construction/operation of parks and recreational facilities since these components are part of the overall proposed Project.

As discussed herein, the total park and recreational space at full build out of the Project would total at least 28.8 acres for approximately 9,587 residents. This ratio satisfies the City’s requirement of 3.0 acres per 1,000 residents. Therefore, the Project will provide sufficient park and recreational facilities per the City’s requirements and will not significantly increase the demand on existing parks and recreation facilities. Refer to the section titled “Applicability of 2003 FEIR Mitigation Measures” below for a review of previous 2003 FEIR recreation mitigation measures and their applicability to the proposed Project, as well as new proposed mitigation measures. With implementation of the mitigation measures, the impact is determined to be *less than significant*.

Mitigation Measures:

REC – 1 A minimum of 28.8 acres of park space shall be provided within the Copper River Ranch Project.

**Figure 3.16-1
Existing and Proposed Park Areas / Recreational Facilities**



Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to recreation. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>2.10.4-a: A minimum of 24 acres of park space shall be provided within the Copper River Ranch project.</p>	<p>Because of the increased population associated with the proposed Project, the amount of required park space acreage has increased from 24 acres to 28.8 acres. Therefore, Mitigation Measure 2.10.4-a shall be replaced with Mitigation Measure REC – 1.</p>	<p>REC – 1 A minimum of 28.8 acres of park space shall be provided within the Copper River Ranch Project. As shown on Figure 3.16-1, the ponding basin is notated as future (optional) open space. Should the ponding basin not be utilized for open space, an alternative location(s) must be provided elsewhere within the Copper River Ranch development in a location(s) approved by the Planning and Development Department.</p>
<p>2.10.5-a: The FMFCD flood control basin/community park</p>	<p>Mitigation Measure 2.10.5-a continues to be applicable.</p>	<p>Mitigation Measure 2.10.5-a continues to be applicable.</p>

<p>shall be bounded on at least one side by a street. Parking facilities shall be located off of a public street.</p>		
<p>2.10.5-b: Road improvements shall be made to adequately accommodate vehicle traffic that shall be generated by the parks, recreation and open space uses within the project.</p>	<p>Mitigation Measure 2.10.5-b continues to be applicable.</p>	<p>Mitigation Measure 2.10.5-b continues to be applicable.</p>
<p>2.10.6-a: In cooperation with the San Joaquin River Parkway Conservancy, the developer shall design and construct safe crossing(s) of Friant Road as well as suitable connections from the project to the parkway. The City of Fresno, Fresno County, and parkway representatives shall be involved in design review of the facilities early-on, including scoping sessions.</p>	<p>This previous mitigation measure has been implemented and is complete.</p>	<p>N/A</p>

Cumulative Impacts

The scope for considering cumulative impacts to recreational facilities is generally area-specific rather than cumulative in nature because each project site has different recreational considerations that would be subject to review. The service area for the City’s recreational services as well as the geographic areas covered by the City of Fresno General Plan / EIR and the County of Fresno General Plan / EIR are considered the cumulative analysis area. Cumulative growth that would occur over the life of the City and County General Plans will result in increased demand for public services, including parks and recreational services. As the demand for recreation increases, there will likely be a need to increase the amount of parks and recreational facilities in order to maintain acceptable performance standards. As described above, the Project includes the construction of parks and/or recreational facilities (such as trails) that are in excess of the City’s requirements. Therefore, the Project has a less than significant impact at the project level. As the population increases in the area, individual projects will be subject to

similar requirements to either construct recreational facilities or pay development fees to help fund construction of new facilities. The City and County General Plans include policies to meet adopted and acceptable recreational services standards and to ensure future development pays its fair share for impacts to recreational services. Compliance with the City and County General Plans pertaining to recreational facilities would be required for all future projects, which would ensure that these projects would not significantly affect recreation or contribute to a cumulatively significant impact to such resources in the area. Implementation of the proposed Project would have a less than significant cumulative impact relative to this environmental topic. As such, cumulative impacts to recreation would be *less than cumulatively considerable*.

3.17 Transportation

This section of the SEIR identifies potential impacts of implementing the proposed Project on transportation. A Traffic Impact Analysis Report (TIA) was prepared by JLB Traffic Engineering, Inc. for the proposed Project. The analysis below is a summarization of the information found within that report, and is provided in its entirety as Appendix G.

One NOP comment letter was received from Caltrans, requesting that the SR 41/Friant Road interchange be included in the analysis, which it was. No other NOP comments were received pertaining to Transportation.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated transportation associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR evaluated the transportation impacts that the original Project would have a significant and unavoidable impact on transportation (see pages 2.2.1 – 2.2.40 of the 2003 FEIR), even after mitigation. The Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, a new traffic impact analysis report was prepared (See Appendix G). Additional information is being provided herein regarding impacts to transportation associated with the additional 109 acres and the changes to the existing land uses. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	✓	
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	✓	
c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous	✓	

intersections) or incompatible uses (e.g., farm equipment)?		
d. Would the project result in inadequate emergency access?	✓	

Environmental Setting

The Project site is located in the northern portion of the City of Fresno, and is generally bound to the south by Copper Avenue, to the east by Willow Avenue and to the northwest by N. Friant Road. Originally approved in 2003, the project site has been in various states of construction and buildout since 2004. The project includes a combination of residential land uses (both single- and multi-family) and mixed-use (including a golf course, office and commercial land uses).

Surrounding land uses include residential land uses to the south and the north, agricultural land uses to the east and a concrete/asphalt recycling and materials facility to the west. The closest existing off-site sensitive receptors to the project site are considered to be residential land uses north and south of the Project site.

Major roads in the Project area include:

Friant Road is an existing north-south four-lane divided expressway adjacent to the proposed Project site. In this area, Friant Road exists as a four-lane divided expressway between North Fork Road and Fort Washington Road, a six-lane divided expressway between Fort Washington Road and Audubon Drive, a six-lane divided super arterial between Audubon Drive and State Route 41 Southbound Off-Ramp, and a six-lane divided arterial between State Route 41 Southbound Off-Ramp and Nees Avenue. South of Nees Avenue, Friant Road transitions into Blackstone Avenue. The *Fresno General Plan Circulation Element* designates Friant Road as a four-lane scenic expressway between North Fork Road and Fort Washington Road, a six-lane scenic expressway between Fort Washington Road and Audubon Drive, a six-lane super arterial between Audubon Drive and State Route 41 Southbound Off-Ramp, and a six-lane divided arterial between State Route 41 Southbound Off-Ramp and Nees Avenue.

Willow Avenue is an existing north-south two-lane undivided roadway adjacent to the proposed Project site. In this area, Willow Avenue extends south of Friant Road through the City of Fresno SOI. Willow Avenue is a two-lane super arterial between Friant Road and Copper Avenue, a predominantly four-lane divided super arterial between Copper

Avenue and International Avenue, and predominantly four- to five-lane divided super arterial between International Avenue and Beverly Drive before entering the City of Clovis SOI. The *Fresno General Plan* Circulation Element designates Willow Avenue as a two-lane super arterial between Friant Road and Copper Avenue, a four-lane super arterial between Copper Avenue and International Avenue, a six-lane super arterial between International Avenue and Herndon Avenue, a four-lane super arterial between Herndon Avenue and Escalon Avenue, and a six-lane super arterial between Escalon Avenue and Beverly Drive.

Copper Avenue is an existing east-west four-lane divided super arterial adjacent to the proposed Project site. In this area, Copper Avenue extends east of Friant Road through the City of Fresno's eastern boundary and into the City of Clovis SOI. Copper Avenue is a four-lane divided super arterial between Friant Road and Baird Avenue and two-lane arterial east of Baird Avenue through the City of Fresno SOI. The *Fresno General Plan* Circulation Element designates Copper Avenue as a four-lane super arterial between Friant Road and Baird Avenue and a two-lane super arterial east of Baird Avenue through the City of Fresno SOI. However, City of Fresno staff has determined that Copper Avenue will be constructed as a four-lane super arterial between Friant Road and Willow Avenue by the year 2035. The *Clovis General Plan* Circulation Diagram designates Copper Avenue as an arterial through the City of Clovis SOI.

Maple Avenue is an existing north-south three-lane divided collector in the vicinity of the proposed Project. In this area, Maple Avenue exists a three-lane divided collector between Copper River Drive and Copper Avenue, a three-lane divided arterial between Copper Avenue and Prestwick Avenue, and a four-lane divided arterial between Prestwick Avenue and Plymouth Avenue. The *Fresno General Plan* Circulation Element designates Maple Avenue as a two-lane collector between Copper River Drive and Copper Avenue and a four-lane arterial between Copper Avenue and Plymouth Avenue.

State Route 41 is an existing north-south four-lane freeway in the vicinity of the proposed Project site. State Route 41 serves as the principal connection to various metropolitan areas within the Central San Joaquin Valley and California Central Coast. In this area, State Route 41 connects to Friant Road. The Caltrans' State Route 41 TCR identifies State Route 41 in this area as a four-lane freeway with planned auxiliary lanes and acknowledged that State Route 41 would operate at LOS F with no improvements.

State Route 41 Northbound Off-Ramp at Friant Road is an existing northbound five-lane freeway off-ramp in the vicinity of the proposed Project site. The Caltrans' State Route 41

TCR acknowledged that State Route 41 would exceed LOS D as an eight-lane freeway between El Paso Avenue and the Fresno/Madera County line. However, the TCR made the appropriate findings to designate LOS F as the criteria of significance for this segment of State Route 41.

State Route 41 Southbound Off-Ramp at Friant Road is an existing southbound single-lane freeway off-ramp in the vicinity of the proposed Project site. The Caltrans' State Route 41 TCR acknowledged that State Route 41 would exceed LOS D as an eight-lane freeway between El Paso Avenue and the Fresno/Madera County line. However, the TCR made the appropriate findings to designate LOS F as the criteria of significance for this segment of State Route 41.

Regulatory Setting

Federal

Federal Highway Administration. The Federal Highway Administration (FHWA) is a major agency of the United States Department of Transportation. In partnership with State and local agencies, the FHWA carries out federal highway programs to meet the nation's transportation needs. The FHWA administers and oversees federal highway programs to ensure that federal funds are used efficiently.

Americans with Disabilities Act of 1990. Titles I, II, III, IV, and V of the ADA have been codified in Title 42 of the United States Code, beginning at Section 12101. Title III prohibits discrimination on the basis of disability in "places of public accommodation" (businesses and nonprofit agencies that serve the public) and "commercial facilities" (other businesses). The regulation includes Standards for Accessible Design, which establish minimum standards for ensuring accessibility when designing and constructing a new facility or altering an existing facility.

Federal Transit Administration. The Federal Transit Administration (FTA) is an authority that provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys, and ferries. The FTA is funded by Title 49 of the United States Code, which states the FTA's interest in fostering the development and revitalization of public transportation.

State

Assembly Bill 32 (Global Warming Act of 2006) and Senate Bill 375. Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (Act), requires California to reduce its

greenhouse gas (GHG) emissions to levels presented in the year 1990 by 2020. In response, the California Air Resources Board (CARB) is responsible for creating guidelines for this Act. In 2008, CARB adopted its proposed Scoping Plan, which included the approval of Senate Bill (SB) 375 as a means of achieving regional transportation-related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks helps the State comply with AB 32.

Established through CARB, SB 375 lists four major components and requirements: (1) it requires regional GHG emissions targets; (2) it requires creating a Sustainable Communities Strategy (SCS) that provides a plan for meeting the regional targets; (3) it requires that regional housing elements and transportation plans be synchronized on 8-year schedules; and (4) it requires transportation and air pollutant emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC).

California Air Resources Board. As previously described, as part of SB 375 compliance, CARB was required to set targets for GHG reductions for each Metropolitan Planning Organization (MPO) within California. CARB provides targets and thresholds for MPOs and assists with regional efforts to achieve the GHG emission reductions contained in each MPO's SCS. It should be noted that CARB does not provide a threshold for reducing VMT; however, reducing VMT is a strategy for achieving CARB GHG reduction targets.

The City has been committed to climate change and GHG/VMT reduction strategies; as such, both the Fresno Council of Governments (COG) and CARB authorities have teamed up to present thresholds with the goal of reducing GHG emissions. Fresno COG's current SCS, adopted in 2018, includes goals to achieve a 5 percent per capita GHG emissions reduction by 2020 and a 10 percent reduction by 2035, compared to 2005 levels. The SCS includes strategies for encouraging the achievement of these targets. Strategies include increasing transit and active transportation improvements, such as identifying future funding for additional BRT lines within Fresno and over 500 new lane miles of bicycle facilities. These improvements are intended to decrease distances between residents and bicycle/walking facilities and therefore increase infill development. As stated in CARB's MPO Target Recommendations memo,³ these improvements will result in an increase from 4.0 dwelling units per acre (du/ac) to 9.3 du/ac, caused by the projected increase in multifamily housing development from 22 percent to 47 percent by 2035.

The Fresno COG will be working on its third SCS, proposed for adoption in 2022, which will include goals and polices from the City of Fresno General Plan. In 2018, CARB adopted more aggressive SB 375 targets to support progress toward the 2017 Scoping Plan goals. As a result, the third SCS will include more ambitious SB 375 GHG emission reduction targets within Fresno consisting of 6 percent per capita reductions by 2020 and 13 percent reductions by 2035.

Assembly Bill 1358 (Complete Streets). The California Complete Streets Act (Act) requires general plans updated after January 30, 2011, to include Complete Streets policies so that roadways are designed to safely accommodate all users, including bicyclists, pedestrians, transit riders, children, the elderly, and persons with disabilities, as well as motorists. The goal of this Act is to encourage cities to rethink policies that emphasize automobile circulation and prioritize motor vehicle improvements, and come up with creative solutions that emphasize all modes of transportation. Complete Streets roadways allow for more transportation options, more non-single-occupancy vehicles, and less traffic congestion. Additionally, increased transit ridership, walking, and biking can reduce air pollution while improving the overall travel experience for road users.

While there is no standard for a Complete Streets design, it generally includes one or more of the following features: bicycle lanes, wide shoulders, well-designed and well-placed crosswalks, crossing islands in appropriate mid-block locations, bus pullouts or special bus lanes, audible and accessible pedestrian signals, sidewalk bulb-outs, center medians, street trees, planter strips, and groundcover. The City adopted a Complete Streets Policy on September 26, 2019.

Senate Bill (SB) 743. On September 27, 2013, Governor Jerry Brown signed SB 743 into law and codified a process that changed transportation impact analysis as part of CEQA compliance. SB 743 directs the California Office of Planning and Research (OPR) to administer new CEQA guidance for jurisdictions that removes automobile vehicle delay and LOS or other similar measures of vehicular capacity or traffic congestions from CEQA transportation analysis. Rather, it requires the analysis of VMT or other measures that “promote the reduction of greenhouse gas emissions, the development of multi-modal transportation networks, and a diversity of land uses,” to be used as a basis for determining significant impacts to circulation in California. The goal of SB 743 is to appropriately balance the needs of congestion management with statewide goals related to reducing GHG emissions, encourage infill development, and promote public health through active transportation.

Senate Bill (SB) 743 requires that relevant CEQA analysis of transportation impacts be conducted using a metric known as vehicle miles traveled (VMT) instead of Level of Service (LOS). VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto our roads, the project may cause a significant transportation impact.

The State CEQA Guidelines were amended to implement SB 743, by adding Section 15064.3. Among its provisions, Section 15064.3 confirms that, except with respect to transportation projects, a project’s effect on automobile delay shall not constitute a significant environmental

impact. Therefore, LOS measures of impacts on traffic facilities are no longer a relevant CEQA criteria for transportation impacts.

CEQA Guidelines Section 15064.3(b)(4) states that “[a] lead agency has discretion to choose the most appropriate methodology to evaluate a project’s vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project’s vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revision to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.”

Local

Regional Transportation Plan. The adopted Regional Transportation Plan (RTP) establishes regional transportation policy for the Fresno County region. The RTP focuses on achieving a coordinated and balanced multimodal transportation system, while maintaining the integrity of the existing system. The RTP includes projects located throughout Fresno County region for all forms or modes of transportation, including automobiles, transit, nonmotorized (including bicycle), passenger rail, freight and aviation facilities. The RTP reflects a fiscally constrained environment and identifies those projects (considered as Tier 1 projects) that have a secure or approved funding source.

Fresno County General Plan. In accordance with Government Code Sections 65302 (b) and 65303, the County of Fresno has a General Plan Element titled Transportation and Circulation. The General Plan outlines goals and policies that all development projects within the jurisdiction of County of Fresno must adhere to. The Fresno County General Plan has five goals that address streets and highways, transit, transportation systems management, bicycle facilities, rail transportation, and air transportation. The County’s General Plan was adopted in October 2000.

City of Fresno Active Transportation Plan. The adopted Active Transportation Plan (ATP), adopted in March 2017, provides a comprehensive guide outlining the vision for active transportation in Fresno. The ATP supersedes the Bicycle, Pedestrian, and Trails Master Plan that was adopted in 2010. The ATP envisions a complete, safe, and comfortable network of trails, sidewalks, and bikeways that serves all residents of Fresno. This plan lays out specific goals to improve bicycle and pedestrian access and connectivity in Fresno. These goals include the following:

- Equitably improve the safety and perceived safety of walking and bicycling in Fresno
- Increase walking and bicycling trips in Fresno by creating user-friendly facilities
- Improve the geographical equity of access to walking and bicycling facilities in Fresno
- Fill key gaps in Fresno’s walking and bicycling network

City of Fresno Complete Streets Policy. The Complete Streets Policy was adopted by the City Council on October 10, 2019, to guide implementation of the City’s complete streets and multi-modal objectives and policies included within the Fresno General Plan.

The City has integrated Complete Streets designs into its policies in compliance with AB 1358. One example is Policy MT-1-g (Complete Streets Concept Implementation), which calls for providing transportation facilities based upon a Complete Streets concept that facilitates the balanced use of all viable travel modes meeting the transportation needs of all ages, income groups, and abilities.

Safer Sidewalks to Schools. On January 16, 2020, Fresno City Council adopted an amended resolution for a Safer Sidewalks to School Program. The Fresno City Council wishes to address the safety of students and residents around neighborhood school by adopting this program. The City Council directed staff to identify and improve vacant property along routes to neighborhood schools with sidewalks.

City of Fresno Municipal Code. Chapter 13 of the City of Fresno Municipal Code addresses the general provisions for sidewalks, streets, parkways, and underground utilities. Chapter 14 addresses traffic and circulation.

City of Fresno General Plan. The most applicable policies of the City’s General Plan with regard to the proposed Project and traffic/circulation are as follows:

Urban Form, Land Use, and Design Element

- | | |
|----------------|--|
| Policy LU-1-c | Provision of Public Facilities and Services. Promote orderly land use development in pace with public facilities and services needed to serve development. |
| Policy UF-14-b | Local Street Connectivity. Design local roadways to connect throughout neighborhoods and large private developments with adjacent major roadways and pathways of existing adjacent development. Create access for pedestrians and bicycles where a local street must dead end or be designed as a cul-de-sac |

to adjoining uses that provide services, shopping, and connecting pathways for access to the greater community area.

Mobility and Transportation Element

- Objective MT-1 Create and maintain a transportation system that is safe, efficient, provides access in an equitable manner, and optimizes travel by all modes.
- Policy MT-1-a Transportation Planning Consistent with the General Plan. Continue to review local, regional and inter-regional transportation plans and capital improvement plans, and advocate for the approval and funding of State highway and rail projects, consistent with the General Plan and discourage projects inconsistent with the General Plan.
- Policy MT-1-b Circulation Plan Diagram Implementation. Design and construct planned streets and highways that complement and enhance the existing network, as well as future improvements to the network consistent with the goals, objectives and policies of the General Plan, to ensure that each new and existing roadway continues to function as intended.
- Policy MT-1-d Integrate Land Use and Transportation Planning. Plan for and maintain a coordinated and well-integrated land use pattern, local circulation network and transportation system that accommodates planned growth, reduces impacts on adjacent land uses, and preserves the integrity of established neighborhoods.
- Policy MT-1-e Ensure Interconnectivity Across Land Uses. Update development standards and design guidelines applicable to public and private property to achieve Activity Centers, neighborhoods and communities which are well connected by pedestrian, bicycle, appropriate public transportation and automobile travel facilities.
- Policy MT-1-f Match Travel Demand with Transportation Facilities. Designate the types and intensities of land uses at locations such that related travel demands can be accommodated by a variety of viable transportation modes and support Complete Neighborhoods while avoiding the routing of excessive or incompatible traffic through local residential streets.
- Policy MT-1-g Complete Streets Concept Implementation. Provide transportation facilities based upon a Complete Streets concept that facilitates the balanced use of all viable travel modes (pedestrians, bicyclists, motor vehicle and transit users), meeting the transportation needs of all ages, income groups, and abilities and

providing mobility for a variety of trip purposes, while also supporting other City goals.

Implementation actions will include:

- Meeting the needs of all users within the street system as a whole; each individual street does not need to provide all modes of travel, but travel by all modes must be accommodated throughout the Planning Area;
- Continuing to adopt refined street cross-section standards as appropriate in response to needs identified;
- Encouraging conversion of one-way streets to two-way streets to improve location circulation, access, and safety;
- Considering the impact of streets on public health by addressing storm water runoff quality, air quality, and water conservation among other factors; and
- Adhering to the water efficient landscape standards adopted by the City for median and streetscape plantings and irrigation methods.

Policy MT-1-I Local Street Standards. Establish and implement local roadway standards addressing characteristics such as alignment, width, continuity and traffic calming, to provide efficient neighborhood circulation; to allow convenient access by residents, visitors, and public service and safety providers; and to promote neighborhood integrity and desired quality of life by limiting intrusive pass-through traffic.

Policy MT-1-j Transportation Improvements Consistent with Community Character. Prioritize transportation improvements that are consistent with the character of surrounding neighborhoods and supportive of safe, functional and Complete Neighborhoods; minimize negative impacts upon sensitive land uses

such as residences, hospitals, schools, natural habitats, open space areas, and historic and cultural resources.

In implementing this policy, the City will design improvements to:

- Facilitate provision of multi-modal transportation opportunities;
- Provide added safety, including appropriate traffic calming measures;
- Promote achievement of air quality standards;
- Provide capacity in a cost effective manner; and
- Create improved and equitable access with increased efficiency and connectivity

Objective MT-2	Make efficient use of the City's existing and proposed transportation system and strive to ensure the planning and provision of adequate resources to operate and maintain it.
Policy MT-2-b	Reduce Vehicle Miles Traveled and Trips. Partner with major employers and other responsible agencies, such the San Joaquin Valley Air Pollution Control District and the Fresno Council of Governments, to implement trip reduction strategies, such as eTRIP, to reduce total vehicle miles traveled and the total number of daily and peak hour vehicle trips, thereby making better use of the existing transportation system.
Policy MT-2-c	Reduce VMT through Infill Development. Provide incentives for infill development that would provide jobs and services closer to housing and multi-modal transportations corridors in order to reduce citywide vehicle miles travelled (VMT).
Policy MT-2-e	Driveway and Access Consolidation. Take advantage of opportunities to consolidate driveways, access points, and curb cuts along designated major roadways when a change in development or a change in intensity occurs or when traffic operation or safety warrants.
Policy MT-2-i	Transportation Impact Studies. Require a Transportation Impact Study (currently named Traffic Impact Study) to assess the impacts of new development projects on existing and planned streets for projects meeting one or more of the following criteria, unless it is determined by the City Traffic

Engineer that the project site and surrounding area already has appropriate multi-modal infrastructure improvements.

- When a project includes a General Plan amendment that changes the General Plan Land Use Designation.
- When the project will substantially change the off-site transportation system (auto, transit, bike or pedestrian) or connection to the system, as determined by the City Traffic Engineer.
- Transportation impact criteria are tiered based on a project's location within the City's Sphere of Influence. This is to assist with areas being incentivized for development. The four zones, as defined on Figure MT-4 (of the approved General Plan), are listed below. The following criteria apply:
 - Traffic Impact Zone I (TIZ-I): TIZ-I represents the Downtown Planning Area. Maintain a peak hour LOS standard of F or better for all intersections and roadway segments. A TIS will be required for all development projected to generate 200 or more peak hour new vehicle trips.
 - Traffic Impact Zone II (TIZ-II): TIZ-II generally represents areas of the City currently built up and wanting to encourage infill development. Maintain a peak hour LOS standard of E or better for all intersections and roadway segments. A TIS will be required for all development projected to generate 200 or more peak hour new vehicle trips.
 - Traffic Impact Zone III (TIZ-III): TIZ-III generally represents areas near or outside the City Limits but within the SOI as of December 31, 2012. Maintain a peak hour LOS standard of D or better for all intersections and roadway segments. A TIS will be required for all development projected to generate 100 or more peak hour new vehicle trips.
 - Traffic Impact Zone IV (TIZ-IV): TIZ-IV represents the southern employment areas within and planned by the City. Maintain a peak hour LOS standard of E or better for all intersections and roadway segments. A TIS will be required for all development projected to generate 200 or more peak hour new vehicle trips.

Policy MT-2-1 Region-Wide Transportation Impact Fees. Continue to support the implementation of metropolitan-wide and region-wide transportation impact fees sufficient to cover the proportional share of a development's impacts and need for a comprehensive multi-modal transportation system that is not

funded by other sources. Work with the Council of Fresno County Governments, transportation agencies (e.g. Caltrans, Federal Transportation Agency) and other jurisdictions in the region to develop a method for determining:

- Regional transportation impacts of new development;
- Regional highways, streets, rail, trails, public transportation, and goods movement system components, consistent with the General Plan, necessary to mitigate those impacts and serve projected demands;
- Projected full lifetime costs of the regional transportation system components, including construction, operation, and maintenance; and
- Costs covered by established funding sources.

Policy MT-2-m	Use VMT analysis for CEQA. Use Vehicle Miles Traveled (VMT) as the criteria for evaluating transportation impacts under the California Environmental Quality Act (CEQA), pursuant to Senate Bill 743. Level of Service (LOS) may still be used for planning purposes and implementation of Capital Improvement Projects; however, VMT shall be used for determining impacts and mitigation under CEQA beginning in July of 2020.
Objective MT-4	Establish and maintain a continuous, safe, and easily accessible bikeways system throughout the metropolitan area to reduce vehicle use, improve air quality and the quality of life, and provide public health benefits.
Policy MT-4-a	Active Transportation Plan. To the extent consistent with this General Plan, continue to implement and periodically update the Active Transportation Plan to meet State standards and requirements for recommended improvements and funding proposals as determined appropriate and feasible.
Policy MT-4-b	Bikeway Improvements. Establish and implement property development standards to assure that projects adjacent to designated bikeways provide adequate right-of-way and that necessary improvements are constructed to implement the planned bikeway system shown to provide for bikeways, to the extent feasible, when existing roadways are reconstructed; and alternative bikeway alignments or routes where inadequate right-of-way is available.
Policy MT-4-c	Bikeway Linkages. Provide linkages between bikeways, trails and paths, and other regional networks such as the San Joaquin River Trail and adjacent jurisdiction bicycle systems wherever possible.
Policy MT-4-d	Prioritization of Bikeway Improvements. Prioritize bikeway components that link existing separated sections of the system, or that are likely to serve the

highest concentration of existing or potential cyclists, particularly in those neighborhoods with low vehicle ownership rates, or that are likely to serve destination areas with the highest demand such as schools, shopping areas, recreational and park areas, and employment centers.

- Policy MT-4-e Minimum Bike Lane Widths. Provide not less than 10 feet of street width (five feet for each travel direction) to implement bike lanes for designated Class II bikeways along roadways. Strive for 14 feet of street width (seven feet for each travel direction) for curbside bike lanes where right-of-way is available.
- Policy MT-4-f Bike Detection Devices. Include bicycle detection devices when new intersection traffic control signals are installed and strive to retrofit existing traffic control signals to provide bicycle detection and retiming of signal phases to make them more bicycle friendly.
- Objective MT-5 Establish a well-integrated network of pedestrian facilities to accommodate safe, convenient, practical, and inviting travel by walking, including for those with physical mobility and vision impairments.
- Policy MT-5-a Sidewalk Development. Pursue funding and implement standards for development of sidewalks on public streets, with priority given to meeting the needs of persons with physical and vision limitations; providing safe routes to school; completing pedestrian improvements in established neighborhoods with lower vehicle ownership rates; or providing pedestrian access to public transportation routes.
- Policy MT-5-b Sidewalk Requirements. Assure adequate access for pedestrians and people with disabilities in new residential developments per adopted City policies, consistent with the California Building Code and the Americans with Disabilities Act.
- Policy MT-5-c New Subdivision Design. Do not approve new single-family residential subdivisions with lots that front and access onto a major roadway, unless the City Traffic Engineer determines that no other feasible alternative means of vehicle access can be provided and that sufficient design measures can be implemented, such as an on-site driveway turnaround, landscaped buffering, or an on-street parking lane to assure a desirable and enduring residential environment.
- Policy MT-5-d Pedestrian Safety. Minimize vehicular and pedestrian conflicts on both major and non-roadways through implementation of traffic access design and control standards addressing street intersections, median island openings and access driveways to facilitate accessibility while reducing congestion and increasing safety. Increase safety and accessibility for pedestrians with vision

disabilities through the installation of Accessible Pedestrian Signals at signalized intersections.

- Objective MT-8 Provide public transit options that serve existing and future concentrations of residences, employment, recreation and civic uses and are feasible, efficient, safe, and minimize environmental impacts.
- Policy MT-8-c New Development Facilitating Transit. Continue to review development proposals in transportation corridors to ensure they are designed to facilitate transit. Coordinate all projects that have residential or employment densities suitable for transit services, so they are located along existing or planned transit corridors or that otherwise have the potential for transit orientation to FAX, and consider FAX's comments in decision making.

Thresholds of Significance

In accordance with the CEQA Guidelines, a project impact would be considered significant if the project would:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- Result in inadequate emergency access?

