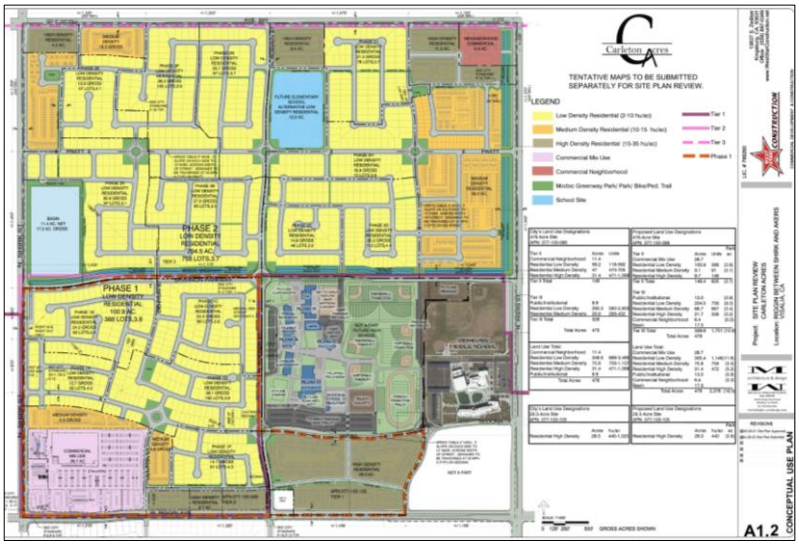

DRAFT ENVIRONMENTAL IMPACT REPORT

Carleton Acres Specific Plan

April 2023

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Draft Environmental Impact Report

Carleton Acres Specific Plan

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April 2023

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Introduction

This Draft Environmental Impact Report (Draft EIR or EIR) has been prepared consistent with the California Environmental Quality Act (CEQA) for the proposed Carleton Acres Specific Plan Project (Project). Its intent is to inform the public, regulatory agencies and the City of Visalia (City) decision makers of the potential environmental impacts the proposed Project would have on environmental factors as specified in the CEQA Guidelines. This Draft EIR, 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 Visalia is the "Lead Agency" pursuant to CEQA and is responsible for the preparation and distribution of the Draft EIR.

CEQA Process

The City of Visalia circulated a Notice of Preparation (NOP) of an EIR for the proposed project from May 20, 2021 through June 21, 2021 to trustee and responsible agencies, the State Clearinghouse (SCH #2021050418), and the public. Following publication of the original NOP, changes were made to the proposed Project that consisted of an increase in commercial acreage (from 14.7 acres to 35.1 acres) and a reduction in residential units (from 3,368 units to 3,262 units). Therefore, the Project's NOP was re-circulated from June 2, 2022 through July 5, 2022. A scoping meeting (conducted virtually via a "Zoom" meeting) was held on June 14, 2022.

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

Executive Summary: Summarizes the analysis contained in the Draft EIR.

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

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 Draft EIR, several appendices and technical studies have been included as reference material.

Project Location

The proposed Project is located on approximately 507-acres in the northern area of the City of Visalia, California and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north. The site is comprised of two parcels: APN 077-100-088 and APN 077-100-105. APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County, while APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses. Refer to Figure 2-1: Regional Location Map, Figure 2-2: City Boundary Map, Figure 2-3: Existing Land Use Designations, and Figure 2-4: Aerial Site Vicinity Map.

Project Description Summary

The Project Applicant is proposing a Specific Plan to develop approximately 507-acres of land into a mixed-use development. The Project will feature a variety of uses including single-family residential housing, multi-family residential housing, commercial, educational, and parks/trails facilities. The proposed Project components are summarized below. Refer also to Table 2-1: Summary of Proposed Land Uses and Figure 2-5: Site Layout Plan.

Residential

The proposal features several different types of housing for a total of up to 3,262 residential units at buildout which is broken down as follows:

- Low Density Residential: Up to 1,592 units
- Medium Density Residential: 758 units
- High Density Residential: 912 units

It should be noted that the number of proposed units for the low density residential portion of the development is currently proposed to include a maximum of 1,592 units, which may be lower depending on final configuration of the lots. In addition, the 13.0 acres currently shown in Figure 2-5 for a new elementary school could potentially be converted to low density residential. Therefore, for purposes of providing the maximum number of potential residential units, a total of 65 units was added to the total for both phases (13.0 acres X 5.0 units per acre = 65 units), for a maximum development potential of 1,592 low density residential units.

Commercial

The proposed Project includes up to 35.1 acres of commercial development in two locations within the Project for a total of approximately 205,000 square feet of gross leasable commercial area. The commercial developments will occur in the proposed Mixed Use Commercial Zone and the Neighborhood Commercial Zone. The maximum size for a single or anchor tenant is proposed to be approximately 170,000 square feet within the Mixed Use Commercial Zone as shown in Figure 2-5. The first commercial area consists of up to 28.7 acres of Mixed Use Commercial at the intersection of Riggin Avenue and Shirk Road (Road 92). Anticipated uses at this location include development consisting of a Costco membership store, a Costco gas station, and a Costco car wash, as well as a drug store, retail, restaurants (including drive-throughs), and similar uses. The second commercial area consists of up to 6.4 acres of Commercial Neighborhood at the northeast corner of the development. Anticipated uses at this location may include development such as retail, services and restaurants. The commercial facilities are located to provide efficient accessibility to residents of the Project and the surrounding areas.

Other Project Components

Other proposed uses include approximately 13.0 acres for a potential future elementary school, 17.3 gross acres for a drainage basin, and approximately 17.3 acres of parks/trails/recreational facilities. Various other infrastructure improvements (water, stormwater and wastewater

infrastructure, roadway improvements, and related improvements) will be required by the Project. Refer to the descriptions of these components in Chapter Two – Project Description.

Phasing

The Project is proposed to be built out in two phases as identified in Table 2-1 and as shown in Figure 2-5 (both in Chapter Two – Project Description). Although the exact timing of construction and buildout will be determined by market conditions, the Project Applicant and the City, it is anticipated that the Project would be built out over an approximately 15-year period with approximately 100 low-density residential units per year on average with the remaining buildout to be determined by demand. The Project is proposed to be generally built out in two phases as follows:

Phase 1

Phase 1 includes all of APN 077-100-105 (29.3 acres) and a portion of APN 077-100-088 (150 acres). For APN 077-100-105, the site is within the Tier 1 boundary and is currently designated by the City's General Plan for High Density Residential. The Project intends to retain this land use designation and to develop the site as follows:

- 29.3 acres of High Density Residential (440 units)

For APN 077-100-088, Phase 1 development only includes the southern portion of the parcel (approximately 150 acres) and is included in the Tier 2 boundary. This portion is proposed to be developed with a variety of uses as follows:

- 9.7 acres of High Density Residential (146 units)
- 9.1 acres of Medium Density Residential (91 units)
- 100.9 acres of Low Density Residential (up to 505 units)
- 28.7 acres of Commercial Mixed Use

For APN: 077-100-088, the Low Density Residential and commercial portions are anticipated to be built first.

Phase 2

Phase 2 includes the northern 329 acres of APN 077-100-088 that is within the Tier 3 boundary. This portion is proposed to be developed with a variety of uses as follows:

- 21.7 acres of High Density Residential (326 units)

- 66.7 acres of Medium Density Residential (667 units)
- 204.5 acres of Low Density Residential (up to 1,022 units)
- 6.4 acres of Commercial Neighborhood
- 17.3 acres of Basin
- 13.0 acres of Public/Institutional

The phasing of development and installation of infrastructure for Phase 1 and Phase 2 will be identified in a Development Agreement.

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

Project Objectives

In accordance with CEQA Guidelines Section 15124(b), the following are the City of Visalia's Project objectives:

- To provide a mixed-use development at pricing appropriate for the market, in a growing area of the City of Visalia that satisfies the City of Visalia's policies, regulations and expectations as defined in the City's General Plan, Zoning Ordinance and other applicable plans, documents, and programs adopted by the City.
- To provide a variety of housing opportunities with a range of densities, styles, sizes and values that will be designed to satisfy existing and future demand for quality housing in the area.
- To provide a residential development that assists the City in meeting its General Plan and Housing Element requirements and objectives.
- To provide conveniently-located commercial development to serve north Visalia residents and the Carleton Acres development in a growing area of the City of Visalia.
- To provide a sense of community and walkability within the development through the use of street patterns, parks/open space areas, landscaping and other project amenities.

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 the following:

- **Aesthetics** – Degrade existing visual character (project and cumulative level)

- **Agriculture & Forestry Resources** - Loss of farmland (project and cumulative level)
- **Air Quality** – Conflict with Air Quality Plan / Exceed criteria pollutant thresholds (project and cumulative level)
- **Hydrology & Water Quality** – Water supply (cumulative level only)
- **Transportation** – Conflict with Plan/Program (project and cumulative level)
- **Utilities & Service Systems** – Water supply (cumulative level only)

Even with the mitigation measures described in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, of this Draft EIR, impacts in these issue areas would be significant and unavoidable.

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 Draft EIR analyzed the following alternatives:

- **No Project Alternative:** Under this Alternative, the Project would not be constructed and the site would remain in agricultural production.
- **Alternate Locations Alternative:** Under this Alternative, the Project would be developed on a different site of similar size and scale.
- **Reduced (50%) Project Alternative:** Under this Alternative, the Project would be reduced by 50% (overall site acreage, residential units, commercial acreage, and recreational facilities).

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 and Reporting Program will be included in the Project's Final EIR, a draft of which is included herein on the following pages.

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
Agricultural & Forestry Resources				
AG – 1: Prior to the issuance of grading or building permits, the Project proponent shall mitigate impacts for loss of up to 478 acres of Prime Farmland and Farmland of Statewide Importance on the Project site at a 1:1 ratio. The amount of land requiring mitigation shall correspond to the amount of land associated with the issuance of the grading or building permit, or for residential land associated with a subdivision map, the amount of land associated with the subdivision map. The Project proponent shall implement one or more of the following measures to mitigate the loss: Payment of in-lieu fees, mitigation banks, fee title acquisition, and/or conservation easements, on land(s) within the Southern San Joaquin Valley of California, specifically within Kern County, Tulare County, Kings County, Fresno County, or Madera County. The City shall require, at a minimum: evidence that the preserved land has adequate water supply, agricultural zoning, evidence of land encumbrance documentation, documentation that the easement/regulations are permanent and monitored, and documentation that the mitigation strategy is appropriately endowed. This mitigation shall be verified by the City prior to issuance of grading or building permits. Should the City of Visalia develop an Agricultural Mitigation Program, the Project proponent, at its election, may mitigate for the loss of agricultural land through compliance with the Program that is adopted by the City in lieu of mitigating on a 1:1 ratio as described above.	Project Applicant	Prior to issuance of grading or building permits	City of Visalia	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
AG – 2: **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.	Project Applicant	Prior to issuance of certificates of occupancy	City of Visalia	
Air Quality				
AIR-2A: This measure shall be applied to all development under the proposed Specific Plan to reduce emissions from construction. Before a construction permit is issued for the proposed Project, the Project applicant, Project sponsor, or construction contractor shall provide compliance with the following requirements to the City of Visalia Planning Department: • Where portable diesel engines are used during construction, all off-road equipment with engines greater than 75 horsepower shall have engines that meet either EPA or ARB Tier 4 Final off-road emission standards except as otherwise specified herein. If engines that comply with Tier 4 Final off-road emission standards	Project Applicant	Prior to issuance of grading or building permits	City of Visalia	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment that is commercially available. For purposes of this mitigation measure, "commercially available" shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the Project site of equipment. If the relevant equipment is determined by the Project applicant to not be commercially available, the contractor can confirm this conclusion by providing letters from at least two rental companies for each piece of off-road equipment that is at issue.				
AIR-2B: The following measure shall be applied to all development under the proposed Specific Plan during construction to facilitate the use of electric landscaping equipment during Project operations: • Provide electrical outlets on the outside of buildings or in other accessible areas to facilitate the use of electrically powered landscape equipment.	Project Applicant	During construction	City of Visalia	
AIR-3A: Prior to future discretionary approval for commercial or commercial mixed-use projects, the City of Visalia shall evaluate potential health risk impacts from new development proposals for any individual development projects within 1,000 feet of an existing or planned sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use. Such projects shall submit the following to the City of Visalia's Planning Division:	Project Applicant	Prior to future discretionary approval for commercial or commercial mixed-use projects	City of Visalia	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
A Health Risk Prioritization Screening Analysis or a Health Risk Assessment (HRA) for the project's potential to expose sensitive receptors to elevated levels of TACs during project construction and operations prepared in accordance with SJVAPCD guidance. If the HRA shows that the incremental health risks exceed their respective thresholds, as established by the SJVAPCD at the time a project is considered, the project applicant shall be required to identify and incorporate commercially feasible mitigation including appropriate enforcement mechanisms to reduce risks to an acceptable level.				
Biological Resources				
BIO-1: Protect Sanford's arrowhead If the Project will impact Modoc Ditch, Mosquito Creek – Cross Creek, or the unnamed canal, a qualified biologist shall conduct a pre-construction survey of the feature(s) to be impacted on and within 50 feet of the Project site within the May–October blooming period of Sanford's arrowhead. The survey shall be conducted during the blooming period concurrent with the start of construction or immediately preceding the start of construction if construction will be initiated between November and April. If Sanford's arrowhead is detected, the qualified biologist shall establish an exclusion zone of 50 feet between any population and the area of direct or indirect impacts. If a 50-foot exclusion zone cannot be established, a site-specific plan to minimize the potential for Project activities to affect individual plants shall be developed by the qualified biologist and implemented in consultation with the CDFW. Such a plan could involve salvaging and relocating affected plants.	Project Applicant	Prior to issuance of grading or building permits	City of Visalia and CDFW	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
BIO-2:	**Protect burrowing owl** Conduct focused burrowing owl surveys to assess the presence/absence of burrowing owl in accordance with the *Staff Report on Burrowing Owl Mitigation*[1] and *Burrowing Owl Survey Protocol and Mitigation Guidelines*.[2] These involve conducting four pre-construction survey visits. 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.	Project Applicant	Prior to issuance of grading or building permits	City of Visalia and CDFW	
BIO-3:	**Protect nesting Swainson's hawks** To the extent practicable, construction shall be scheduled to avoid the Swainson's hawk nesting season, which extends from March through August. If it is not possible to schedule construction between September and February, a qualified biologist shall conduct surveys for Swainson's hawk in accordance with the Swainson's Hawk	Project Applicant	Prior to issuance of grading or building permits	City of Visalia and CDFW	

[1] California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency. March 7, 2012. 34 pp.