Analysis Methodology

JLB Traffic Engineering, Inc. prepared a Traffic Impact Analysis (TIA) (see Appendix G) analyzing potential impacts the proposed Project would have on the existing roadway and transportation system. This was prepared in general conformance with City of Fresno requirements, the City of Fresno CEQA Guidelines for Vehicle Miles Traveled Thresholds, the County of Fresno Guidelines for the Preparation of traffic Impact Studies, City of Clovis Transportation Impact Analysis Guidelines and *Caltrans Guide for the Preparation of Traffic Impact Studies*. The TIA provides an analysis of the surrounding roadway system and the effects of the proposed Copper River Ranch Project on the existing and planned roadway infrastructure,

including potential mitigation measures to reduce Project transportation impacts. Study results are summarized in the text below. For the full text, graphics, and traffic counts, please refer to Appendix G.

General Plan Circulation Element Consistency Methodology

Appendix G of the CEQA Guidelines asks whether a project would “conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.” As the City’s currently adopted General Plan Circulation Element includes a LOS standard, to ensure that a project is consistent with the General Plan policy, an LOS analysis may be required at the request of the City Traffic Engineer to determine necessary roadway infrastructure improvements and capacity.

Level of Service (LOS) is a qualitative index of the performance of an element of the transportation system. LOS is a rating scale running from “A” to “F”, with “A” indicating no congestion of any kind and “F” indicating unacceptable congestion and delays. LOS in this study describes the operating conditions for signalized and unsignalized intersections.

The *Highway Capacity Manual* (HCM) 6th Edition is the standard reference published by the Transportation Research Board and contains the specific criteria and methods to be used in assessing LOS. U-turn movements were analyzed using HCM 2000 methodologies and would yield more accurate results for the reason that HCM 6 methodologies do not allow the analysis of U-turns. Lane configurations not reflective of existing conditions are a result of software limitations and thus represent a worst-case scenario. For example, at an all-way stop controlled intersection with one left-turn lane, two through lanes, and one right-turn lane on an approach would likely be coded as one left, one through and one through-right as HCM 6th edition does not allow the analysis of more than three lanes per approach. With the exception of the analysis of roundabouts, Synchro software was used to define LOS for all study intersections in this study. At roundabouts, Sidra Intersection software was utilized to define the LOS. Details regarding these calculations are included in Appendix D of Appendix G.

The City of Fresno General Plan has established various degrees of acceptable LOS on its major streets, which are dependent on four (4) Traffic Impact Zones (TIZ) within the City. The standard LOS threshold for TIZ I is LOS F, that for TIZ II is LOS E, that for TIZ III is LOS D, and that for TIZ IV is LOS E.

Additionally, the General Plan MEIR made findings of overriding consideration to allow a lower LOS threshold than that established by the underlying TIZ’s. For those cases in which a LOS

criterion for a roadway segment differs from that of the underlying TIZ, such criteria are identified in the roadway description. As most study facilities fall within TIZ III, LOS D is used to evaluate the potential significance of LOS impacts to intersections within this TIA pursuant to the City of Fresno 2035 General Plan.

The Clovis General Plan has established LOS D as the acceptable level of traffic congestion on most major streets (City of Clovis, 2014). Therefore, LOS D is used to evaluate the potential LOS impacts to City of Clovis roadway facilities pursuant to the Clovis General Plan.

The County of Fresno has established LOS C as the acceptable level of traffic congestion on county roads and streets that fall entirely outside the Sphere of Influence (SOI) of a City. For those areas that fall within the SOI of a City, the LOS criteria of the City are the criteria of significance used in this report. LOS C is used to evaluate the potential significance of LOS impacts to Fresno County intersections and segments that fall outside the City of Fresno SOI. In this case, all study facilities fall within the City of Fresno SOI, therefore, the City of Fresno LOS is utilized.

Caltrans endeavors to maintain a target LOS at the transition between LOS C and D on State highway facilities consistent with the *Caltrans Guide for the Preparation of Traffic Impact Studies* dated December 2002. However, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. Furthermore, the Caltrans' State Route 41 Transportation Concept Report (TCR) has established LOS F as the ultimate concept LOS for State Route 41 as an eight-lane freeway in this area of the City of Fresno. In this TIA, a couple of facilities fall within Caltrans' jurisdiction. Therefore, LOS F was utilized as the LOS impacts for study intersections within Caltrans' jurisdiction. Furthermore, Caltrans has also shifted to VMT as the criteria of significance traffic impacts for development projects.

VMT Analysis Methodology

On June 25, 2020, the City of Fresno adopted CEQA Guidelines for Vehicle Miles Traveled Thresholds pursuant to Senate Bill 743 to be effective of July 1, 2020. The thresholds described therein are referred to herein as the City of Fresno VMT Thresholds. The City of Fresno VMT Thresholds document was prepared and adopted consistent with the requirements of CEQA Guidelines Sections 15064.3 and 15064.7. The December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA (TA) published by the Governor's Office of Planning and Research (OPR), was utilized as a reference and guidance document in the preparation of the Fresno VMT Thresholds.

The City of Fresno VMT Thresholds adopted a screening standard and criteria that can be used to screen out qualified development projects that meet the adopted criteria from needing to prepare a detailed VMT Analysis. These criteria may be size, location, proximity to transit, of trip making potential. In general development projects that are consistent with the City's General Plan and Zoning and that that meet one or more of the following criteria can be screened out from a quantitative VMT analysis.

1. Project Located in a Transit Priority Area/High Quality Transit Corridor (within 0.5 miles of a transit stop).
2. Project is Local-serving Retail of less than 50,000 square feet.
3. Project is a Low Trip Generator (Less than 500 average daily trips)
4. Project has a High Level of Affordable Housing Units
5. Project is an institutional/Government and Public Service Uses
6. Project is located in a Low VMT Zone

This screening tool is consistent with the OPR December 2018 Guidance referenced above. The screening tool includes an analysis of those portions of the City that satisfy the standard of reducing VMT by 13% from existing per capita and per employee VMT averages within the relevant region. The relevant region adopted by the City of Fresno VMT Thresholds is Fresno County.

However, the City of Fresno VMT Thresholds Section 3.1 regarding Development Projects states that "if a project constitutes a General Plan Amendment (GPA) or a Zone Change (ZC), none of the screening criteria may apply". Since this particular Project includes both a General Plan Amendment and a Zone Change, it does not meet the screening criteria. As such, a quantitative VMT analysis is required, and such was prepared utilizing the Fresno COG Activity Based Model.

For projects that are not screened out, a quantitative analysis of VMT impacts must be prepared and compared against the adopted VMT thresholds of significance. The Fresno VMT Thresholds document includes thresholds of significance for development projects, transportation projects, and land use plans. These thresholds of significance were developed using the County of Fresno as the applicable region, and the required reduction of VMT (as adopted in the Fresno VMT Thresholds) corresponds to Fresno County's contribution to the statewide GHG emission reduction target. In order to reach the statewide GHG reduction target of 15%, Fresno County

must reduce its GHG emissions by 13%. The method of reducing GHG by 13% is to reduce VMT by 13% as well.

VMT is simply the product of a number of trips and those trips' lengths. The first step in a VMT analysis is to establish the baseline average VMT, which requires the definition of a region. The *CEQA Guidelines for Vehicle Miles Traveled Thresholds* for the City of Fresno (June 25, 2020) provide that the Fresno County average VMT per capita (appropriate for residential land uses) and employee (appropriate for office land uses) are 16.1 VMT per capita and 25.6 VMT per employee, respectively. The City's threshold targets a 13% reduction in VMT for residential and office land uses.

The City's adopted thresholds for development projects correspond to the regional thresholds set by the Fresno Council of Governments (COG). For residential and non-residential (except retail) development projects, the adopted threshold of significance is a 13% reduction, which means that projects that generate VMT in excess of a 13% reduction from the existing regional VMT per capita or per employee would have a significant environmental impact. Projects that reduce VMT by more than 13% are less than significant. For retail projects, the adopted threshold is any net increase in Regional VMT compared to the existing Regional VMT.

Quantitative assessments of the VMT generated by a development project are determined using the COG Activity Based Model (ABM), which is a tour-based model.

For projects with a mix of uses, the City of Fresno VMT Thresholds state that the VMT can be estimated based on each component of the project, independently, after taking credit for internal trip capture. It also confirms that mixed use projects must use the Fresno COG's Activity Based Model. The VMT per capita (for the residential component) and the total VMT (for the retail component) is then compared against the relevant threshold.

So, the target VMT for residential and office land uses are $(16.1 \times (1-.13) = 14.0)$ 14.0 VMT per capita and $(25.6 \times (1-.13) = 22.3)$ 22.3 VMT per employee, respectively. In addition, for retail land uses the Regional No Project VMT was provided as 23,505,944 by the Fresno COG ABM. The City's threshold targets a net zero (0) increase in Regional VMT for retail land uses. Refer to Section 3.17-2 for the Project VMT impact analysis.

Analysis Locations and Scenarios

The existing intersection peak hour turning movement and segment volume counts were conducted at the study intersections and segments in 2018, 2019 and 2020, while schools in the

vicinity of the proposed Project site were in session. Expansion factors as recommended by the City of Fresno were applied to new traffic counts affected by COVID-19 restrictions. JLB reviewed historical and new traffic counts affected by COVID-19-related restrictions for the remaining intersections. Based on this review, new traffic counts (affected by restrictions) were lower than historical traffic counts. Therefore, the remaining new traffic counts (affected by restrictions) were expanded by distinctive rates as recommended by the City of Fresno for the AM and PM peak periods. The intersection turning movement counts included pedestrian and bicycle volumes. The traffic counts for the existing study intersections are contained in Appendix B of Appendix G. The existing intersection turning movement volumes, intersection geometrics and traffic controls are illustrated in Figure 2 of Appendix G.

Study Intersections

1. Friant Road / Willow Avenue-Birkhead Avenue
2. Willow Avenue / New Full Access (Future)
3. Willow Avenue / Alicante Drive (Future)
4. Friant Road / Copper River Drive
5. Friant Road / Copper Avenue
6. Millbrook Avenue / Copper Avenue
7. Cedar Avenue / Copper Avenue
8. Maple Avenue / Copper Avenue
9. Chestnut Avenue / Copper Avenue
10. Willow Avenue / Copper Avenue
11. Peach Avenue / Copper Avenue
12. Auberry Road / Copper Avenue
13. Millbrook Avenue / Olympic Avenue
14. Cedar Avenue / Olympic Avenue
15. Chestnut Avenue / International Avenue
16. Willow Avenue / International Avenue
17. Chestnut Avenue / Behymer Avenue
18. Sommerville Drive / Chestnut Avenue

19. Friant Road / Audubon Drive
20. Fresno Street / Friant Road
21. State Route 41 Northbound (NB) Off-Ramp / Friant Road
22. State Route 41 Southbound (SB) Off-Ramp / Friant Road
23. Blackstone Avenue / Nees Avenue

Study Scenarios

Existing Traffic Conditions

This scenario evaluates the Existing Traffic Conditions based on existing traffic volumes and roadway conditions from traffic counts and field surveys conducted in 2018, 2019 and 2020 that were adjusted as noted in the aforementioned section.

Existing plus Project Traffic Conditions

This scenario evaluates the Existing plus Project Traffic Conditions based on traffic volumes obtained by adding the Project Only Trips to the Existing Traffic Conditions scenario. The Project Only Trips to the study facilities were developed based on existing travel patterns, the Fresno Council of Governments (Fresno COG) Project Select Zone, the existing roadway network, engineering judgment, data provided by the developer, knowledge of the study area, existing residential and commercial densities, and the Fresno General Plan Circulation Element in the vicinity of the proposed Project site. The Fresno COG Project Select Zone results are contained in Appendix C of Appendix G.

Near Term plus Project Traffic Conditions

This scenario evaluates the Near Term plus Project Traffic Conditions based on traffic volumes obtained by adding the Near Term related trips to the Existing plus Project Traffic Conditions scenario. It is worth noting that this scenario assumes construction of the Near Term Projects located within the general area of the proposed Project site. As a result, it is expected that Near Term Projects will interact with the proposed Project land uses (e.g., commercial/office spaces). However, the TIA does not account for reductions in trip generation as a result of internal capture or pass-by trip reductions.

Cumulative Year 2035 No Project Traffic Conditions

This scenario evaluates the Cumulative Year 2035 No Project Traffic Conditions based on traffic volumes obtained by subtracting the 2035 Project Only Trips from the Cumulative Year 2035 plus Project Traffic Conditions scenario.

Trip Distribution

The trip distribution assumptions were developed based on existing travel patterns, the Fresno COG Project Select Zone, the existing roadway network, engineering judgment, data provided by the developer, knowledge of the study area, existing residential and commercial densities, and the *Fresno General Plan* Circulation Element in the vicinity of the Project. The Project's trip generation data was provided to Fresno COG in order to conduct a Project-specific Select Zone analysis using the Fresno COG ABM (Base Year 2021 and Cumulative Year 2035). The Fresno COG Project Select Zone results are contained in Appendix C of Appendix G. Figure 3 of Appendix G illustrates the Project Only Trips at the study intersections assuming immediate buildout by the year 2022. Similarly, Figure 4 of Appendix G illustrates the Project Only Trips at various Project driveways.

Impacts and Mitigation Measures

Impact 3.17-1: *Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Less than Significant Impact With Mitigation. While LOS is no longer the criteria of significance for traffic impacts under CEQA, the City of Fresno General Plan includes policies that utilize LOS to determine project conditions of approval. Therefore, this Impact Section (3.17-1) addresses LOS impacts, while VMT impacts are evaluated in Impact Section 3.17-2.

As described in Chapter Two – Project Description, the original 2003 FEIR analyzed the traffic impacts associated with the development of Copper River Ranch and included a 0.37- acre park-n-ride lot (27 parking spaces), 2,837 residential units, a 60-room hotel, a 2.61- acre City park, 249,113 square feet (approximately 60 acres) of mixed-use land uses, and a 3.30-acre wastewater treatment plant in the general area bound by Friant Road, Silaxo Avenue alignment, Willow Avenue and Copper Avenue. Since its approval, the Project has been in a state of development and is now proposing land use changes within the already existing Project development as well to develop an additional 109 acres located adjacent to and east of the existing Project development. The planned development of the additional 109 acres will increase the Project's

residential unit count by 441 housing units, add 5,310 square feet of mixed-use commercial land uses, and add 25.30 acres of park space. At buildout, the Project proposes to construct a total of 3,278 residential units (2,429 single-family and 849 multi-family residential units), and develop 254,423 square feet of mixed-use commercial land uses in addition to a park-n-ride lot (23 parking spaces), 28.80 acres of park space, and a 3.30- acre wastewater treatment plant.

Existing Traffic LOS

Table 3.17-1 presents pre-Project (existing) traffic conditions in the Project area. As of February 2021, the intersections of Willow Avenue and Copper Avenue and Chestnut Avenue and Behymer Avenue exceed their LOS thresholds during the AM peak period only.

**Table 3.17-1
Existing Intersection LOS Results**

ID	Intersection	Intersection Control	AM (7 - 9) Peak Hour		PM (4 - 6) Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Friant Road / Willow Avenue	Two-Way Stop	24.1	C	20.8	C
2	Willow Avenue / New Full Access	Does Not Exist	-	-	-	-
3	Willow Avenue / Alicante Drive	Does Not Exist	-	-	-	-
4	Friant Road / Copper River Drive	Traffic Signal	17.9	B	7.0	A
5	Friant Road / Copper Avenue	Traffic Signal	12.3	B	8.7	A
6	Millbrook Avenue / Copper Avenue	Two-Way Stop	17.9	C	12.6	B
7	Cedar Avenue / Copper Avenue	Traffic Signal	13.7	B	12.9	B
8	Maple Avenue / Copper Avenue	Traffic Signal	21.5	C	16.5	B
9	Chestnut Avenue / Copper Avenue	All-Way Stop	29.8	D	12.3	B
10	Willow Avenue / Copper Avenue	All-Way Stop	41.4	E	15.5	C
		Traffic Signal (Improved)	23.0	C	23.4	C
11	Peach Avenue / Copper Avenue	One-Way Stop	12.6	B	0	A
12	Auberry Road / Copper Avenue	One-Way Stop	17.0	C	17.9	C
13	Millbrook Avenue / Olympic Avenue	All-Way Stop	22.4	C	9.1	A
14	Cedar Avenue / Olympic Avenue	All-Way Stop	18.9	C	9.6	A
15	Chestnut Avenue / International Avenue	Traffic Signal	52.6	D	26.2	C
16	Willow Avenue / International Avenue	Traffic Signal	44.0	D	20.9	C
17	Chestnut Avenue / Behymer Avenue	All-Way Stop	73.8	F	15.8	C
		Traffic Signal (Improved)	29.6	C	23.6	C
18	Sommerville Drive / Chestnut Avenue	All-Way Stop	9.9	A	10.7	B
19	Friant Road / Audubon Drive	Traffic Signal	43.5	D	53.0	D
20	Fresno Street / Friant Road	Traffic Signal	26.6	C	47.7	D
21	State Route 41 NB Off-Ramp / Friant Road	Traffic Signal	96.9	F	>120.0	F
22	State Route 41 SB Off-Ramp / Friant Road	Traffic Signal	18.7	B	13.2	B
23	Blackstone Avenue / Nees Avenue	Traffic Signal	27.6	C	44.7	D

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
 LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.

Project Trip Generation

2003 FEIR Trip Generation

According to the 2003 FEIR and the associated Traffic Impact Study (TIS) prepared by TPG Consulting, Inc. (TPG), the original Project trip generation rates were obtained from the Trip Generation Manual and corresponding software (version 5) published by the Institute of Transportation Engineers (ITE). Table 3.17-2 presents the trip generation of the Project as presented in TIS for the 2003 FEIR with trip generation rates for a 0.37- acre Park-N-Ride Lot (27 parking spaces), 1,084 units of Single-Family Detached Housing, 1,753 units of Multifamily Housing, a 60-room hotel, a 2.61-acre City park, a 9,670 square-foot Specialty Retail Center, 235,443 square feet of Shopping Center, a 4,000 square-foot Deli and a 3.30-acre wastewater treatment plant. According to the 2003 FEIR, the existing Project development was estimated to generate a maximum of 33,935 daily trips, 2,062 AM peak hour trips and 3,167 PM peak hour trips (TPG Consulting, Inc., 2004). The 2003 FEIR trip generation results are provided in Table 3.17-2.

**Table 3.17-2
2003 FEIR Project Trip Generation**

<i>Land Use</i>	<i>Size</i>	<i>Unit</i>	<i>Daily Trips</i>	<i>AM (7-9) Peak Hour</i>			<i>PM (4-6) Peak Hour</i>		
				<i>In</i>	<i>Out</i>	<i>Total</i>	<i>In</i>	<i>Out</i>	<i>Total</i>
Park-N-Ride Lot with Bus Service	27	p.s.	138	16	6	22	5	13	18
Single-Family Detached Housing	1,084	d.u.	10,374	206	607	813	694	401	1,095
Apartments	1,753	d.u.	11,780	175	719	894	701	386	1,087
Hotel	60	o.r.	490	20	13	33	19	17	36
City Park	2.61	ac.	4	0	0	0	0	0	0
Specialty Retail Center	9.670	k.s.f.	429	0	0	0	12	15	27
Shopping Center	235.443	k.s.f.	10,110	149	95	244	425	459	884
Deli	4.000	k.s.f.	600	32	22	54	5	13	18
Wastewater Treatment Plant	3.30	ac.	10	1	1	2	1	1	2
Total			33,935	599	1,463	2,062	1,862	1,305	3,167

Note: p.s. = parking space
ac. = acre
d.u. = dwelling unit
o.r. = occupied room
k.s.f. = thousand square feet

Current Trip Generation (2021)

Trip generation rates for the proposed Project were obtained from the 10th Edition of the Trip Generation Manual published by the ITE (Institute of Transportation Engineers, 2017). Appendix G of Appendix G contains a breakdown of the trip generation rates utilized for the various Project

components. Table 3.17-3 presents a summary of the trip generation rates for a 0.37-acre Park-N-Ride Lot (23 parking spaces), 2,429 units of Single-Family Detached Housing, 849 units of Multifamily Housing, 28.80 acres of City park, 254,423 square feet of Shopping Center and a 3.30-acre wastewater treatment plant. At buildout, the proposed Project is estimated to generate a maximum of 46,164 daily, 3,163 AM peak hour and 4,281 PM peak hour total driveway trips.

**Table 3.17-3
Current Trip Generation Rates (2021)**

Land Use	Size	Unit	Daily Trips	AM (7-9) Peak Hour			PM (4-6) Peak Hour		
				In	Out	Total	In	Out	Total
Park-N-Ride Lot with Bus Service	23	p.s.	65	8	2	10	2	8	10
Single-Family Detached Housing	2,429	d.u.	22,930	445	1,352	1,797	1,517	888	2,405
Apartments	849	d.u.	6,215	89	301	390	299	176	475
City Park	28.80	ac.	22	1	0	1	2	1	3
Shopping Center	254.423	k.s.f.	16,924	541	422	963	656	730	1,386
Wastewater Treatment Plant	3.30	ac.	8	2	0	2	0	2	2
Total			46,164	1,086	2,077	3,163	2,476	1,805	4,281

Note: p.s. = parking space
d.u. = dwelling unit
ac. = acre
k.s.f. = thousand square feet

Compared to the 2003 FEIR, the proposed Project is estimated to yield 12,229 more daily, 1,100 more AM peak hour and 1,114 more PM peak hour trips. A trip generation comparison of the 2003 FEIR and the current SEIR is summarized in Table 3.17-4.

**Table 3.17-4
Comparison of 2003 and 2021 Project Trip Generation**

Project	Daily	AM (7-9) Peak Hour			PM (4-6) Peak Hour		
	Total	In	Out	Total	In	Out	Total
Total Project EIR (2003)	33,935	599	1,463	2,062	1,862	1,305	3,167
Total Project SEIR (2021)	46,164	1,086	2,077	3,163	2,476	1,805	4,281
Total Difference	12,229	487	614	1,101	614	500	1,114

Unbuilt Portion

Since the Project has been in a state of development since its approval, Table 3.17-5 below presents a summary of the anticipated maximum trip generation of the Project components that remain to be built. Table 3.17-5 presents a summary of the trip generation of the Project components that remain to be built with trip generation rates for 1,270 units of Single-Family Detached Housing,

849 units of Multifamily Housing, 25.30 acres of City park, and 192,273 square feet of Commercial. At buildout, the proposed Project which remains to be built is estimated to generate a maximum of 32,452 daily, 2,173 AM peak hour and 2,858 PM peak hour total driveway trips. It should be noted that while the traffic analysis assumed that 25.30 acres of park space would still need to be constructed, the actual acreage of park area remaining to be built is only 7.38 acres (the Project will require at least 28.8 acres of park acreage at full buildout). This means that the traffic impacts were slightly overstated for the park areas. However, the minor amount of traffic associated with the parks as shown in Table 3.17-5 (approximately 20 daily trips out of the total of 32,452 daily trips) is minor and does not affect the impact determination.

**Table 3.17-5
Unbuilt Trip Generation**

Land Use	Size	Unit	Daily Trips	AM (7-9) Peak Hour			PM (4-6) Peak Hour		
				In	Out	Total	In	Out	Total
Single-Family Detached Housing	1,270	d.u.	11,987	233	705	938	792	466	1,258
Apartments	849	d.u.	6,215	89	301	390	299	176	475
City Park	25.30	ac.	20	1	0	1	2	1	3
Commercial	192.273	k.s.f.	14,230	464	380	844	539	583	1,122
Total			32,452	787	1,386	2,173	1,632	1,226	2,858

Note: d.u. = dwelling unit
ac. = acre
k.s.f. = thousand square feet

Existing Plus Project LOS

The Existing Plus Project scenario is required under CEQA and assumes the entire Project is added to existing conditions. It does not take into account Project phasing or potential roadway improvement projects that may occur in the future. It is intended to illustrate raw Project impacts. However, mitigation is determined assuming a phased buildout in the context of cumulative conditions as identified at the end of this section.

The Existing plus Project Traffic Conditions scenario assumes that the intersections of Millbrook Avenue and Copper Avenue, Chestnut Avenue and Copper Avenue, Willow Avenue and Copper Avenue, Auberry Road and Copper Avenue, and Millbrook Avenue and Olympic Avenue are controlled by a traffic signal. Figure 5 of Appendix G illustrates the Existing plus Project turning movement volumes, intersection geometrics and traffic controls. LOS worksheets for the Existing plus Project Traffic Conditions scenario are provided in Appendix I of Appendix G. Table 3.17-6 presents a summary of the Existing plus Project peak hour LOS at the study intersections.

Table 3.17-6
Existing Plus Project Intersection LOS Results

ID	Intersection	Intersection Control	AM (7 - 9) Peak Hour		PM (4 - 6) Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Friant Road / Willow Avenue	Two-Way Stop	25.4	D	21.8	C
2	Willow Avenue / New Full Access	Does Not Exist	-	-	-	-
3	Willow Avenue / Alicante Drive	One-Way Stop	13.2	B	12.0	B
4	Friant Road / Copper River Drive	Traffic Signal	18.4	B	9.4	A
5	Friant Road / Copper Avenue	Traffic Signal	15.5	B	12.4	B
6	Millbrook Avenue / Copper Avenue	Traffic Signal	25.3	C	20.0	B
7	Cedar Avenue / Copper Avenue	Traffic Signal	16.0	B	14.8	B
8	Maple Avenue / Copper Avenue	Traffic Signal	21.1	C	21.7	C
9	Chestnut Avenue / Copper Avenue	Traffic Signal	33.2	C	22.3	C
10	Willow Avenue / Copper Avenue	Traffic Signal	34.2	C	34.8	C
11	Peach Avenue / Copper Avenue	One-Way Stop	14.0	B	0.0	A
12	Auberry Road / Copper Avenue	Traffic Signal	12.8	B	12.9	B
13	Millbrook Avenue / Olympic Avenue	Traffic Signal	19.5	B	8.9	A
14	Cedar Avenue / Olympic Avenue	All-Way Stop	21.0	C	9.7	A
15	Chestnut Avenue / International Avenue	Traffic Signal	50.6	D	28.7	C
16	Willow Avenue / International Avenue	Traffic Signal	21.2	C	19.8	B
17	Chestnut Avenue / Behymer Avenue	All-Way Stop	97.1	F	17.9	C
		Traffic Signal (Improved)	29.5	C	23.5	C
18	Sommerville Drive / Chestnut Avenue	All-Way Stop	13.3	B	13.0	B
19	Friant Road / Audubon Drive	Traffic Signal	51.0	D	70.4	E
20	Fresno Street / Friant Road	Traffic Signal	25.2	C	45.4	D
21	State Route 41 NB Off-Ramp / Friant Road	Traffic Signal	70.6	E	>120.0	F
22	State Route 41 SB Off-Ramp / Friant Road	Traffic Signal	19.2	B	18.5	B
23	Blackstone Avenue / Nees Avenue	Traffic Signal	28.3	C	57.2	E

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.

Under this scenario, the intersection of Chestnut Avenue and Behymer Avenue is projected to exceed the LOS threshold during the AM peak period only. To improve the LOS at this intersection, it is recommended that the following improvements be considered for implementation.

- Chestnut Avenue / Behymer Avenue
 - Signalize the intersection with protective left-turn phasing in all directions.
- State Route 41 Northbound Off-Ramp / Friant Road
 - Consistent with the *Fresno General Plan* Circulation Element, Friant Road already exists as a six-lane divided arterial between Audubon Drive and Nees Avenue.
 - The *Fresno General Plan* Circulation Element acknowledged that Friant Road would exceed LOS D as a six-lane facility between Shepherd Avenue and State Route 41 Southbound Off-Ramp and made appropriate findings to designate the

maximum number of lanes to three (3) in each direction while exceeding the City's standard LOS threshold for this segment of Friant Road.

- The Caltrans' State Route 41 TCR also acknowledged that State Route 41 would exceed LOS D as an eight-lane freeway between El Paso Avenue and the Fresno/Madera County line and made the appropriate findings to designate LOS F as the LOS threshold for this segment of State Route 41.
 - City of Fresno VMT Guidelines, make clear that any capacity enhancing transportation projects may have a significant VMT impact and be subject to a detailed analysis that would include measuring induced travel likely requiring infeasible VMT mitigation measures.
 - Considering the *Fresno General Plan* Circulation Element, the Caltrans State Route 41 TCR and the City of Fresno VMT Guidelines, the traffic impacts at this intersection are considered adverse but unavoidable.

Near Term Plus Project

Near Term Projects consist of developments that are either under construction, built but not fully occupied, are not built but have final site development review (SDR) approval, or for which the lead agency or responsible agencies have knowledge of. The City of Fresno, City of Clovis, County of Fresno and Caltrans staff were consulted throughout the preparation of this TIA regarding Near Term Projects that could potentially impact the study intersections. JLB staff conducted a reconnaissance of the surrounding area to confirm the Near Term Projects. Therefore, the Near Term Projects listed in Table XI (page 50) of Appendix G were within the proximity of the proposed Project.

The trip generation listed in Table XI of Appendix G is that which is anticipated to be added to the streets and highways by Near Term Projects between the time of the preparation of this Report and five (5) years after buildout of the proposed Project. As shown in Table XI, the total trip generation for the Near Term Projects is 41,306 weekday daily trips, 2,851 weekday AM peak hour trips and 3,888 weekend PM peak hour trips. Figure 6 of Appendix G illustrates the location of the Near Term Projects and their combined trip assignment to the study intersections under the Near Term plus Project Traffic Conditions scenario. Table 3.17-7 presents a summary of the Near Term Plus Project peak hour LOS at the study intersections.