[2] California Burrowing Owl Consortium (CBOC). 1997. Burrowing Owl Survey Protocol and Mitigation Guidelines. Pages 171–177, *in* Lincer, J. L. and K. Steenhof (editors). 1997. The Burrowing Owl, its Biology and Management. Raptor Research Report Number 9.

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	Technical Advisory Committee's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*.[3] These methods require six surveys, three in each of the two survey periods, prior to project initiation. Surveys shall be conducted within a minimum 0.5-mile radius around the Project site. If an active Swainson's hawk nest is found within 0.5 miles of the Project site, and the qualified biologist determines that Project activities would disrupt the nesting birds, a construction-free buffer or limited operating period shall be implemented in consultation with the CDFW.				
BIO-4:	**Compensate for loss of Swainson's hawk foraging habitat** Compensate for loss of Swainson's hawk foraging habitat (i.e., the fallow fields on the Project site) in accordance with the CDFW *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California*.[4] The CDFW requires that projects adversely affecting Swainson's hawk foraging habitat provide Habitat Management (HM) lands to the department. Projects within 1 mile of an active nest shall provide one acre of HM lands for each acre of development authorized (1:1 ratio). Projects within 5 miles of	Project Applicant	Prior to issuance of grading or building permits	City of Visalia and CDFW	

[3] Swainson's Hawk Technical Advisory Committee (SWTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. 5 pages.

[4] California Department of Fish and Game (CDFG). 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawk (*Buteo swainsoni*) in the Central Valley of California. California Nongame Bird and Mammal Section Report #94.18.

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	an active nest but greater than 1 mile from the nest shall provide 0.75 acres of HM lands for each acre of urban development authorized (0.75:1 ratio). And projects within 10 miles of an active nest but greater than 5 miles from an active nest shall provide 0.5 acres of HM lands for each acre of urban development authorized (0.5:1 ratio). No compensation is required if an active nest is not found within 10 miles of the Project site.				
BIO-5:	**Protect nesting birds** To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August. 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 the implementation of the Project. A pre-construction survey shall be conducted 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. 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	Project Applicant	Prior to issuance of grading or building permits	City of Visalia and CDFW	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	completed or the nest has otherwise failed for non-construction related reasons.				
Cultural Resources					
CUL – 1:	In the event that historical or archaeological cultural resources are discovered during project-related activities or decommissioning, operations shall stop within 100 feet of the find, and a qualified archeologist shall determine whether the resource requires further study. The qualified archaeologist shall determine the measures that shall be implemented to protect the discovered resources including, but not limited to, excavation of the finds and evaluation of the finds in accordance with § 15064.5 of the CEQA Guidelines. Measures may include, but are not limited to, avoidance, preservation in-place, recordation, additional archaeological resting, and data recovery, among other options. Any previously undiscovered resources found during project-related activities within the project area shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance. No further ground disturbance shall occur in the immediate vicinity of the discovery until approved by the qualified archaeologist. The Lead Agency, along with other relevant or tribal officials, shall be contacted upon the discovery of cultural resources to begin coordination on the disposition of the find(s). Treatment of any significant cultural resources shall be undertaken with the approval of the Lead Agency.	Project Applicant	During construction	City of Visalia	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
CUL – 2:	In order to ensure that the proposed Project does not impact buried human remains during Project construction, the Project proponent shall be responsible for on-going monitoring of Project construction. Prior to the issuance of any grading permit, the Project proponent shall provide the City with documentation identifying construction personnel that will be responsible for on-site monitoring. If buried human remains are encountered during construction, further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall be halted until the Tulare County coroner is contacted and the coroner has made the determinations and notifications required pursuant to Health and Safety Code Section 7050.5. If the coroner determines that Health and Safety Code Section 7050.5(c) require that he give notice to the Native American Heritage Commission, then such notice shall be given within 24 hours, as required by Health and Safety Code Section 7050.5(c). In that event, the NAHC will conduct the notifications required by Public Resources Code Section 5097.98. Until the consultations described below have been completed, the landowner shall further ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices where Native American human remains are located, is not disturbed by further development activity until the landowner has discussed and conferred with the Most Likely Descendants on all reasonable options regarding the descendants' preferences and treatments, as prescribed by Public Resources Code Section 5097.98(b). The NAHC will mediate any disputes regarding treatment of remains in accordance with Public Resources Code Section 5097.94(k). The landowner shall be entitled to exercise rights established by	Project Applicant	Prior to issuance of any grading permit and ongoing during construction	City of Visalia	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	Public Resources Code Section 5097.98(e) if any of the circumstances established by that provision become applicable.				
Geology & Soils					
GEO – 1	In order to reduce on-site erosion due to project construction and operation, an erosion control plan and Storm Water Pollution Prevention Plan (SWPPP) shall be prepared for the site preparation, construction, and post-construction periods by a registered civil engineer or certified professional. The erosion control plan shall incorporate best management practices consistent with the requirements of the National Pollution Discharge Elimination System (NPDES). The erosion component of the plan must at least meet the requirements of the SWPPP required by the Central Valley RWQCB. If earth disturbing activities are proposed between October 15 and April 15, these activities shall be limited to the extent feasible to minimize potential erosion related impacts. Additional erosion control measures may be implemented in consultation with the City of Visalia. Prior to the issuance of any permit, the Project proponent shall submit detailed plans to the satisfaction of the City of Visalia. The components of the erosion control plan and SWPPP shall be monitored for effectiveness by the City of Visalia. Erosion control measures may include, but not be limited to, the following: i. Limit disturbance of soils and vegetation disturbance removal to the minimum area necessary for access and construction; ii. Confine all vehicular traffic associated with construction to the right-of-way of designated access roads; iii. Adhere to construction schedules designed to avoid periods of heavy precipitation or high winds;	Project Applicant	Prior to issuance of grading permits	City of Visalia	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	iv. Ensure that all exposed soil is provided with temporary drainage and soil protection when construction activity is shut down during the winter periods; and v. Inform construction personnel prior to construction and periodically during construction activities of environmental concerns, pertinent laws and regulations, and elements of the proposed erosion control measures.				
GEO – 2	The project proponent shall retain a registered geotechnical engineer to prepare a design level geotechnical analysis prior to the issuance of any grading and/or building permit. The design-level analysis shall address site preparation measures and foundation design requirements of the project. The design-level analysis shall be prepared to the satisfaction of the City of Visalia. Final design-level project plans shall be designed in accordance with the approved geotechnical analysis. This shall include certification of engineered fills and subgrade preparation through monitoring of earthwork and compaction testing by a geotechnical engineer during construction.	Project Applicant	Prior to issuance of grading or building permits	City of Visalia	
Hazards & Hazardous Materials					
HAZ-1	Prior to the issuance of grading or building permits, the Project proponent shall conduct a subsurface investigation of the Project site to evaluate the potential for elevated residual concentrations of agricultural chemicals on the site. If remedial action is required, the Project will be responsible for cleanup and any remedial actions. For portions of the project site where	Project Applicant	Prior to issuance of grading or building permits	City of Visalia	

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
there is known contamination, a project specific site management plan should be prepared under the oversight of the Water Board and/or DTSC, as appropriate. The plan shall include measures for identifying, testing, and managing soil and groundwater suspected of or known to contain hazardous materials. The plan shall: (1) provide procedures for evaluating, handling, storing, testing, and disposing of soil and groundwater during project excavation and dewatering activities, respectively; (2) describe required worker health and safety provisions for all workers potentially exposed to hazardous materials in accordance with State and federal worker safety regulations; and (3) designate personnel responsible for implementation of the plan. For sites with potential residual contamination that are planned for development with an occupied building, a vapor intrusion assessment shall be performed by a licensed environmental professional. If the results of the vapor intrusion assessment indicate the potential for significant vapor intrusion into an occupied building, project design shall include vapor controls or source removal, as appropriate, in accordance with regulatory agency requirements. Soil vapor mitigations or controls could include vapor barriers, passive venting, and/or active venting Evidence of compliance shall be submitted to the City of Visalia department of Community Development Department.				

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
HAZ – 2	Prior to the issuance of grading or building permits, the Project proponent or contractor shall provide a site plan that clearly delineates the locations of all known oil wells. A copy of the map shall be submitted to the California Department of Conservation, Geologic Energy Management Division (CalGEM) for review and evaluation. The Project proponent will work with CalGEM to implement any remedial actions that may result from CalGEM's review of the on-site abandoned well. Evidence of compliance shall be submitted to the City of Visalia department of Community Development Department. In addition, the Project proponent shall include information about any abandoned wells within the Project site in the Tulare County Recorder's title information of the Project site.	Project Applicant	Prior to issuance of grading or building permits	City of Visalia	
HAZ–3	In the event that abandoned or unrecorded wells are uncovered or damaged during excavation or grading activities, all work shall cease in the vicinity of the well, and the California Department of Conservation, Geologic Energy Management Division (CalGEM) shall be contacted for requirements and approval. CalGEM may determine that remedial plugging operations may be required. Copies of said approvals shall be submitted to the City of Visalia Community Development Department	Project Applicant	During grading and construction activities	City of Visalia	
Noise					
NOI - 1:	Prior to issuance of building permits for development within the Neighborhood Commercial Zone, the City of Visalia will determine if a detailed acoustical study shall be prepared by a certified professional to document potential impacts to onsite	Project Applicant	Prior to issuance of building permits	City of Visalia	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	and offsite noise-sensitive land uses (as determined by the City of Visalia's General Plan and Municipal Code thresholds). When specific uses within the Neighborhood Commercial Zone are proposed that could result in a noise-related conflict between a commercial or other stationary noise source and existing or proposed noise-sensitive receptor, an acoustical analysis shall be required by the City of Visalia that quantifies Project-related noise levels and recommends appropriate mitigation measures to achieve compliance with the City's noise standards. Potential impacts in exceedance of the City of Visalia's standards shall require incorporation of mitigation such as increased setbacks, sound walls, equipment enclosures, site design, and enhanced building materials to reduce impacts to levels below the City of Visalia standards. Development that cannot incorporate mitigation to reduce impacts to acceptable City of Visalia standards shall not be approved. Evidence of compliance with this mitigation measure shall be provided to the City of Visalia prior to issuance of building permits.				
NOI - 2:	For Project components involving new sensitive receptors (residential land uses) within the cumulative 65 dB Ldn noise contours of adjacent roadway segments (Avenue 320, Shirk Road, Riggin Avenue, and Akers Street as identified in Table 3.13-12), the City of Visalia will require construction of block walls to achieve noise attenuation to below the City's noise thresholds. The City of Visalia Design and Improvement Standards provide guidelines and standards for the construction of block walls, within the City of Visalia. Standard wall heights permitted by the City of Visalia range between 6-foot to 7- foot	Project Applicant	Prior to issuance of grading or building permits	City of Visalia	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	in height. Depending on the height and geometric relationship between the roadway and the receiver location, walls of this height range would be typically expected to provide between approximately 5-6 dB of noise attenuation. While specific wall height requirements would generally be determined once final lot layout designs and elevations are known, wall heights of up to 7 feet will be sufficient to mitigate traffic noise within all proposed residential land uses, to below the City's acceptable maximum allowed noise exposure levels. Evidence of compliance with this mitigation measure shall be provided to the City of Visalia prior to issuance of building permits.				
NOI - 3:	For the proposed drive-through car wash facility in the Mixed Use Commercial Zone, the Project shall implement an IDC 100 horsepower Predator Blower System running at 55Hz with a 10' wall with AcoustiBlok lining. Evidence of compliance with this mitigation measure shall be provided to the City of Visalia prior to issuance of occupancy permits.	Project Applicant	Prior to issuance of building permits	City of Visalia	
NOI - 4:	Bus movements occurring off public roadways (but on school campus) shall not occur within ninety feet of any residential outdoor activity area. Evidence of compliance with this mitigation measure shall be provided to the City of Visalia prior to issuance of building permits.	Project Applicant	Prior to issuance of building permits	City of Visalia	
Transportation					

Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
TRA-1: Prior to issuance of building permits, the Project shall pay into the City of Visalia's Transportation Impact Fee (TIF) program. The TIF amount will be calculated based on the City's adopted fee schedule in place at the time of the application of building permits. This will be itemized and enforced through conditions of approval or a development agreement, at the discretion of the City.	Project Applicant	Prior to issuance of building permits	City of Visalia	
TRA-2: Prior to the issuance of building permits, the Project will be responsible for paying its pro-rata fair share cost percentages and/or constructing the recommended on-site improvements and site-adjacent improvements identified in Tables 3.17-11, 3.17-15 and 3.17-16, 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.	Project Applicant	Prior to issuance of building permits	City of Visalia	
TRA-3: Prior to the issuance of construction or building permits, the Project developer shall: Prepare and submit a Construction Traffic Control Plan to City of Visalia, as appropriate, for approval. The Construction Traffic Control Plan shall be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and shall include, but not be limited to, the following issues: a. Timing of deliveries of heavy equipment and building materials;	Project Applicant	Prior to issuance of construction or building permits	City of Visalia	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	b. Directing construction traffic with a flag person; c. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic; d. Ensuring access for emergency vehicles to the project site; e. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections; f. Maintaining access to adjacent property; and, g. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project sites, and avoiding residential neighborhoods to the maximum extent feasible.				
Tribal Cultural Resources					
TRI-1:	Prior to any ground disturbance, a surface inspection of the site shall be conducted by a Tribal Monitor. The Tribal Cultural Staff shall monitor the site during grading activities. The Tribal Staff shall provide pre-project-related information to supervisory personnel and any excavation contractor, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. Prior to any ground disturbance, the applicant shall offer the Santa Rosa Indian Community of the Santa Rosa Rancheria the opportunity to provide a Native American Monitor during ground-disturbing	Project Applicant	Prior to ground disturbance	City of Visalia	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	activities. Tribal participation would be dependent upon the availability and interest of the tribe.				
TRI-2:	In the event that historical or archaeological cultural resources are discovered during project-related activities or decommissioning, operations shall stop within 100 feet of the find, and a qualified archeologist shall determine whether the resource requires further study. The qualified archaeologist shall determine the measures that shall be implemented to protect the discovered resources including, but not limited to, excavation of the finds and evaluation of he finds and evaluation of the finds in accordance with § 15064.5 of the CEQA Guidelines. Measures may include avoidance, preservation in-place, recordation, additional archaeological resting, and data recovery, among other options. Any previously undiscovered resources found during project-related activities within the project area shall be recorded on appropriate CA Department of Parks and Recreation forms and evaluated for significance. No further ground disturbance shall occur in the immediate vicinity of the discovery until approved by the qualified archaeologist. The Lead Agency, along with other relevant or tribal officials, shall be contacted upon the discovery of cultural resources to begin coordination on the disposition of the find(s). Treatment of any significant cultural resources shall be undertaken with the approval of the Lead Agency.	Project Applicant	Ongoing	City of Visalia	
TRI-3:	Upon coordination with the Lead Agency, any archaeological artifacts recovered shall be donated to an appropriate tribal	Project Applicant	Ongoing	City of Visalia	

	Mitigation Measure	Party responsible for Implementing Mitigation	Timing	Party responsible for Monitoring	Verification (name/ date)
	custodian or a qualified scientific institution where they would be afforded applicable cultural resources laws and guidelines.				
TRI-4:	If human remains are discovered during project-related activities or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987) shall be followed. Section 7050.5(c) shall guide the potential Native American involvement, in the event of discovery of human remains, at the direction of the County Coroner.	Project Applicant	Ongoing	City of Visalia	

Chapter 1

INTRODUCTION

1.0 INTRODUCTION

This Environmental Impact Report (EIR or Draft EIR) has been prepared on behalf of the City of Visalia (City) in accordance with the California Environmental Quality Act (CEQA). This chapter outlines the purpose of and overall approach to the preparation of the EIR for the proposed Project. The Project Applicant is proposing a Specific Plan to develop approximately 507-acres of land into a mixed-use development. The Project will feature a variety of uses including single-family residential, multi-family housing, commercial, educational, and parks/trails facilities. The proposal features several different types of housing for a total of up to 3,262 residential units and approximately 35.1 acres (205,000 square feet) of commercial development at buildout. The proposed Project is in the northern area of the City of Visalia, California and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north. The site consists of two parcels, one of which is within the unincorporated area of Tulare County and the other is within the City; however, the entire site is within the City's Urban Growth Boundary and Sphere of Influence. Refer to Chapter Two – Project Description for the full description of the Project.

An EIR responds to the requirements of CEQA as set forth in Sections 15126, 15175, and 15176 of the CEQA Guidelines. The Planning Commission and City Council will use the EIR during the public review process in order to understand the potential environmental implications associated with implementing the Project.

1.1 Purpose of EIR

The City of Visalia, as Lead Agency, determined that the proposed activities constitute a "project" within the definition of CEQA. The 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 EIR has been prepared according to CEQA requirements to evaluate the potential environmental impacts associated with the implementation of the proposed Project. The Draft EIR also discusses alternatives to the Project, and proposes mitigation measures that will offset, minimize, or otherwise avoid significant environmental impacts. This Draft EIR 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 City of Visalia.

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 Type of EIR

The State CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Project-level EIR pursuant to CEQA Guidelines Section 15161. A Project-level EIR is described in State CEQA Guidelines § 15161 as: "The most common type of EIR (which) examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation. The project-level analysis considers the broad environmental effects of a proposed project.

1.3 Intended Uses of the EIR

The City of Visalia, as the Lead Agency, has prepared this EIR to provide the public and responsible and trustee agencies with an objective analysis of the potential environmental impacts resulting from implementation of the proposed 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, including the economic and social benefits of a project, in determining whether a project should be approved.

This EIR will be used as the primary environmental document to evaluate all subsequent planning and permitting actions associated with the Project. This EIR may also be used by other agencies within the area, including the Air District, which may use this EIR during the permitting process.

1.4 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). The Project may require permits and approvals from Trustee and Responsible Agencies, which may include, but not be limited, to the following:

- Tulare County LAFCO (annexation)
- San Joaquin Valley Air Pollution Control District – approval of construction and/or operational air quality permits
- Regional Water Quality Control Board (Storm Water Pollution Control Plan)

1.5 Environmental Review Process

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

Notice of Preparation

The City of Visalia circulated a Notice of Preparation (NOP) of an EIR for the proposed project from May 20, 2021 through June 21, 2021 to trustee and responsible agencies, the State Clearinghouse (SCH #2021050418), and the public. Following publication of the original NOP, changes were made to the proposed Project that consisted of an increase in commercial acreage (from 14.7 acres to 35.1 acres) and a reduction in residential units (from 3,368 units to 3,262 units). Therefore, the Project's NOP was re-circulated from June 2, 2022 through July 5, 2022.

Six agency comments on the NOP related to the EIR analysis were presented or submitted during the public review period (June 2 – July 5, 2022). The NOP and written comments provided to the City during the 30-day public review period for the NOP are presented in Appendix A. NOP comment letters are summarized as follows:

- **CA Department of Conservation – Geologic Energy Management Division** (June 6, 2022): Identified a previous properly abandoned oil or gas well on the site. The Department provided additional guidance on the proper handling of the well. Refer to Section 3.9 – Hazards and Hazardous Materials for further information.

- **CA Department of Fish & Wildlife** (July 11, 2022): Identified potential species in the project area and provided recommendations on handling of such species. Refer to Section 3.4 – Biological Resources for more information.

- **CA Department of Conservation – Division of Land Resource Protection** (June 14, 2022): Identified potential farmland impacts due to loss of agricultural lands on the site. Provided suggestions for mitigation for the loss of agricultural lands. Refer to Section 3.2 – Agriculture and Forestry Resources for more information.

- **Native American Heritage Commission** (June 8, 2022): Identified the applicable tribal consultation guidelines and requirements associated with the Project. Refer to Section 3.18 – Tribal Cultural Resources for more information.

- **San Joaquin Valley Air Pollution Control District** (June 22, 2022): Identified the District's applicable guidelines and requirements associated with air emissions from construction and operation of the Project. Refer to Section 3.3 – Air Quality for more information.

- **California Department of Transportation (Caltrans)** (June 2, 2022): Identified requirements and expectations of the Project traffic impact study. Provided additional information to support the study analysis. Refer to Section 3.17 – Transportation for more information.

Draft EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the project, description of the environmental setting, identification of the project's direct and indirect impacts on the environment, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This Draft EIR identifies issues determined

to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in this EIR. Upon completion of the Draft EIR, the City of Visalia will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor's Office of Planning and Research to begin the public review period.

Public Notice/Public Review

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

Brandon Smith, Principal Planner
City of Visalia
315 E. Acequia Avenue
Visalia, CA 93291
Brandon.smith@visalia.city

Responses to Comments/Final EIR

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

Entitlement Procedures / Certification of the EIR / Project Consideration

The City of Visalia will be the Lead Agency for the proposed Project, pursuant to the California Environmental Quality Act (CEQA). The Project will require the following approvals from the City of Visalia:

Specific Plan

- Certification of the Project EIR
- Approval of the Final Specific Plan
- Approval of a Master Tentative Tract Map

- Approval of a Development Agreement
- Approval of a General Plan Amendment
- Approval of Zone Changes

Individual Projects Within the Specific Plan

- Approval of a Lot Line Adjustment to reflect the various stages of the Project (ministerial)
- Approval of Tentative Tract Maps
- Amendments to the Specific Plan, if necessary
- Site Plan Review
- Issuance of Grading / Building Permits (ministerial)
- Public street dedications
- One or more Conditional Use Permits for anticipated uses including, but not limited to a Costco retail store, gas station and car wash

Prior to taking action to approve the project, the City of Visalia will review and consider the Final EIR. If the City finds that the Final EIR is "adequate and complete," the City Council may certify the Final EIR 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 EIR, the City Council may take action to approve, revise, or reject the project. A decision to approve the proposed project, for which this EIR identifies significant environmental effects, must be accompanied by written findings in accordance with State CEQA Guidelines Sections 15091 and 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 EIR.

1.6 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. Discussion of the environmental issues addressed in the Draft EIR was established through review of environmental and planning documentation developed for the project, environmental and planning documentation prepared for recent projects located within the City of Visalia, and responses to the NOP. This Draft EIR 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 possible 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 EIR, and summarizes comments received on 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. Each subchapter addressing a topical area is organized as follows:

Environmental Setting. A description of the existing environment as it pertains to the topical area.

Regulatory Setting. A description of the regulatory environment that may be applicable to the project.

Impacts and Mitigation Measures. Identification of 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.

The following environmental topics are addressed in this Draft EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Services
- Wildfire

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 protected fish, wildlife, and plant 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 EIR, by name, title, and company or agency affiliation.

Appendices

This section includes the NOP and responses to the NOP in addition to biological, cultural, hydrology, air quality/GHG, noise and traffic technical studies.

Incorporation by Reference

In compliance with CEQA Guidelines Section 15150, this Draft EIR has incorporated by reference the *Visalia General Plan Update - Environmental Impact Report*, adopted October 14, 2014 (State Clearinghouse #2010041078). That document is available for review at the City of Visalia, 315 E. Acequia Avenue, Visalia, CA 93291.

Chapter 2

PROJECT DESCRIPTION

Project Description

2.1 Project Location and Surrounding Land Use

The proposed Carleton Acres Specific Plan Project (referred to herein as the "Project" or "proposed Project") is located on approximately 507-acres in the northern area of the City of Visalia, California and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north. The site is comprised of two parcels: APN 077-100-088 and APN 077-100-105. APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County while APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses. Refer to Figure 2-1: Regional Location Map, Figure 2-2: City Boundary Map, Figure 2-3: Existing Land Use Designations, and Figure 2-4: Aerial Site Vicinity Map.

The proposed Project site is located in a developing area planned as part of the City of Visalia. Currently, Ridgeview Middle School is located adjacent to and west of Akers Street and would abut the proposed Project site. In addition, the City is currently planning a new high school that will be constructed adjacent to and west of Ridgeview Middle School and would be surrounded by the proposed Project to the north, west and south. Land uses of adjacent parcels surrounding the Project site are as follows:

Surrounding Land Uses

Location	Existing Land Use
North	Dairy Farm / Agriculture
South	Residential / Church / Water Storage Tank
West	Dairy Farm / Agriculture
East	Agriculture