**Table 3.17-7
Near Term Plus Project LOS**

ID	Intersection	Intersection Control	AM (7 - 9) Peak Hour		PM (4 - 6) Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Friant Road / Willow Avenue	Two-Way Stop	34.6	D	22.8	C
2	Willow Avenue / New Full Access	Does Not Exist	-	-	-	-
3	Willow Avenue / Alicante Drive	One-Way Stop	13.5	B	12.2	B
4	Friant Road / Copper River Drive	Traffic Signal	17.3	B	9.4	A
5	Friant Road / Copper Avenue	Traffic Signal	16.0	B	13.3	B
6	Millbrook Avenue / Copper Avenue	Traffic Signal	25.9	C	20.6	C
7	Cedar Avenue / Copper Avenue	Traffic Signal	17.4	B	15.3	B
8	Maple Avenue / Copper Avenue	Traffic Signal	21.7	C	22.7	C
9	Chestnut Avenue / Copper Avenue	Traffic Signal	37.0	D	24.3	C
10	Willow Avenue / Copper Avenue	Traffic Signal	33.7	C	37.8	D
11	Peach Avenue / Copper Avenue	One-Way Stop	14.3	B	0.0	A
12	Auberry Road / Copper Avenue	Traffic Signal	12.8	B	13.1	B
13	Millbrook Avenue / Olympic Avenue	Traffic Signal	20.4	C	9.0	A
14	Cedar Avenue / Olympic Avenue	All-Way Stop	22.0	C	9.9	A
15	Chestnut Avenue / International Avenue	Traffic Signal	52.3	D	31.2	C
16	Willow Avenue / International Avenue	Traffic Signal	21.2	C	17.2	B
17	Chestnut Avenue / Behymer Avenue	All-Way Stop	109.6	F	19.5	C
		Traffic Signal (Improved)	30.2	C	25.0	C
18	Sommerville Drive / Chestnut Avenue	All-Way Stop	14.6	B	14.3	B
19	Friant Road / Audubon Drive	Traffic Signal	61.6	E	77.4	E
20	Fresno Street / Friant Road	Traffic Signal	26.8	C	72.1	E
21	State Route 41 NB Off-Ramp / Friant Road	Traffic Signal	103.1	F	>120.0	F
22	State Route 41 SB Off-Ramp / Friant Road	Traffic Signal	19.4	B	19.0	B
23	Blackstone Avenue / Nees Avenue	Traffic Signal	31.5	C	57.5	E

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls
 LOS for two-way and one-way STOP controlled intersections are based on the worst approach/movement of the minor street.

Under this scenario, the intersection of Chestnut Avenue and Behymer Avenue is projected to exceed the LOS threshold during the AM peak period only. To improve the LOS at this intersection, it is recommended that the following improvements be considered for implementation.

- Chestnut Avenue / Behymer Avenue
 - Signalize the intersection with protective left-turn phasing in all directions.
- State Route 41 Northbound Off-Ramp / Friant Road
 - Consistent with the *Fresno General Plan* Circulation Element, Friant Road already exists as a six-lane divided arterial between Audubon Drive and Nees Avenue.
 - The *Fresno General Plan* Circulation Element acknowledged that Friant Road would exceed LOS D as a six-lane facility between Shepherd Avenue and State Route 41 Southbound Off-Ramp and made appropriate findings to designate the

maximum number of lanes to three (3) in each direction while exceeding the City's standard LOS threshold for this segment of Friant Road.

- The Caltrans' State Route 41 TCR also acknowledged that State Route 41 would exceed LOS D as an eight-lane freeway between El Paso Avenue and the Fresno/Madera County line and made the appropriate findings to designate LOS F as the LOS threshold for this segment of State Route 41.
 - City of Fresno VMT Guidelines, make clear that any capacity enhancing transportation projects may have a significant VMT impact and be subject to a detailed analysis that would include measuring induced travel likely requiring infeasible VMT mitigation measures.
 - Considering the *Fresno General Plan* Circulation Element, the Caltrans State Route 41 TCR and the City of Fresno VMT Guidelines, the traffic impacts at this intersection are considered adverse but unavoidable.

Cumulative Year 2035 Plus Project Scenario

The Cumulative Year 2035 plus Project Traffic Conditions scenario assumes the same roadway geometrics and traffic controls as those assumed in the Near Term plus Project Traffic Conditions scenario. Figure 9 of Appendix G illustrates the Project Only Trips (2035), while Figure 10 of Appendix G illustrates the Cumulative Year 2035 plus Project turning movement volumes, intersection geometrics and traffic controls. LOS worksheets for the Cumulative Year 2035 plus Project Traffic Conditions scenario are provided in Appendix L of Appendix G. Table 3.17-8 presents a summary of the Cumulative Year 2035 plus Project peak hour LOS at the study intersections.

**Table 3.17-8
Cumulative Year 2035 Plus Project Intersection LOS Results**

ID	Intersection	Intersection Control	AM (7 - 9) Peak Hour		PM (4 - 6) Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
1	Friant Road / Willow Avenue	Two-Way Stop	>120	F	>120	F
		Roundabout (Improved)	20.3	C	7.5	A
2	Willow Avenue / New Full Access	One-Way Stop	25.1	D	11.6	B
3	Willow Avenue / Alicante Drive	One-Way Stop	64.6	F	39.8	E
		Traffic Signal (Improved)	17.5	B	52.3	D
4	Friant Road / Copper River Drive	Traffic Signal	11.5	B	12.8	B
5	Friant Road / Copper Avenue	Traffic Signal	22.9	C	16.1	B
6	Millbrook Avenue / Copper Avenue	Traffic Signal	25.7	C	25.6	C
7	Cedar Avenue / Copper Avenue	Traffic Signal	17.7	B	14.8	B
8	Maple Avenue / Copper Avenue	Traffic Signal	21.1	C	23.0	C
9	Chestnut Avenue / Copper Avenue	Traffic Signal	29.8	C	23.0	C
10	Willow Avenue / Copper Avenue	Traffic Signal	115.1	F	>120.0	F
		Traffic Signal (Improved)	46.3	D	39.1	D
11	Peach Avenue / Copper Avenue	One-Way Stop	>120.0	F	25.8	D
		One-Way Stop (Improved)	29.7	D	19.0	C
12	Auberry Road / Copper Avenue	Traffic Signal	65.0	E	51.6	D
		Traffic Signal (Improved)	52.1	D	36.2	D
13	Millbrook Avenue / Olympic Avenue	Traffic Signal	16.1	B	9.2	A
14	Cedar Avenue / Olympic Avenue	All-Way Stop	15.7	C	9.9	A
15	Chestnut Avenue / International Avenue	Traffic Signal	30.1	C	21.7	C
16	Willow Avenue / International Avenue	Traffic Signal	16.6	B	21.3	C
17	Chestnut Avenue / Behymer Avenue	All-Way Stop	112.7	F	31.1	D
		Traffic Signal (Improved)	31.2	C	23.0	C
18	Sommerville Drive / Chestnut Avenue	All-Way Stop	16.3	C	16.2	C
19	Friant Road / Audubon Drive	Traffic Signal	65.4	E	115.2	F
		Traffic Signal (Improved)	63.0	E	92.6	F
20	Fresno Street / Friant Road	Traffic Signal	31.6	C	92.2	F
		Traffic Signal (Improved)	31.2	C	91.9	F
21	State Route 41 NB Off-Ramp / Friant Road	Traffic Signal	83.8	F	>120.0	F
22	State Route 41 SB Off-Ramp / Friant Road	Traffic Signal	52.5	D	28.9	C
23	Blackstone Avenue / Nees Avenue	Traffic Signal	45.6	D	58.4	E

Note: LOS = Level of Service based on average delay on signalized intersections and All-Way STOP Controls.
LOS for two-way STOP controlled intersections are based on the worst approach/movement of the minor street.

Under this scenario, the intersections of Friant Road and Willow Avenue, Willow Avenue and Alicante Drive, Willow Avenue and Copper Avenue, Peach Avenue and Copper Avenue, Auberry Avenue and Copper Avenue, Chestnut Avenue and Behymer Avenue, Friant Road and Audubon Drive and Fresno Street and Friant Road are projected to exceed their LOS threshold during one or both peak periods. To improve the LOS at these intersections, it is recommended that the following improvements be considered for implementation.

- **Friant Road / Willow Avenue**
 - Remove the northbound left-turn lane;
 - Modify the inside northbound through lane to a left-through lane;
 - Remove the southbound left-turn lane;
 - Modify the inside southbound through lane to a left-through lane; and
 - Install a two-lane roundabout for Friant Road and a single lane for Willow Avenue and Birkhead Avenue. The Roundabout should retain the existing free flow right-turn lane from Willow Avenue to an acceleration lane on northbound Friant Road.

- **Willow Avenue / Alicante Drive**
 - Signalize the intersection with protective left-turn phasing in all directions.

- **Willow Avenue / Copper Avenue**
 - Add a second eastbound left-turn lane;
 - Add a second eastbound through lane;
 - Add a second westbound left-turn lane;
 - Modify the westbound through-right lane to through lane;
 - Add a second westbound through lane;
 - Add a westbound right-turn lane;
 - Add a second northbound left-turn lane;
 - Modify the northbound through-right lane to a through lane;
 - Add a second northbound through lane with a receiving lane north of Copper Avenue;
 - Add a northbound right-turn lane;
 - Add a second southbound left-turn lane; and
 - Modify the traffic signal to accommodate the added lanes.

- **Peach Avenue / Copper Avenue**
 - Add an eastbound right-turn lane;
 - Modify the eastbound through-right lane to a through lane;
 - Add a westbound left-turn lane;
 - Modify the westbound left-through lane to a through lane; and
 - Add a two-way left-turn lane on the west leg of Peach Avenue.

- **Auberry Road / Copper Avenue**
 - Add a westbound right-turn lane;
 - Modify the westbound through-right lane to a through lane; and

- Modify the traffic signal to accommodate the added lanes.
- **Chestnut Avenue / Behymer Avenue**
 - Signalize the intersection with protective left-turn phasing in all directions.
- **Friant Road / Audubon Avenue**
 - Modify the traffic signal to implement overlap phasing of the westbound right-turn with the southbound left-turn phase;
 - Prohibit southbound to northbound U-turn movements;
 - Modify the traffic signal to implement overlap phasing of the southbound right-turn with the eastbound left-turn phase;
 - Prohibit eastbound to westbound U-turn movements;
 - Modify the traffic signal to implement overlap phasing of the northbound right-turn with the westbound left-turn phase; and
 - Prohibit westbound to eastbound U-turn movements.
 - It should be noted that given existing constraints and the ultimate designation for six-lanes on Friant Road, the said improvements are not projected to meet the City's target LOS threshold; however, it is projected they will reduce overall delay by an average of 22 seconds. Therefore, the traffic impacts at this intersection are considered adverse but unavoidable.
- **Fresno Street / Friant Road**
 - Given existing constraints and the ultimate designation for six-lanes on Friant Road, the number of modifications that can be made at this intersection are limited. JLB analyzed, if implementing an overlap phasing of the northbound right-turn with the westbound left-turn phase; however, it was found that such modifications will result in very low benefit in the reduction of delay while requiring a large number of westbound to eastbound U-turns to be prohibited. As a result, JLB recommends against modifications to this intersection while acknowledging that the City's LOS threshold for this intersection is projected to be exceeded.
- **State Route 41 Northbound Off-Ramp / Friant Road**
 - Consistent with the *Fresno General Plan Circulation Element*, Friant Road already exists as a six-lane divided arterial between Audubon Drive and Nees Avenue.

- The *Fresno General Plan* Circulation Element acknowledged that Friant Road would exceed LOS D as a six-lane facility between Shepherd Avenue and State Route 41 Southbound Off-Ramp and made appropriate findings to designate the maximum number of lanes to three (3) in each direction while exceeding the City's standard LOS threshold for this segment of Friant Road.
- The Caltrans' State Route 41 TCR also acknowledged that State Route 41 would exceed LOS D as an eight-lane freeway between El Paso Avenue and the Fresno/Madera County line and made the appropriate findings to designate LOS F as the LOS threshold for this segment of State Route 41.
 - City of Fresno VMT Guidelines, make clear that any capacity enhancing transportation projects may have a significant VMT impact and be subject to a detailed analysis that would include measuring induced travel likely requiring infeasible VMT mitigation measures.
 - Considering the *Fresno General Plan* Circulation Element, the Caltrans State Route 41 TCR and the City of Fresno VMT Guidelines, the traffic impacts at this intersection are considered adverse but unavoidable.

Project Mitigation Measures: Note: The term “mitigation measure” is being used in this section because this report builds on an EIR that was certified in 2003 that included transportation-related mitigation measures.

Prior 2003 FEIR Mitigation Measures

The 2003 FEIR contained several mitigation measures pertaining to transportation impacts. Several of the recommended roadway widening mitigation measures have been implemented. Table 3.17-9 below identifies the recommended improvements that have been implemented. Additionally, since the adoption of the 2003 FEIR, the City of Fresno updated its General Plan in 2014. As part of the current *Fresno General Plan*, the Circulation Element acknowledged that Friant Road would exceed LOS D as a six-lane facility between Shepherd Avenue and State Route 41 Southbound Off-Ramp. However, City Council made the appropriate findings to designate the maximum number of lanes to three (3) in each direction while exceeding the City's standard LOS threshold for this segment of Friant Road. As a result of this change in the Fresno General Plan, further changes to the segments of Friant Road between the SR 41 SB Off-Ramp and Audubon Drive would no longer be necessary as three or more lanes in each direction are currently in place.

Therefore, these segments of Friant Road should be removed as mitigation measures of the Project, and that the Projects traffic impacts be considered significant and unavoidable.

**Table 3.17-9
2003 FEIR Traffic Mitigation vs. Implemented Improvements**

ID	Segment of...	Project EIR (2003)	
		Recommended Improvements	Implemented Improvements
<i>Friant Road between...</i>			
A	SR 41 NB Off-Ramp - SR 41 SB Off-Ramp	8 lanes	6 lanes
B	SR 41 NB Off-Ramp - Fresno Street	8 lanes	6 lanes
C	Fresno Street - Audubon Drive	8 lanes	7 lanes
D	Audubon Drive - Shepherd Avenue	6 lanes	6 lanes
E	Shepherd Avenue - Fort Washington Road	6 lanes	6 lanes
<i>Copper Avenue between...</i>			
A	Peach Avenue - Auberry Road	4 lanes	2 lanes
<i>Willow Avenue between...</i>			
A	Herndon Avenue - Alluvial Avenue	4 lanes	5 lanes
B	Alluvial Avenue - Nees Avenue	4 lanes	6 lanes
C	Nees Avenue - Teague Avenue	6 lanes	6 lanes
D	Teague Avenue - Shepherd Avenue	8 lanes	6 lanes
E	Shepherd Avenue - Perrin Avenue	6 lanes	6 lanes
F	Perrin Avenue - Behymer Avenue	4 lanes	6 lanes
G	Behymer Avenue - International Avenue	4 lanes	6 lanes
H	International Avenue - Copper Avenue	4 lanes	5-lanes
I	Copper Avenue - South Project Road	4 lanes	2-lanes
J	South Project Road - North Project Road	4 lanes	2-lanes
<i>Chestnut Avenue between...</i>			
A	Nees Avenue - Shepherd Avenue	4 lanes	4-lanes
<i>Shepherd Avenue between...</i>			
A	Minnewawa Avenue - Fowler Avenue	4 lanes	2-3 lanes
B	Fowler Avenue - Temperance Avenue	4 lanes	3 lanes
<i>Herndon Avenue between...</i>			
A	Willow Avenue - Peach Avenue	6 lanes	6 lanes
B	Peach Avenue - Villa Avenue	6 lanes	6 lanes
C	Villa Avenue - Clovis Avenue	6 lanes	6 lanes
D	Clovis Avenue - Fowler Avenue	6 lanes	6 lanes
E	Tollhouse Road - De Wolf Avenue	4 lanes	2-5 lanes

Proposed Conditions of Approval

Taking into account the improvements that have been made as identified in Table 3.17-9, the current Project will require additional improvements. The Project will be required to construct public road frontages as well as all on-site roadways to City of Fresno standards. The Project's fair share percentage impact of the study intersections at which the Project will either cause or contribute to a significant impact which corresponds to the recommended improvements listed under the Cumulative Year 2035 With Project Scenario are included in Mitigation Measures TRA-1 and TRA-2.

TRA-1 The Project shall pay into applicable transportation fee programs. These include a Fresno Major Street Impact Fee (FMSI), a Traffic Signal Mitigation Impact Fee (TSMI) and a Regional Transportation Mitigation Fee (RTMF). The FMSI Fee will be calculated and assessed during the building permit process. The RTMF will be calculated and assessed by Fresno COG.

TRA-2 The Project will be responsible for paying its fair share cost percentages and/or constructing the recommended improvements identified in the Cumulative Year 2035 With Project Scenario subject to reimbursement for the costs that are in excess of the Project's equitable responsibility as determined by the City. This will be itemized and enforced through conditions of approval or a development agreement, at the discretion of the City, prior to Project implementation. The following are the required improvements:

- **Friant Road / Willow Avenue**
 - Remove the northbound left-turn lane;
 - Modify the inside northbound through lane to a left-through lane;
 - Remove the southbound left-turn lane;
 - Modify the inside southbound through lane to a left-through lane; and
 - Install a two-lane roundabout for Friant Road and a single lane for Willow Avenue and Birkhead Avenue. The Roundabout should retain the existing free flow right-turn lane from Willow Avenue to an acceleration lane on northbound Friant Road.

- **Willow Avenue / Alicante Drive**
 - Signalize the intersection with protective left-turn phasing in all directions.

- **Willow Avenue / Copper Avenue**
 - Add a second eastbound left-turn lane;
 - Add a second eastbound through lane;
 - Add a second westbound left-turn lane;
 - Modify the westbound through-right lane to through lane;
 - Add a second westbound through lane;
 - Add a westbound right-turn lane;
 - Add a second northbound left-turn lane;
 - Modify the northbound through-right lane to a through lane;
 - Add a second northbound through lane with a receiving lane north of Copper Avenue;
 - Add a northbound right-turn lane;
 - Add a second southbound left-turn lane; and
 - Modify the traffic signal to accommodate the added lanes.

- **Peach Avenue / Copper Avenue**
 - Add an eastbound right-turn lane;
 - Modify the eastbound through-right lane to a through lane;
 - Add a westbound left-turn lane;
 - Modify the westbound left-through lane to a through lane; and
 - Add a two-way left-turn lane on the west leg of Peach Avenue.

- **Auberry Road / Copper Avenue**
 - Add a westbound right-turn lane;
 - Modify the westbound through-right lane to a through lane; and
 - Modify the traffic signal to accommodate the added lanes.

- **Chestnut Avenue / Behymer Avenue**
 - Signalize the intersection with protective left-turn phasing in all directions.

- **Friant Road / Audubon Drive**
 - Modify the traffic signal to implement overlap phasing of the westbound right-turn with the southbound left-turn phase;
 - Prohibit southbound to northbound U-turn movements;
 - Modify the traffic signal to implement overlap phasing of the southbound right-turn with the eastbound left-turn phase;

- Prohibit eastbound to westbound U-turn movements;
 - Modify the traffic signal to implement overlap phasing of the northbound right-turn with the westbound left-turn phase; and
 - Prohibit westbound to eastbound U-turn movements.
 - It should be noted that given existing constraints and the ultimate designation for six-lanes on Friant Road, the said improvements are not projected to meet the City's target LOS threshold; however, it is projected they will reduce overall delay by an average of 22 seconds. Therefore, the traffic impacts at this intersection are considered adverse but unavoidable.
- **Fresno Street / Friant Road**
 - Given existing constraints and the ultimate designation for six-lanes on Friant Road, the number of modifications that can be made at this intersection are limited. JLB analyzed, if implementing an overlap phasing of the northbound right-turn with the westbound left-turn phase; however, it was found that such modifications will result in very low benefit in the reduction of delay while requiring a large number of westbound to eastbound U-turns to be prohibited. As a result, JLB recommends against modifications to this intersection while acknowledging that the City's LOS threshold for this intersection is projected to be exceeded.
- **State Route 41 Northbound Off-Ramp / Friant Road**
 - Consistent with the *Fresno General Plan* Circulation Element, Friant Road already exists as a six-lane divided arterial between Audubon Drive and Nees Avenue.
 - The *Fresno General Plan* Circulation Element acknowledged that Friant Road would exceed LOS D as a six-lane facility between Shepherd Avenue and State Route 41 Southbound Off-Ramp and made appropriate findings to designate the maximum number of lanes to three (3) in each direction while exceeding the City's standard LOS threshold for this segment of Friant Road.
 - The Caltrans' State Route 41 TCR also acknowledged that State Route 41 would exceed LOS D as an eight-lane freeway between El Paso Avenue and the Fresno/Madera County line and made the appropriate findings to designate LOS F as the LOS threshold for this segment of State Route 41.
 - City of Fresno VMT Guidelines, make clear that any capacity enhancing transportation projects may have a significant VMT impact

and be subject to a detailed analysis that would include measuring induced travel likely requiring infeasible VMT mitigation measures.

- Considering the *Fresno General Plan* Circulation Element, the Caltrans State Route 41 TCR and the City of Fresno VMT Guidelines, the traffic impacts at this intersection are considered adverse but unavoidable.

As identified herein, some of the recommended improvements are infeasible due to the existing built nature (e.g. Friant Road is constrained to six lanes). Thus, after implementation of all feasible mitigation and conditions of approval, the impact is *significant and unavoidable*.

Impact 3.17-2: *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Significant and Unavoidable. As previously described, the *CEQA Guidelines for Vehicle Miles Traveled Thresholds* for the City of Fresno provide that the Fresno County average VMT per capita (appropriate for residential land uses) and employee (appropriate for office land uses) are 16.1 VMT per capita and 25.6 VMT per employee, respectively (City of Fresno, 2020). Therefore, the target VMT for residential and office land uses are $(16.1 \times (1-.13)) = 14.0$ 14.0 VMT per capita and $(25.6 \times (1-.13)) = 22.3$ 22.3 VMT per employee, respectively. In addition, the Regional No Project VMT was provided as 23,503,505 by the Fresno COG ABM. The City's threshold targets a net zero (0) increase in Regional VMT for retail land uses (City of Fresno, 2020).

The Project's trip generation data was provided to Fresno COG in order to conduct a Project-specific VMT analysis using the Fresno COG ABM for specific Project components. Certain Project components were categorized into Groups for consistent VMT results from Fresno COG. The Groups were formed based on Project components that share similar characteristics, for example, proximity or land use type. Tables 3.17-10 and 3.17-11 summarize the VMT results provided by Fresno COG for the Groups and respective Project components. Based on Fresno COG VMT results, Project components containing residential land uses (only those subject to VMT analysis) are projected to exceed the City's VMT threshold. Considering all feasible VMT mitigation measures identified mitigate effects to the maximum extent feasible, the Project's VMT impacts for residential land uses are significant but unavoidable. Based on Fresno COG VMT results, Project components containing retail land uses (only those subject to VMT analysis) are projected to reduce the Regional VMT. Therefore, there are no impacts to VMT associated with retail land uses.

**Table 3.17-10
Project Residential/Office VMT Analysis**

Group ID	Project Components	Fresno COG VMT Results¹	# VMT Mitigation Measures²	Reduction in VMT from Mitigations²	VMT (With Mitigations)	City of Fresno VMT Threshold	Significant VMT Impact?
A	Parcel 19, Parcel 20 & Parcel 21	16.8	6, 11, 12, 15, 16, 38, 41, 46	0.7	16.1	14.0	Yes
B	Parcel 11	16.0	6, 11, 12, 15, 16, 38, 41, 46	0.7	15.3	14.0	Yes
D	TT 6275, TT 6238 & TT 6248	22.6	6, 11, 12, 15, 16, 38, 41, 46	1.0	21.6	14.0	Yes
E	TT 6246 & Parcel 16	22.9	6, 11, 12, 15, 16, 38, 41, 46	1.0	21.9	14.0	Yes
F	Parcel 14 & Parcel 15	21.4	6, 11, 12, 15, 16, 38, 41, 46	0.9	20.5	14.0	Yes
G	TT 6250, TT 6269, Parcel 7, Parcel 10 & TT 6311	20.5	6, 11, 12, 15, 16, 38, 41, 46	0.9	19.6	14.0	Yes
I	11075 N. Knotting Hill Drive	47.4	6, 11, 12, 15, 16, 38, 41, 46	2.1	45.3	22.3	Yes

Note: 1 = VMT Results per Fresno COG ABM, 2 = VMT Mitigation Measures from CEQA Guidelines for VMT Threshold (City of Fresno, 2020)

**Table 3.17-11
Project Retail VMT Analysis**

Group ID	Project Components	Fresno COG plus Project VMT Results¹	Fresno COG No Project Average Regional VMT	City of Fresno VMT Threshold	Change in Regional VMT	Significant VMT Impact?
C	Parcel 18	23,492,822	23,503,505	No Net Increase	-10,683	No
H	Parcel 10 & Parcel 12	23,498,079	23,503,505	No Net Increase	-5,426	No

Note: 1 = VMT Results per Fresno COG ABM

In conclusion, as identified in Tables 3.17-10 and 3.17-11, the Project will exceed the City's VMT targets for the residential and office components of the Project and will not be consistent with CEQA Section 15064.3(b) and will thus require mitigation.

Mitigation Measures:

TRA-3 The Project shall incorporate (or take credit for) the following design features to reduce Project-related VMT:

- Incorporate bike lane street design (on-site)
 - Within the Project, Class II Bikeways exist along portions of Alicante Drive between Via Livorno Lane and approximately 1,600 feet west of Crest View Drive, Clubhouse Drive between Alicante Drive and Queensberry Avenue, Copper River Drive between

Friant Road and Maple Avenue and Cedar Avenue between Copper River Drive and Copper Avenue. It is recommended that the Project implement Class II Bikeways within the Project along the remaining lengths of Alicante Drive and Winery Avenue/Road 'G'.

- Orient project towards transit, bicycle and pedestrian facilities
 - This measure applies if a Project is oriented towards a planned or existing transit, bicycle or pedestrian corridor.
 - This Project has connections to Class I and Class II Bikeways in the vicinity of the Project along Copper Avenue, Willow Avenue and Shepherd Avenue. Connections also exist to the nearby Lewis S. Eaton Trail and the Fresno-Clovis Rail-Trail.
 - Additionally, all major street improvements have been designed to accommodate transit.
- Provide pedestrian network improvements
 - This mitigation measure provides that all the internal components of a Project are connected with each other and the larger off-site network via pedestrian paths to encourage people to walk instead of drive.
 - Within the Project site, pedestrian sidewalks exist along built out portions of Alicante Drive, Clubhouse Drive, Copper River Drive, Cedar Avenue and Maple Avenue.
 - Adjacent to the Project site, a Class I Bike Path exists along Copper Avenue between Friant Road and Chestnut Avenue. In the vicinity of the Project site, pedestrian sidewalks exist along portions of Friant Road, Willow Avenue, Copper Avenue, Millbrook Avenue, Cedar Avenue, Maple Avenue, Chestnut Avenue, Olympic Avenue, International Avenue, Behymer Avenue, Sommerville Drive, Audubon Drive, Fresno Street, Blackstone Avenue and Nees Avenue.
 - Connections also exist to the nearby Lewis S. Eaton Trail and the Fresno-Clovis Rail-Trail via a Class I Bike Path on Copper Avenue.
- Increase destination accessibility
 - This mitigation is measured in terms of the number of jobs or other attractions reachable within a given travel time. In this case, it is measured to the downtown Fresno area approximately 11.75 miles away.
- Provide traffic calming measures
 - There are four existing roundabouts and three proposed roundabouts within the Project. The four existing roundabouts are located at the intersections of Alicante Drive and Copper River Drive, Alicante Drive and Clubhouse Drive, Crest View Drive and Alicante Drive and Maple Avenue and Copper River Drive. The three proposed roundabouts are located at the future intersections of Road 'G' and New Willow

Access Road, Road 'G' and Alicante Drive and Alicante Drive and future internal road. These proposed roundabouts will be completed with the construction of the Project and its internal roads.

- Internal roadways are existing with and proposed to contain marked crosswalks, raised median islands, planter strips with street trees and curves. On-street parking and/or NEV lanes exist on stretches of internal roadways as well.
- Increase mix of uses within the project or within the project's surroundings
 - The Project consists of multiple land uses as noted in the trip generation in Table 3.17-3. Included in the land uses are park-n-ride lot, single-family detached housing with multiple densities, apartments, city parks and commercial components.
- Locate project near bike path / bike lane
 - The Project has several existing bike paths and lanes in the vicinity. For example, Class II Bikeways exist along portions of Friant Road, Millbrook Avenue, Cedar Avenue, Maple Avenue, Chestnut Avenue, Willow Avenue, Olympic Avenue, International Avenue, Behymer Avenue, Sommerville Drive, Audubon Drive, Fresno Street and Nees Avenue. Similarly, Class I Bikeways exist along portions of Friant Road, Copper Avenue, Willow Avenue, Audubon Drive, Fresno Street and Nees Avenue. Connections also exist to the nearby Lewis S. Eaton Trail and the Fresno-Clovis Rail-Trail via a Class I Bike Path on Copper Avenue.
 - In addition to this, it was recommended that the Project implement Class I Bikeways along its frontages to Copper Avenue and Willow Avenue. Similarly, it is recommended that the Project implement Class II Bikeways along its frontage to Willow Avenue, Copper Avenue, Alicante Drive and Road "G".
- Existing park-and-ride lot
 - This park-and-ride lot contains 23 parking spots and is located on the southeast corner of Friant Road and Copper Avenue.

The VMT mitigation measures considered for this Project included those appropriate for residential land uses as noted in the *CEQA Guidelines for Vehicle Miles Traveled Threshold*. Tables 3.17-10 and 3.17-11 (above) identify the VMT mitigation measures appropriate for each Group. Appendix H of Appendix G presents a summary of the VMT reduction associated with each mitigation measure identified in Tables 3.17-10 and 3.17-11. Table 3.17-12 (below) presents the recommended VMT reduction rates per the *CEQA Guidelines for Vehicle Miles Traveled Threshold* and the selected VMT reduction rates appropriate for the Project. The selected VMT reduction rates appropriate for the Project were based on the *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions From Greenhouse Gas*

Mitigation Measures published by the California Air Pollution Control Officers Association (CAPCOA).