Figure 2-1
Regional Location Map

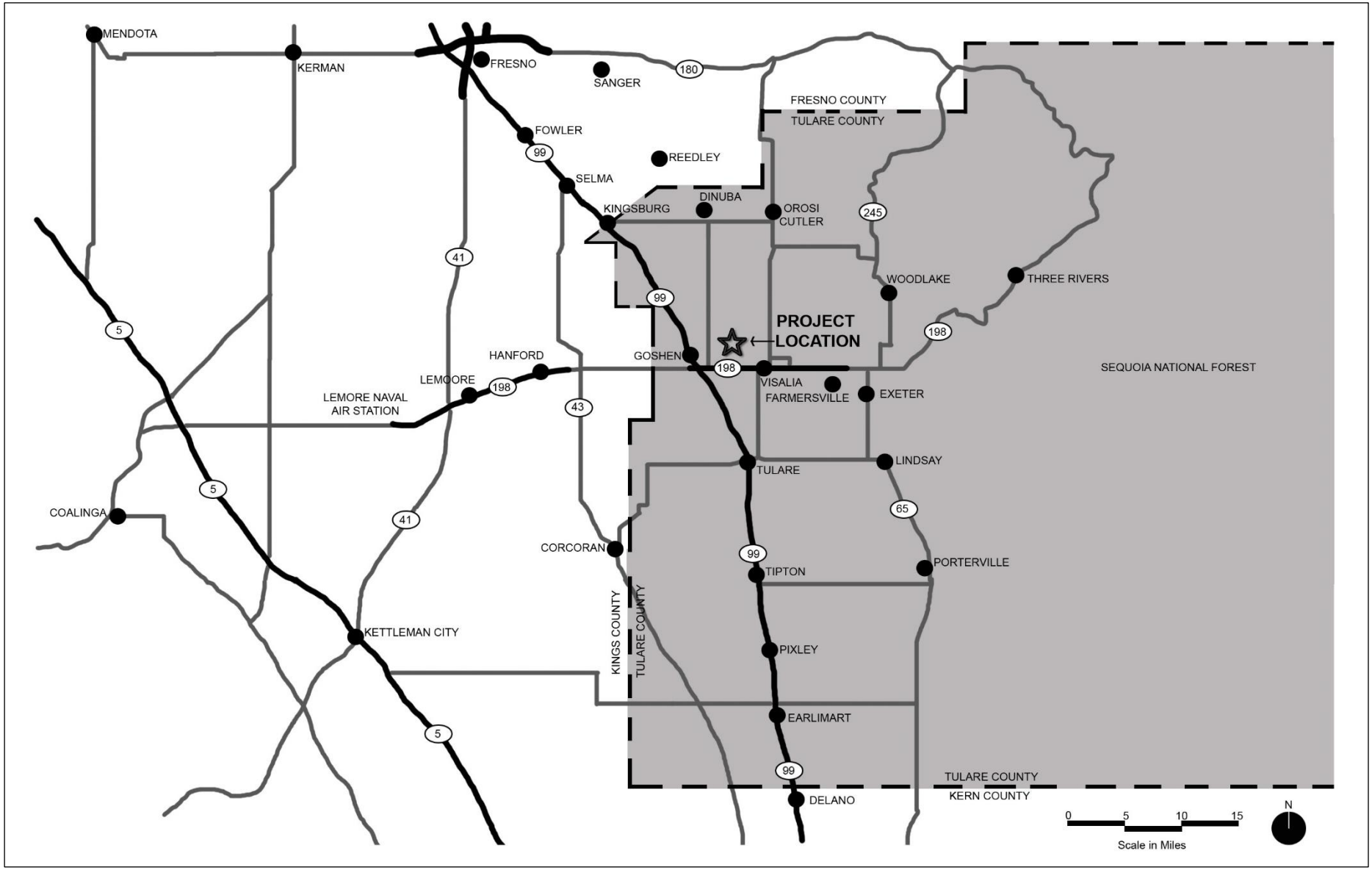


Figure 2-2
City Boundary Map

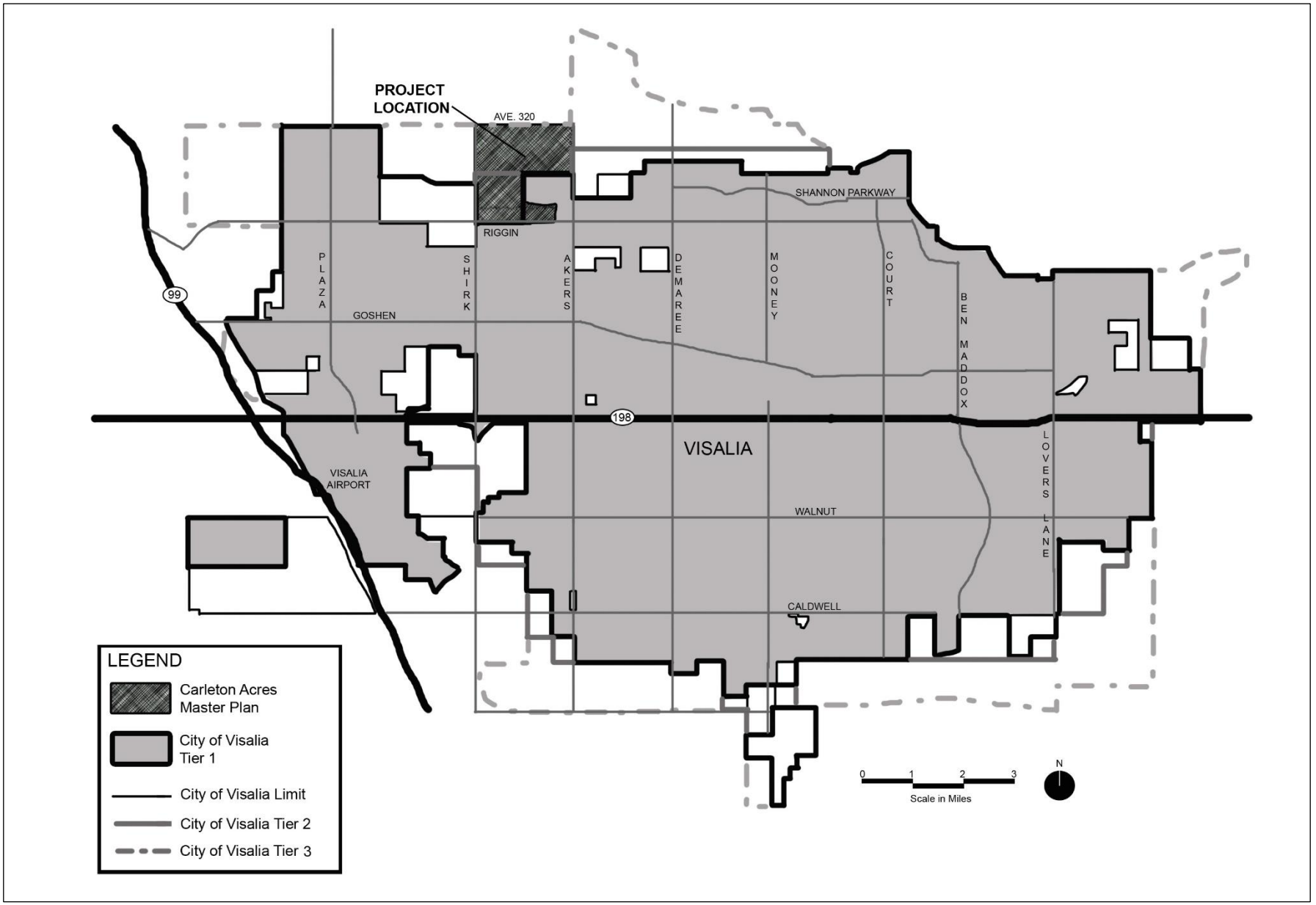


Figure 2-3
Existing General Plan Land Use Map

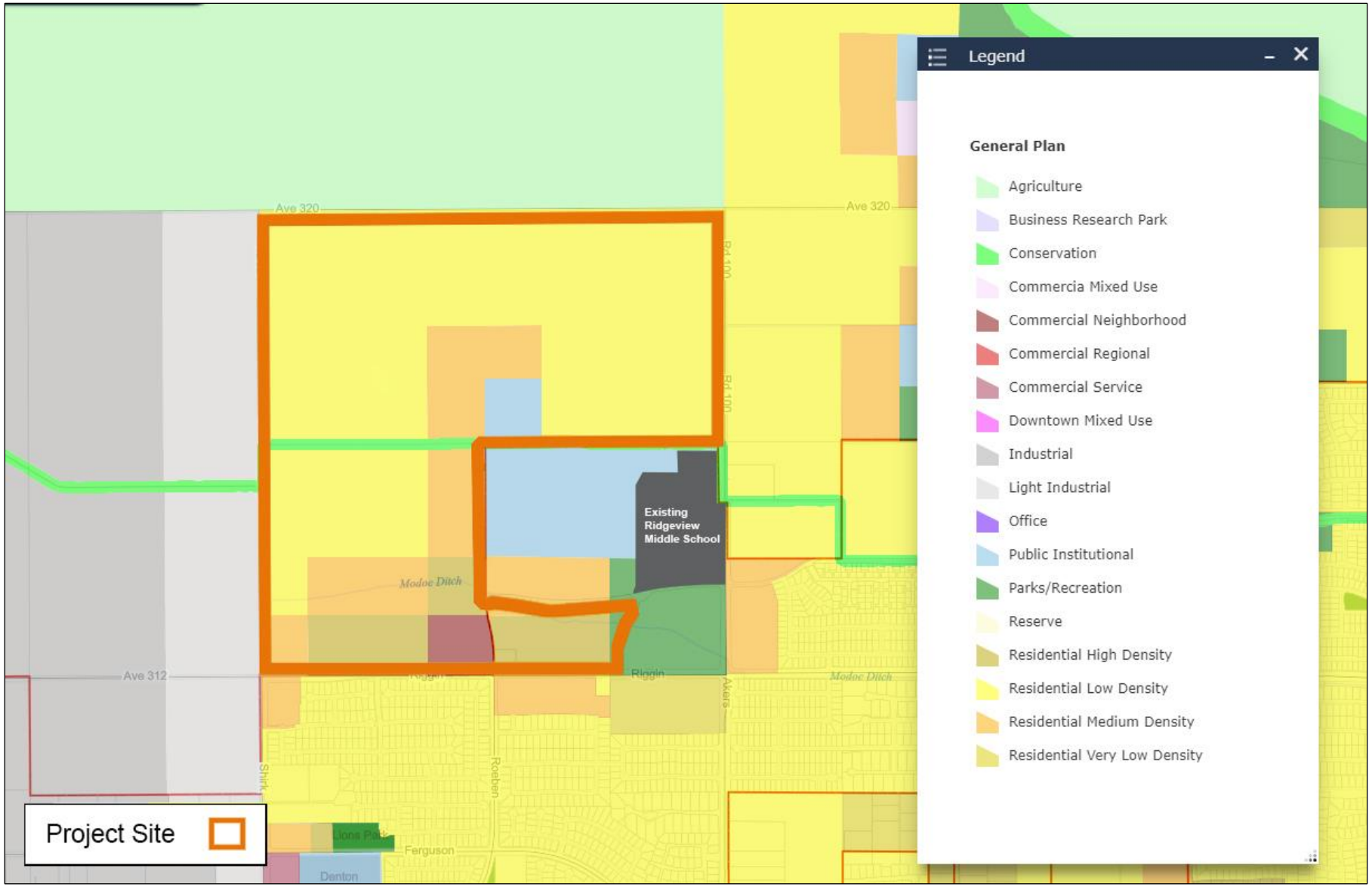


Figure 2-4
Aerial Site Vicinity

2.2 Project Description

The Project Applicant is proposing a Specific Plan to develop approximately 507-acres of land into a mixed-use development. The Project will feature a variety of uses including single-family residential, multi-family housing, commercial, educational, and parks/trails facilities. The proposed Project components are described below. Refer also to Table 2-1: Summary of Proposed Land Uses and Figure 2-5: Site Layout Plan.

Residential

The proposal features several different types of housing for a total of up to 3,262 residential units at buildout which is broken down as follows:

- Low Density Residential: Up to 1,592 units
- Medium Density Residential: 758 units
- High Density Residential: 912 units

It should be noted that the number of proposed units for low density residential portion of the development is currently proposed to include a maximum of 1,592 units, which may be lower depending on final configuration of the lots. In addition, the 13.0 acres currently shown in Figure 2-5 for a new elementary school could potentially be converted to low density residential. Therefore, for purposes of providing the maximum number of potential residential units, a total of 65 units was added to the total for both phases (13.0 acres X 5.0 units per acre = 65 units), for a maximum development potential of 1,592 low density residential units.

Commercial

The proposed Project includes up to 35.1 acres of commercial development in two locations within the Project for a total of approximately 205,000 square feet of gross leasable commercial area. The commercial developments will occur in the proposed Mixed Use Commercial Zone and the Neighborhood Commercial Zone. The maximum size for a single or anchor tenant shall be 170,000 square feet within the Mixed Use Commercial Zone as shown in Figure 2-5. The first commercial area consists of up to 28.7 acres of Mixed Use Commercial at the intersection of Riggin Avenue and Shirk Road (Road 92). Anticipated uses at this location will include development consisting of a Costco, gas station, car wash, drug store, retail, restaurants (including drive-throughs), and similar uses. The second consists of up to 6.4 acres of Commercial Neighborhood at the northeast corner of the development. Anticipated uses at this location may include development such as retail, services and restaurants. The commercial facilities are located to provide efficient accessibility to residents of the Project and the surrounding areas.

Other Project Components

Other proposed uses include approximately 13.0 acres for a potential site for a future elementary school, 17.3 gross acres for a drainage basin, and approximately 17.3 acres of parks/trails/recreational facilities. Various other infrastructure improvements (water, stormwater and wastewater infrastructure, roadway improvements, and related improvements) will be required by the Project. Refer to the descriptions of these components later in this Chapter.

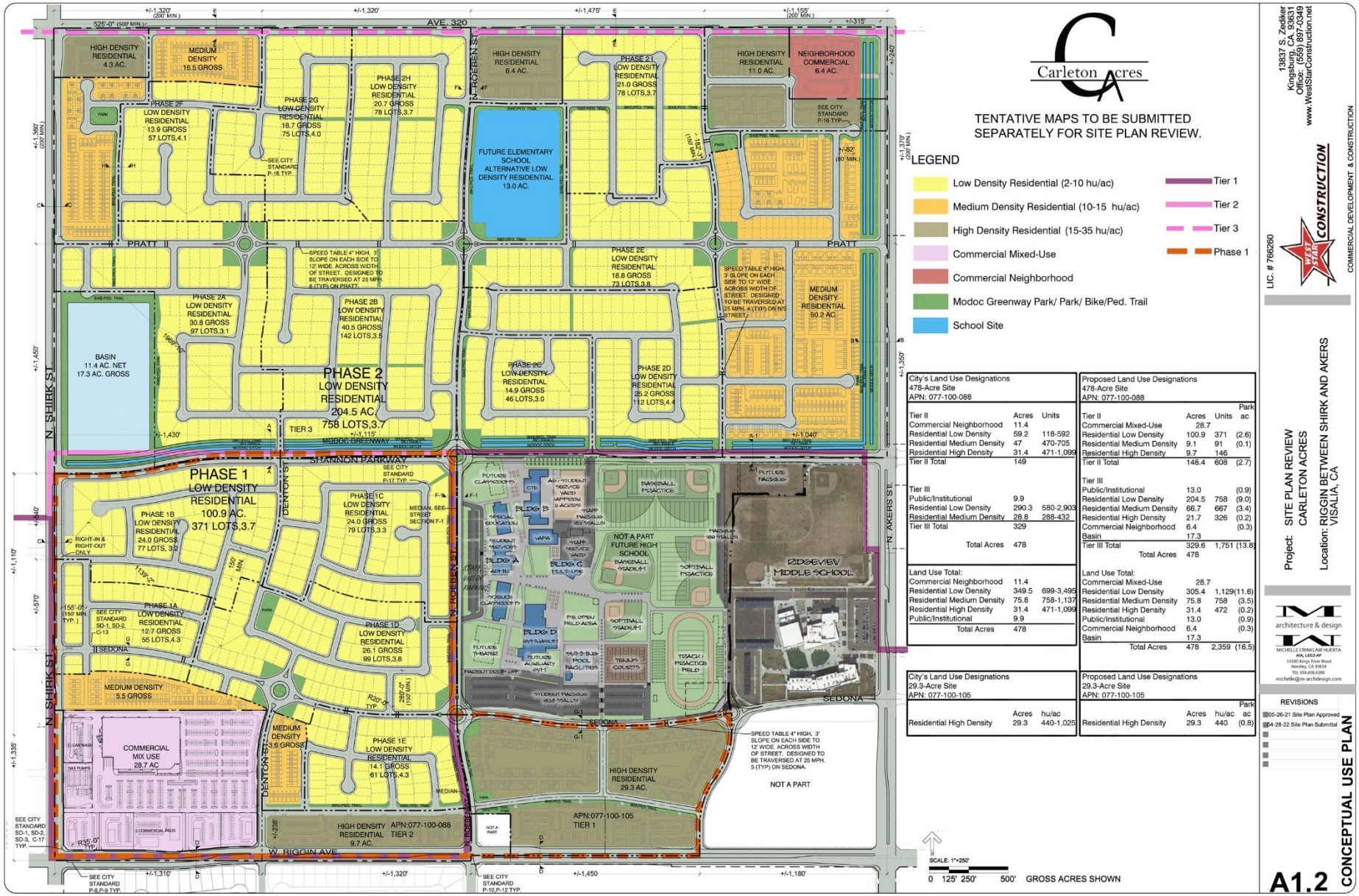
The Project is proposed to be built out in two phases as identified in Table 2-1 and as shown in Figure 2-5. Refer to the subsection titled *Visalia Urban Growth Boundary Tiers and Project Phasing* for a description of proposed Project phasing.

Table 2-1
Summary of Proposed Land Uses

Phase 1	Total Acreage	Park / Rec Acreage*	Number of Units	Proposed Density
High Density Residential (APN: 077-100-088)	9.7	0	146	~15 units/acre
High Density Residential (APN: 077-100-105)	29.3	0.8	440	~15 units/acre
Medium Density Residential	9.1	0.1	91	~10 units/acre
Low Density Residential	100.9	2.6	505**	~5 units/acre
Commercial Mixed Use	28.7	-	N/A	-
Phase 1 Total:	**177.7**	**3.5**	**1,182**	
Phase 2	**Total Acreage**	**Park / Rec Acreage***	**Number of Units**	**Proposed Density**
High Density Residential	21.7	0.2	326	~ 15 units/acre
Medium Density Residential	66.7	3.4	667	~10 units/acre
Low Density Residential	204.5	9.0	1,022**	~5 units/acre
Commercial Neighborhood	6.4	0.3	N/A	-
Basin	17.3	-	N/A	-
Public/Institutional (or LDR)***	13.0	0.9	N/A (or 65)	~5 units/acre***
Phase 2 Total:	**329.6**	**13.8**	**2,080*** **	
Total for Both Phases:	**507.3**	**17.3**	**3,262**	

* Park / Recreation acreage is included within each land use designation's "total acreage".
** The number of proposed units for low density residential portion of the development may be lower than 1,592 units depending on final configuration of the lots.
*** Includes 65 units of low density residential in place of the 13.0 acre elementary school.

Figure 2-5
Site Layout Plan



City's Land Use Designations 478-Acre Site APN: 077-100-088		
Tier II	Acres	Units
Commercial Neighborhood	11.4	
Residential Low Density	59.2	118-592
Residential Medium Density	47	470-705
Residential High Density	31.4	471-1,099
Tier II Total	149	
Tier III		
Public/Institutional	9.9	
Residential Low Density	290.3	580-2,903
Residential Medium Density	28.8	288-432
Tier III Total	329	
Total Acres	478	
Land Use Total:		
Commercial Neighborhood	11.4	
Residential Low Density	349.5	699-3,495
Residential Medium Density	75.8	758-1,137
Residential High Density	31.4	471-1,099
Public/Institutional	9.9	
Total Acres	478	

Proposed Land Use Designations 478-Acre Site APN: 077-100-088			
Tier II	Acres	Units	Park ac
Commercial Mixed-Use	28.7		
Residential Low Density	100.9	371	(2.6)
Residential Medium Density	9.1	91	(0.1)
Residential High Density	9.7	146	
Tier II Total	148.4	608	(2.7)
Tier III			
Public/Institutional	13.0		(0.9)
Residential Low Density	204.5	758	(9.0)
Residential Medium Density	66.7	667	(3.4)
Residential High Density	21.7	326	(0.2)
Commercial Neighborhood	6.4		(0.3)
Basin	17.3		
Tier III Total	329.6	1,751	(13.8)
Total Acres	478		
Land Use Total:			
Commercial Mixed-Use	28.7		
Residential Low Density	305.4	1,129	(11.6)
Residential Medium Density	75.8	758	(3.5)
Residential High Density	31.4	472	(0.2)
Public/Institutional	13.0		(0.9)
Commercial Neighborhood	6.4		(0.3)
Basin	17.3		
Total Acres	478	2,359	(16.5)

City's Land Use Designations 29.3-Acre Site APN: 077-100-105		
	Acres	hu/ac
Residential High Density	29.3	440-1,025

Proposed Land Use Designations 29.3-Acre Site APN: 077-100-105			
	Acres	hu/ac	Park ac
Residential High Density	29.3	440	(0.8)

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architecture & design
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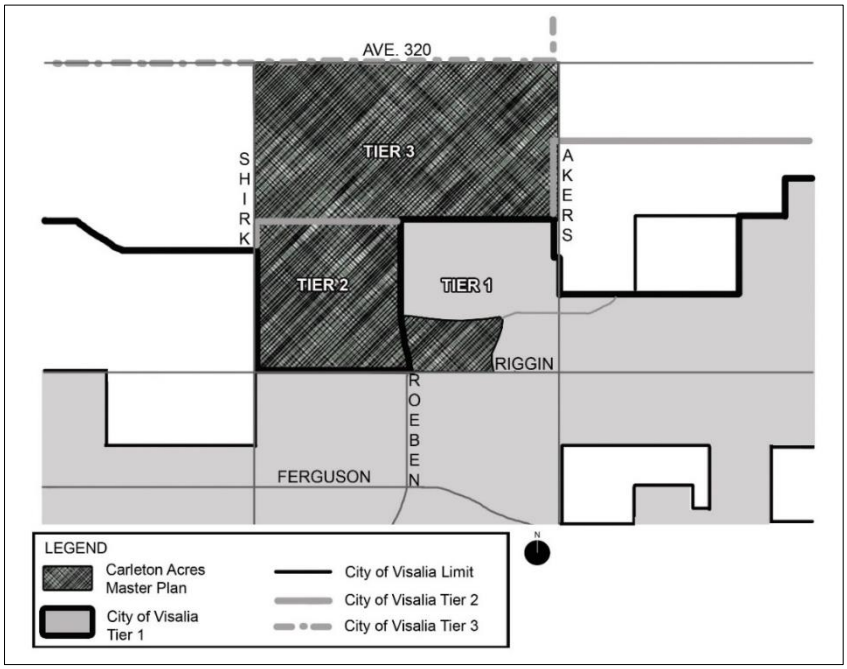
REVISIONS
05-26-21 Site Plan Approved
04-28-22 Site Plan Submittal

CONCEPTUAL USE PLAN
A1.2

Visalia Urban Growth Boundary Tiers and Project Phasing

The City of Visalia's General Plan includes a three-tier system to account for future growth (Tier 1, Tier 2 and Tier 3). Thresholds were set on residential permits, commercial square-footage, industrial square-footage and regional square-footage. Tier 1 currently allows development to occur within the Tier 1 boundary, while Tiers 2 and 3 can be developed after certain thresholds are met during/after buildout of Tier 1. Under the City of Visalia's General Plan Policy LU-P-22, an approved specific-planned site can be annexed before development is permitted in Tier 2 or Tier 3. Annexations are reviewed within the context of the regulations and polices in the Cortese-Knox-Hertzberg Local Governments Reorganization Act of 2000 and the Tulare County Local Agency Formation Commission Policy and Procedure Manual regarding development and inventory of existing vacant land designed for urban uses in the City limits. The City of Visalia's General Plan Policy LU-P-22 allows the City Council to approve master-planned developments for sites under single ownership or unified control, which may include developable land within multiple Tiers. A Development Agreement will be prepared, which is a separate document that details the overall development, density, phasing, infrastructure needs and financing, as well as outlines the responsibilities of each party. The Development Agreement and the Master Plan have a consistent vision with Visalia's General Plan and the City's interest in growth through phasing. Figure 2-6 below identifies the City's Tier boundaries relative to the Project site.

Figure 2-6
City of Visalia Tier Boundaries



The Project is proposed to be built out in two phases as identified in Table 2-1 and as shown in Figure 2-5. Although the exact timing of construction and buildout will be determined by market conditions, the Project Applicant and the City, it is anticipated that the Project would be built out over an approximate 15-year period with approximately 100 low-density residential units per year on average with the remaining buildout to be determined by demand. The Project is proposed to be generally built out in two phases as follows:

Phase 1

Phase 1 includes all of APN 077-100-105 (29.3 acres) and a portion of APN 077-100-088 (150 acres). For APN 077-100-105, the site is within the Tier 1 boundary and is currently designated by the City's General Plan for High Density Residential. The Project intends to retain this land use designation and to develop the site as follows:

- 29.3 acres of High Density Residential (440 units)

For APN 077-100-088, Phase 1 development only includes the southern portion of the parcel (approximately 150 acres) and is included in the Tier 2 boundary. This portion is proposed to be developed with a variety of uses as follows:

- 9.7 acres of High Density Residential (146 units)
- 9.1 acres of Medium Density Residential (91 units)
- 100.9 acres of Low Density Residential (up to 505 units)
- 28.7 acres of Commercial Mixed Use

For APN: 077-100-088, the Low Density Residential portion will be built first.

Phase 2

Phase 2 includes the northern 329 acres of APN 077-100-088 that is within the Tier 3 boundary. This portion is proposed to be developed with a variety of uses as follows:

- 21.7 acres of High Density Residential (326 units)
- 66.7 acres of Medium Density Residential (667 units)
- 204.5 acres of Low Density Residential (up to 1,022 units)
- 6.4 acres of Commercial Neighborhood
- 17.3 acres of Basin
- 13.0 acres of Public/Institutional

The timing of development and installation of infrastructure for Phase 1 and Phase 2 will be identified in a Development Agreement.

Site Circulation and Access

The overall layout of the proposed Project is block form, with shortened roadway lengths and cul-de-sacs in order provide limited thru-traffic and to create a walkable urban environment. The site has been designed with 13 points of ingress and egress. Additional access points will be provided for the commercial uses that are proposed to occur at the southwest corner of the site and for the high-density residential development at the northwest corner of the site. The following is a summary of roadway improvements that will be required:

Arterials

W. Riggin Avenue, N. Shirk Road (Road 92), N. Akers Street (Road 100), and Avenue 320 are classified as arterial roads in the City's Circulation Element with a right-of-way of 110 feet. The arterials in the Plan Area will include two through-lanes of traffic in each direction, as well as a left-turn channelization when needed. When applicable, road right-of-way may be required for improvements at intersections to allow for right turn movements. Four arterials border the proposed Project with two existing lanes. When project is fully developed Riggin will have four lanes. N. Shirk Road, N. Akers Street and Avenue 320 shall have two lanes in one direction and one lane in the opposite direction. Widening of W. Riggin Avenue, N. Shirk Road and N. Akers Street will be necessary with right-of-way dedications.

Collectors

Shannon Parkway and N. Roeben Street are designated as collectors and serve to connect arterial and local roadways within the Plan Area. Shannon Parkway and N. Roeben Street will feature two lanes of traffic (single lane in each direction) within an 84-foot right-of-way.

Local Streets

The remaining streets within the Plan Area, including Sedona Avenue, are classified as local and will be developed to residential street standards. Most local streets within the Plan Area will have a right of way width of 60 feet. A combination of speed tables and roundabouts will be used as traffic calming devices.

The Project will be responsible for construction of internal roadways as well as for potential improvements to surrounding roadways to accommodate the Project. The Project also includes improvements and landscaping along the frontage roads and within the site itself.

Infrastructure

The Project will require connection to various City-operated utility and infrastructure systems. These include City-provided services such as sewer/wastewater, water and stormwater facilities. Non-City-provided infrastructure includes natural gas (to be provided by Southern California Gas Company) and electrical services (to be provided by Southern California Edison). The Project will be responsible for construction of connection points to the City's existing infrastructure. Proposed infrastructure improvements for sewer/wastewater, water and stormwater facilities are described below.