**Table 3.17-12
Project VMT Mitigation Measures**

#	VMT Mitigation Measures	VMT Reduction Range (%)	Local VMT Calculations (%)	VMT Reduction ¹ (%)
6	Incorporate bike lane street design (on-site)	N/A	0.30 / 100 miles	0.02
11	Orient project towards transit, bicycle and pedestrian facilities	0.25, 0.50	N/A	0.25
12	Provide pedestrian network improvements	0.00 - 2.00	N/A	2.00
15	Increase destination accessibility	6.70 - 20.00	N/A	0.42
16	Provide traffic calming measures	0.25 - 1.00	N/A	0.75
38	Increase mix of uses within the project or within the project's surroundings	9.00 - 30.00	N/A	0.24
41	Locate project near bike path/bike lane	0.625	N/A	0.625
46	Install park-and-ride lot	0.10-0.50, 0.50	N/A	0.10

Note: 1 = VMT Reduction Rate based on engineering judgement, data provided by the developer and CAPCOA *Quantifying Greenhouse Gas Mitigation Measures*

It should be noted that VMT mitigation measures such as shifting single-occupancy vehicle trips to car- or vanpooling, provide bike parking in non-residential projects, and utilize electric or hybrid vehicles to name a few, were not accounted for in the VMT analysis for the proposed Project. It is estimated that given the design elements associated with the Project and the surrounding multi-modal environment, the Project will benefit from reductions in VMT as a result of other measures. Since these measures are not implemented without justification, only the measures presented in Table 3.17-12 were considered for purposes of this analysis. However, after implementation of mitigation measures, the Project will continue to exceed the VMT thresholds, thus the impact is *significant and unavoidable*.

Impact 3.17-3: *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? AND/OR*

Impact 3.17-4: *Result in inadequate emergency access?*

Less Than Significant Impact. Based on the conceptual Project Site Plan, access to and from the Project site will be from existing and proposed public roadways and access points located along the east side of Friant Road, north side of Copper Avenue and west side of Willow Avenue. At present, the Project site can access Friant Road via Crest View Drive and Copper River Drive. The intersection of Friant Road and Crest View Drive is controlled by a two-way stop on Crest View Drive and allows full access. The intersection of Friant Road and Copper River Drive is controlled

by a traffic signal and allows full access. Moreover, the Project site can access Copper Avenue via Millbrook Avenue, Cedar Avenue, Maple Avenue, and Chestnut Avenue. The intersection of Millbrook Avenue and Copper Avenue is controlled by a two-way stop on Millbrook Avenue and allows full access. However, this intersection is projected to be controlled by a traffic signal by the year 2021 as a result of development of components of the original 2003 Project. The intersection of Cedar Avenue and Copper Avenue is controlled by a traffic signal and allows full access. The intersection of Maple Avenue and Copper Avenue is also controlled by a traffic signal and allows full access. The intersection of Chestnut Avenue and Copper Avenue is controlled by an all-way stop and allows full access. However, this intersection is projected to be controlled by a traffic signal by the year 2021 as a result of development of a project previously reviewed and approved by the City of Fresno.

The Project will be responsible for construction of internal roadways to City standards as well as for potential improvements to surrounding roadways to accommodate the Project. No roadway design features associated with this proposed Project would result in an increase in hazards due to a design feature or be an incompatible use. The internal road system has been designed with traffic calming features such as curved roadways, cul-de-sacs and relatively short blocks of housing. There are no conflicting land uses (e.g. use of farm equipment) associated with the Project. The City has reviewed the site layout and determined that the Project provides adequate emergency access. There is a *less than significant impact*.

Mitigation Measures: None are required.

Applicability of 2003 FEIR Mitigation Measures

The 2003 FEIR provided the mitigation measures related to transportation impacts. A review of the previous mitigation measures and their implementation is included on pages 3.17-34 through 3.17-39 of Section 3.17-1 and Table 3.17-9. Please refer to that section for a discussion of the disposition of the previous 2003 FEIR mitigation measures. Below is a summary of the status and applicability of the previous 2003 FEIR mitigation measures and new mitigation for the proposed Project.

2003 FEIR Mitigation	Determination	New Conditions of Approval (if applicable)
<p>2.2.1-a: If the project is found to trigger a capacity improvement, which otherwise would not be required under the no-project scenario, the project will be required to fully fund (100 percent) of the improvement. Subsequent project-specific studies will determine the need and feasibility of the improvement.</p>	<p>The determination of completion for this mitigation measure is as follows:</p> <p>2.2.1-a: Ongoing through Project development.</p>	<p>Mitigation measure 2.2.1-a shall continue to be applicable.</p>
<p>2.2.1-b: Since the project is defined in very general terms at the Program EIR level, developer responsibility for proposed mitigation measures is shown as fair share percentage estimates rather than project-specific fair share responsibilities. The fair share percentage estimates provide a general overview of how much the project may need to contribute to mitigate potential impacts on the future roadway system. Once the project is defined through the development plan and specific plan/site plan, a project-specific traffic analysis will determine both project-specific impacts and associated developer responsibility for mitigation. In these future project-specific traffic studies, actual project fair shares will be determined. However, unless other projects</p>	<p>The determination of completion for this mitigation measure is as follows:</p> <p>Mitigation Measure 2.2.1-b from the 2003 FEIR contained several required improvements / mitigations pertaining to transportation impacts. Several of the recommended roadway widening mitigation measures have been implemented. Table 3.17-9 herein identifies the recommended improvements that have been implemented. Additionally, since the adoption of the 2003 FEIR, the City of Fresno updated its General Plan in 2014. As part of the current <i>Fresno General Plan</i>, the Circulation Element acknowledged that Friant Road would exceed LOS D as</p>	<p>TRA-1 The Project shall pay into applicable transportation fee programs. These include a Fresno Major Street Impact Fee (FMSI), a Traffic Signal Mitigation Impact Fee (TSMI) and a Regional Transportation Mitigation Fee (RTMF). The FMSI Fee will be calculated and assessed during the building permit process. The RTMF will be calculated and assessed by Fresno COG.</p> <p>TRA-2 The Project will be responsible for paying its fair share cost percentages and/or constructing the recommended improvements identified in the Cumulative Year 2035 With Project Scenario subject to reimbursement for the costs that are in</p>

<p>in the study area are proposed for development with a more intensive land use, those segments that are shown at 100 percent developer responsibility are likely to remain at 100 percent developer responsibility in all future project-specific traffic studies. The fair share percentage estimates do not take into account either the City of Fresno UGM fees or the City of Clovis TIF program.</p> <p>With completion of the project, a fair share percentage of improvement to the following noted street segments is needed in 2025 to maintain level of service standards:</p> <ul style="list-style-type: none"> • Friant Road from SR 41 southbound off-ramp to SR 41 northbound off-ramp • Friant Road from SR 41 northbound off-ramp to Fresno Street • Friant Road from Fresno Street to Audubon Drive • Friant Road from Audubon Drive to Shepherd Avenue • Friant Road from Shepherd Avenue to Ft. Washington Road • Friant Road from Ft. Washington Road to 	<p>a six-lane facility between Shepherd Avenue and State Route 41 Southbound Off-Ramp. However, City Council made the appropriate findings to designate the maximum number of lanes to three (3) in each direction while exceeding the City's standard LOS threshold for this segment of Friant Road. As a result of this change in the Fresno General Plan, further changes to the segments of Friant Road between the SR 41 SB Off-Ramp and Audubon Drive would no longer be necessary as three or more lanes in each direction are currently in place. Therefore, these segments of Friant Road should be removed as mitigation measures of the Project, and that the Projects traffic impacts be considered significant and unavoidable.</p> <p>Taking into account the improvements that have been made as identified in Table 3.17-9, the current Project will require additional improvements. The Project will be required to construct public road frontages as well as all on-site roadways to City of Fresno standards. The Project's fair share percentage impact of the</p>	<p>excess of the Project's equitable responsibility as determined by the City. This will be itemized and enforced through conditions of approval or a development agreement, at the discretion of the City, prior to Project implementation. The following are the required improvements:</p> <ul style="list-style-type: none"> • Friant Road / Willow Avenue <ul style="list-style-type: none"> ○ Remove the northbound left-turn lane; ○ Modify the inside northbound through lane to a left-through lane; ○ Remove the southbound left-turn lane; ○ Modify the inside southbound through lane to a left-through lane; and ○ Install a two-lane roundabout for Friant Road and a single lane for Willow Avenue and Birkhead Avenue. The Roundabout should retain the existing free flow right-turn lane from Willow
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<p>Champlain Drive</p> <ul style="list-style-type: none"> • Friant Road from Millbrook Avenue / Copper Avenue to Country Club Drive • Friant Road from Birkhead / Willow Avenue to North Fork Road / Millerton Road • Auberry Road from Copper Avenue to Marina Drive • Auberry Road from Marina Drive to Millerton Road • Millbrook Avenue from Friant Road to Copper Avenue • Copper Avenue from Millbrook Avenue to Cedar Avenue • Copper Avenue from Cedar Avenue to Maple Avenue • Copper Avenue from Maple Avenue to Chestnut Avenue • Copper Avenue from Chestnut Avenue to Willow Avenue • Copper Avenue from Willow Avenue to Peach Avenue • Copper Avenue from Peach Avenue to Auberry Road • Copper Avenue from Auberry Road to 	<p>study intersections at which the Project will either cause or contribute to a significant impact which corresponds to the recommended improvements listed under the Cumulative Year 2035 With Project Scenario are included in Mitigation Measures TRA-1 and TRA-2.</p> <p>Therefore, Mitigation Measure TRA – 1 and TRA – 2 shall supersede Mitigation Measure 2.2.1-b.</p>	<p>Avenue to an acceleration lane on northbound Friant Road.</p> <ul style="list-style-type: none"> • Willow Avenue / Alicante Drive <ul style="list-style-type: none"> ○ Signalize the intersection with protective left-turn phasing in all directions. • Willow Avenue / Copper Avenue <ul style="list-style-type: none"> ○ Add a second eastbound left-turn lane; ○ Add a second eastbound through lane; ○ Add a second westbound left-turn lane; ○ Modify the westbound through-right lane to through lane; ○ Add a second westbound through lane; ○ Add a westbound right-turn lane; ○ Add a second northbound left-turn lane; ○ Modify the northbound
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<p>Minnewawa Avenue</p> <ul style="list-style-type: none"> • Willow Avenue from Shaw Avenue to Bullard Avenue • Willow Avenue from Bullard Avenue to Herndon Avenue • Willow Avenue from Herndon Avenue to Alluvial Avenue • Willow Avenue from Alluvial Avenue to Nees Avenue • Willow Avenue from Nees Avenue to Teague Avenue • Willow Avenue from Teague Avenue to Shepherd Avenue • Willow Avenue from Shepherd Avenue to Perris Avenue • Willow Avenue from Perris Avenue to Behymer Avenue • Willow Avenue from Behymer Avenue to International Avenue • Willow Avenue from International Avenue to Copper Avenue • Willow Avenue from Copper Avenue to South Project Road • Willow Avenue from South Project Road to North Project Road • Chestnut Avenue from 		<ul style="list-style-type: none"> through-right lane to a through lane; ○ Add a second northbound through lane with a receiving lane north of Copper Avenue; ○ Add a northbound right-turn lane; ○ Add a second southbound left-turn lane; and ○ Modify the traffic signal to accommodate the added lanes. <ul style="list-style-type: none"> • Peach Avenue / Copper Avenue <ul style="list-style-type: none"> ○ Add an eastbound right-turn lane; ○ Modify the eastbound through-right lane to a through lane; ○ Add a westbound left-turn lane; ○ Modify the westbound left-through lane to a through lane; and ○ Add a two-way left-turn lane on the west leg of Peach Avenue. • Auberry Road / Copper Avenue
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<p>Nees Avenue to Shepherd Avenue</p> <ul style="list-style-type: none"> • Shepherd Avenue from Minnewawa Avenue to Fowler Avenue • Shepherd Avenue from Fowler Avenue to Temperance Avenue • Herndon Avenue from Willow Avenue to Peach Avenue • Herndon Avenue from Peach Avenue to Villa Avenue • Herndon Avenue from Villa Avenue to Clovis Avenue • Herndon Avenue from Clovis Avenue to Fowler Avenue • Herndon Avenue from Toll House Road to De Wolf Avenue 		<ul style="list-style-type: none"> ○ Add a westbound right-turn lane; ○ Modify the westbound through-right lane to a through lane; and ○ Modify the traffic signal to accommodate the added lanes. <ul style="list-style-type: none"> • Chestnut Avenue / Behymer Avenue <ul style="list-style-type: none"> ○ Signalize the intersection with protective left-turn phasing in all directions. • Friant Road / Audubon Drive <ul style="list-style-type: none"> ○ Modify the traffic signal to implement overlap phasing of the westbound right-turn with the southbound left-turn phase; ○ Prohibit southbound to northbound U-turn movements; ○ Modify the traffic signal to implement overlap phasing of the southbound right-turn with the eastbound left-turn phase;
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		<ul style="list-style-type: none"> ○ Prohibit eastbound to westbound U-turn movements; ○ Modify the traffic signal to implement overlap phasing of the northbound right-turn with the westbound left-turn phase; and ○ Prohibit westbound to eastbound U-turn movements. ○ It should be noted that given existing constraints and the ultimate designation for six-lanes on Friant Road, the said improvements are not projected to meet the City's target LOS threshold; however, it is projected they will reduce overall delay by an average of 22 seconds. Therefore, the traffic impacts at this intersection are considered adverse but unavoidable. <ul style="list-style-type: none"> ● Fresno Street / Friant Road <ul style="list-style-type: none"> ○ Given existing constraints and the ultimate designation
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		<p>for six-lanes on Friant Road, the number of modifications that can be made at this intersection are limited. JLB analyzed, if implementing an overlap phasing of the northbound right-turn with the westbound left-turn phase; however, it was found that such modifications will result in very low benefit in the reduction of delay while requiring a large number of westbound to eastbound U-turns to be prohibited. As a result, JLB recommends against modifications to this intersection while acknowledging that the City's LOS threshold for this intersection is projected to be exceeded.</p> <ul style="list-style-type: none">• State Route 41 Northbound Off-Ramp / Friant Road
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		<ul style="list-style-type: none"> ○ Consistent with the <i>Fresno General Plan</i> Circulation Element, Friant Road already exists as a six-lane divided arterial between Audubon Drive and Nees Avenue. ○ The <i>Fresno General Plan</i> Circulation Element acknowledged that Friant Road would exceed LOS D as a six-lane facility between Shepherd Avenue and State Route 41 Southbound Off-Ramp and made appropriate findings to designate the maximum number of lanes to three (3) in each direction while exceeding the City's standard LOS threshold for this segment of Friant Road. ○ The Caltrans' State Route 41 TCR also acknowledged that State Route 41 would exceed LOS D as an eight-lane freeway between El
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		<p>Paso Avenue and the Fresno/Madera County line and made the appropriate findings to designate LOS F as the LOS threshold for this segment of State Route 41.</p> <ul style="list-style-type: none"> ▪ City of Fresno VMT Guidelines, make clear that any capacity enhancing transportation projects may have a significant VMT impact and be subject to a detailed analysis that would include measuring induced travel likely requiring infeasible VMT mitigation measures. ▪ Considering the <i>Fresno General Plan Circulation</i>
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		<p>Element, the Caltrans State Route 41 TCR and the City of Fresno VMT Guidelines, the traffic impacts at this intersection are considered adverse but unavoidable.</p>
<p>2.2.1-c: In addition to segment capacity improvements, the project should also encourage transit use. Alternative transportation mitigation measures include:</p> <ul style="list-style-type: none"> • Establish a Transportation Demand Management Program that provides incentives for people both living and working in the project area to utilize some sort of commute alternative such as walking, bicycling, carpool/vanpool, transit, and flex-scheduling. • Contract with Fresno Area Express (FAX) to provide transit stops 	<p>The determination of completion for this mitigation measure is as follows:</p> <p>Mitigation Measure 2.2.1-c from the 2003 FEIR contained several required improvements / mitigations pertaining to alternative transportation. The status of these measures are as follows:</p> <ul style="list-style-type: none"> • The provision to establish a Transportation Demand Management Program shall continue to be applicable. • Fresno Area Express (FAX) is the transit 	<p>The following component of Mitigation Measure 2.2.1-c shall continue to be applicable:</p> <ul style="list-style-type: none"> • Establish a Transportation Demand Management Program that provides incentives for people both living and working in the project area to utilize some sort of commute alternative such as walking, bicycling, carpool/vanpool, transit, and flex-scheduling.

<p>internal to and bordering the project site; or create a project internal transit system that connects to the FAX system at some designated points along Friant Road, Maple Avenue, Chestnut Avenue, or Willow Avenue.</p> <ul style="list-style-type: none"> • Create park-and-ride lots within the project, possibly at retail/service/office use locations. 	<p>operator in the City of Fresno. At present, there are no FAX transit routes that operate in the vicinity of the proposed Project. The closest is FAX Route 58, which runs on Champlain Drive and Perrin Avenue, approximately 2.7 miles southwest of the proposed Project. In addition, areas for bus stops within the development have been identified for when transit ridership demand and available funding enable FAX to expand services to the area. These are proposed to be located along the unbuilt portions of Copper Avenue adjacent to the Project.</p> <ul style="list-style-type: none"> • A park and ride was installed at the southeast corner of Friant Road and Copper Avenue. 	
<p>The 2003 FEIR did not include an</p>		<p>TRA-3 The Project shall incorporate (or take credit</p>

<p>analysis of VMT, therefore, there was no previous mitigation associated with VMT reduction.</p>		<p>for) the following design features to reduce Project-related VMT:</p> <ul style="list-style-type: none"> • Incorporate bike lane street design (on-site) <ul style="list-style-type: none"> ○ Within the Project, Class II Bikeways exist along portions of Alicante Drive between Via Livorno Lane and approximately 1,600 feet west of Crest View Drive, Clubhouse Drive between Alicante Drive and Queensberry Avenue, Copper River Drive between Friant Road and Maple Avenue and Cedar Avenue between Copper River Drive and Copper Avenue. It is recommended that the Project implement Class II Bikeways within the Project along the remaining lengths of Alicante Drive and Winery Avenue/Road 'G'. • Orient project towards transit, bicycle and pedestrian facilities <ul style="list-style-type: none"> ○ This measure applies if a Project is oriented towards a planned or existing transit, bicycle or pedestrian corridor.
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		<ul style="list-style-type: none">○ This Project has connections to Class I and Class II Bikeways in the vicinity of the Project along Copper Avenue, Willow Avenue and Shepherd Avenue. Connections also exist to the nearby Lewis S. Eaton Trail and the Fresno-Clovis Rail-Trail.○ Additionally, all major street improvements have been designed to accommodate transit.● Provide pedestrian network improvements<ul style="list-style-type: none">○ This mitigation measure provides that all the internal components of a Project are connected with each other and the larger off-site network via pedestrian paths to encourage people to walk instead of drive.○ Within the Project site, pedestrian sidewalks exist along built out portions of Alicante Drive, Clubhouse Drive, Copper River Drive, Cedar Avenue and Maple Avenue.○ Adjacent to the Project site, a Class I Bike Path exists along Copper
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		<p>Avenue between Friant Road and Chestnut Avenue. In the vicinity of the Project site, pedestrian sidewalks exist along portions of Friant Road, Willow Avenue, Copper Avenue, Millbrook Avenue, Cedar Avenue, Maple Avenue, Chestnut Avenue, Olympic Avenue, International Avenue, Behymer Avenue, Sommerville Drive, Audubon Drive, Fresno Street, Blackstone Avenue and Nees Avenue.</p> <ul style="list-style-type: none"> ○ Connections also exist to the nearby Lewis S. Eaton Trail and the Fresno-Clovis Rail-Trail via a Class I Bike Path on Copper Avenue. ● Increase destination accessibility <ul style="list-style-type: none"> ○ This mitigation is measured in terms of the number of jobs or other attractions reachable within a given travel time. In this case, it is measured to the downtown Fresno area approximately 11.75 miles away.
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		<ul style="list-style-type: none"> • Provide traffic calming measures <ul style="list-style-type: none"> ○ There are four existing roundabouts and three proposed roundabouts within the Project. The four existing roundabouts are located at the intersections of Alicante Drive and Copper River Drive, Alicante Drive and Clubhouse Drive, Crest View Drive and Alicante Drive and Maple Avenue and Copper River Drive. The three proposed roundabouts are located at the future intersections of Road 'G' and New Willow Access Road, Road 'G' and Alicante Drive and Alicante Drive and future internal road. These proposed roundabouts will be completed with the construction of the Project and its internal roads. ○ Internal roadways are existing with and proposed to contain marked crosswalks, raised median islands, planter strips with street trees and curves.
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		<p>On-street parking and/or NEV lanes exist on stretches of internal roadways as well.</p> <ul style="list-style-type: none"> • Increase mix of uses within the project or within the project’s surroundings <ul style="list-style-type: none"> ○ The Project consists of multiple land uses as noted in the trip generation in Table 3.17-3. Included in the land uses are park-n-ride lot, single-family detached housing with multiple densities, apartments, city parks and commercial components. • Located project near bike path / bike lane <ul style="list-style-type: none"> ○ The Project has several existing bike paths and lanes in the vicinity. For example, Class II Bikeways exist along portions of Friant Road, Millbrook Avenue, Cedar Avenue, Maple Avenue, Chestnut Avenue, Willow Avenue, Olympic Avenue, International Avenue, Behymer Avenue, Sommerville Drive, Audubon Drive, Fresno Street and Nees Avenue. Similarly, Class I Bikeways exist along portions of Friant Road,
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		<p>Copper Avenue, Willow Avenue, Audubon Drive, Fresno Street and Nees Avenue. Connections also exist to the nearby Lewis S. Eaton Trail and the Fresno-Clovis Rail-Trail via a Class I Bike Path on Copper Avenue.</p> <ul style="list-style-type: none"> ○ In addition to this, it was recommended that the Project implement Class I Bikeways along its frontages to Copper Avenue and Willow Avenue. Similarly, it is recommended that the Project implement Class II Bikeways along its frontage to Willow Avenue, Copper Avenue, Alicante Drive and Road "G". ● Existing park-and-ride lot <ul style="list-style-type: none"> ○ This park-and-ride lot contains 23 parking spots and is located on the southeast corner of Friant Road and Copper Avenue.
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Cumulative Impacts

Cumulative transportation impacts were evaluated under the Cumulative Year 2035 Plus Project Scenario. Refer to Section 3.17-1 herein for that discussion. However, after implementation of all feasible mitigation measures, the impact remains *cumulatively considerable*.

3.18 Tribal Cultural Resources

This section of the SEIR evaluates the potential impacts to Tribal Cultural Resources (TCRs) associated with implementation of the proposed Project. One NOP comment letter was received from the Native American Heritage Commission (NAHC) and is provided in Appendix A. The NAHC letter provided regulations and recommendations pertaining to consultation with California Native American tribes pursuant to Assembly Bill 52 and Senate Bill 18. Tribal consultation is addressed within this section.

Determination of Adequacy of 2003 FEIR

The topic of Tribal Cultural Resources was not included in the CEQA Guidelines Appendix G checklist when the original 2003 FEIR was prepared. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	✓	
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	✓	
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	✓	

Environmental Setting

The Project site is located in the northern portion of the City of Fresno, in an area dominated by urban land uses. The existing 706-acre Copper River Ranch Development includes a combination of residential land uses (both single- and multi-family) and a variety of non-residential land uses including a golf course, office and commercial land uses. The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation. The proposed new development area is surrounded by residential development to the north; residential development, portions of a gold course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west.

A Tribal Cultural Resource (TCR) is defined under Public Resources Code section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included and that is listed or eligible for inclusion in the California Register of Historic Resources or in a local register of historical resources.

Cultural resources are broadly defined as buildings, structures, objects, sites, districts, and archeological resources associated with human activity in prehistory or history. For the purposes of the current assessment, “prehistory” refers to a time period prior to the arrival of Spanish and other Euro-American explorers and settlers into the project area, when the area was inhabited only by Native American peoples, described below as the Prehistoric Setting.

Prehistoric Setting

Terminal Pleistocene (13,500 to 11,000 BP [Before Present]). About 14,000 years ago, California was a much wetter and cooler place, but with the retreat of continental Pleistocene glaciers, the whole of California except the northwest coast saw a warming and drying trend. Large shallow lakes filled with glacial meltwater were located in the Central Valley and used by populations of large game animals, most of which are now extinct. The waters in these pluvial lakes rose and fell with the season, but were unlikely to have dried completely. A few prehistoric sites have been discovered near the southwestern shore of Tulare Lake, but none in or near the City of Fresno and none in the middle San Joaquin Valley. Native American populations were probably widely dispersed hunter-gatherers, and their archaeological assemblages would have consisted of large projectile points with distinctive “fluted” styles and deeply buried features with animal fragments. Such sites would likely be discovered on Late Pleistocene-dated ground

surfaces. Within the City, these surfaces are not exposed at the ground surface and would quite probably be deeply buried.

Early and Middle Holocene (11,000 to 7,000 BP - 7,000 to 3,800 BP). Historical analysis set forth the argument that land located between the floodplain of the middle and lower San Joaquin Valley and the lower foothills is covered with a recent and thick blanket (30 feet or more) of alluvium derived from a post-Pleistocene erosion of the western Sierras. Thus, while a few sites from the early Holocene periods are found in upland environments, there are no such dated sites in or very near the City of Fresno.

Sites in the nearby foothills exhibit groundstone assemblages suggesting that acorns and pine nuts were harvested when ripe by bands of mobile groups. Comparative ethnographic data suggests that mobile peoples with a seasonal round may have created a home base (village) in winter during these periods, then travelled to exploit pockets of certain resources in temporary encampments. This type of lifeway was likely common for most California peoples except those on the North Coast, and probably continued in a like fashion throughout the Early and Middle Holocene. Differences in lowland and upland sites emerged about 4,500 BP giving the regional populations distinct patterns. Lowland groups may have predominated in the Fresno area during the late Middle Holocene and archaeological sites dated to this time would likely exhibit foodstuff and processing tools more focused on lakeshore resources than grinding implements seen in upland sites. Soil strata found in the northwestern portion of the City has been defined as a Late Pleistocene non-marine alluvial fan covered with a veneer of late Holocene soil. In general, early and Middle Holocene alluvial deposits with cultural resources in them would typically be exposed only after several feet of soil has been removed. Soils near active stream channels are younger and are less likely to exhibit sites from this period except on intact dunes and at some depth. Thus, sites from this period are likely located in the City, but are more likely to be found at depth after a disturbed topsoil horizon has been removed.

Late Holocene (3,800 to 1,500 BP). This period saw an increase in the number of sites and evidence for an increased sophistication in the toolkit of the local prehistoric groups. Archaeologists often interpret increases in the number of sites dated to a certain period as reflecting an increase in population. Populations existing on flatter areas between braided stream channels near the city and those along the major riverine systems in the middle San Joaquin Valley probably concentrated their lifeways on marsh-based resources. Evidence for trading networks between nearby groups is robust.

The quantity of sites near the south bank of the San Joaquin River (in and near the city limits) is large and several have been investigated. Archaeologists seldom excavate buried sites

exhibiting data that might allow a determination of whether or not a prehistoric site “belongs” to one ethnographic group or another, but at the end of this period cultural groups possessing Great Basin-style toolkits began to arrive in California and appear to have begun influencing and/or merging with the existing populations. Local sites saw changes in the toolkit with an overall reduction of projectile point size suggestive of bow and arrow technologies. Previous studies suggest that at about 2,300 years ago, large villages were clustered along the banks of the San Joaquin River and other watersheds (winter villages). Structured social hierarchies are inferred in the archaeological data. Evidence for Late Holocene deposits in and very near the city limits is likely. These would lie upon buried alluvial fans and riverine deposits at shallow depths, and possibly near the exposed surface of vacant properties.

Late Prehistoric (1,500 BP to Contact with the Spanish). With the introduction of Great Basin populations into the Eastern Sierras of California at the beginning of the Late Prehistoric, many of the ancestral California tribes were influenced by their toolkits and lifestyles. Part of this interpretation is derived from linguistic studies. The Yokuts were Penutian speakers, which appear to have arrived earlier, and many of the tribes to the east and southeast were newly arrived Takic or Uto-Aztecan speakers. The Takic speakers exhibited toolkits and lifeways adapted to desert climates. Bow and arrow technologies and the use of pottery are found in sites dating to this period. This period was the zenith of prehistoric California life, with an increase in sophisticated lifestyles, extensive trade networks, and a burgeoning population. The end of the period saw the introduction of Europeans and their diseases of which the local tribes had little defense or resistance. For more information on the Yokuts, see the ethnographic section below.¹

Ethnographic Overview

At the time of European contact, most of the San Joaquin Valley and the foothills of the western slope of the Sierra Nevada were occupied by 40 or so groups classified together as the Yokuts with a Foothills division and a Valley division of language dialects. The Yokuts were recognized as having three major subgroups: the Northern Valley, the Foothill, and the Southern Valley. Each of these ethnolinguistic groups was composed of autonomous, culturally and linguistically related tribes or tribelets. Ethnographic evidence suggests the city is located in part of the Southern Valley Yokuts territory.

¹ City of Fresno General Plan Program EIR (2020), pages 4.5-2 through 4.5-5.

Alfred Kroeber divided a Yokuts classification system into Valley Divisions and Foothill Divisions based on ethnographic lines, geographic habitat, and dialect. Here, the Foothill Division's worldview and economy were influenced more by their Shoshonean neighbors than the Valley Division Yokuts. Later, William Wallace divided the Yokuts into three subgroups, Southern Valley, Northern Valley, and Foothill, and shifted the known tribelets among these divisions. The following is a review of ethnographic information associated with the Southern Valley Yokuts.

The Southern Valley Yokuts occupied a rich environment with abundant water resources from the nearby sloughs, lake basins, and river systems. Swamps and tule marshes surrounded the waterways and teemed with wildlife, including aquatic mammals, fish, and waterfowl. Adjacent grasslands provided food for herds of elk, antelope, and (in the winter) deer. The regional flora was equally, if not more, diverse and was used as a main staple of the Yokuts diet. The Southern Valley Yokuts dietary base relied on a mixed strategy of fishing, waterfowl hunting, shellfish, and plant collecting, with less emphasis on large-game hunting. Important vegetal resources included cattail roots, grasses, nuts, seeds, tule, and bulbs. The resource-rich environment allowed for permanent village sites, which typically were occupied throughout the year.

Resources not found in the local environment were obtained through an extensive trade network, which had begun to develop during the Late Holocene. Quality stone and wood were lacking in the Valley environment and were often acquired through trade with nearby tribes. Imported items included acorns, salt, obsidian, and seashells, which were exchanged for locally available asphaltum, steatite, and animal skins. The material culture of the Southern Valley Yokuts included structures, watercraft, basketry, weapons, and tools fashioned primarily from local resources. The ubiquitous tule was the primary component used for house construction and other fiber crafts such as basketry, mats, and cradles. Rafts were central to the economy base because of the abundance of waterways, which made watercraft the preferred mode of transportation. Wood, stone, and bone were commonly used to manufacture a variety of tools and weapons. Sweathouses were common to every settlement and, in the case of the Southern Valley Yokuts, were used exclusively by men on a daily basis.

The Southern Valley Yokuts were divided into true tribes, with individual tribelets having their own name, dialect, and territory. Typically, a tribelet was ruled by a central chief who inherited the position, was assisted by one or more aides, and lived in the largest village. The chief's duties included decisions that affected the well-being of the entire tribelet, sanctioning trade, entertaining guests, and arbitration of intra-tribal disputes. Marriage was typically informal, and patrilocality was the accepted practice following marriage. Thus, if a family had numerous

sons, a circle of extended family members would inhabit the area immediately adjacent to the patriarch's home. Polygamy was not objected to, but it was practiced solely by men. There is scant evidence that the Southern Valley Yokuts participated in a large number of organized religious ceremonies.²

Regulatory Setting

Federal Regulations

National Historic Preservation Act of 1966

The National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. § 300101 et seq.), is the primary Federal legislation governing the preservation and protection of significant cultural resources. Title 54 U.S.C. § 306108, formerly and commonly known as Section 106 of the NHPA, requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment with regard to such undertakings. Undertakings are projects, activities, or programs funded in whole or in part under the direct or indirect jurisdiction of a Federal agency (54 U.S.C. § 300320). Historic properties are cultural resources that are included on, or eligible for inclusion on, the NRHP (54 U.S.C. § 300308).

State of California Regulations

California Assembly Bill 52

Assembly Bill 52 (AB 52), which was approved in September 2014 and became effective on July 1, 2015, requires that CEQA lead agencies consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if requested by the tribe. A provision of the bill, chaptered in CEQA Section 21086.21, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment.

Defined in Section 21074(a) of the Public Resources Code, TCRs are:

² City of Fresno General Plan Program EIR (2020), pages 4.5-5 through 4.5-6.

1. Sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are either of the following:
 - a. Included or determined to be eligible for inclusion in the California Register of Historical Resources; or
 - b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

TCRs are further defined under Section 21074 as follows:

- a. A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and
- b. A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “non-unique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a TCR if it conforms with the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TRCs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

California Senate Bill 18

Senate Bill 18 was enacted in 2004 in order to “establish meaningful [government-to-government] consultations between California Native American tribal governments and California local governments at the earliest possible point in the local government land use planning process so that these places [referring to tribal cultural places] can be identified and considered” (Chapter 905, Statutes of 2004).

Senate Bill 18 outlines the mandatory government-to-government consultation process. It defines the role of local governments within this process and includes a timeframe for communication with California Native American tribes, which is to occur prior to the adoption or amendment of any general plan or open-space designation (Government Code, Sections 65352.3, 65562.5). To assist with compliance, the Office of Historic Preservation has produced a set of Tribal Consultation Guidelines (2005).

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

- Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - i. Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1j(k) or
 - ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Impacts and Mitigation Measures

Impact 3.18-1: *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*

- i) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or*

- ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

Less Than Significant. A Tribal Cultural Resource (TCR) is defined under Public Resources Code section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included and that is listed or eligible for inclusion in the California Register of Historic Resources or in a local register of historical resources. As discussed herein, under Section 3.5 - Cultural Resources, criteria (b) and (d), a cultural resources survey was conducted, and a report prepared for the Project. As identified in the cultural resources report and in Section 3.5, no known archeological resources, ethnographic sites or Native American remains are located on the proposed Project site. As discussed under criterion (b), implementation of mitigation measures would reduce impacts to unknown archaeological deposits, including TCRs, to a less than significant level. As discussed under criterion (d), compliance with California Health and Safety Code Section 7050.5 would reduce the likelihood of disturbing or discovering human remains, including those of Native Americans.

In accordance with Assembly Bill (AB) 52 and Senate Bill (SB) 18, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project. The City contacted the Native American Heritage Commission, requesting a contact list of applicable Native American Tribes, which was provided to the City. The City provided letters to the listed Tribes in August 2020, notifying them of the Project and requesting consultation, if desired. None of the Tribes that were contacted requested further consultation during the 90-day notification period. Any impacts to TCR would be considered *less than significant*.

Mitigation Measures

None are required.

Applicability of 2003 FEIR Mitigation Measures

The 2003 FEIR did not include an analysis of impacts to tribal cultural resources, thus there were no previous mitigation measures pertaining to this impact area.

Cumulative Impacts

The scope for considering cumulative impacts to tribal cultural resources are the geographic areas covered by the City of Fresno General Plan, as well as the areas designated by the Native American Heritage Commission as having potential to impact tribal cultural resources (TCRs) as a result of the Project. As discussed above, Project site is not known to contain any TRCs, and ongoing consultation with potentially affected tribes will occur throughout Project development. In addition, mitigation measures identified in Section 3.5 – Cultural Resources are included to further ensure that potential impacts to TCRs remains less than significant. As the Project does not result in adverse impacts to TCRs, cumulative impacts are considered *less than cumulatively considerable*.

3.19 Utilities and Service Systems

This section of the SEIR identifies potential impacts to utilities and service systems associated with implementation of the proposed Project. One comment letter on the NOP was received by the Fresno Metropolitan Flood Control District. The letter provided information on flood control facilities in the Project area, applicable regulations, and methodologies that should be used when evaluating flood/stormwater impacts associated with the Project.

Determination of Adequacy of 2003 FEIR

The original Copper River Ranch Project 2003 FEIR evaluated impacts to utilities associated with development of up to 2,837 residential units and approximately 250,000 square feet (60 acres) of commercial development on approximately 706.5 acres. The 2003 FEIR determined that the original Project would have a less than significant impact, with mitigation, on utilities (Pages 2.8.1 – 2.8.18 of the 2003 FEIR). The Project Applicant is proposing to add an additional 109 acres to the development located adjacent to and east of the existing Copper River Ranch Project. The Project also proposes some land use changes within the existing Copper River Ranch development. Since the Project is proposing an additional 109 acres to the development as well as changes to some land uses to the existing development, additional evaluation is required. Additional information is being provided herein regarding impacts to utilities and service systems associated with the additional 109 acres and the changes to the existing land uses within the 706-acre Copper River Ranch Development. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	✓	
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	✓	

<p>c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?</p>	<p>✓</p>	
<p>d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?</p>	<p>✓</p>	
<p>e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?</p>	<p>✓</p>	

Environmental Setting

Water System and Supply

The City of Fresno Department of Public Utilities (DPU) provides potable water to the majority of the City, and some users within the portion of the Planning Area outside of the City limits. Historically, Fresno’s primary source of potable water has been groundwater stored in an aquifer. However, in 2004 the City’s first surface water treatment facility (Northeast Surface Water Treatment Facility [NESWTF]) came online and began delivering approximately 4,060 acre-feet in 2004 to residents in northeast Fresno. By 2010, the NESWTF delivered approximately 18,474 acre-feet of treated surface water.¹ The 2015 UWMP was adopted by the City Council in June 2016. It describes the current and planned water conservation programs, provides a water shortage contingency plan should it need to be implemented in the event of a severe water shortage or water supply emergency and a future water supply plan for a variety of water sources including treated surface water, groundwater and recycled water. Also included in this 2015 UWMP is an aggressive water conservation plan to reduce demand throughout the City’s service area. The 2015 UWMP is in accordance with the Urban Water Management Planning Act that stipulates that every urban water supplier in California supplying water directly or indirectly to 3,000 or more customers or supplying more than 3,000 AF of water annually shall adopt and submit an Urban Water Management Plan to the California Department of Water

¹ City of Fresno General Plan and Development Code Update. Master Environmental Impact Report. <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2016/11/Sec-05-15-UtilitiesMEIR.pdf>. Page 5.15-2. Accessed February 2021.

Resources. Failure to submit a plan, as required, could result in ineligibility to receive certain grants or receive drought assistance from the State.

Groundwater Supply

The greater Fresno area, including the Project site, is underlain by the Kings River Sub-basin, which, along with six other sub-basins, comprises the San Joaquin Valley Groundwater Basin. In turn, the San Joaquin Basin is located within the Tulare Lake Hydrologic Region. The Tulare Lake Hydrologic Region spans approximately 10.9 million acres (17,000 square miles) and includes most of Fresno County. The Region encompasses the southern one-third of the Central Valley Regional Water Quality Control Board (RWQCB) jurisdiction.

The Kings River Sub-basin extends from the Sierra Nevada foothills on the east to the San Joaquin Valley trough on the west, and from the San Joaquin River on the north to roughly the Fresno County line on the south. Historically, water demand within the City's jurisdiction has been met by extracting groundwater from the Kings Sub-basin. Groundwater levels since 1990 have declined from less than 0.5 feet per year in the southwest portion of the downtown area, to a rate of 1.5 feet per year for northern and southern areas of the City, to a maximum of 3 feet per year in the northeastern area of the City.²

The San Joaquin River and the Kings River are the principal rivers that influence the hydrology in the Fresno area. The western slopes of the Sierra Nevada drain to the west via the San Joaquin and Kings Rivers. The Kings River is connected to the San Joaquin River by the James Bypass, a manmade canal. Floodwater from the Kings River is diverted to the San Joaquin River. Three dams control flows on the two rivers. The Friant and Mendota Dams are located on the San Joaquin River. These two dams provide some flood control; however, these two dams were not designed for the purpose of flood control. The Pine Flat Dam on the Kings River was built for the purpose of flood control. In addition to the dams on the two rivers, there are reservoirs and detention basins that have been constructed on streams within the urban core to prevent flooding. These facilities include the Redbank Dam and the Redbank-Fancher Creeks Flood Control Project on local streams. The region includes two dams (Big Dry Creek Dam and Fancher Creek Dam), three detention basins (Redbank Creek, Pup Creek, and Alluvial Drain Detention Basins), and

² Fresno General Plan Draft EIR (2020), page 4.10-3.

canals to convey discharges in and around the City of Fresno. These facilities were designed to protect developed areas from a 200-year storm event.³

Groundwater used by the City to meet its demands is replenished by three different methods:

- Natural recharge
- Net Subsurface inflow
- Intentional groundwater recharge

Natural recharge occurs through rainfall, irrigation, canal and stream flows that seep into the soil and replenish the aquifer below. Based on City data, the City estimated the natural recharge was approximately 25,400 acre feet in 2015. As additional development occurs throughout the Fresno area, there will be less pervious surfaces to allow natural recharge to occur. However, as the City annexes portions of surrounding areas, the amount of natural recharge allocated to the City will increase. At buildout, the natural recharge is estimated to be approximately 27,000 AF/year.

Subsurface recharge occurs from the movement of groundwater from external sources such as the Sierra Nevada moving into the local aquifer. Since the groundwater table surrounding the City of Fresno is higher than inside the City planning boundaries, subsurface water tends to flow from surrounding areas with a higher groundwater table into the aquifer within the City's planning boundaries that has a lower groundwater table. Based on City data, the annual subsurface inflow to the City is approximately 48,900 AF in 2020. By the year 2040, the City and the North Kings Groundwater Sustainability Agency (NKGSA) anticipates that groundwater operations (i.e., subsurface inflows and outflows) would be balanced and subsurface flows will not be directed to within the City's planning boundaries.

Intentional recharge is provided by directing surface water into the underground aquifer by means of groundwater recharge basins located throughout the City. Currently, the City's primary recharge facility is Leaky Acres, located just northwest of Fresno-Yosemite International Airport. The City also owns the Nielsen Recharge Facility in west Fresno. Other recharge facilities include FMFCD storm drainage basins and the Alluvial Groundwater Recharge System (AGRS) owned and operated by the City of Clovis. Based on the 2015 UWMP, the average intentional recharge between 2000 and 2013 was approximately 50,000 AF/year. The total groundwater recharge at General Plan buildout in 2056 is expected to be approximately 102,100 AF/year.

³ Fresno General Plan Draft EIR (2020), page 4.10-2.

In 2004, the Northeast Surface Water Treatment Facility (NESWTF) located at Chestnut and Behymer Avenues began operation. The treatment facility is designed to treat 30 million gallons of water per day (mgd). In 2018, the Southeast Surface Water Treatment Facility (SESWWF) located at East Floradora Avenue and North Armstrong Avenue began operation. The treatment facility is fed with surface water from the Kings River through a thirteen-mile-long Kings River Pipeline and is designed to have initial treatment capacity of 54 mgd and ultimate treatment capacity of 80 mgd. The City also owns and operates the T-3 Surface Water Treatment and Storage Facility (T-3SWTF), which provides 2 mgd.

The NESWTF, SESWTF and T-3SWTF have reduced the dependence on groundwater pumping by the City needed to meet water demand. Prior to operation of the NESWTF, 100 percent of the City's water demand was met through groundwater pumping.

Groundwater will continue to be an important part of the City's supply but will not be relied upon as heavily as has historically been the case. The 2015 UWMP stated that groundwater pumped by the City decreased from approximately 128,578 AF/year in 2010 to approximately 83,360 AF/year in 2015. This would represent a decrease in the groundwater percentage of total water supply from 87 percent to 75 percent. In order to meet this projection, the City is planning to rely on expanding their delivery and treatment of surface water supplies and groundwater recharge activities.⁴ As of Year 2020, the City obtains approximately 50% of its water from groundwater pumping and approximately 50% from surface water treatment.

Surface Water Supply

The City of Fresno owns and operates three surface water treatment facilities, the Northeast Surface Water Treatment Facility (NESWTF) and the Southeast Surface Water Treatment Facility (SESWWF) and the T-3 Surface Water Treatment Facility (T-3 SWTF). The NESWTF is presently sized at 30 mgd, but the facility will expand to 60 mgd by approximately 2035. The SESWTF is designed to have initial treatment capacity of 54 mgd and ultimate treatment capacity of 80 mgd. The T-3 SWTF is a 4 mgd facility that could expand to treat 8 mgd. With planned expansions, the total surface water treatment capacity would be 148 mgd or 165,781 AF/year.⁵

⁴ Fresno General Plan Draft EIR (2020), page 4.10-4.

⁵ City of Fresno General Plan EIR (2020), page 4.17-20.

Urban Water Demand

Based on the 2015 UWMP, projected water demand, which includes development of the City's approved General Plan, is based on a per capita target. For the years of 2020 and after, the per capita target is 247 gpcd. The projected water demand for the City of Fresno in the Year 2040, based on a population of 824,400 is 228,091 AF/year. To accommodate the 2040 water demand, 178,800 AF/year would need to be provided from treated surface water, 38,500 AF/year would be provided as recycled water, and 148,900 AF/year would be pumped from the groundwater. The 2015 UWMP projected that water supply in 2040 would be 366,200 AF/year. However, based on updated agreements with water providers, the quantities of water deliveries may change.

The projected water demand for the City at full build out of the approved General Plan, based on a population of 970,000 and a per capita water demand of 247 gpcd from the 2015 UWMP, would be 268,375 AF/year. As stated above and in the 2015 UWMP, assuming treated water supplies, recycled water supplies, and pumped groundwater remain the same, the total supply of water would be 366,200 AF/year.⁶

Existing Water Distribution System

The City's existing water system consists of about 1,799 miles of transmission and distribution pipelines, 260 active municipal groundwater wells, 224 of which registered flows in the past year, 2 surface water treatment facilities of rated capacities of 2 and 30 mgd, 3 water storage facilities, and 4 booster pump facilities. The distribution system was previously divided into four quasi-pressure zones to help regulate and optimize system pressures as there is an approximate 120 feet of elevation decrease running across the city from the northeast to the southwest. The "Highway 41 Gate System" became inactive as the closed distribution main valves that made-up the gate system were opened in 2015, leaving only three pressure zones.⁷

Wastewater Treatment and Disposal

The Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF) is located southwest of the City in the area generally bounded by Jensen, Cornelia, Central and Chateau Fresno Avenues. It provides wastewater treatment for a service area that includes most of the Cities of Fresno and Clovis, and some unincorporated areas of Fresno County. The permitted wastewater treatment

⁶ City of Fresno General Plan EIR (2020), page 4.10-22.

⁷ City of Fresno UWMP (2015), page 3-3.

capacity of the RWRF is currently 91.5 mgd as an annual monthly average flow, and 101 mgd as a maximum monthly average flow. In 2017, Phase I of a tertiary treatment system was completed at the RWRF. The current design flow for the tertiary treatment system is 5.0 mgd but can be expanded in two subsequent phases to 15 mgd (Phase II) and ultimately 30 mgd (Phase III). The City of Clovis maintains the rights and capacity to discharge 9.3 mgd to the facility. The City of Fresno maintains the rights to the remaining capacity.

The North Fresno Wastewater Reclamation Facility (NFWRF) is located in north Fresno, near the intersection of Copper Avenue and Cedar Avenue. It was constructed in late 2006 to provide wastewater treatment service for residential and commercial development in the surrounding area of north Fresno. The NFWRF employs a sequencing batch reactor (SBR) treatment process for secondary treatment, cloth media filtration for tertiary treatment, and an ultraviolet system to produce disinfected tertiary treated effluent. The effluent is used for golf course irrigation at the nearby Copper River Country Club. The permitted capacity of the NFWRF is 0.71 mgd as an average monthly flow, and 1.07 mgd as a maximum daily flow. The City's master plan for the NFWRF calls for ultimate expansion to an average monthly flow capacity of 1.25 mgd upon full development of the NFWRF service area.⁸

Drainage

Stormwater collection and disposal, and flood control for the City of Fresno, City of Clovis, and the unincorporated areas within the City of Fresno's sphere of influence are provided by the Fresno Metropolitan Flood Control District (FMFCD). The FMFCD is a special district created by the State of California Legislature and ratified by the voters of the district in 1956. The District has more than 170 urban watersheds that collect stormwater runoff and dispose of the runoff in retention basins, local canals, or the San Joaquin River. Each urban watershed, called a drainage area by FMFCD, consists of a collection system and, in most cases, a retention basin to store and dispose of the runoff. Three drainage areas are pumped directly into a nearby canal and six drainage areas have collection systems that discharge to the San Joaquin River. Pipeline collection systems have diameters that range from 15 inches to 108 inches. Retention basins range in size from 5 acres to 25 acres, with most being 8 to 10 acres in size. The flood control system consists of three dams and reservoirs, five detention basins, one diversion channel, and up to 175 miles of rural stream channels.

⁸ City of Fresno General Plan EIR (2020), page 4.17-6.

Solid Waste

Fresno diverts a majority of its solid waste away from landfills and into recycling and composting programs. Diversion conserves limited landfill space, keeps toxic chemicals and materials from contaminating landfills, and enhances the reuse of materials. The Solid Waste Division of the City of Fresno provides curbside collection of residential bulky goods through operation cleanup. The solid waste division also collects through a three-cart system solid waste, recycling, green waste, as well as waste oil and waste oil filters weekly.

In 2011 the City of Fresno granted franchises for non-exclusive roll off services to 16 roll off companies for bins which were 10 cubic yards or greater. The City also granted exclusive franchise agreements for the collection of commercial solid waste, recyclables and green waste to two franchises. Allied Waste Services (formally Republic) is responsible for all commercial services north of Ashlan Avenue. Mid Valley has all commercial locations south of Ashlan. Both haulers are responsible for Commercial, Multifamily, and Industrial up to 8 cubic yards, which fall into City of Fresno jurisdiction. Both city and (non-exclusive) / exclusive franchise haulers provide and maintain containers; respond to customer complaints/concerns and provide roll-off and compactor services to residential, multi-family and commercial customers respective to their agreements. Garbage disposed of in the City of Fresno is taken to Cedar Avenue Recycling and Transfer Station (CARTS). Once trash has been off-loaded at the transfer station, it is sorted and non-recyclable solid waste is loaded onto large trucks and taken to the American Avenue Landfill (i.e. American Avenue Disposal Site, Site Solid Waste Information System [SWIS] Number 10-AA-0009) located approximately six miles southwest of Kerman. American Avenue Landfill is owned and operated by Fresno County and began operations in 1992 for both public and commercial solid waste haulers. The American Avenue Landfill is a sanitary landfill, meaning that it is a disposal site for non-hazardous solid waste spread in layers, compacted to the smallest practical volume, and covered by material applied at the end of each operating day.

The American Avenue Landfill has a maximum permitted capacity of 32,700,000 cubic yards and a remaining capacity of 29,358,535 cubic yards, with an estimated closure date of August 31, 2031. The maximum permitted throughput is 2,200 tons per day (CalRecycle, 2019).

One other active disposal site is located in Fresno County. The City of Clovis Landfill (SWIS Number 10-AA-0004) has a maximum permitted capacity of 7,800,000 cubic yards and a remaining capacity of 7,740,000 cubic yards, with an estimated closure date of April 30, 2047. The maximum permitted throughput is 2,000 tons per day (CalRecycle, 2019).

Green waste hauled by the residential solid waste operations is delivered to one of two locations. Earthwise/Green Valley Recycling located at 2365 North Avenue and West Coast Waste at 30777 Golden State Frontage Road are within a quarter mile of one another in south west Fresno.⁹

Utilities

The Project will be supplied with natural gas and electrical power by PG&E.

Regulatory Setting

Federal Agencies and Regulations

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and groundwater wells. The SDWA applies to every public water system in the United States but does not regulate private wells which serve fewer than 25 individuals.

The SDWA authorizes the United States Environmental Protection Agency (EPA) to set national health- based standards for drinking water to protect against both naturally-occurring and manmade contaminants that may be found in drinking water. Originally, the SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments changed the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach is intended to ensure the quality of drinking water by protecting it from source to tap.

Clean Water Act

The Clean Water Act (CWA) is the primary federal legislation governing surface water quality protection. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment

⁹ City of Fresno General Plan EIR (2020), page 4.17-9.

facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water." Pollutants regulated under the CWA include "priority" pollutants, including various toxic pollutants; "conventional" pollutants, such as biochemical oxygen demand (BOD), total suspended solids (TSS), fecal coliform, oil and grease, and pH; and "non-conventional" pollutants, including any pollutant not identified as either conventional or priority. The CWA regulates both direct and indirect discharges.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) program, Section 402 of the CWA, controls direct discharges into navigable waters. Direct discharges or "point source" discharges are from sources such as pipes and sewers. NPDES permits, issued by either EPA or an authorized state/tribe, contain industry-specific, technology-based and/or water-quality-based limits, and establish pollutant monitoring and reporting requirements. (EPA has authorized 40 states to administer the NPDES program.) A facility that intends to discharge into the nation's waters must obtain a permit before initiating a discharge. A permit applicant must provide quantitative analytical data identifying the types of pollutants present in the facility's effluent and the permit will then set forth the conditions and effluent limitations under which a facility may make a discharge.

General Pretreatment Regulations

Another type of discharge that is regulated by the CWA is discharge that goes to a publicly owned treatment works (POTW). POTWs collect wastewater from homes, commercial buildings, and industrial facilities and transport it via a collection system to the treatment plant. Here, the POTW removes harmful organisms and other contaminants from the sewage so it can be discharged safely into the receiving stream. Generally, POTWs are designed to treat domestic sewage only. However, POTWs also receive wastewater from industrial (non-domestic) users. The General Pretreatment Regulations establish responsibilities of federal, state, and local government, industry, and the public to implement pretreatment standards to protect municipal wastewater treatment plants from damage that may occur when hazardous, toxic, or other wastes are discharged into a sewer system and to protect the quality of sludge generated by these plants. Discharges to a POTW are regulated primarily by the POTW itself, rather than the state/tribe or EPA.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the Act as it stands today governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA is an amendment to the Solid Waste Disposal Act of 1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the EPA to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the federal program.

State Agencies and Regulations*Porter-Cologne Water Quality Act*

In 1969, the California Legislature enacted the Porter-Cologne Water Quality Control Act to preserve, enhance, and restore the quality of the state's water resources. The act established the State Water Resources Control Board and nine Regional Water Quality Control Boards as the principal state agencies with the responsibility for controlling water quality in California. Under the act, water quality policy is established, water quality standards are enforced for both surface water and groundwater, and the discharges of pollutants from point and nonpoint sources are regulated. The act authorizes the State Water Resources Control Board to establish water quality principles and guidelines for long-range resource planning including groundwater and surface water management programs and control and use of recycled water.

State Water Resources Control Board

Created by the State Legislature in 1967, the five-member State Water Resources Control Board (SWRCB) allocates water rights, adjudicates water right disputes, develops statewide water protection plans, establishes water quality standards, and guides the nine Regional Water Quality Control Boards located in the major watersheds of the state. The joint authority of water allocation and water quality protection enables SWRCB to provide comprehensive protection for California's waters. SWRCB is responsible for implementing the CWA and issues NPDES permits to cities and counties through Regional Water Quality Control Boards (RWQCBs). The City of Fresno is located within a portion of the state that is regulated by the Central Valley RWQCB.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The act describes the contents of the Urban Water Management Plans as well as how urban water suppliers should adopt and implement the plans. It is the intention of the act to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

Senate Bill (SB) 610

SB 610 makes changes to the Urban Water Management Planning Act to require additional information in Urban Water Management Plans if groundwater is identified as a source available to the supplier. Required information includes a copy of any groundwater management plan adopted by the supplier, a copy of the adjudication order or decree for adjudicated basins, and if non-adjudicated, whether the basin has been identified as being overdrafted or projected to be overdrafted in the most current California Department of Water Resources publication on that basin. If the basin is in overdraft, that plan must include current efforts to eliminate any long-term overdraft. A key provision in SB 610 requires that any project subject to the California Environmental Quality Act supplied with water from a public water system be provided a specified water supply assessment, except as specified in the law.

Assembly Bill (AB) 901

AB 901 requires Urban Water Management Plans to include information relating to the quality of existing sources of water available to an urban water supplier over given time periods and the manner in which water quality affects water management strategies and supply.

Senate Bill (SB) 221

SB 221 prohibits approval of subdivisions consisting of more than 500 dwelling units unless there is verification of sufficient water supplies for the project from the applicable water supplier(s). This requirement also applies to increases of 10 percent or more of service connections for public water systems with less than 500 service connections. The law defines criteria for determining “sufficient water supply” such as using normal, single-dry, and multiple-dry year hydrology and identifying the amount of water that the supplier can reasonably rely on to meet existing and

future planned uses. Rights to extract additional groundwater, if groundwater is to be used for the project, must be substantiated.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000, and beyond. Solid waste plans are required to explain how each city's AB 939 plan will be integrated with the respective county plan. They must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal.

Sustainable Groundwater Management Act of 2014

On September 16, 2014, a three-bill legislative package was signed into law, composed of AB 1739, SB 1168, and SB 1319, collectively known as the Sustainable Groundwater Management Act (SGMA). The Governor's signing message states "a central feature of these bills is the recognition that groundwater management in California is best accomplished locally".

The SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with the potential for state intervention if necessary to protect the resource.

The act requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally-based management plans. The groundwater basin that serves Fresno has been designated by the Department of Water Resources as high priority and subject to a condition of critical overdraft.

Regional

Regional Water Quality Control Board, Central Valley Region

The Central Valley RWQCB provides planning, monitoring, and enforcement techniques for surface and ground water quality in the Central Valley region, including the City of Tehachapi. The primary duty of the RWQCB is to protect the quality of the waters within the region for all beneficial uses. This duty is implemented by formulating and adopting water quality plans for

specific ground or surface water basins and by prescribing and enforcing requirements on all agricultural, domestic and industrial waste discharges.

Water Reuse Requirements (Permits)

The Central Valley RWQCB issues water reuse requirements (permits) for projects that reuse treated wastewater. These permits include water quality protections as well as public health protections by incorporating criteria established by DPH in Title 22. The Central Valley RWQCB may also incorporate requirements into the permit in addition to those specified in Title 22. These typically include periodic inspection of recycled water systems, periodic cross-connection testing, periodic training of personnel that operate recycled water systems, maintaining a database and/or permitting individual use sites, periodic monitoring of recycled water and groundwater quality, and periodic reporting.

Waste Discharge Requirements

The Central Valley RWQCB typically requires a Waste Discharge Requirement (WDR) permit for any facility or person discharging or proposing to discharge waste that could affect the quality of the waters of the state, other than into a community sewer system. Those discharging pollutants (or proposing to discharge pollutants) into surface waters must obtain an NPDES permit from the Central Valley RWQCB.

The NPDES serves as the WDR. For other types of discharges, such as those affecting groundwater or in a diffused manner (e.g., erosion from soil disturbance or waste discharges to land), a Report of Waste Discharge (WDR) must be filed with the Central Valley RWQCB in order to obtain WDRs. For specific situations, the Central Valley RWQCB may waive the requirement to obtain a WDR for discharges to land or may determine that a proposed discharge can be permitted more effectively through enrollment in a general NPDES permit or general WDR.

Local Regulations

The following City of Fresno General Plan policies have been adopted to address water quality, groundwater supplies and recharge, storm drainage and flood hazards:

Public Utilities and Services Element

Policy PU-5-a: Mandatory Septic Conversion. Continue to evaluate and pursue where determined appropriate the mandatory abatement of existing private

wastewater disposal (septic) systems and mandatory connection to the public sewage collection and disposal system.