Sewer/Wastewater

Sewer/wastewater generated by the Project will be treated by the City's Water Conservation Plant. The Project proposes to install and extend all City master planned sewer lines to the extent determined by the City Engineer per development phasing plans. The system supporting the proposed development will tie in with the existing sewer system along North Akers Street and Sedona Avenue. A minimum 8" sanitary sewer main and appurtenances will be extended from N. Roeben Street, N. Akers Street, N. Shirk Road, Shannon Parkway, and Sedona Avenue. A 36" sanitary sewer line is proposed along Avenue 320, and a 42" sanitary sewer line is proposed along Shirk Road. The extension of sewer mains shall comply with the standards established in the City's sewer and storm master plan.

Water

Potable water is anticipated to be supplied to the Project by Cal Water. The Project will require the extension of pipelines to accommodate future growth, including the installation of 12" mains to connect to the Project Area. A 12" main on Akers Street will be extended north of the Ridgeview Middle School. A 12" main will be extended from Shirk Road to the intersection of Riggin Avenue. A 12" main located on Riggin Avenue will also be extended from Shirk Road to Roeben Street. A planned completion of a main on Riggin Avenue to Akers Street will also serve the Project Area. Major streets around the property will require a 12" main, and interior streets will require an 8" main. Fire hydrants will be located every 600 feet of linear residential and 500 feet of linear commercial.

Stormwater

The stormwater drainage system for the Project will be designed in compliance with City standards to ensure adequate facilities to serve the Project. The Project will discharge stormwater runoff through a proposed storm drain system that drains into a proposed drainage basin onsite.

A site survey was conducted to identify the appropriate location of the drainage basin based on site slopes and other factors. The basin is proposed to be integrated into the western edge of the Project Area at the northeast corner of Shirk Road and Shannon Parkway. The proposed basin location is in the lowest elevation of the Project site and is in the natural drainage/low area of the development. This allows for natural stormwater runoff. The basin is approximately 17.3 gross acres, 11.4 net acres, with a capacity of 97.8 acre/feet. The 97.8 acre/feet of capacity is in excess of the 89.69 acre/feet of storage capacity that would be required by the Project. Half of the basin is proposed to be completed for Phase 1. In addition to serving the proposed development, the basin will be designed to accommodate storm drainage for the existing Ridgeview Middle School, the proposed High School, future elementary school, and the City Park at the intersection of Akers Street and Riggin Avenue. A bioswale will be used to collect storm water from developments adjacent to the existing Modoc Ditch. The bioswale shall be connected to the proposed basin. The location of the bioswale adjacent to the bike path trail will enhance the landscape space.

Proposed infrastructure improvements are identified below, by phase.

Phase 1

1. Extension of 42" sewer trunk line along Shirk from the Shirk and Riggin intersection. The sewer trunk line is to extend north to Phase 2.
2. Extension of 12" water line from the Shirk and Riggin intersection. The water line is to extend north to Phase 2.
3. A 10" sanitary sewer main and appurtenances shall be extended from North Roeben Street, Shannon Parkway, and Sedona Avenue.
4. Extension of 8" water line along Shannon Parkway from Shirk to Roeben.
5. Installation of storm drainage facility. Partial completion of proposed storm basin located within Phase 2.
6. Installation of improvements along Shirk frontage to Phase 2. Including: 6' tall block wall, 8' wide landscape, 7' wide sidewalk, 5' wide planter, curb/gutter, 6' wide bike lane, 4' buffer, (2) 12' travel lanes, median (18' wide) and 12' wide travel lane.
7. Installation of improvements along Riggin from Shirk to where improvements are already in place near Akers. Including 6' tall block wall at residential, 7' wide sidewalk,

5′ wide planter, curb/gutter, 6′ wide bike lane, 4′ wide buffer, (2) 12′ travel lanes and 18′ wide median

8. Installation of improvements along Sedona at existing roundabout to Shirk. Including: 5′ wide sidewalk, 5′ wide planter, curb/gutter, 8′ wide parking, (2) 12′ wide travel lanes, 8′ wide parking, curb/gutter, 5′ wide planter, 5′ wide sidewalk.
9. Installation of improvements along Shannon Parkway from Roeben to Shirk. Including: 6′ tall block wall, 9′ wide landscape, 6′ wide sidewalk, 10′ wide planter, curb/gutter, 5′ wide bike lane, 5′ wide buffer, 12′ wide travel lane, 15′ wide median and 12′ wide travel lane.
10. Installation of improvements along Roeben from Riggin to Shannon Parkway. Including: 6′ tall block wall, 5′ wide planter, 6′ wide sidewalk, 6′ wide bike trail, 5′ wide planter, curb/gutter, 8′ wide parking, 12′ wide travel lane, 11′ wide median, and 12′ wide travel lane
11. Installation of three roundabouts: Shannon Parkway and Roeben, Sedona and Denton, and Roeben and Sedona.

Phase 2

1. Extension of 42″ sewer trunk line along Shirk to Ave 320.
2. Extension of 36″ sewer trunk line along Ave 320 from Shirk to Akers.
3. A minimum 10″ sanitary sewer main and appurtenances shall be extended Along Pratt from Shirk to Roeben.
4. Extension of 12″ water line along Shirk to Ave 320., Ave 320 between Shirk & Akers, and Akers from Shannon Parkway to Ave 320.
5. Completion of proposed storm basin located within Phase 2.
6. Installation of improvements along Roeben from Shannon Parkway to Ave. 320. Including: 6′ tall block wall, 5′ wide planter, 6′ wide sidewalk, 5′ wide planter, curb/gutter, 8′ wide parking, 5′ wide bike lane, 12′ wide travel lane, 11′ wide median, 12′ wide travel lane, curb/gutter, 5′ wide planter, 6′ wide bike trail, 6′ wide sidewalk, 5′ wide planter, and 6′ tall block wall.
7. Installation of improvements along Shirk frontage. Including: 6′ tall block wall, 8′ wide landscape, 7′ wide sidewalk, 5′ wide planter, curb/gutter, 6′ wide bike lane, 4′ buffer, (2) 12′ travel lanes, median (18′ wide) and (1) 12′ wide travel lane.
8. Installation of improvements along Shannon Parkway from Roeben to Akers. Including: 12′ wide travel lane, 15′ wide median, 12′ wide travel lane, 8′ wide parking, 5′ wide planter, 6′ wide sidewalk, 10′ wide ditch access & decomposed granite walking path, existing 19′ wide Modoc Ditch, 12' wide ditch & police access, 18' wide bioswale, 12' wide class 1 bike trail, 6' wide planter, and 6′ tall block wall.
9. Installation of improvements along Akers to Ave. 320. Including: 6′ wide planter, 12' wide class 1 bike trail, 18' wide bioswale, +/-12′ wide ditch & police access, existing 32′ wide Modoc Ditch, +/-10′ wide ditch access and walking path, 5′ wide planter, curb/gutter, 6′

wide bike lane, 4' wide buffer, (2) 12' travel lanes, median (18' wide) and (1) 12' travel lane.

10. Installation of improvements on Ave. 320 from Akers to Shirk. Including: 6' tall block wall, 8' landscape, 7' wide sidewalk, 5' wide planter, curb/gutter, 6' wide bike lane, 4' wide buffer, (2) 12' travel lanes, median (18' wide) and (1) 12' wide travel lane.
11. Complete the installation of improvements along Shannon Parkway from Roeben to Shirk. Including: 8' wide parking, curb/gutter, 5' wide planter, 6' wide sidewalk, 10' wide ditch access & decomposed granite walking path, existing 19' wide Modoc Ditch, 12' wide ditch & police access, 18' wide bioswale, 12' wide class 1 bike trail, and 6' wide landscaping.

Parks, Trails and Open Space

The Project will provide a variety of public recreational facilities, including trails within the development that will be accessible by the public. A Landscaping and Lighting Act Assessment District shall be formed, prior to recordation of the final map. The purpose is for the maintenance of the landscaping, fences and/or walls along the public street frontages and open space areas of the subdivision. The Landscape and Lighting Act Assessment District shall include the operational and maintenance cost for the street lights within the subdivision and along streets abutting the subdivision. The Landscape and Lighting Act Assessment District shall include the provisions for the City to collect payment from the subdivider to cover the estimated cost to operate and maintain the improvements of the District prior to assessments occurring on the property tax roll.

Refer to Figure 2-7 for the general location of the proposed recreational facilities, which are described as follows:

Modoc Greenway: Modoc Ditch is an existing site feature along the northern portion of Akers and runs east/west through the center of the site. A trail will be installed along the existing Modoc Ditch. The trail will be located north of Shannon Avenue and the existing Modoc Ditch. Modoc Greenway will be installed along Akers Street, immediately west of the roadway and the existing Modoc Ditch. The Greenway will include a Class 1 bike trail with landscaping on either side and tree clusters will provide shade for the users. The Modoc Greenway will connect to the nearby basin trail. The trail will provide a route for residents to access school sites, the commercial areas of the development, and neighborhoods throughout Carleton Acres.

Trails: The network of trails proposed by the Project will provide convenient walking and biking options for residents to connect throughout Carleton Acres. Modoc Greenway is the main east/west and north/south trail facility within the development and will serve as a connection

point for other smaller trails. As described above, Modoc Greenway will be a Class 1 bike trail with landscaping on either side. Other trails throughout Carleton Acres will be 22' wide (6' walking & 6' bike lane with 5' landscaping on each side). These trails are as follows:

- Trail to connect the proposed high school to the future elementary school site (north & south) within the development.
- Trail to connect the future elementary school to Modoc Greenway to the east.
- Trail along Roeben to connect the proposed high school, to the medium and high density residential along Riggin and to the commercial center at the northeast corner of Riggin and Shirk.
- Around the basin, a trail will connect Modoc Greenway to the high-density development in the northwest corner of the site.

Parks: Parks within residential neighborhoods will range from 0.5 to 1 acre in size. Parks may be within a neighborhood or be located along the Modoc Greenway. Each park may include an open grass space, playground, picnic area, barbeque grills, seating, and drinking fountain. Shade trees will be provided and, where possible, drought-tolerant/native species will be encouraged. Parks will be located and designed to provide social activities within the development.

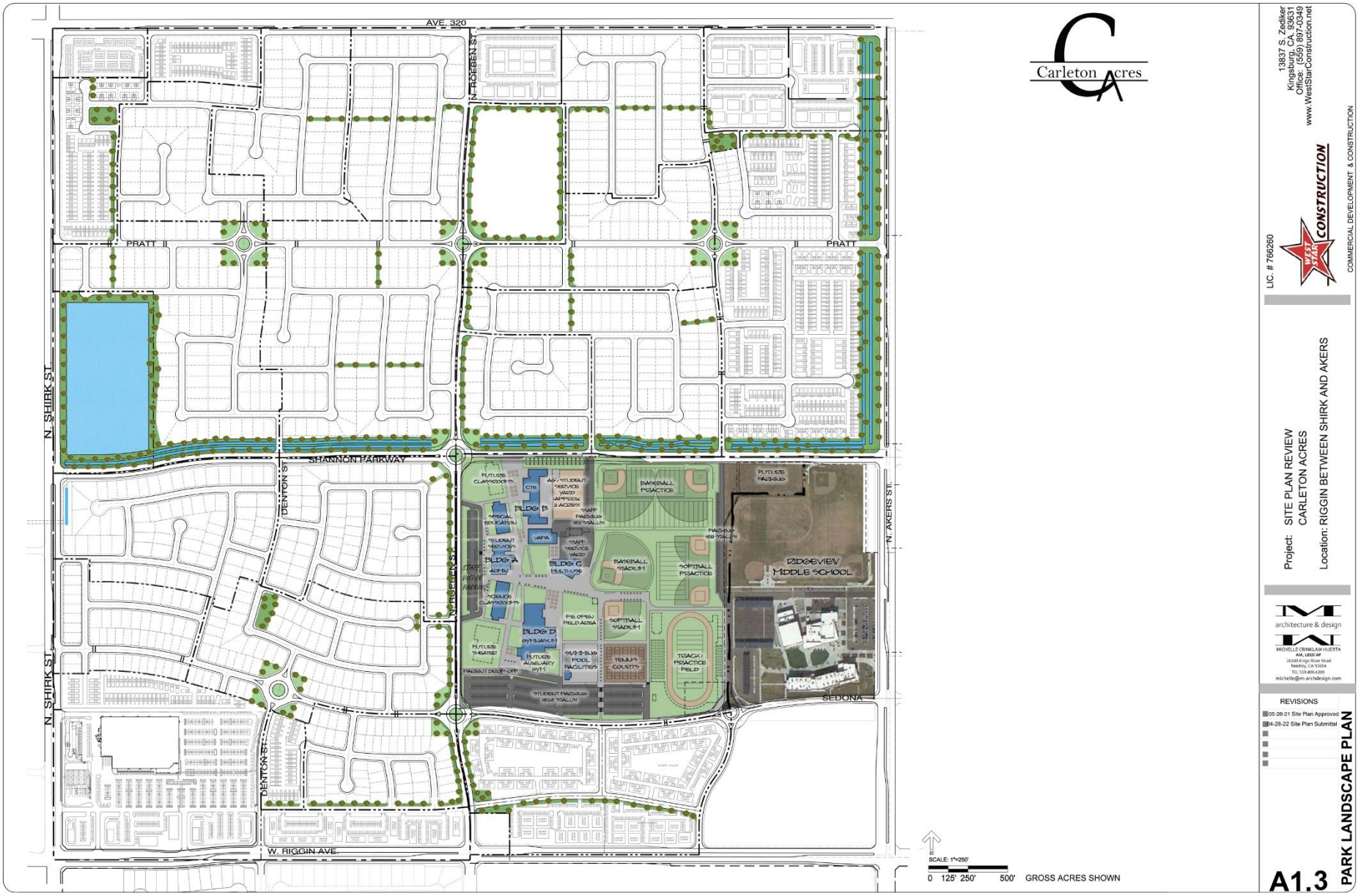
2.3 Project Objectives

In accordance with CEQA Guidelines Section 15124(b), the following are the City of Visalia's Project objectives:

- To provide a mixed-use development at pricing appropriate for the market, in a growing area of the City of Visalia that satisfies the City of Visalia's policies, regulations and expectations as defined in the City's General Plan, Zoning Ordinance and other applicable plans, documents, and programs adopted by the City.
- To provide a variety of housing opportunities with a range of densities, styles, sizes and values that will be designed to satisfy existing and future demand for quality housing in the area.
- To provide a residential development that assists the City in meeting its General Plan and Housing Element requirements and objectives.
- To provide conveniently-located commercial development to serve north Visalia residents and the Carleton Acres development in a growing area of the City of Visalia.