- Policy PU-5-b: Non-Regional Treatment. Discourage, and when determined appropriate, oppose the use of private wastewater (septic) disposal systems, community wastewater disposal systems, or other non-regional sewage treatment and disposal systems within or adjacent to the Metropolitan Area if these types of wastewater treatment facilities would cause discharges that could result in groundwater degradation.
- Policy PU-5-c: Satellite Facilities. Work with the Regional Water Quality Control Board to ensure that approval of any satellite treatment and reclamation facility proposal is consistent with governing statutes and regulations.
- Policy PU-6: Satellite Facilities. Ensure the provision of adequate facilities, such as the North Fresno Water Reclamation Facility, may also provide sewage treatment and disposal for new and existing development in the Metropolitan Area.
- Policy PU-6-a: Prepare for and consider the implementation of increased wastewater treatment and reclamation facility capacity in a timely manner to facilitate planned urban development within the Metropolitan Area consistent with this General Plan. Accommodate increase in flows and loadings from the existing community with the capital costs and benefits allocated equitably and fairly between existing users and new users, as authorized by law.
- Policy PU-6-b: Monitor wastewater treatment plant flows and loadings to the extent feasible. Consider the effects on wastewater treatment capacity and availability of potable water when evaluating proposed General Plan amendment proposals, community plans, Specific Plans, neighborhood plans, and Concept Plans.
- Policy PU-7-a: Reduce Wastewater. Identify and consider implementing water conservation standards and other programs and policies, as determined appropriate, to reduce wastewater flows.
- Policy PU-7-b: Reduce Stormwater Leakage. Reduce storm water infiltration into the sewer collection system, where feasible, through a program of replacing old and deteriorated sewer collection pipeline; eliminating existing stormwater sewer cut-ins to the sanitary sewer system; and avoiding any new sewer cut-ins except when required to protect health and safety.

- Policy PU-7-c: Biosolid Disposal. Investigate and consider implementing economically effective and environmentally beneficial methods of biosolids handling and disposal.
- Policy PU-7-d: Wastewater Recycling. Pursue the development of a recycled water system and the expansion of beneficial wastewater recycling opportunities, including a timely technical, practicable, and institutional evaluation of treatment, facility siting, and water exchange elements.
- Policy PU-7-e: Infiltration Basins. Continue to rehabilitate existing infiltration basins, and if determined appropriate, pursue acquiring additional sites for infiltration basins, as needed.
- Policy PU-7-f: Food and Drink Industry. Ensure adequate provision of facilities for the appropriate management of wastewater from wineries and food processing and beverage facilities, including conformance with Waste Discharge Requirements issued by the Regional Water Quality Control Board.
- Objective PU-8. Manage and develop the City's water facilities on a strategic timeline basis that recognizes the long life cycle of the assets and the duration of the resources, to ensure a safe, economical, and reliable water supply for existing customers and planned urban development and economic diversification.
- Policy PU-8-a: Forecast Need. Use available and innovative tools, such as computerized flow modeling to determine system capacity, as necessary to forecast demand on water production and distribution systems by urban development, and to determine appropriate facility needs.
- Policy PU-8-b: Potable Water Supply and Cost Recovery. Prepare for provision of increased potable water capacity (including surface water treatment capacity) in a timely manner to facilitate planned urban development consistent with the General Plan. Accommodate increase in water demand from the existing community with the capital costs and benefits allocated equitably and fairly between existing users and new users, as authorized by law, and recognizing the differences in terms of quantity, quality and reliability of the various types of water in the City's portfolio.
- Policy PU-8-c: Conditions of Approval. Set appropriate conditions of approval for each new development proposal to ensure that the necessary potable water production and supply facilities and water resources are in place prior to occupancy.

- Policy PU-8-d: CIP Update. Continue to evaluate Capital Improvement Programs and update them, as appropriate, to meet the demands of both existing and planned development consistent with the General Plan.
- Policy PU-8-e: Repairs. Continue to evaluate existing water production and distribution systems and plan for necessary repair or enhancement of damaged or antiquated facilities.
- Policy PU-8-f: Water Quality. Continue to evaluate and implement measures determined to be appropriate and consistent with water system policies, including prioritizing the use of groundwater, installing wellhead treatment facilities, constructing above-ground storage and surface water treatment facilities, and enhancing transmission grid mains to promote adequate water quality and quantity.
- Policy PU-8-g: Review Project Impact on Supply. Mitigate the effects of development and capital improvement projects on the long-range water budget to ensure an adequate water supply for current and future uses.
- Objective PU-9: Provide adequate solid waste facilities and services for the collection, transfer, recycling, and disposal of refuse.
- Policy PU-9-a: New Techniques. Continue to collaborate with affected stakeholders and partners to identify and support programs and new techniques of solid waste disposal, such as recycling, composting, waste to energy technology, and waste separation, to reduce the volume and toxicity of solid wastes that must be sent to landfill facilities.
- Policy PU-9-b: Compliance with State Law. Continue to pursue programs to maintain conformance with the Solid Waste Management Act of 1989 or as otherwise required by law and mandated diversion goals.
- Policy PU-9-c: Cleanup and Nuisance Abatement. Continue and enhance, where feasible, community sanitation programs that provide services to neighborhoods for cleanup, illegal dumping, and nuisance abatement services.
- Policy PU-9-d: Facility Siting. Locate private or public waste facilities and recycling facilities in conformance with City zoning and State and federal regulations, so that the transportation, processing, and disposal of these materials are not detrimental to the public health, safety, welfare, and aesthetic well-being of the surrounding community.
- Policy PU-9-e: Tire Dumping. Adopt and implement, as determined appropriate, measures to eliminate illegal tire dumping.

Resource Conservation and Resilience Element

Objective RC-6.	Ensure that Fresno has a reliable, long-range source of drinkable water.
Policy RC-6-a:	Regional Efforts. Support cooperative, multi-agency regional water resource planning efforts and activities on developing and implementing the Upper Kings Basin Integrated Regional Water Management Plan.
Policy RC-6-b:	Water Plans. Adopt and implement ordinances, standards, and policies to achieve the intent of the City of Fresno Urban Water Management Plan, Fresno-Area Regional Groundwater Management Plan, and City of Fresno Metropolitan Water Resources Management Plan to ensure a dependable supply of water.
Policy RC-6-c:	Land Use and Development Compliance. Ensure that land use and development projects adhere to the objective of the Fresno Metropolitan Water Resources Management Plan to provide sustainable and reliable water supplies to meet the demand of existing and future customers through 2025.
Policy RC-6-d:	Recycled Water. Prepare, Adopt, and implement a City of Fresno Recycled Water Master Plan.
Policy RC-6-e:	Protect Aquifer. Oppose urban development in unincorporated areas that are not served by a wastewater treatment/management system capable of preventing the buildup of compounds that would degrade the aquifer.
Policy RC-6-f:	Regulate Sewage Disposal Facilities. Oppose development of new sewage disposal facilities either within the Planning Area or upgradient (north and east) of the Planning Area, unless the treatment facilities produce effluent that: <ul style="list-style-type: none"> • Will not degrade the aquifer in the long term; • Will not introduce contaminants into surface water that would negatively affect its potential economic use for drinking water; • Will not deleteriously affect downstream agricultural and urban uses; and • Will not degrade sensitive riparian habitat.
Policy RC-6-g:	Protect Recharge Areas. Continue to protect areas of beneficial natural groundwater recharge by preventing uses that can contaminate soil or groundwater.
Policy RC-6-h:	Conditions of Approval. Include in the Development Code standards for imposing conditions of approval for development projects to ensure long-term maintenance of adequate clean water resources. Require findings that

adequate water supply must exist prior to any discretionary project approval for residential and commercial development requiring annexation, as required by law.

Policy RC-6-i: Natural Recharge. Support removal of concrete from existing canals and change the practice of lining new and existing canals with concrete to allow for natural recharge.

Objective RC-7. Promote water conservation through standards, incentives and capital investments.

Policy RC-7-a: Water Conservation Program Target. Maintain a comprehensive conservation program to help reduce per capita water usage in the city's water service area to 243 gallons per capita per day (gpcd) by 2020 and 190 gpcd by 2035, by adopting conservation standards and implementing a program of incentives, design and operation standards, and user fees.

- Support programs that result in decreased water demand, such as landscaping standards that require drought-tolerant plants, rebates for water conserving devices and systems, turf replacement, xeriscape landscape for new homes, irrigation controllers, commercial/industrial/institutional water conserving programs, prioritized leak detection program, complete water system audit, landscape water audit and budget program, and retrofit upon resale ordinance.
- Implement the U.S. Bureau of Reclamation Best Management Practices for water conservation as necessary to maintain the City's surface water entitlements.
- Adopt and implement policies in the event that an artificial lake is proposed for development.
- Work cooperatively toward effective uniform water conservation measures that would apply throughout the Planning Area.
- Expand efforts to educate the public about water supply issues and water conservation techniques.

Policy RC-7-b: Water Pricing and Metering. Develop a tiered water cost structure for both residential and commercial users that will properly price water based on its true cost; require all new development to be metered for water use; and charge all customers the true, full cost of their water supply, including costs of acquisition, initial treatment, conveyance, wastewater treatment, operations, maintenance, and remediation.

Policy RC-7-c: Best Practices for Conservation. Require all City facilities and all new private development to follow U.S. Bureau of Reclamation Best Management Practices for water conservation, as warranted and appropriate.

- Policy RC-7-d: Update Standards for New Development. Continue to refine water saving and conservation standards for new development.
- Policy RC-7-e: Retrofit City Facilities, and Consider Incentives Programs to Encourage Retrofitting of Other Existing Public and Private Residential and Non-Residential Facilities and Sites. Reduce water use in municipal buildings and City operations by developing a schedule and budget for the retrofit of existing municipal buildings with water conservation features, such as auto shut-off faucets and water saving irrigation systems. Prepare a comprehensive incentive program for other existing public and private residential and nonresidential buildings and irrigation systems.
- Policy RC-7-f: Implementation and Update Conservation Program. Continue to implement the City of Fresno Water Conservation Program, as may be updated, and periodically update restrictions on water uses, such as lawn and landscape watering and the filling of fountains and swimming pools, and penalties for violations. Evaluate the feasibility of a 2035 conservation target of 190 gpcd in the next comprehensive update of the City of Fresno Water Conservation Program.
- Policy RC-7-g: Educate on State Requirements. Educate the residents and businesses of Fresno on the requirements of the California Water Conservation Act of 2009.
- Policy RC-7-h: Landscape Water Conservation Standards. Refine landscape water conservation standards that will apply to new development installed landscapes, building on the State Model Water Efficient Landscape Ordinance and other State regulations.
- Evaluate and apply, as appropriate, augmented xeriscape, “water-wise,” and “green gardening” practices to be implemented in public and private landscaping design and maintenance.
 - Facilitate implementation of the State’s Water Efficient Landscape Ordinance by developing alternative compliance measures that are easy to understand and observe.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item.

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or

telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Impacts and Mitigation Measures

Impact 3.19-1: *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

Less Than Significant Impact With Mitigation. The Project will require that utilities be extended to serve the proposed development, including water, wastewater, stormwater, electric power, natural gas and telecommunications facilities. Extension or construction of utilities will be the responsibility of the Project Developer. The improvements required to tie into existing utilities are included in the Project Description and the environmental impacts of extending these utilities are analyzed within this EIR under the various CEQA Appendix G topics. Numerous mitigation measures have been included throughout this document which are applicable to these activities. Individual utilities are discussed below.

Wastewater / Sewer

The Project site is served by the North Fresno Wastewater Reclamation Facility (NFWRF), which is located in north Fresno, near the intersection of Copper Avenue and Cedar Avenue. It was constructed in late 2006 to provide wastewater treatment service for residential and commercial development in the surrounding area of north Fresno. The NFWRF employs a sequencing batch reactor (SBR) treatment process for secondary treatment, cloth media filtration for tertiary

treatment, and an ultraviolet system to produce disinfected tertiary treated effluent. The effluent is used for golf course irrigation at the nearby Copper River Country Club. See also Response 3.19-3 which describes the Project's wastewater demands and the City's capacity to handle those demands.

Stormwater

As discussed in Sections 3.10-1 and 3.10-3 (Hydrology and Water Quality), site development will result in the addition of impervious surfaces in the form of foundations, buildings, roadways, and other paved surfaces. This will result in an increase in storm water runoff from the site and will increase the potential for contaminated runoff to enter FMFCD drainage basins or for drainage basins to overflow and cause flooding. However, the proposed Project will be designed to FMFCD and City of Fresno standards to prevent drainage overflow and flooding and the potential for contaminated runoff. The Project site has been anticipated for urban use, primarily as residential development, by the City of Fresno General Plan. As with all developments, existing policies and standards are required to be complied with, which are assessed during design and review of entitlements by the City and FMFCD to ensure that none of the water quality standards are violated and that waste discharge requirements are adhered to during construction and operation of the Project. The impact is *less than significant*.

Water Supply

As discussed in Response 3.19-2 below and Section 3.10 - Hydrology and Water Quality, the proposed Project would add demand for potable water to the City of Fresno water system, which is reliant on a combination of surface water and groundwater to serve its customers. The Project intends to connect to the City of Fresno water system.

Other Utilities

The Project will be required to access public utilities for electric power, natural gas and solid waste disposal. Based on the analysis herein, it is not anticipated that off-site improvements would be required for these facilities.

Thus, with incorporation of mitigation measures, the proposed Project's impacts associated with acquisition of utilities would be less than significant.

Mitigation Measures: The mitigation measures throughout this document are also applicable to the on-site improvements associated with installation of adequate utilities. Please refer to the mitigation monitoring and reporting program for the full list of applicable mitigation.

Impact 3.19-2: *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Less Than Significant With Mitigation. Refer to Section 3.10-2 (Hydrology and Water Quality) for the full evaluation of Project water supply requirements and impacts.

The proposed Project would add demand for potable water to the City of Fresno water system, which is reliant on a combination of surface water and groundwater to serve its customers. Information is being provided herein regarding the previous SB 610 Water Supply Assessment (WSA) associated with the 2003 FEIR; a July 2021 *Provost & Pritchard* Technical Memorandum that estimated the full buildout water demand projections of the proposed Project (See Appendix E), as well as other information, such as the City's General Plan EIR.

The 2003 FEIR and associated WSA analyzed the water demand / water supply requirements of:

- Up to 2,837 residential units
 - 1,560 single family homes
 - 1,277 multifamily units
- Up to 250,000 sq. ft. (60 acres) of mixed-use commercial
- Open Space / Recreation
- 706.5 total acres of development

This SEIR is evaluating the water demand / water supply requirements of the previously approved 2003 FEIR Project plus the additional 109 acres of development. This evaluation also takes into account the proposed land use changes to the existing Development as identified in Chapter Two – Project Description. At full buildout, the proposed Project could result in up to 3,216 residential units (379 more units than previously analyzed in 2003), but would result in less commercial uses due to the proposed land use changes.

2003 FEIR Water Supply Analysis History

The City of Fresno adopted a Water Supply Assessment (WSA) in September 2002 for the then-proposed Copper River Ranch Development Project/Original Project. The WSA was used in the water supply evaluation of the 2003 FEIR. Information from the WSA and the 2003 FEIR is summarized as follows:

- Analyzed water demand and water supply information for buildout of up to 2,837 residential units, approximately 190 acres of Open Space, the 18-hole golf course, and approximately 60 acres of mixed-use commercial development on 706.5 acres.¹⁰
- Determined the following water demand factors¹¹:
 - 1,600 AFY for residential
 - 150 AFY for commercial, hotel and club house
 - 50 AFY to fill the lake
 - Reclaimed treated effluent (approximately 750 AFY) would be used for irrigation of the golf course and common landscaping areas
 - Total water use would be approximately 1,800 AFY
- Determined that a capacity of approximately 4,900 gallons per minute (GPM) would be needed to meet the estimated peak daily demand for potable water and fire flow¹².

Water Demand Factors

A Technical Memorandum was prepared by Provost & Pritchard (See Appendix E) to aid in the water demand calculation process, the results of which is summarized herein. The Memorandum estimated water demand based on actual meter usage data in Year 2020. The City of Fresno provided 2020 water meter usage data for the constructed lots within the Copper River Ranch development area. The meter data included most residential tracts within the original 706 acres covered by the 2003 FEIR as well as some of the constructed meters from the 109 acres that are proposed to be added to the development. Meter connections, average day, and maximum day demand were used to determine the proposed Project water demand (inclusive of both the original 706 acres and the additional 109 acres).

Project Water Demand

The average day demand for each water meter was calculated by dividing the total volume of water used by the number of days the meter was on-line (generally 365 days for a full year's operation). In contrast, the maximum day demand serves as an extreme condition occurring once a year when total water demand across the development is the highest for the year. In 2020, that

¹⁰ 2003 Copper River Ranch Final EIR, page 2.19.17.

¹¹ Ibid.

¹² 2003 Copper River Ranch Final EIR, page 2.9.18.

day occurred on July 25, per City staff. The arithmetic mean of the average and maximum day flow per connection and can be found in Table 3.19-1.

**Table 3.19-1
Demand Per Connection Based on 2020 Meter Data**

Average Flow Per Connection		
Land Use Designation	Average Day Flow/Connection (AVG)	Max Day Flow/Connection (AVG)
Low Density Residential, RL	0.65 gpm	1.31 gpm
Medium-Low Density Residential, RML	0.25 gpm	0.42 gpm
Medium Density Residential, RM	0.16 gpm	0.26 gpm
Medium-High Density Residential, RMH	0.16 gpm	0.26 gpm
Commercial, CC	2.85 gpm	0.26 gpm

Each tract in the commercial, low, medium-low, medium, and medium-high density residential land-use subcategories were calculated separately due to the differences in dwelling unit densities. In order to produce data that was most representative, it was necessary to remove tracts that were less than 50% built out from the typical flow-per-connection calculation presented in Table 3.19-1. When calculating total demand for the Development, actual demand by tract was used for tracts that were at least 50% built out. For partially developed tracts less than 50% built out, demand was estimated using the average per-connection calculation from Table 3.19-1.

When calculating full build-out demand, the demand estimates are divided between the original 706-acre development and the proposed new 109-acre development.

Demand Projections

The Year 2020 Meter Data was examined to determine an average flow per connection by land use type. The maximum number of connections in each tract was determined based on the Project Description. Meter data was used for tracts that are constructed, while averaged values shown in Table 3.19-1 were used for undeveloped areas. There are several tracts, generally planned for urban neighborhood developments, that have not yet been assigned a unit count. In these cases, the General Plan densities were used to determine the projected buildout connection count. The

projected demand for the Copper River Ranch Development was determined by multiplying the flow per connection by the projected, or existing, connections depending on the status of construction. The final result is summarized in Table 3.19-2. Table 3.19-3 provides the total demand by land use type of the original 706 acres and Table 3.19-4 provides the total demand by land use type for the additional 109 acres. The Peak Hour demand is calculated by multiplying the Maximum Day Demand by a peaking factor of 1.53.

**Table 3.19-2
Total Demand Calculation**

	706 Acre Development	109 Acre Development
Average Day, GPM	789	137
Max Day, GPM	1,428	247
Peak Hour, GPM	2,185	379

**Table 3.19-3
Total Demand by Land Use Type (706 Acres)**

Original 706 Acres				
Land Use	Designation	Projected Avg. Day Demand, gpm	Projected Max Day Demand, gpm	Projected Peak Hour Demand, gpm
Commercial	CC	77	123	189
Residential Urban Neighborhood	RUN	106	217	332
Low Density Residential	RL	267	538	822
Medium-Low Density Residential	RML	206	338	518
Medium Density Residential	RM	103	162	248
Medium-High Density Residential	RMH	30	50	76
Total		789	1,428	2,185

**Table 3.19-4
Total Demand by Land Use Type (109 Acres)**

Original 109 Acres				
Land Use	Designation	Projected Avg. Day Demand, gpm	Projected Max Day Demand, gpm	Projected Peak Hour Demand, gpm
Commercial	CC	-	-	-
Residential Urban Neighborhood	RUN	-	-	-
Low Density Residential	RL	38	68	105
Medium-Low Density Residential	RML	99	179	274
Medium Density Residential	RM	-	-	-
Medium-High Density Residential	RMH	-	-	-
Total		137	247	379

In addition to the water demand summarized above, the original 706 acre area (2003 FEIR) water demand includes sufficient water to meet firefighting requirements. A fire flow demand of 2,500 gallons per minute should be added to the maximum day demand to generate a total demand estimate for the original 706 acres. Using that value, the total water demand for the original 706 acres covered by the 2003 FEIR is:

$$\begin{aligned} \text{Total Demand} &= \text{MDD} + \text{Fire Flow} \\ &= 1,428 \text{ gpm} + 2,500 \text{ gpm} = 3,928 \text{ gpm} \end{aligned}$$

A fire flow demand of 1,500 gallons per minute should be added to the maximum day demand estimate for the new 109 acre area. Using that value, the total water demand for the new 109 acre area evaluated under this SEIR is:

$$\begin{aligned} \text{Total Demand} &= \text{MDD} + \text{Fire Flow} \\ &= 247 \text{ gpm} + 1,500 \text{ gpm} = 1,747 \text{ gpm} \end{aligned}$$

Water demand for the new 109 acres will be covered through payment of water capacity fees as indicated in Mitigation Measure HYD – 2A (see mitigation measures herein).

Note: The 2003 FEIR included a discussion of water use associated with the existing golf course within the Development. The 2003 FEIR stated that the Copper River golf course annual usage was anticipated to be 1,070 acre-ft per year (AFY) plus 100 AFY for the clubhouse. The 2003 FEIR originally anticipated that the golf course demand would be primarily met with a combination of reclaimed water from the nearby wastewater treatment plant and raw water supplied by Fresno Irrigation District (FID). It was anticipated that FID would supply 480 AFY, and the remainder of the demand (about 690 AFY) would come from reclaimed water. Currently, due to more precise water management, the demand is approximately 762 AFY. The existing golf course demand is met with reclaimed water (183 AFY), raw FID water (283 AFY, assuming a 3-month water delivery window) and groundwater pumped from two irrigation wells (296 AFY). As development continues, the amount of reclaimed water would increase proportionally up to the current plant capacity of 450 AFY (400,000 GPD).

Current Available Water

The Project Applicant (CRD East, Inc.) is contracted to provide water supply infrastructure improvements to meet the 4,900 GPM requirement from the 2003 FEIR (for the 706 acre area). As indicated in the previous section, the total water demand of the 706 acres (not including the additional 109 acre area) is 3,928 GPM. Refer to Table 3.19-5 for the list of applicable water sources that have been constructed or funded by the Project Developer to meet the demand of the original 706 acres covered by the 2003 FEIR.

**Table 3.19-5
Developed Water Supplies (706 Acres)**

Water / Well Source	Actual Max Capacity (GPM)	Notes
Well 330	1,800	Expanded capacity
Well 369	1,000	
Well 370	1,250	Well 370 was recently completed but it has only operated intermittently. The City is completing start-up testing to confirm proper operation of the well controls.
Well 371	N/A	Well 371 has not been constructed at the time of this analysis.

Totals:	4,050	A required capacity of 4,900 GPM was originally determined in the 2003 FEIR for Copper River Ranch. Agreements with the City indicated that the 4,900 GPM would be supplied by groundwater wells.
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As shown in Table 3.19-5, the Project Applicant has constructed or funded sufficient water capacity to serve the 706 acre area. The water demand associated with the 706 acres is approximately 3,928 GPM and water supplies have been developed to produce approximately 4,050 GPM (excess capacity of 122 GPM). As previously discussed, the total Project area considered for water supply requirements consists of an original Project area of 706 acres and new Project area of 109 acres. The City has previously established water supply requirements for the original Project area of 706 acres and memorialized them in a Water Supply Implementation Agreement. For the new Project area, the Developer shall pay the Water Capacity Fee, as specified in the City’s Master Fee Schedule, for all new connections to the City’s water system.

Summary and Determination

Table 3.19-6 summarizes the water demand and supply calculations for the original 706 acre area and the additional 109 acre area.

**Table 3.19-6
Demand and Supply Calculation Summary**

	706 Acre Development	109 Acre Development	Notes
Full Buildout Connections	2,799	453	See Attachment 2 and 3A of Appendix E for connections by Tract.
Average Day Demand (GPM)	789	134	Based on water meter data
Maximum Day Demand (GPM)	1,428	247	Based on water meter data
Peak Hour Demand (GPM)	2,185	379	Maximum day demand X 1.53
Fire Flow (GPM)	2,500	1,500	Per City staff, 2,500 gpm should be applied to the original 706 acre development.

Total Demand (MDD + Fire Flow)	3,928	1,747	
Constructed Water Supply (GPM)	4,067	N/A	Water supply for the additional 109 acres will be developed in conjunction with the City through payment of water capacity fees.
Excess/Deficit Capacity (GPM/[GPM])	122	N/A	

As shown in Table 3.19-6, water supplies constructed for the original 706 acres (as analyzed in the 2003 FEIR) are sufficient to meet the currently proposed Project build-out water demands for the 706 acre area. For the new 109 acre area, the Developer shall pay the Water Capacity Fee, as specified in the City’s Master Fee Schedule, for all new connections to the City’s water system (See Mitigation Measure HYD – 2B).

As such, there is *a less than significant impact* to this impact area. Mitigation Measures HYD – 2A and HYD – 2B will help ensure that impacts remain less than significant.

Mitigation Measures:

HYD – 2A: The Project will implement the City of Fresno Water Conservation Program, including implementation of the State’s Water Efficient Landscape Ordinance. The California Water Conservation Act mandates a 20 percent reduction in water usage. The Developer will demonstrate how they will meet the reduction target with measures applicable to new and existing development. Reductions beyond the state mandated 20 percent are possible with the use of building and landscaping water conservation features. The reductions from buildings can be achieved with high efficiency toilets, low-flow faucets, and water-efficient appliances such as dishwashers. Water savings from landscaping would be achieved primarily through the use of drought-tolerant landscaping or xeriscaping.

HYD – 2B: The total Project area considered for water supply requirements consists of an original Project area of 706 acres and new Project area of 109 acres. The City has previously established water supply requirements for the original Project area of 706 acres and memorialized them in a Water Supply Implementation Agreement. For the new Project area, the Developer shall pay the Water Capacity

Fee, as specified in the City's Master Fee Schedule, for all new connections to the City's water system.

Impact 3.19-3: *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Less Than Significant With Mitigation. The Project will result in wastewater that will be discharged into the City's existing North Fresno Wastewater Reclamation Facility (NFWRF), which also serves the existing Copper River Ranch Development. Wastewater generated by the Project will have similar characteristics to discharge produced by other land uses in the area, including similar land uses in the immediate area (i.e., residential housing, commercial development, etc.). Project wastewater will be generated from bathrooms, kitchen drains and other similar features. The Project will not discharge any unusual or atypical wastewater that would violate the City's waste discharge requirements.

The permitted capacity of the NFWRF is 0.71 MGD, as an average monthly flow, and 1.07 MGD, as a maximum daily flow. The City's master plan for the NFWRF calls for ultimate expansion to an average monthly flow capacity of 1.07 MGD upon full development of the NFWRF service area.

In November 2008, the City of Fresno entered into an agreement with the Copper River Ranch Developers which outlined the wastewater capacity needs for the Copper River Ranch Project as well as future development in the area. As stipulated in Article D (page 4) of the Agreement, the Copper River Ranch Developers secured legal rights to a wastewater disposal capacity of 0.71 MGD for the Copper River Ranch Project at the NFWRF. Although the 0.71 MGD of treatment and disposal capacity was deemed sufficient to treat the Project at full build out of 3,182 equivalent dwelling units (EDUs), the Developer also requested at the time that the NFWRF be able to serve an additional 500 EDUs for properties and potential developments that could be integrated into/with the Copper River Ranch Project. As described in the agreement:

- "Full Build-out of the Project" was agreed to mean a Copper River Ranch Project that equates to 3,682 EDUs as determined by the Director of the Public Utilities Department.
- "Project Area" was agreed to mean that the area designated by the Copper River Ranch Project on the map included as Exhibit B to the Agreement (shown herein as Figure 3.19-1) where the development of the Copper River Ranch Project and property will accommodate the additional 500 EDUs intended to be built.

- “Developer’s Reserved Capacity” was agreed to mean a capacity to treat and dispose of 0.83 MGD of wastewater.

As stipulated in the Agreement, the Copper River Ranch Developers will continue to be required to pay a wastewater facility fee per EDU at the time of pulling building permits for each EDU. The Agreement also notes that if it becomes necessary for the Developers to increase the EDU count above 3,682 for the Project, additional fees will be required at the time of the request for additional capacity (if applicable).

As previously described, this SEIR is evaluating the wastewater demand/capacity requirements of the previously approved Project plus the additional 109 acres of development. This evaluation also takes into account the proposed land use changes to the existing Development as identified in Chapter Two – Project Description.






According to the City of Fresno Public Utilities Department, the existing Copper River Ranch Development has utilized 2,083 EDU wastewater credits. Table 3.19-5 identifies the specific tract associated with the EDU wastewater credit that has been used. However, it should be noted that Table 3.19-5 only shows the available EDU credits as 3,182, as it does not include the additional 500 EDU credits available as outlined in the 2008 Agreement. The total available EDU credits is therefore 3,682.

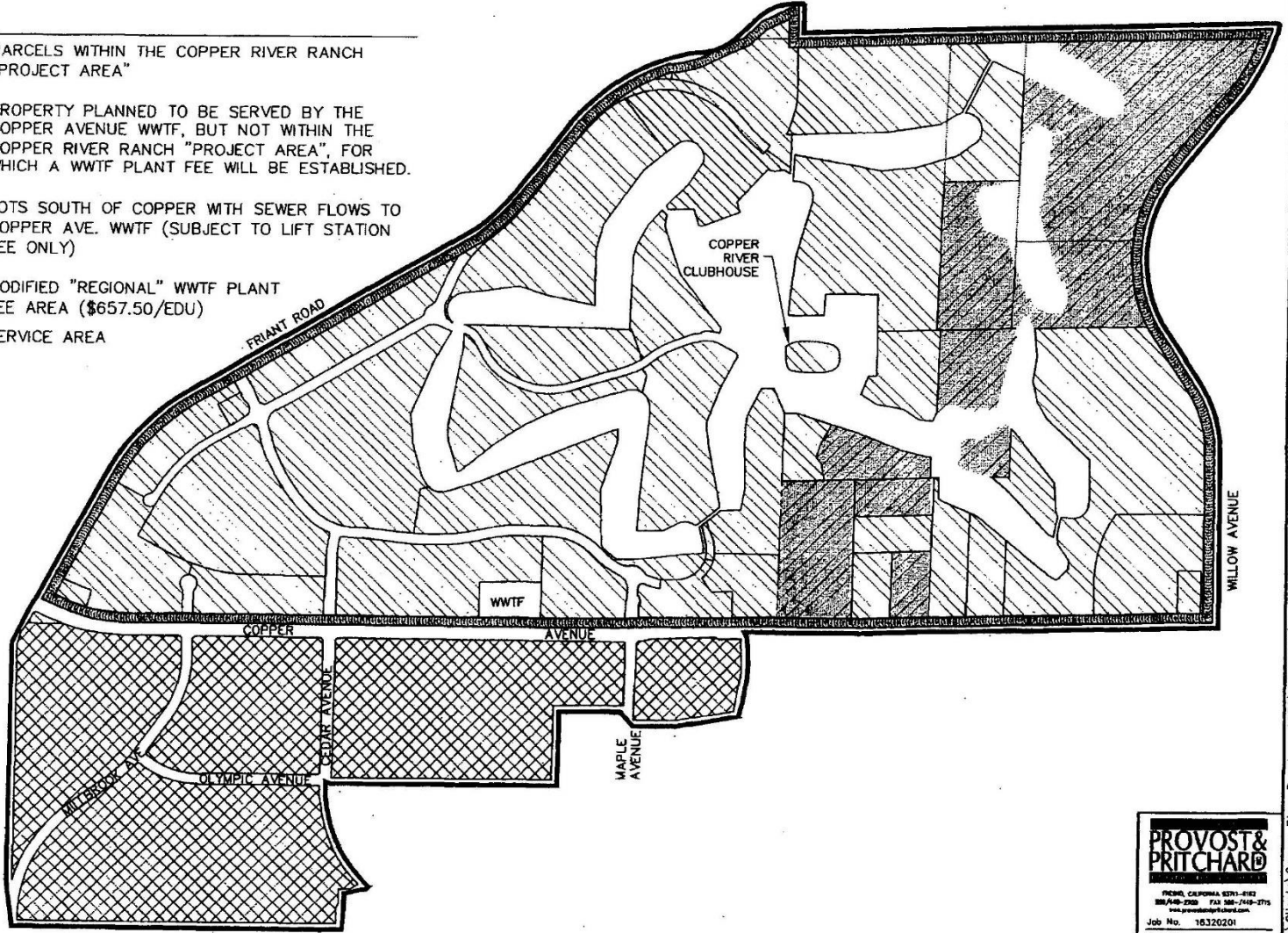
Figure 3.19-1
WWTF Service Area

EXHIBIT B

WWTF SERVICE AREA
INCLUDING "PROJECT AREA"

LEGEND

-  PARCELS WITHIN THE COPPER RIVER RANCH "PROJECT AREA"
-  PROPERTY PLANNED TO BE SERVED BY THE COPPER AVENUE WWTF, BUT NOT WITHIN THE COPPER RIVER RANCH "PROJECT AREA", FOR WHICH A WWTF PLANT FEE WILL BE ESTABLISHED.
-  LOTS SOUTH OF COPPER WITH SEWER FLOWS TO COPPER AVE. WWTF (SUBJECT TO LIFT STATION FEE ONLY)
-  MODIFIED "REGIONAL" WWTF PLANT FEE AREA (\$657.50/EDU)
-  SERVICE AREA



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**Table 3.19-5
Project Wastewater EDUs Used**

WATERJOB	TRACT	CREDITS_USED
J5055	5270	54.0
J5735	6185	26.0
J5051	5205	132.0
	5933	47.0
J5094	5271	39.0
J5095	5272	25.0
J5124	5268	230.0
J5411	5273	20.0
J5342	5838	95.0
J5374	5903	6.0
J5398	5973	56.0
J5454	5963	55.0
J5489	5892	64.0
J5526	6045	84.0
J5525	6065	51.0
J5605	6087	44.0
J5632	6126	94.0
J5689	6153	41.0
J5681	6099	91.0
J5694	6135	10.0
J5760	6106	65.0
	6132	21.0
	6238	47.0
	6231	89.0
	6275	38.0
Rite-Aid & Field House	802	19.0
Payroll People & Purwal Dentistry	801	21.0
J5746	6207	44.0
Copper River Apartments (Parcel Map No. 2019- 08)		475.0

Total EDU Sewer Credits: 3182.00

Total EDU Sewer Credits Used: -2083.00

Total EDU Sewer Credits Available: 1099.00

Of the 3,682 EDU sewer credits available, the Project has used 2,083 EDU credits, leaving approximately 1,599 available EDU credits. At full buildout, the proposed Project could result in up to 3,216 residential units (379 more units than previously analyzed in 2003), but will result in less commercial uses due to the proposed land use changes. Based on this information, the proposed Project has adequate EDU sewer credits available to serve the Project.

The existing sewer mains near the Project site are sized to accommodate land uses planned in the City of Fresno's General Plan. The Project area is served by existing sewer lines and the Project will be responsible for construction of smaller sewer lines to connect to the Project site and for its fair-share of payments for trunk fees; these fees will be collected pursuant to the City's UGM policies. The Project is not anticipated to cause any violation of any existing permit because of the "typical" content - B.O.D. and suspended solids - of the waste discharge associated with the Project. The proposed Project will be required to pay its fair share of wastewater fees. The City of Fresno Public Works Department has reviewed the Project and determined that it can accommodate the wastewater generated from the Project. Therefore, the impact is *less than significant*.

Mitigation Measures:

Refer to the end of this section titled "Applicability of 2003 FEIR Mitigation Measures" for the list of mitigation measures from the 2003 FEIR and their applicability to the currently proposed Project.

Impact 3.19-4: *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Less Than Significant. Proposed Project construction and operation will generate solid waste. Garbage disposed of in the City of Fresno is taken to Cedar Avenue Recycling and Transfer Station. Once trash has been off-loaded at the transfer station, it is sorted and non-recyclable solid waste is loaded onto large trucks and taken to the American Avenue Landfill located approximately 26 miles southwest of the Project site. The landfill is permitted to accept 2,300 tons per day and has a permitted capacity of 29.3 million cubic yards. The original closure date was 2031; however, due to enhanced recycling efforts, particularly on the part of the City of Fresno, the closure date has been extended to 2050.

Project Construction

Construction of the proposed Project would generate solid waste (in the form of construction debris) that would need to be disposed of at area landfills. Construction debris includes concrete, asphalt, wood, drywall, metals, and other miscellaneous and composite materials. Much of this material would be recycled and salvaged to the maximum extent feasible. Materials not recycled would be disposed of at local landfills. The Project site is currently undeveloped. There would

not be any demolition and most of the solid waste generated by the construction phase of the proposed Project would be recycled in accordance with AB 939.

Site preparation (vegetation removal and grading activities) and construction activities would generate construction debris, including wood, paper, glass, plastic, metals, cardboard, and green wastes. Construction activities could also generate hazardous waste products. The wastes generated would result in an incremental and intermittent increase in solid waste disposal at the American Landfill. However, compliance with Federal, State, and local statutes or regulations, a less than significant impact would occur.

Project Operation

The proposed Project includes residential and commercial uses. According to the City's General Plan, the City has a solid waste generation rate of 10 pounds per residential unit per day and 6 lbs per 1,000 sq ft of commercial/office/public facility per day.¹³

The City of Fresno's solid waste is primarily landfilled at the American Avenue Landfill in Tranquility. The landfill is permitted to accept 2,300 tons per day and has a permitted capacity of 29.3 million cubic yards. The original closure date was 2031; however, due to enhanced recycling efforts, particularly on the part of the City of Fresno, the closure date has been extended to 2050.

Solid waste generation by the Project is estimated to be:

- Residential: 3,216 units @ 10 lbs./day = 32,160 lbs./day or ~16.08 tons/day
- Commercial/Office: ~250,000 sq. ft. @ 6 lbs. per 1,000 sq. ft. = 1,500 lbs./day or 0.75 tons/day

Total: 16.83 tons/day

The total Project solid waste generated by the Project will thus be 16.83 tons per day (16.83 tons per day for residential plus 0.75 tons per day for commercial/office). If the City's reported historic diversion rate of 56% is maintained, the Project contribution to the landfill will be 7.41 tons per day (.44 x 16.83).

The landfill has a maximum permitted disposal rate of 2,300 ton per day and a current disposal rate of 1,300 tons per day. The proposed Project's impact on solid waste would represent approximately 0.0057% of the daily intake.

¹³ City of Fresno General Plan EIR (2020), page 4.17-30.

The proposed Project would be required to comply with applicable state and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. The amount of solid waste generated by the proposed Project that would not be diverted or recycled represents less than 1/10 of 1 percent of the daily capacity of the American Landfill and could be accommodated. The proposed Project would be required to comply with applicable State and local regulations, thus reducing the amount of landfill waste by at least 50 percent. With adequate landfill capacity at American Landfill and compliance with regulations, a *less than significant* impact would occur.

Mitigation Measures: None are required.

Impact 3.19-5: *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Less Than Significant. See Response to Impact 3.19-4. The Project will comply with all federal, state and local statutes and regulations related to solid waste. Therefore, the impact is considered *less than significant*.

Mitigation Measures: None are required.

Applicability of 2003 FEIR Mitigation Measures

As discussed above, the 2003 FEIR provided the mitigation measures related to utilities and service systems. The determination of the applicability of those mitigation measures is as follows:

2003 FEIR Mitigation	Determination	New Mitigation (if applicable)
<p>2.8.1-a: The developer shall construct and/or pay for all facilities necessary to accommodate the impact of connection to the City sewer system and associated wastewater treatment.</p> <p>2.8.1-b: The design of necessary collection system improvements is subject to approval by the City.</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.8.1-a: WWTF completed. Sewer fees are paid with each tract/project.</p>	<p>Mitigation measures 2.8.1-c, 2.8.1-e and 2.8.1-f were completed.</p> <p>Mitigation measures 2.8.1-a, 2.8.1-b and 2.8.1-d shall continue to be applicable.</p>

<p>All reasonable effort will be made by the developer and the City to design and stage facilities to maximize value and minimize cost.</p> <p>2.8.1-c: The developer shall construct a wastewater treatment facility of a capacity and design acceptable to the City of Fresno. The wastewater treatment facility shall be completed and "on-line" in time to satisfy the conditions of accommodation of temporary flows (not to exceed flows from 500 dwelling units for a period of seven years, or four years from the first building permits, or until completion of the on-site wastewater treatment plant).</p> <p>2.8.1-d: Treated effluent from the proposed wastewater treatment facility (recycled water) shall be re-used by the project. Land application of recycled water shall be subject to the approval of the City of Fresno and appropriate County and State agencies.</p> <p>2.8.1-e: Equitable impact fees and monthly user charges shall be approved by the developer and the City prior to the Maple Avenue connection at Perrin. Equitable in this context shall mean:</p>	<p>2.8.1-b: Ongoing with each tract/project.</p> <p>2.8.1-c: Completed.</p> <p>2.8.1-d: Ongoing.</p> <p>2.8.1-e: Completed.</p> <p>2.8.1-f: Completed.</p>	
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<ul style="list-style-type: none"> • The cost of facilities and operational expenses necessary to serve the project shall be born solely by the developer. • To the extent that such facilities and expenditures benefit other developments, the project shall be eligible for reimbursement pursuant to existing mechanisms and protocols. <p>2.8.1-f. An emergency operational plan shall be prepared by the facility designer to be countersigned by the City of Fresno which specifies steps to be taken in the case of an emergency and contact persons name and telephone numbers.</p>		
<p>2.8.2-a. Reclaimed water shall be utilized for golf course or landscape irrigation in designated open space areas. These sites shall be fully described and approved by the RWQCB as part of the preliminary discharge permit and it must be shown by soil testing by a qualified engineer that the sites are capable of</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.8.2-a: Ongoing.</p> <p>2.8.2-b: Ongoing. Completed for western portion of the project.</p> <p>2.8.2-c: Ongoing.</p>	<p>Mitigation measures 2.8.2-d was completed.</p> <p>Mitigation measures 2.8.2-a, 2.8.2-b and 2.8.2-c are ongoing and shall continue to be applicable.</p>

<p>handling the entire planned disposal flow.</p> <p>2.8.2-b. The spray irrigation system shall be operated so as to minimize contact with the public. Irrigation shall be scheduled for times when the areas are not in use and all irrigation piping shall be clearly marked as not for potable use. The system shall be operated to minimize aerosols, ponding, and runoff of reclaimed water. Operation of the irrigation system by City of Fresno personnel shall be in accordance with guidelines established by DHS.</p> <p>2.8.2-c: Separation of the reclaimed effluent distribution system and the potable water distribution system shall be assured through use of color-coded pipe. Effluent pipelines and hardware shall be appropriately labeled, and backflow prevention devices may be required where a potential cross connection may exist. Minimum separation of potable water and reclaimed water lines shall be as prescribed by City of Fresno and State of California standards.</p> <p>2.8.2-d. The design of the treatment plant and the treated effluent quality shall meet the requirements of Title 22 CCR for the use of reclaimed</p>	<p>2.8.2-d: Completed. The City owns the Waste Discharge Permit.</p>	
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<p>wastewater. The project developer shall obtain a Waste Discharge Permit from the RWQCB. Prior to construction of the reclamation facility, an engineering report demonstrating compliance with these regulations shall be submitted to the RWQCB and the DHS. In the event that standards are exceeded, additional disinfection shall be required until standards are attained. The applicant shall develop a contingency plan as part of the Waste Discharge Permit which prevents inadequately treated wastewater from being applied to areas that allow public access.</p>		
<p>2.8.3-a. The developer shall participate in any necessary collection system enhancements subject to full and satisfactory mitigation by the developer of all potentially significant impacts identified by the City of Fresno Department of Public Utilities.</p> <p>2.8.3-b. The developer shall be responsible for all wastewater facility and trunk fees necessary to accommodate the sludge loading.</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.8.3-a: Ongoing with each tract/project.</p> <p>2.8.3-b: Ongoing with each tract/project.</p>	<p>Mitigation measures 2.8.3-a and 2.8.3-b are ongoing and shall continue to be applicable.</p>
<p>2.8.4-a: Monitoring wells shall be provided to detect the influence of reclaimed water, if any, on groundwater quality. At a</p>	<p>The determination of completion for each</p>	<p>Mitigation measures 2.8.4-a, 2.8.4-b, and 2.8.4-c were completed.</p>

<p>minimum, monitoring wells shall be located at points one-quarter and one-half of the distance (plus or minus 10 percent) between any lakes or basins containing diluted effluent and the nearest domestic water supply well on-site and off-site southwest in the direction of groundwater flow. In addition, a monitoring well shall be placed immediately down gradient of the wastewater treatment plant effluent storage ponds. The number and exact location of monitoring wells shall be described in the engineering report submitted pursuant to Section 60320.07 and approved by DHS.</p> <p>2.8.4-b: A recommended plan for use of the existing wells in conjunction with new monitoring wells shall be made in the engineering report pursuant to Section 60320.05(d) and approved by DHS. All other wells on-site except for irrigation wells to remain in use shall be properly abandoned according to adopted standards.</p> <p>2.8.4-c: Comply with effluent management plan prepared by a qualified engineer and approved by the Fresno County Department of Community Health and DHS.</p>	<p>component of this mitigation measure is as follows:</p> <p>2.8.4-a: Completed.</p> <p>2.8.4-b: Completed.</p> <p>2.8.4-c: Completed.</p> <p>2.8.4-d: Ongoing.</p>	<p>Mitigation measure 2.8.4-d is ongoing and shall continue to be applicable.</p>
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<p>2.8.4-d: Annual nutrient summaries shall be prepared for all turf areas served with reclaimed water. The summaries shall evaluate the needs of the turf, the amount of nutrients applied, and any supplemental fertilizers applied. The amount of treated effluent applied shall be adjusted based on the turf nutrient requirements.</p>		
<p>2.8.5-a: The developer shall be responsible for the following mitigation measure to be included as a condition of approval of the conditional use permit for the wastewater treatment plant:</p> <ul style="list-style-type: none"> • Monitoring groundwater, including nitrogen content, has been proposed as a mitigation measure for this project (see above mitigation for groundwater degradation caused by infiltration of diluted treated effluent). Measurements shall be taken each calendar quarter by City of Fresno personnel or a qualified consultant. Should the monitoring tests exceed nitrogen standards, a denitrification process 	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.8.5-a: Ongoing throughout Project buildout.</p>	<p>Mitigation measure 2.8.5-a is ongoing and shall continue to be applicable.</p>

<p>shall be started at the wastewater treatment facility. The plant design shall incorporate a denitrification process that shall denitrify the treated effluent to the 10 mg/l total nitrogen level.</p>		
<p>The developer shall be responsible for the following mitigation measures through the subsequent master use permit and associated development plan:</p> <p>2.9.1-a: Establish a development fee for the project’s fair share of the City’s surface water treatment plant construction and expansion.</p> <p>2.9.1-b: The project shall commit to a water conservation program which shall include low-flow water fixtures, water conserving landscaping of public spaces, and water conserving practices for golf course irrigation.</p> <p>2.9.1-c: Technical water supply information shall be submitted which demonstrates residential and commercial uses and corresponding water requirements.</p> <p>2.9.1-d: The developer shall commit to plan and maintain on-</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.9.1-a: On-going throughout development.</p> <p>2.9.1-b: On-going throughout development and operation. This will be replaced with MM HYD-2A.</p> <p>2.9.1-c: On-going throughout development and operation.</p> <p>2.9.1-d: On-going throughout development and operation.</p> <p>2.9.1-e: On-going throughout development.</p>	<p>Mitigation measures 2.9.1-a, 2.9.1-c, 2.9.1-d, and 2.9.1-e shall continue to be applicable.</p> <p>Mitigation measure 2.9.1-b will be replaced with HYD-2A as follows:</p> <p>HYD – 2A: The Project will implement the City of Fresno Water Conservation Program, including implementation of the State’s Water Efficient Landscape Ordinance. The California Water Conservation Act mandates a 20 percent reduction in water usage. The Developer will meet the reduction target with measures applicable to new and existing development. Reductions beyond the state mandated 20 percent are possible with the use of building and landscaping water conservation features. The reductions from buildings can be achieved with high efficiency toilets, low-flow faucets, and water-efficient appliances such as dishwashers. Water savings from landscaping would be achieved</p>

<p>site recharge basins and lakes to ensure that necessary recharge can be accomplished over the life of the project.</p> <p>2.9.1-e: The developer shall prepare a water master plan for approval by the City in accordance with City requirements.</p>		<p>primarily through the use of drought-tolerant landscaping or xeriscaping.</p> <p>HYD – 2B: The total Project area considered for water supply requirements consists of an original Project area of 706 acres and new Project area of 109 acres. The City has previously established water supply requirements for the original Project area of 706 acres and memorialized them in a Water Supply Implementation Agreement. For the new Project area, the Developer shall pay the Water Capacity Fee, as specified in the City’s Master Fee Schedule, for all new connections to the City’s water system.</p>
<p>The developer shall be responsible for the following mitigation measure through the subsequent development agreement and associated specific plan or development plan:</p> <p>2.9.2-a: New wells shall be placed a minimum of 500 feet from the project boundaries where there is an adjoining proximate off-site well, in order to preclude drawdown in off-site wells due to pumpage of new public supply wells in the project.</p>	<p>The determination of completion for each component of these mitigation measures is as follows:</p> <p>2.9.2-a: On-going throughout construction as applicable.</p> <p>2.9.2-b: On-going throughout construction as applicable.</p> <p>2.9.2-c: On-going throughout construction and operation as applicable.</p>	<p>Mitigation measures 2.9.2-a, 2.9.2-b and 2.9.2-c shall continue to be applicable.</p>

<p>In addition, new public supply wells on the project site shall include a test well and monitoring of a sufficient number of adjoining proximate off-site wells as determined by the City to determine potential drawdown in the off-site wells. Should adverse effects on adjoining proximate off-site wells be determined, the public supply wells shall be relocated or otherwise mitigated to preclude such adverse impacts.</p> <p>2.9.2-b: Locate domestic water wells in accordance with the recommendations contained in the report <i>Groundwater Conditions at the Copper River Ranch</i>, prepared by Kenneth D. Schmidt and Associates, May, 2000.</p> <p>2.9.2-c: If water yields from adjacent private wells are determined by the City Department of Public Utilities in consultation with the Fresno County Department of Community Health to have been adversely affected by the project, the developer shall improve the private well to standards acceptable to the City, or connect the user to the project water system.</p>		
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<p>The developer shall be responsible for the following mitigation measures based on required water-well monitoring:</p> <p>2.9.3-a: Should any existing community water supply well exceed the DBCP MCL as detected in regular monitoring, granular activated carbon treatment or other acceptable technology shall be required to be consistent with CCR Title 22 requirements.</p> <p>2.9.3-b: Should any existing community water supply well exceed the uranium MCL as detected in regular monitoring, the contaminated well water shall be blended with other on-site groundwater supplies to reduce the contamination level below the MCL at all times. A State DHS-approved blending program shall be implemented to meet this requirement. The effectiveness of the program shall be supported by on-going monitoring at State-specified frequencies and locations.</p> <p>2.9.3-c: Should other contaminants be identified in the future, remediation shall be resolved in accordance with CCR Title 22 requirements.</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.9.3-a: On-going monitoring.</p> <p>2.9.3-b: On-going monitoring.</p> <p>2.9.3-c: On-going monitoring.</p>	<p>Mitigation measures 2.9.3-a, 2.9.3-b and 2.9.3-c shall continue to be applicable.</p>
<p>The developer shall be responsible for the following mitigation measure to be</p>	<p>The determination of completion for each</p>	<p>Mitigation measure 2.9.4-a shall continue to be applicable.</p>

<p>included as a condition of approval of the conditional use permit for the wastewater treatment plant:</p> <p>2.9.4-a: Monitoring groundwater, including nitrogen content, has been proposed as a mitigation measure for this project (see mitigation for groundwater degradation caused by infiltration of diluted treated effluent, in Section 2.8). Measurements shall be taken each calendar quarter by City of Fresno personnel or a qualified consultant. Should the monitoring tests exceed nitrogen standards, a denitrification process shall be started at the wastewater treatment facility. The plant design shall incorporate a denitrification process that shall denitrify the treated effluent to the 10 mg/l total nitrogen level.</p>	<p>component of this mitigation measure is as follows:</p> <p>2.9.4-a: On-going monitoring</p>	
<p>The developer shall be responsible for the following mitigation measure to be included as a condition of approval for all conditional use permits, tentative tract maps, or site plans:</p> <p>2.9.6-a: Grading plans shall demonstrate that all areas of irrigated turf or other open space receiving reclaimed water drain away from FMFCD basins, except in extraordinary wet</p>	<p>The determination of completion for each component of this mitigation measure is as follows:</p> <p>2.9.6-a: On-going as development occurs.</p>	<p>Mitigation measure 2.9.6-a shall continue to be applicable.</p>

<p>years (10-year frequency storms) when on-site lakes may fill from stormwater and utilize the FMFCD basins.</p>		
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Cumulative Impacts

The geographic area for cumulative hydrology analysis is the land area included in the Kings River Sub-basin (Basin), which underlies the Project site as well as the surrounding region.

Water Supply

The Kings Subbasin is in overdraft condition due to pumping for agricultural and urban uses. Growth in the subbasin will increase demands for groundwater pumping, potentially resulting in continued drawdown of water levels leading to localized cones of depression, changes in groundwater flow direction, concentration of contaminants, and land subsidence. This is a regional problem that is being addressed through several means including the formation of GSA’s and the development of GSPs. Buildout of the City’s approved General Plan would occur in 2056 with an ultimate population of approximately 970,000 residents. In addition, other areas that rely on the Kings Subbasin would continue to grow resulting in greater demands for water.

As discussed in Impact Section 3.10-5, the City of Fresno is a member agency of the North Kings GSA, which is required to halt groundwater overdraft and bring groundwater basins into balanced level of pumping and recharge. Continued participation and compliance with the North Kings GSA by the City of Fresno and other member agencies would ensure balance of the basin by 2040. Although the Project has less than significant impacts at the project-level, if the City does not continue to implement programs and policies identified in the North Kings GSP, a ***cumulatively considerable impact*** would occur regarding water supply.

Other Utilities and Service Systems

The geographic scope for considering Project-related cumulative impacts on other utilities is the City of Fresno. Development of the Project in combination with future development projects in the area would increase the utilization of utilities such as sewer, electrical power, natural gas, and solid waste disposal facilities. As with the proposed Project, for future projects, the City collects development impact fees to help cover the cost of wastewater (sewer), water, and solid waste infrastructure and facilities. In addition, revenue from sales tax from future projects assists in maintaining these services. The City evaluates impact fees from new development on a project-

by-project basis. Continued implementation of development impact fees will ensure that cumulative impacts are *less than cumulatively considerable*.

3.20 Wildfire

This section of the SEIR evaluates the potential impacts to Wildfire associated with implementation of the proposed Project. No NOP comments were received pertaining to wildfire.

Determination of Adequacy of 2003 FEIR

The topic of Wildfire was not included in the CEQA Guidelines Appendix G checklist when the original 2003 FEIR was prepared. Since 2003, the CEQA Guidelines have been updated to include questions related to impacts to wildfire. Therefore, the following determinations are made:

Topic	Further Analysis Required?	2003 FEIR Analysis Sufficient?
a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?	✓	
b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risk, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	✓	
c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	✓	
d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	✓	

Environmental Setting

A wildfire is an uncontrolled fire in an area of combustible vegetation that is generally extensive in size. Wildfires differ from other fires in that they take place outdoors in areas of grassland, woodlands, brush land, scrubland, peatland, and other wooded areas that act as a source of fuel, or combustible material. Buildings may become involved if a wildfire spreads to adjacent communities. The primary factors that increase an area's susceptibility to wildfire include topography, fuel (vegetation type), and weather.¹ These factors, as they exist and occur relative to the Project area are described below.

- **Topography.** According to the U.S Forest Service, fires burn faster uphill than downhill because the fuels above the fire are brought into closer contact with upward moving flames. The steeper the slope, the faster the fire burns. Additionally, steep slopes may hinder firefighting efforts. Following severe wildfires, sloping land is also more susceptible to landslide or flooding from increased runoff during substantial precipitation events. The proposed Project is located on the Valley floor in the City of Fresno and topography in the area is nearly flat.
- **Fuel.** Fuel is any combustible material. Wildland fuels are live and/or dead plant material. These vary from one area of the country to another within the ecosystem; however, they are grouped into four major types based on the primary fuel that carries the fire. These are grasses, shrubs, timber litter and logging slash. Timber litter and logging slash are exclusively associated with forested areas, while grasses and shrubs are found in most ecosystems.
- **Weather.** Wind, temperature, and relative humidity are the most influential weather elements in fire behavior and susceptibility. Fire moves more quickly under hot, dry, and windy conditions. Wind may also blow burning embers ahead of a fire, causing its spread. Drought conditions also lead to extended periods of excessively dry vegetation, increasing the fuel load and ignition potential. According to the Western Regional Climate Center, average annual precipitation in the central portion of Fresno County is between 5-10 inches.² Generally, in an average or typical year, most precipitation is received from October through April. May through September is the driest parts of the year and coincide with what has traditionally been considered the fire season in California. However,

¹ U.S. Forest Service. Fire Management Study Unit. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsm9_028958.pdf. Accessed October 2020.

² Western Regional Climate Center. PRISM Precipitation & Dew Point Climatology Maps. Average Annual Precipitation, California. https://wrcc.dri.edu/Climate/prism_precip_maps.php. Accessed October 2020.

increasingly persistent drought and climatic changes in California have resulted in drier winters and fires during the autumn, winter, and spring months are become more common. Prevailing winds in the City of Fresno are generally westerly to southwesterly.³ Westerly to southwesterly prevailing wind means that winds generally move across the City from the west to the east.

Wildfire Hazards

In California, responsibility for wildfire prevention and suppression is shared by federal, state and local agencies. Federal agencies are responsible for federal lands in Federal Responsibility Areas. The State of California has determined that some non-federal lands in unincorporated areas with watershed value are of statewide interest and have classified those lands as State Responsibility Areas (SRA), which are managed by CAL FIRE. All incorporated areas and other unincorporated lands are classified as Local Responsibility Areas (LRA). While nearly all of California is subject to some degree of wildfire hazard, there are specific features that make certain areas more hazardous. CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather and other relevant factors (Public Resources Code [PRC] 4201-4204 and California Government Code 51175-89). As described above, the primary factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. CAL FIRE maps fire hazards based on zones, referred to as Fire Hazard Severity Zones. CAL FIRE maps three zones on SRA: 1) Moderate Fire Hazard Severity Zones; 2) High Fire Hazard Severity Zones; and 3) Very High Fire Hazard Severity Zones. Only the Very High Fire Hazard Severity Zones are mapped on for LRA. Each of the zones influence how people construct buildings and protect property to reduce risk associated with wildland fires. Under state regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas.

According to LRA mapping, no land within Fresno County is designated as a Very High Fire Hazard Severity Zone.⁴ Additionally, according to CAL FIRE, the nearest SRA mapped land is approximately one-half mile to the northeast of the site at its nearest point.⁵

³ California Air Resources Board, Aerometric Data Division. California Surface Wild Climatology. 1984. <https://ww3.arb.ca.gov/research/apr/reports/l013.pdf>. Accessed October 2020.

⁴ California State Geportal. California Fire Hazard Severity Zone Viewer. <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>. Accessed October 2020.

⁵ California Department of Forestry and Fire Protection. Fire Hazard Severity Zones Maps. Fresno County. https://osfm.fire.ca.gov/media/6449/fhszs_map10.jpg. Accessed October 2020.

Project Area

The existing 706.5-acre Copper River Ranch Development is located at the northeastern edge of the City limits of Fresno in an area that has been largely developed with urban uses. The proposed additional 109 acres is located adjacent to and east of the existing development. Elevations of the proposed new development area range from 340 to 400 feet above sea level. The new 109-acre development area has been mostly disturbed (graded, disced, or developed) and supports residential development, portions of a golf course, and disturbed land with patches of ruderal vegetation. The proposed new development area is surrounded by residential development to the north; residential development, portions of a gold course, and disturbed land to the south; orchards, residential development, portions of a golf course, and disturbed land to the east; and residential development, commercial development, portions of a golf course, and disturbed land to the west. As previously discussed, the Project area does not contain any lands within the State Responsibility Area or lands classified as Very High Fire Hazard Severity Zone within the LRA.