- To provide a sense of community and walkability within the development through the use of street patterns, parks/open space areas, landscaping and other project amenities.

Figure 2-7
Parks/Recreational Facilities Plan



2.4 Required Approvals

City of Visalia

The City of Visalia will be the Lead Agency for the proposed Project, pursuant to the California Environmental Quality Act (CEQA). The Project will require the following approvals from the City of Visalia:

Specific Plan

- Certification of the Project EIR
- Approval of the Final Specific Plan
- Approval of a Master Tentative Tract Map
- Approval of a Development Agreement
- Approval of a General Plan Amendment
- Approval of Zone Changes

Individual Projects Within the Specific Plan

- Approval of a Lot Line Adjustment to reflect the various stages of the Project (ministerial)
- Approval of Tentative Tract Maps
- Amendments to the Specific Plan, if necessary
- Site Plan Review
- Issuance of Grading / Building Permits (ministerial)
- Public street dedication
- One or more Conditional Use Permits for anticipated uses including, but not limited to a Costco retail store, gas station and car wash

Other Public Agencies Approval and Consultation

The Project will require various permits and/or entitlements from regulatory agencies. Consultation may be required and the City of Visalia will integrate CEQA review with these related environmental review requirements. These may include, but not be limited to the following:

- Tulare County LAFCO (annexation)
- San Joaquin Valley Air Pollution Control District – approval of construction and/or operational air quality permits
- Regional Water Quality Control Board (Storm Water Pollution Prevention Plan)

Chapter 3

ENVIRONMENTAL SETTING, IMPACTS & MITIGATION

3.1 Aesthetics

This section of the DEIR identifies potential impacts of the proposed Project on visual character, scenic resources, views, scenic highways and sources of light and glare. No NOP comment letters were received pertaining to Aesthetics.

Environmental Setting

Project Site and Surrounding Areas

The proposed Project is located on approximately 507-acres in the northern area of the City of Visalia, California and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north. The site is comprised of two parcels: APN 077-100-088 and APN 077-100-105. APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County while APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses.

Visalia is part of the Central Valley province, one of several geomorphic provinces in California. The Central Valley is in a basin bounded by the Sierra Nevada foothills and mountains to the east and the Coast Ranges to the west, and is filled with deep layers of sediment from the Sierra Nevada. The Project site is generally flat and averages approximately 309 feet above mean sea level. The topography in the area consists of a slight slope to the west / southwest.

The property was observed to be in varying stages of agriculture with the northern half planted with grapevines (as of July 2022) and the southern half recently disked. The proposed Project site is located in a developing area planned to be part of the City of Visalia. Currently, Ridgeview Middle School is located adjacent to and west of Akers Street and would abut the proposed Project site. In addition, the City is currently planning a new high school that will be constructed adjacent to and west of Ridgeview Middle School and would be surrounded by the proposed Project to the north, west and south.

Refer to Site Photographs 1 – 6 for representative pictures of the Project site and surrounding areas.

Photograph 1: View of the northwest corner looking southwest.

Photograph 2: View of the northeast corner looking southeast.

Photograph 3: View of the southeast corner looking northwest.

Photograph 4: View of the southeast corner looking northeast.

Photograph 5: View from N. Shirk Road near center of development looking east.

Photograph 6: View from Avenue 320 near center of development looking south.

Regulatory Setting

Federal Regulations

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

State Regulations

Title 24 Outdoor Lighting Standards

The 2019 Title 24 Outdoor Lighting Standards were adopted by the State of California Energy Commission (CEC) (Title 24, Parts 1 and 6, Building Energy Efficiency Standards (Standards) went into effect on January 1, 2020. The changes included modified standards to reflect an industry shift to LED lighting, and other changes.

Scenic Highway Program

The California Scenic Highway Program was established by the state Legislature in 1963 for the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated. The state laws governing the scenic highways program are found in the Streets and Highways Code Sections 260-263.

State Scenic Highways

According to the California Department of Transportation Scenic Highway Program, there are no designated State Scenic Highways within the Project area or in the City of Visalia. The closest eligible State Scenic Highway is SR 198, east of SR 99, and is approximately two miles south of the Project site[1].

[1] California State Scenic Highways. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed July 2022.

Local Regulations

Scenic Views

Scenic views provided by the Sierra Nevada to the east and much of the rural agricultural land surrounding the City is beyond Visalia's jurisdiction. Tulare County retains sole jurisdiction outside Visalia's Sphere of Influence (SOI). The City of Visalia has authority for land use decisions that could affect scenic views within City limits or on land in the SOI that would be urbanized under the General Plan. Caltrans has jurisdiction over the design of its facilities, and Tulare Irrigation District (TID) retains control over its canals within the City. Visalia adopted its Scenic Highways Element in February 1976, in which Highway 198 is identified as a scenic resource. Highway 198 is below grade through the city core.[2]

Visalia General Plan

The City of Visalia General Plan includes specific goals and policies related to aesthetics and scenic resources. Those that apply to the proposed project are listed below.

> **OSC-P-8:** Protect, restore and enhance a continuous corridor of native riparian vegetation along Planning Area waterways, including the St. Johns River; Mill, Packwood, and Cameron Creeks; and segments of other creeks and ditches where feasible, in conformance with the Parks and Open Space diagram of this General Plan.
>
> **OSC-P-10:** Ensure that building and vehicle service areas, loading docks, trash enclosures and storage areas are setback back from waterways and/or screened from view from the creek corridor to minimize environmental and visual impacts.
>
> **OSC-P-13:** In new neighborhoods that include waterways, improvement of the waterway corridor, including preservation and/or enhancement of natural features and development of a continuous waterway trail on at least one side, shall be required.
>
> **OSC-P-17:** Require that new development along waterways maintain a visual orientation and active interface with waterways. Develop design guidelines to be used for review and approval of subdivision and development proposals to illustrate how this can be accomplished for different land uses in various geographic settings.

[2] Visalia General Plan EIR, page 3.13-4.

OSC-P-33: Develop a list of recommended native plants and landscaping guidelines. Make this list and guidance accessible through the Community Development Department, the public library, and the City website.

OSC-P-34: Enhance views and public access to Planning Area waterways and other significant features such as Valley Oak groves consistent with flood protection, irrigation water conveyance, habitat preservation and recreation planning policies.

OSC-P-35: Use native trees in street and public landscaping designs, where appropriate, to preserve Visalia's character.

LU-P-28: Continue to use natural and man-made edges, such as major roadways and waterways within the City's Urban Area Boundary, as urban development limit and growth phasing lines.

LU-P-29: Use regional and community parks and open space to enhance gateways to the City and as a buffer between adjacent communities.

LU-P-34: Work with Tulare County to prevent urban development of agricultural land outside of the current growth boundaries and to promote the of use agricultural preserves, where they will promote orderly development.

LU-P-39: Improve tree planting, landscaping and site design standards to minimize the visual impact of large parking lots and buildings, to enhance and promote natural characteristics compatible with urban form, to minimize heat gain and promote energy conservation, and to improve stormwater infiltration.

LU-P-42: Develop scenic corridor and gateway guidelines that will maintain the agricultural character of Visalia at its urban fringe.

LU-P-43: Work with utilities and transportation companies to landscape power line and railroad right-of-ways throughout the community and to underground utilities where possible.

LU-P-59: Ensure that natural and open space features, such as Valley Oak trees and community waterways, are treated as special site amenities as part of any residential development.

LU-P-72: Ensure that noise, traffic, and other potential conflicts that may arise in a mix of commercial and residential uses are mitigated through good site planning, building design, and/or appropriate operational measures.

LU-P-106: Develop performance standards to supplement and augment design standards to minimize the negative impacts (glare, signage, noise, dust, traffic) associated with the establishment of new or expansion of existing service commercial and industrial development.

PSCU-P-11: Develop a system of natural corridors and greenways, consistent with the Parks and Open Space diagram.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Appendix G Checklist:

- 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? If the project is in an urbanized area, would the project conflict with applicable zoning and other 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 Sierra Nevada Mountains are the only natural and visual resource in the Project area. Views of these distant 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 distance from the mountains and limited visibility of these features under

current conditions. In addition, the Project would not substantially impede these existing views of the mountains from adjacent viewpoints because of the low-profile nature of the development (two-story maximum) and because of the lack of existing urban development adjacent to the site that currently have views of the mountains. The City of Visalia does not identify views of these features as required to be "protected."

The Project site is within a developing area planned to be part of Visalia. There are no scenic vistas or other protected scenic resources on or near the site. Therefore, the Project has a ***less than significant impact*** on scenic vistas.

Visual character of the site is addressed further in Response 3.1-3 below.

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. See Response to Impact a, above. In addition, there are no trees, rock outcroppings or historic buildings located on or near the site. The 44-mile stretch of State Route 198 between State Route 99 and Sequoia National Park is classified as eligible for State Scenic Highway status, but is not officially designated. This includes the length of SR 198 within the Planning Area of the City of Visalia. While the City has not requested official designation, it has evaluated the corridor in the Scenic Highways Element of the existing General Plan and has taken steps to preserve and enhance the corridor's scenic quality[3]. The proposed Project is located approximately two miles north of State Route 198 and would not be visible to/from State Route 198 due to intervening land uses. Thus, the Project would not impact any scenic resources associated with State Route 198. Because there are no scenic resources, trees, rock outcroppings, historic buildings or scenic highways, there is a ***less than significant impact.***

Mitigation Measures: None are required.

[3] Visalia General Plan EIR, page 3.13-2.

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? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Significant and Unavoidable. The proposed Project is located in an area of Visalia that is planned for, and is undergoing urban development. The area to the west is planned for commercial/industrial development, areas to the east are planned for residential development and to the south is existing residential development. Areas to the north primarily consist of agriculture/dairy and scattered rural residences. In addition, the site is planned for urban development under the City's General Plan. However, the site has historically been used for agricultural purposes and is currently undeveloped. Implementation of the proposed Project will alter the visual character of the Project site from historically agricultural uses to urban development. This includes residential housing (up to two stories in height) and commercial components including uses such as a Costco, retail, restaurants and other similar uses. New development would incrementally reduce views to open agricultural land now available to some residents and travelers on adjacent roadways. Visual changes caused by a project are evaluated in terms of their visual contrast with the area's predominant landscape elements and features, their dominance in views relative to other existing features, and the degree to which they could block or obscure views of aesthetically pleasing landscape elements. Although this land use conversion could be perceived by some as a negative aesthetic impact in comparison with the Project site's current pastoral appearance, based upon the subjective nature of aesthetics, the City does not anticipate that the development of the proposed Project with residential and commercial uses will create a substantially degraded visual character or quality to the Project site or to the properties near and around the Project site. 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. The proposed Project would be similar in visual appearance to existing developments found throughout the City.

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. Detailed architectural plans, color palettes and building materials as well as landscaping plans will be submitted by the Project developer to the City of Visalia Community Development Department. The plans shall be required prior to issuance of any building permits. In addition, landscaping easements will run along the trails and some roadways and additional landscaping design will accompany the park spaces and bicycle/ pedestrian use trails.

Development of the proposed Project in compliance with the policies of the City of Visalia General Plan, the City Design Guidelines and development standards referenced above in the Regulatory Setting will ensure integration of new homes and non-residential structures in an aesthetically pleasing manner within the proposed development. However, because the Project would permanently alter the existing visual character of the site and area compared to existing conditions, this is considered a ***significant, unavoidable and irreversible impact.***

Mitigation Measures: None are available.

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 Impact. Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as "light trespass." Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Spillover light is light emitted by a lighting installation that falls outside the boundaries of the property on which the installation is sited. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Because light dissipates as it travels from the source, the intensity of a light fixture is often increased at the source to compensate for the dissipated light. This can further increase the amount of light that illuminates adjacent uses. Spillover light can be minimized by using only the level of light necessary, and by using cutoff type fixtures or shielded light fixtures, or a combination of fixture types.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Currently the sources of light in the Project area are from streetlights, vehicles traveling along adjacent roadways, security lighting from Ridgeview Middle School, and lights from housing in the area. The Project would include nighttime lighting such as streetlights, residential outdoor lighting, vehicle lights, commercial facility lighting, and other similar lighting sources.

Additional night lighting sources on the Project site, especially any unshielded light, could result in spillover light that could impact surrounding properties. This would create new sources of light that could potentially have a significant impact on nighttime light levels in the area. The City's General Plan provides the following information pertaining to potential light and glare from new development in the City:

> "The construction of new buildings in the Planning Area may result in nighttime light pollution or daytime glare. However, their impacts are likely to be insignificant. As in most typical residential areas, homes emit some light and glare during the day and evening hours. Development under the proposed General Plan would include indoor lighting and outdoor lighting for safety purposes, but would generally not be out of character with the existing urban environment, and would not rise to a level of being significant. There are a number of circumstances that mitigate the potential for new or significant sources of light pollution in Visalia. The proposed General Plan policies help to ensure that lighting for new development is held to high design standards for light pollution reduction. In addition, the proposed General Plan includes policies related to buffering between urbanized and agricultural areas, further reducing the impact of light and glare associated with urbanization on neighboring rural areas."[4]

During the entitlement process, the Project will be required to comply with the City's policies pertaining to light and glare and City staff will review lighting plans to ensure that lighting plans will minimize spill-over light on neighboring properties. Thus, the Project will have a ***less than significant impact*** on light and glare.