Regulatory Setting

Federal Regulations

The Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 requires a State mitigation plan as a condition of disaster assistance. There are two different levels of State disaster plans: “Standard” and “Enhanced.” States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Act has also established new requirements for local mitigation plans.

National Fire Plan

The National Fire Plan was developed under Executive Order 11246 in August 2000, following a historic wildland fire season. Its intent is to establish plans for active response to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity. The plan addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.

State of California Regulations

The California Fire Plan

The Strategic Fire Plan for California is the State’s road map for reducing the risk of wildfire. The most recent version of the Plan was finalized in August 2018 and directs each CAL FIRE Unit to prepare a locally specific Fire Management Plan. In compliance with the California Fire Plan, individual CAL FIRE units are required to develop Fire Management Plans for their areas of responsibility. These documents assess the fire situation within each of the 21 CAL FIRE units and six contract counties. The plans include stakeholder contributions and priorities and identify strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work with the local fire problem. The plans are required to be updated annually.⁶

California Office of Emergency Services

The California Office of Emergency Services (OES) prepares the State of California Multi-Hazard Mitigation Plan (SHMP). The SHMP identifies hazard risks and includes a vulnerability analysis and a hazard mitigation strategy. The SHMP is federally required under the Disaster Mitigation Act of 2000 in order for the State to receive Federal funding. The Disaster Mitigation Act of 2000 requires a State mitigation plan as a condition of disaster assistance.

California Fire Code (2016)

The 2016 Fire Code establishes the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare for the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of this code apply to some construction, alteration, movement enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of buildings or structures or any appurtenances connected or attached to such building structures throughout California. The 2016 Fire Code has been updated to the 2019 Fire Code and will go into effect January 1, 2020. The code update is fully integrated and based on the 2018 International Fire Code.

⁶ California Department of Forestry and Fire Protection. 2018 Strategic Fire Plan for California. https://osfm.fire.ca.gov/media/5590/2018-strategic-fire-plan-approved-08_22_18.pdf. Accessed October 2020.

Local Regulations

City of Fresno General Plan

The City's General Plan is a set of goals, objectives, and policies that form a blueprint for the physical development of the City. The following objective and policies related to wildfire are presented in the General Plan:

Noise and Safety Element

- Objective NS-6: Foster an efficient and coordinated response to emergencies and natural disasters.
- Policy NS-6-a: County Multi-Jurisdiction Hazard Mitigation Plan. Adopt and implement the Fresno County Multi-Jurisdiction Hazard Mitigation Plan and City of Fresno Local Hazard Mitigation Plan Annex.
- Policy NS-6-b: Disaster Response Coordination. Maintain coordination with other local, State, and Federal agencies to provide coordinated disaster response.
- Policy NS-6-c: Emergency Operations Plan. Update the City's Emergency Operations Plan periodically, using a whole community approach which integrates considerations for People with access and functional needs in all aspects of planning.
- Policy NS-6-d: Evacuation Planning. Maintain an emergency evacuation plan in consultation with the Police and Fire Departments and other emergency service providers, which shows potential evacuation routes and a list of emergency shelters to be used in case of catastrophic emergencies.
- Policy NS-6-e: Critical Use Facilities. Ensure critical use facilities (e.g., City Hall, police and fire stations, schools, hospitals, public assembly facilities, transportation services) and other structures that are important to protecting health and safety in the community remain operational during an emergency.
 - Site and design these facilities to minimize their exposure and susceptibility to flooding, seismic and geological effects, fire, and explosions.
 - Work with the owners and operators of critical use facilities to ensure they can provide alternate sources of electricity, water, and sewerage in the event that regular utilities are interrupted in a disaster.
- Policy NS-6-f: Emergency Vehicle Access. Require adequate access for emergency vehicles in all new development, including adequate widths, turning radii, hard standing areas, and vertical clearance.

- Policy NS-6-g: Emergency Preparedness Public Awareness Programs. Continue to conduct programs to inform the general public, including people with access and functional needs, of the City's emergency preparedness and disaster response procedures.

Public Utilities and Services Element

- Objective PU-2. Ensure that the Fire Department's staffing and equipment resources are sufficient to meet all fire and emergency service level objectives and are provided in an efficient and cost effective manner.
- Policy PU-2-a: Unify Fire Protection. Pursue long-range transfer of fire protection service agreements with adjacent fire districts that, in concert with existing automatic aid agreements, will lead to the eventual unification of fire protection services in the greater Fresno area.
- Policy PU-2-b: Maintain Ability. Strive to continually maintain the Fire Department's ability to provide staffing and equipment resources to effectively prevent and mitigate emergencies in existing and new high-rise buildings and in other high-density residential and commercial development throughout the city.
- Policy PU-2-c: Rescue Standards. Develop appropriate standards, as necessary, for rescue operations, including, but not limited to, confined space, high angle, swift water rescues, and the unique challenges of a high speed train corridor.
- Policy PU-2-d: Station Siting. Use the General Plan, community plans, Specific Plans, neighborhood plans, and Concept Plans, the City's Geographic Information Systems (GIS) database, and a fire station location program to achieve optimum siting of future fire stations.
- Policy PU-2-e: Service Standards. Strive to achieve a community wide risk management plan that include the following service level objectives 90 percent of the time:
 - First Unit on Scene – First fire unit arriving with minimum of three firefighters within 5 minutes and 20 seconds from the time the unit was alerted to the emergency incident.
 - Effective Response Force – Provide sufficient number of firefighters on the scene of an emergency within 9 minutes and 20 seconds from the time of unit alert to arrival. The effective response force is measured as 15 firefighters for low risk fire incidents and 21 firefighters for high risk fire incidents and is the number of personnel necessary to complete specific tasks required to contain and control fire minimizing loss of life and property.
- Objective PU-3. Enhance the level of fire protection to meet the increasing demand for services from an increasing population.

- Policy PU-3-a: Fire Prevention Inspections. Develop strategies to enable the performance of annual fire and life safety inspection of all industrial, commercial, institutional, and multifamily residential buildings, in accordance with nationally recognized standards for the level of service necessary for a large Metropolitan Area, including a self-certification program.
- Policy PU-3-b: Reduction Strategies. Develop community risk reduction strategies that target high service demand areas, vulnerable populations (e.g., young children, older adults, non-English speaking residents, persons with disabilities, etc.), and high life hazard occupancies.
- Policy PU-3-d: Review All Development Applications. Continue Fire Department review of development applications, provide comments and recommend conditions of approval that will ensure adequate on-site and off-site fire protection systems and features are provided.
- Policy PU-3-e: Building Codes. Adopt and enforce amendments to construction and fire codes, as determined appropriate, to systematically reduce the level of risk to life and property from fire, commensurate with the City's fire suppression capabilities.
- Policy PU-3-f: Adequate Infrastructure. Continue to pursue the provision of adequate water supplies, hydrants, and appropriate property access to allow for adequate fire suppression throughout the City.
- Policy PU-3-g: Cost Recovery. Continue to evaluate appropriate codes, policies, and methods to generate fees or other sources of revenue to offset the ongoing personnel and maintenance costs of providing fire prevention and response services.

City of Fresno Emergency Operation Plan

The California Emergency Services Act requires cities to prepare and maintain an emergency plan for emergencies that are natural or caused by man. The City's adopted Emergency Operations Plan (EOP) plans for emergencies including natural hazards. The EOP does not designate any evacuation routes within the City.

County of Fresno Multi-Jurisdictional Local Hazard Mitigation Plan

The purpose of a Local Hazard Mitigation Plan is to reduce or eliminate long-term risk to human life and property resulting from hazards. A local hazard mitigation plan recognizes risks before they occur, as well as identifies resources, information, and strategies for emergency response. Fresno County, with participation from 17 jurisdictions, is the lead agency on the Multi-Jurisdictional Local Hazard Mitigation Plan (MHMP). In 2018, the Fresno County Board of Supervisors adopted the MHMP, which includes a portion listing information most relevant to the City in the areas of health, infrastructure, housing, government, environment, and land use.

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, the project would have a significant impact on land use as follows:

- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:
 - Substantially impair an adopted emergency response plan or emergency evacuation plan?
 - Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
 - Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
 - Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Impacts and Mitigation Measures

Impact 3.20-1: *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

Less Than Significant. To receive building permits, the proposed Project would be required to be in compliance with the City's adopted Emergency Operations Plan. In addition, the Project will be required to maintain adequate emergency access throughout construction and operational activities. Compliance with the Emergency Operations Plan as well as implementation of the General Plan objectives and policies identified herein will ensure that any wildfire risk to the Project structures or people would be *less than significant*.

Mitigation Measures: None are required.

Impact 3.20-2: *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Less Than Significant Impact. The proposed Project site is located approximately one-half mile southwest of the nearest State Responsibility Area and over 100 miles east of the nearest LRA Very High Fire Hazard Severity Zone. The Project site lies on the Valley floor and is surrounded by urban uses and active agriculture, in various stages of production. There are no substantial slopes or prevailing winds on or around the site that exacerbate wildfire risks. In addition, the Project is within the service boundaries of Fire Station No. 17, located at 10512 N. Maple, Fresno, CA 93730, which is located approximately one-half mile south of the proposed development. Impacts associated with Project development would be less than significant related to wildfires given the developed nature of the area, the lack of fire hazard zones in the area, as well as the relative close proximity to existing fire suppression services. Therefore, the impact is determined to be *less than significant*.

Mitigation Measures

None are required.

Impact 3.20-3: *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

Less Than Significant Impact. See Response 3.20-2. In addition, the infrastructure associated with the Project (i.e. internal roadways, water/sewer/stormdrain, underground utility lines, intersection improvements, etc.) are typical of urban development and will not exacerbate wildfire risk, as the risk of wildfire in the area is low. The Project site is located on land that is adjacent to roadways, agricultural lands, educational facilities, residential housing and scattered commercial properties. Implementation of the General Plan objectives and policies identified herein will ensure that impacts remain *less than significant*.

Mitigation Measures: None are required.

Impact 3.20-4: *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Less Than Significant Impact. The Project site is located on land that is adjacent to roadways, agricultural lands, educational facilities, residential housing and scattered commercial properties. The Project area is highly developed and does not include substantially sloped areas. Due to the existing landform, the risk of downstream post-fire flooding is low, and the proposed Project would not exacerbate that risk. Therefore, the impact is determined to be *less than significant*.

Applicability of 2003 FEIR Mitigation Measures

The 2003 FEIR did not include an analysis of wildfire impacts, thus there were no previous mitigation measures pertaining to wildfire.

Cumulative Impacts

Less Than Cumulatively Considerable. As discussed above, the topography in the Project area is nearly flat with the nearest State Responsibility Area approximately one-half mile northeast. The proposed Project lies on the Valley floor and is surrounded by urban uses and active agriculture, in various stages of production, which precludes the likelihood of wildfires within the vicinity. Cumulative impacts related to wildfires are *less than cumulatively considerable*.

Chapter 4

ALTERNATIVES

PROJECT ALTERNATIVES

4.1 Introduction

CEQA Guidelines Section 15126.6 requires the consideration of a range of reasonable alternatives to the proposed Project that could feasibly attain most of the objectives of the proposed Project. The Guidelines further require that the discussion focus on alternatives capable of eliminating significant adverse impacts of the project or reducing them to a less-than significant level, even if the alternative would not fully attain the project objectives or would be more costly. According to CEQA Guidelines, the range of alternatives required in an EIR is governed by the “rule of reason” that requires an EIR to evaluate only those alternatives necessary to permit a reasoned choice. An EIR need not consider alternatives that have effects that cannot be reasonably ascertained and/or are remote and speculative.

The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

CEQA Guidelines §15126.6(e) identifies the requirements for the “No Project” alternative. The specific alternative of “no project” shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (see Section 15125).

Alternative locations can also be evaluated if there are feasible locations available. Each alternative is evaluated against the Project objectives and criteria established by the Lead Agency.

4.2 Project Objectives

The following Project objectives were included in the 2003 FEIR and continue to be applicable to the proposed Project. In accordance with CEQA Guidelines Section 15124(b), the following are the Project objectives:

- To provide a variety of housing opportunities with a complete range of densities, styles, sizes, and values which are designed to satisfy the identified increasing demand of the existing and future population base.
- To provide for commercial and office development sufficient to accommodate the needs of the Project population of the Project.
- To provide for alternative forms of transportation within the Project and connection to regional trail and mass transit systems thereby reducing dependency upon the automobile.
- To provide for a variety of open space opportunities within the Project area.
- To encourage residents to work at home occupations. Promote home occupations through electronic and internet components within the home, home design, and related mixed-use facilities.
- To provide the ability, through flexible zoning conditions, to develop mixed-use projects, which combine a variety of uses on one parcel.
- To maximize view opportunities of Project open space features through innovative land use planning techniques.
- To create a strong sense of “community” with landscaping, signage, lighting and Project amenities that are unique to Copper River Ranch.

4.3 Alternatives Considered in this SEIR

The 2003 FEIR provided an analysis of Project Alternatives (refer to pages 3.3.1 – 3.3.9 of the 2003 FEIR) which are summarized as follows:

- No Development Alternative: This Alternative evaluated the impacts of no development (the undeveloped areas remain vacant).
- No Project Alternative: This Alternative evaluated the impacts of developing the site in accordance with underlying land use designations (consistent with the 2003 FEIR).
- Increased Density: This Alternative evaluated the impacts of developing the site with greater residential densities with a larger number of units and a larger population.

- **Decreased Density:** This Alternative evaluated the impacts of developing the site with lower residential densities and a smaller number of units and associated population.

This SEIR retains similar alternatives, with some modifications as follows:

- **No Development Alternative:** Under this Alternative, the unbuilt portions of the site would remain vacant and unoccupied.
- **No Project Alternative:** Under this Alternative, the site would be developed according to the 2003 FEIR and the addition of the 109 acres to the Project would not occur. The additional 109-acre area would also retain its existing land use designations where development could proceed with residential development as identified in the City's General Plan.
- **Increased Project Density:** Under this Alternative, the site would be developed with increased residential densities which would result in a greater number of units and an increase in population as compared to the proposed Project.
- **Reduced Project Density:** Under this Alternative, the site would be developed with reduced residential densities which would result in development of fewer number of units and a decrease in population as compared to the proposed Project.

No Development Alternative (unbuilt site remains vacant and unoccupied)

CEQA Section 15126.6(e) requires the discussion of the No Project Alternative "to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." The No Project scenario in this case consists of retaining the property in its original configuration, with no construction or operation of any development on the proposed site. Under this alternative, the site remains vacant and no new development would occur on the site.

Description

This alternative would avoid both the adverse and beneficial effects of the project. This alternative would avoid site-disturbance and construction-related impacts associated with construction of the proposed Project. The No Project Alternative would avoid the generation of any environmental impacts.

Environmental Considerations

Continuation of the site as vacant and unoccupied would result in all environmental impacts being less than the proposed Project. There would be no changes to any of the existing conditions and there would be no impact to each of the 20 CEQA Checklist evaluation topics. The No-Project Alternative by definition would not meet the objectives of the proposed Project that were discussed earlier in this chapter.

No Project Alternative (Site is developed according to existing Land Use and Zoning designations and the 2003 FEIR)

Description

The No Project scenario in this case consists of retaining the property in its existing configuration, with development occurring under existing General Plan and Zoning designations. Under this Alternative, the additional 109 acres would not be added to the Development and no land use changes would occur within the existing Copper River Ranch Development. Specifically, under this Alternative, the Project would be built out as evaluated in the 2003 FEIR. The additional 109-acre area would also retain its existing land use designations where development could proceed with residential development as identified in the City’s General Plan.

Under this scenario, the site could be developed as follows:

	Residential	Commercial
Existing 706.5-acre Copper River Ranch (2003 FEIR)	2,837 units	250,000 sq. ft.
109-acre area	756 units*	-
Total:	3,593 units	250,000 sq. ft.

* This is derived by calculating the maximum density allowed under the existing land use designations of the 109 acres.

This Alternative could result in the development of up to 3,593 residential units and up to 250,000 square feet of commercial development.

This Alternative would not avoid site-disturbance and construction/operation-related impacts associated with development of the proposed Project. Construction and operation under existing Land Use and Zoning Designations would result in environmental impacts that are likely equal to or in some cases greater than the proposed Project since it could theoretically

result in more residential units than the proposed Project (the proposed Project includes up to 3,216 units versus 3,593 that could be developed under this Alternative).

Environmental Considerations

Most of the environmental issues associated with this Alternative would be similar to those of the proposed Project. However, this alternative does likely increase impacts to the following areas:

- **Air Quality / Greenhouse Gases:** The site could potentially be developed with up to 3,593 total dwelling units, which is approximately 377 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger number of vehicle trips, and thus greater air quality and greenhouse gas impacts.
- **Energy:** The site could potentially be developed with up to 3,593 total dwelling units, which is approximately 377 more than the proposed Project. Therefore, it is likely that this Alternative would result in increased development, a larger population, an increased number of vehicle trips, and thus greater energy impacts.
- **Hydrology:** The site could potentially be developed with up to 3,593 total dwelling units, which is approximately 377 more than the proposed Project. Therefore, it is likely that this Alternative would result in a greater demand for water.
- **Noise:** The site could potentially be developed with up to 3,593 total dwelling units, which is approximately 377 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger number of vehicle trips and a larger population and thus would likely result in increased noise impacts.
- **Public Services:** The site could potentially be developed with up to 3,593 total dwelling units, which is approximately 377 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger population than the proposed Project. This would result in greater public services impacts to: police, fire, schools and other public services.
- **Traffic:** The site could potentially be developed with up to 3,593 total dwelling units, which is approximately 377 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger number of vehicle trips, and thus greater transportation impacts.

Impacts to other environmental topics such as biological resources, cultural resources, geology and soils, minerals, wildfire, etc. would remain similar to the proposed Project since this Alternative would occur on the same footprint as the proposed Project.

Note: As discussed under this Alternative, development of the site could theoretically occur according to existing land use designations. However, if individual projects are proposed for future development, this could result in piece-mealed environmental analysis if individual projects are processed on a case-by-case basis. One benefit of preparing a single environmental document for a large development rather than conducting environmental analysis on a parcel-by-parcel basis, is that cumulative impacts can be identified and impacts such as from air emissions, water demand, public services, transportation, etc. can be reviewed as a whole to determine impacts.

Increased Project Density

Description

This Alternative would develop the site (both the existing unbuilt portions of Copper River Ranch and the additional 109 acres) with increased residential densities. This would likely require additional General Plan land use and Zoning designation changes to accommodate an increase in allowable density per acre. This would result in the elimination of larger residential lots which would be replaced with smaller lots and/or additional multi-family development. A corresponding increase in population would occur. For purposes of this analysis, an increase in development density of 25% would be assumed. The proposed Project could result in the development of up to 3,216 residential units, thus under this Alternative, the Project could result in up to 4,020 residential units.

Environmental Considerations

Most of the environmental issues associated with this alternative would be similar to those of the proposed Project. However, this alternative does likely increase impacts to the following areas:

- **Aesthetics:** The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result less in more intense development which would result in a corresponding decrease in open space. The impacts to aesthetics would be increased.
- **Air Quality / Greenhouse Gases:** The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger number of vehicle trips, and thus greater air quality and greenhouse gas impacts.

- Energy: The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result in increased development, a larger population, an increased number of vehicle trips, and thus greater energy impacts.
- Hydrology: The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result in a greater demand for water.
- Noise: The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger number of vehicle trips and a larger population and thus would likely result in increased noise impacts.
- Population and Housing: The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger population than the proposed Project.
- Public Services: The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger population than the proposed Project. This would result in greater public services impacts to: police, fire, schools and other public services.
- Recreation: The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger population than the proposed Project. This would result in greater impacts to recreational facilities.
- Transportation: The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger number of vehicle trips, and thus greater transportation impacts.
- Utilities and Service Systems: The site could potentially be developed with up to 4,020 total dwelling units, which is approximately 804 more than the proposed Project. Therefore, it is likely that this Alternative would result in a larger population than the proposed Project. This would result in greater impacts to utilities such as water, stormwater, wastewater (sewer), and solid waste services.

Although most of the environmental issues associated with this Alternative would be similar or greater than those of the proposed Project, this Alternative may decrease impacts to some environmental topic areas. The increased density may act to preserve prime agricultural soils elsewhere in the City's Planning Area by drawing more residents to higher density areas rather than developing additional farmland around the City. In addition, higher densities would likely result in a larger variety of housing types (including smaller single-family lots, additional multi-family housing, townhomes, etc.) which could theoretically result in a wider range of housing affordability.

Impacts to other environmental topics such as biological resources, cultural resources, geology and soils, minerals, wildfire, etc. would remain similar to the proposed Project since this Alternative would occur on the same footprint as the proposed Project.

Reduced Project Density

This Alternative would develop the site (both the existing unbuilt portions of Copper River Ranch and the additional 109 acres) with decreased residential densities. This would likely require additional General Plan land use and Zoning designation changes to accommodate a decrease in allowable density per acre. This may result in the elimination of some of the smaller single-family lots as well as some of the multi-family components of the proposed Project. A corresponding decrease in population would occur. For purposes of this analysis, a decrease in development density of 25% would be assumed. The proposed Project could result in the development of up to 3,216 residential units, thus under this Alternative, the Project could result in the development of up to 2,412 residential units.

Environmental Considerations

Most of the environmental issues associated with this Alternative would be less than those of the proposed Project as follows:

- **Aesthetics:** The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project. Therefore, it is likely that this Alternative would result less compact development which would result in a corresponding increase in open space. The impacts to aesthetics would be reduced.
- **Air Quality / Greenhouse Gases:** The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project.

Therefore, it is likely that this Alternative would result in a fewer number of vehicle trips, and thus less air quality and greenhouse gas impacts.

- Energy: The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project. Therefore, it is likely that this Alternative would result in less development, a smaller population, a decreased number of vehicle trips, and thus less energy impacts.
- Hydrology: The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project. Therefore, it is likely that this Alternative would result in less demand for water.
- Noise: The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project. Therefore, it is likely that this Alternative would result in fewer number of vehicle trips and a smaller population and thus would likely result in decreased noise impacts.
- Population and Housing: The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project. Therefore, it is likely that this Alternative would result in a smaller population than the proposed Project.
- Public Services: The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project. Therefore, it is likely that this Alternative would result in a smaller population than the proposed Project. This would result in less public services impacts to: police, fire, schools and other public services.
- Recreation: The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project. Therefore, it is likely that this Alternative would result in a smaller population than the proposed Project. This would result in less impacts to recreational facilities.
- Transportation: The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project. Therefore, it is likely that this Alternative would result in fewer vehicle trips, and thus less transportation impacts.
- Utilities and Service Systems: The site could potentially be developed with up to 2,412 total dwelling units, which is approximately 804 less than the proposed Project. Therefore, it is likely that this Alternative would result in a smaller population than the proposed Project. This would result in less impacts to utilities such as water, stormwater, wastewater (sewer), and solid waste services.

Impacts to other environmental topics such as biological resources, cultural resources, geology and soils, minerals, wildfire, etc. would remain similar to the proposed Project since this Alternative would occur on the same footprint as the proposed Project. Impacts to Land Use and Planning may be increased due to the passage of Senate Bill 330 (SB 330) which prohibits the down-zoning of any property unless concurrent up-zoning of residential density occurs simultaneously on other off-site lands within the City limits of Fresno. Since this Alternative would require substantial down-zoning, impacts to Land Use and Planning would be increased.

4.4 Summary of Potential Impacts of Alternatives

Table 4-1 is a generalized comparative assessment of potential environmental impacts of the Alternatives as compared to the proposed Project.

**Table 4-1
Alternatives Potential Impact Analysis**

Environmental Issues	No Development	No Project / Existing Designations	Increased Density	Reduced Density
Aesthetics	Reduced	Similar	Increased	Reduced
Agriculture / Forest Resources	Reduced	Similar	Similar	Similar
Air Quality	Reduced	Increased	Increased	Reduced
Biological Resources	Reduced	Similar	Similar	Similar
Cultural Resources	Reduced	Similar	Similar	Similar
Energy	Reduced	Increased	Increased	Reduced
Geology and Soils	Reduced	Similar	Similar	Similar
Greenhouse Gas Emissions	Reduced	Increased	Increased	Reduced
Hazards and Hazardous Materials	Reduced	Similar	Similar	Similar
Hydrology and Water Quality	Reduced	Increased	Increased	Reduced
Land Use /	Reduced	Similar	Similar	Increased

Environmental Issues	No Development	No Project / Existing Designations	Increased Density	Reduced Density
Planning				
Mineral Resources	Reduced	Similar	Similar	Similar
Noise	Reduced	Increased	Increased	Reduced
Population / Housing	Reduced	Increased	Increased	Reduced
Public Services	Reduced	Increased	Increased	Reduced
Recreation	Reduced	Increased	Increased	Reduced
Transportation and Traffic	Reduced	Increased	Increased	Reduced
Tribal Cultural Resources	Reduced	Similar	Similar	Similar
Utilities and Service Systems	Reduced	Increased	Increased	Reduced
Wildfire	Reduced	Similar	Similar	Similar
Impact Reduction	Yes	No	No	Yes

Environmentally Superior Alternative

Based on a review of the alternatives evaluated in this chapter, the No Project (no development) Alternative would result in the fewest impacts on the environment. However, the No Project Alternative would not meet the City’s objectives, as identified in this chapter.

Apart from the No Project Alternative, the Reduced Density Alternative would be the Environmentally Superior alternative because it would result in less adverse physical impacts to the environment compared to the proposed Project. However, the Reduced Density Alternative does not meet all of the Project objectives.

Summary and Determination

Only the No Project and Reduced Density Project Alternatives could potentially result in fewer impacts than the proposed Project’s impacts. These alternatives however, would not meet the objectives of the proposed Project. After this full, substantial, and deliberate analysis, the proposed Project remains the preferred alternative.

Chapter 5

CEQA Considerations

CEQA CONSIDERATIONS

5.1 Growth-Inducing Impacts

CEQA Section 15126 (d) requires that any growth-inducing aspect of a project be addressed in an EIR. This discussion includes consideration of ways in which the proposed Project could directly or indirectly foster economic or population growth with the construction and operation of the proposed Project in the surrounding area. Projects which could remove obstacles to population growth (such as a major public service expansion) are also considered in this discussion.

The proposed Project will have a direct, growth inducing impact on the area's population and housing stock by facilitating the development of up to 3,216 total households within the proposed Development with an estimated population of 9,587 persons.

The proposed Project would result in the extension of urban infrastructure (water, sewer and stormdrain) to some areas within the Development that are not currently serviced. However, this would not be considered removal of a barrier to growth, because the Project site is designated for urban development by the General Plan. It is expected that the infrastructure extended to the Project site would be sized to serve the Project, and will not be "over-sized" to serve any additional development in the area. As such, the extension of this urban infrastructure is "growth accommodating" because it is intended to facilitate planned growth.

For purposes of evaluating growth inducing impacts associated with the proposed Project under CEQA, the question becomes whether or not the Project will induce population beyond what the City has or will plan for and/or can accommodate at full buildout of the Project. The assessment takes into account Project-related impacts to topics like traffic, water supply, public services (police, fire, etc.), sewer / storm drain capacity, and other related topics. The 2003 FEIR estimated the population buildout would be 7,950. Based on the proposed land use changes within the Development and the additional 109 acres being added to the Project, the total population at buildout would be up to 9,587 persons, which would result in an additional 1,637 persons.

The Project site (both the existing Copper River Ranch Development and the additional 109 acres) and designated by the City's General Plan for urban development, including residential, office/commercial, open space/recreation, stormwater basins, and related designations. Since the area has been anticipated for urban development by the General Plan, the proposed Project will

not result in population growth beyond what was anticipated by City policy documents. The environmental impacts of Project-induced population growth within the City is evaluated within this SEIR in other sections (e.g. air quality, traffic, noise, water use, biological impacts, etc.). For instance, Project-related impacts to the local water supply are addressed in Section 3.10 – Hydrology; sewer/storm drain impacts are addressed in Section 3.19 – Utilities; and police/fire/school impacts are described in Section 3.15 – Public Services. Please refer to those individual sections as well as other sections for specific discussions on Project-related impacts in relation to cumulative population effects on the City and surrounding area.

Based on the City's General Plan and related policy documents, it is determined that the proposed Project will not induce unplanned population growth beyond that which can be accommodated by the City. It has been determined that the City has adequate capacity to serve the Project and therefore, the Project will have a *less than significant* impact occurring from inducement of unplanned population.

5.2 Irreversible Environmental Changes

Section 15126(f) of the CEQA Guidelines requires that an EIR include a discussion of significant irreversible environmental changes that would result from project implementation. CEQA Section 15126.2(c) identifies irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents.

Energy use and building resources

Irreversible changes associated with the project include the use of nonrenewable resources during construction, including concrete, plastic, and petroleum products. During the operational phase of the proposed Project, energy would be used for lighting, heating, cooling, and other requirements. The use of these resources would not be substantial and would not constitute a significant effect.

Conclusion: The project would have *less-than-significant* irreversible environmental changes.

Chapter 6

Preparers

PREPARERS

6.1 List of Preparers

Colibri Ecological Consulting, Inc. (Biological Resource Evaluation)

Crawford & Bowen Planning, Inc. (EIR Consultants)

- Travis Crawford, AICP, Principal Environmental Planner
- Emily Bowen, LEED AP, Principal Environmental Planner

JLB Traffic Engineering, Inc. (Traffic Study)

Mitchell Air Quality Consulting (Air Quality/Energy/GHG Study)

Provost & Pritchard Consulting Group (Water Supply Memorandum)

Table Mountain Rancheria (Cultural Resource Evaluation)

WJV Acoustics, Inc. (Noise Study)

6.2 Persons and Agencies Consulted

City of Fresno

- Israel Trejo, Supervising Planner – City of Fresno

Appendices

(Under Separate Cover)



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