Mitigation Measures: None are required.

[4] Visalia General Plan, Section 3.13 – Visual Resources, page 3.13-16.

Cumulative Impacts

Would the project make a cumulatively considerable contribution to a significant cumulative impact related to scenic vistas, scenic resources, or the existing visual character of the area, including the introduction of light and glare?

Cumulatively Considerable. The scope for considering cumulative impacts to aesthetics includes the viewshed of the proposed Project and the areas surrounding the Project site from which the Project could be visible to viewers in the area. As described above, the Project will result in significant aesthetic impacts with respect to the existing visual character of the project site. The landscape in northern Visalia has been changing over the years from one of generally rural residential and agricultural uses to urban uses. Construction of future projects in the area allowed under Visalia and Tulare County General Plans would be required to be in compliance with the numerous policies and programs related to the preservation and enhancements of viewsheds and the protection of scenic resources, which will help ensure that projects are consistent with the character envisioned for these areas.

Several land development proposals envisioned by the City of Visalia and Tulare County General Plans, and individual project proposals, have received their entitlements, or are seeking them in the area. The northern Visalia area and its immediate environs are, therefore, the area affected by aesthetics cumulative impacts as the area of geographical visual analysis notwithstanding their consistency with adopted plans, because the planned development would change the existing character of the area from primarily agricultural to a more suburban development pattern.

Although the urban environment that is ultimately built could be aesthetically pleasing to many, these cumulative changes will significantly modify the existing visual character and quality of the area. Based on this EIR's standards of significance, the cumulative impacts of the proposed project and related projects are ***significant and unavoidable***, and the project's development would make a cumulatively considerable contribution to this impact considering the project's size and scope.

3.2 Agricultural Resources

This section of the DEIR identifies potential impacts of the proposed Project pertaining to Agricultural Resources. A California Agricultural Land Evaluation and Site Assessment (LESA) Model was used to aid in the evaluation (See Appendix B). One NOP comment letter was received pertaining to this topic from the California Department of Conservation (DOC). The DOC letter outlined the requirements to evaluate loss of agricultural resources as well as suggestions for potential mitigation.

Environmental Setting

As described in Section 2.1, the Project site is located on approximately 507-acres in the northern area of the City of Visalia in Tulare County and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north. The site is comprised of two parcels: APN 077-100-088 and APN 077-100-105. APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia, with the zoning as R-M-3 (Multi-Family Residential). APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County, with the zoning as AE-40. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia. The Project site has historically been used for agricultural purposes but is designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses.

The Project site is located in a developing area, with dairy farm/agricultural uses to the north and west, agricultural land uses to the east and residential area to the south. Currently, Ridgeview Middle School is located adjacent to and west of Akers Street and would abut the proposed Project site. In addition, the City is currently planning a new high school that will be constructed adjacent to and west of Ridgeview Middle School and would be surrounded by the proposed Project to the north, west and south.

The Project site does not contain land under Williamson Act Contract, however, the entire Project site is designated Prime Farmland by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP)[1]. The FMMP map identifies areas to the northeast, east and west as prime agricultural land. A portion of the areas to the north and the west, which

[1] California Department of Conservation. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed March 2022.

consist of dairy farms, are categorized as Confined Animal Agriculture, while a portion of the land adjacent to and east of the Project site consists of Urban and Built-Up Land.

The majority of forest land occurs in the eastern portion of Tulare 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.

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 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 the 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. The Project site contains no lands that are subject to a Williamson Act Contract.

Local Regulations

Tulare County General Plan

The Tulare County General Plan has a number of policies that apply to projects within the County of Tulare.[2] The following General Plan policies apply to the proposed Project: Policies designed to promote future development patterns that focus growth within established community areas and to mitigate loss of agricultural lands include the following:

LU-2.5 *Agricultural Support Facilities* wherein the County shall encourage beneficial reuse of existing or vacant agricultural support facilities for new businesses (including non-agricultural uses);

PF-1.2 *Location of Urban Development* wherein the County shall ensure that urban development only takes place in the following areas:

[2] Tulare County General Plan 2030 Update, Part 1 – Goals and Policies Report.

1. Within incorporated cities and CACUDBs;

2. Within the UDBs of adjacent cities in other counties, unincorporated communities, planned community areas, and HDBs of hamlets;

3. Within foothill development corridors as determined by procedures set forth in Foothill Growth Management Plan;

4. Within areas set aside for urban use in the Mountain Framework Plan and the mountain sub-area plans; and

5. Within other areas suited for non-agricultural development, as determined by the procedures set forth in the Rural Valley Lands Plan;

PF-1.3 *Land Uses in UDBs/HDBs* wherein the County shall encourage those types of urban land uses that benefit from urban services to develop within UDBs and HDBs. Permanent uses which do not benefit from urban services shall be discouraged within these areas. This shall not apply to agricultural or agricultural support uses, including the cultivation of land or other uses accessory to the cultivation of land provided that such accessory uses are time-limited through Special Use Permit procedures;

PF-1.4 *Available Infrastructure* wherein the County shall encourage urban development to locate in existing UDBs and HDBs where infrastructure is available or may be established in conjunction with development. The County shall ensure that development does not occur unless adequate infrastructure is available, that sufficient water supplies are available or can be made available, and that there are adequate provisions for long term management and maintenance of infrastructure and identified water supplies;

PF-2.4 *Community Plans* wherein the County shall ensure that community plans are prepared, updated, and maintained for each of the communities. These plans shall include the entire area within the community's UDB and shall address the community's short and long term ability to provide necessary urban services.

City of Visalia General Plan

The City of Visalia's General Plan has a number of policies that apply to agricultural lands. Policies designed to promote future development patterns that focus growth within established community areas and to mitigate loss of agricultural lands include the following:

LU-O-11 Maintain Visalia as a separate and distinct community.

LU-O-12 Provide for an orderly and efficient transition from rural to urban land uses.

LU-O-13 Minimize urban sprawl and leap-frog development by encouraging compact, concentric and contiguous growth.

LU-P-19 Ensure that growth occurs in a compact and concentric fashion by implementing the General Plan's phased growth strategy.

The General Plan Land Use Diagram establishes three growth rings to accommodate estimated City population for the years 2020 and 2030. The Urban Development Boundary I (UDB I) shares its boundaries with the 2012 city limits. The Urban Development Boundary II (UDB II) defines the urbanizable area within which a full range of urban services will need to be extended in the first phase of anticipated growth with a target buildout population of 178,000. The Urban Growth Boundary (UGB) defines full buildout of the General Plan with a target buildout population of 210,000. Each growth ring enables the City to expand in all four quadrants, reinforcing a concentric growth pattern...

LU-P-20 Allow annexation and development of residential, commercial, and industrial land to occur within the "Tier I" Urban Development Boundary (UDB) at any time, consistent with the City's Land Use Diagram.

LU-P-21 Allow annexation and development of residential, commercial, regional retail, and industrial land to occur within the Urban Development Boundary (Tier II) and the Urban Growth Boundary (Tier III) consistent with the City's Land Use Diagram, according to the following phasing thresholds:

"Tier II": Tier II supports a target buildout population of approximately 178,000. The expansion criteria for land in Tier II is that land would only become available for development when building permits have been issued in Tier I at the following levels, starting from April 1, 2010:

Residential: after permits for 5,850 housing units have been issued; and,

Commercial: after permits for 480,000 square feet of commercial space on designated Commercial, Mixed Use, Downtown Mixed Use, Office, and Service Commercial land have been issued.

LU-P-28 Continue to use natural and man-made edges, such as major roadways and waterways within the City's Urban Growth Boundary, as urban development limit and growth phasing lines.

LU-P-34 Work with Tulare County and other state and regional agencies, neighboring cities, and private land trust entities to prevent urban development of agricultural land outside of the current growth boundaries and to promote the use of agricultural preserves, where they will promote orderly development and preservation of farming operations within Tulare County. Conduct additional investigation of the efficacy of agricultural conservation easements by engaging local, regional, and state agencies and stakeholders in order to further analyze their ongoing efforts and programs that attempt to mitigate impacts from the conversion of agricultural lands through the use of agricultural conservation easements. Support regional efforts to prevent urban development of agricultural lands, specifically at the county level. Tulare County's General Plan 2030 Update Policy contains two policies (AG-1.6 Conservation Easements and AG-1.18 Farmland Trust and Funding Sources) that discuss establishing and implementing an Agricultural Conservation Easement Program (ACEP). The City supports the implementation of these measures by the County, in which the City may then participate. Such a regional program could include a fee to assist and support agricultural uses, and would be most feasibly and strategically developed on a countywide or other regional basis. In addition to supporting regional efforts to prevent urban development of agricultural lands, the City shall create and adopt a mitigation program to address conversion of Prime Farmland and Farmland of Statewide Importance in Tiers II and III. This mitigation program shall require a 1:1 ratio of agricultural land preserved to agricultural land converted and require agricultural land preserved to be equivalent to agricultural land converted. The mitigation program shall also require that the agricultural land preserved demonstrate adequate water supply and agricultural zoning, and shall be located outside the City UDB, and within the southern San Joaquin Valley. The mitigation program shall, to the extent feasible and practicable, be integrated with the agricultural easement programs adopted by the County and nearby cities. The City's mitigation program shall allow mitigation to be provided by purchase of conservation easement or payment of fee, but shall indicate a preference for purchase of easements. The mitigation program shall require easements to be held by a qualifying entity, such as a local land trust, and require the submission of annual monitoring reports to the City. The mitigation program shall specifically

allow exemptions for conversion of agricultural lands in Tier I, or conversion of agricultural lands for agricultural processing uses, agricultural buffers, public facilities, and roadways.

LU-P-35 Adopt the County's Right-to-Farm ordinance to support continued agricultural operations at appropriate locations within the City limits, with no new provisions.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Appendix G Checklist. 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?*

Significant and Unavoidable. According to the FMMP,[3] the 507-acre proposed Project site is classified as Prime Farmland. The site is comprised of two parcels: APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia, with the zoning as R-M-3 (Multi-Family Residential). APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County, with the zoning as AE-40 (Exclusive Agriculture-40 acres minimum). However, both parcels are within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia. The Project site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses and is located in both Tier 2 and Tier 3 of the City's future growth threshold boundaries.

The City has evaluated the Project's farmland conversion impacts utilizing the California Agricultural Land Evaluation and Site Assessment Model (LESA)[4], which the California Department of Conservation developed to provide lead agencies with a methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process. (See Public Resources Code §21095.)

The LESA is composed of six different factors, which are divided into two sets: Land Evaluation (LE) and Site Assessment (SA) factors. Two LE factors (Land Capability Classification Rating and Storie Index Rating) are based upon measures of soil resources quality and intended to measure the inherent, soil-based qualities of land as they relate to agricultural suitability. Four SA factors (Project Size Rating, Water Resource Availability Rating, Surrounding Agricultural Lands Rating, and Surrounding Protected Resource Lands Rating) are intended to measure social, economic, and geographic attributes that also contribute to the overall value of agricultural land.

The two sets of factors are evenly weighted, meaning the two LE factors and four SA factors are of equal importance; however, for a given project, each of these six factors is separately rated in

[3] California Department of Conservation. Farmland Mapping and Monitoring Program. https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed December 2022.
[4] California Department of Conservation, Division of Land Resource Protection. Accessible at http://www.conservation.ca.gov/dlrp/Pages/qh_lesa.aspx. Accessed November 2022.

a 100-point scale. The factors are then weighted relative to one another and combined, resulting in a single numeric score for a given project, with a maximum attainable score of 100 points. This final project score becomes the basis for making a determination of the potential impact's level of significance for the project, based upon a range of established scoring thresholds.

Land Evaluation Factors

The LESA includes two LE factors, discussed below, that are separately rated.

The Land Capability Classification Rating (LCC): The LCC indicates the suitability of soils for most kinds of crops. Groupings are made according to the limitations of the soils when used to grow crops and the risk of damage to soils when used in agriculture. Soils are rated from Class I to Class VIII, with soils having the fewest limitations receiving the highest rating (Class I). Specific subclasses are also utilized to further characterize soils.

The Storie Index Rating: The Storie Index provides a numeric rating (based upon a zero to 100 scale) of the relative degree of suitability or value of a given soil for intensive agriculture. The rating is based upon soil characteristics only. Four factors that represent the inherent characteristics and qualities of the soil are considered in the Storie Index rating: profile characteristics, texture of the surface layer, slope, and other factors such as drainage or salinity. In some situations, only the United States Department of Agriculture's LCC information may be available. In those cases, the Storie Index ratings can be calculated from information contained in soil surveys by qualified soil scientists; however, if limitation of time and/or resources restrict the derivation of the Storie Index rating for a given project, it may be possible to adapt the Land Evaluation by relying solely upon the LCC rating.

Site Assessment Factors

The four SA factors that are separately rated and included in the LESA are discussed below.

The Project Size Rating: The Project Size rating is based upon identifying acreage figures for three separate groupings of soil classes within the project site, and then determining what grouping generates the highest Project Size score. The Project Size Rating relies upon acreage figures that were tabulated under the Land Capability Classification Rating.

The Water Resources Availability Rating: The Water Resources Availability rating is based upon identifying the various water sources that may supply a given property, and then determining whether different restrictions in supply are likely to take place in years that are characterized as being periods of drought and non-drought.

The Surrounding Agricultural Land Rating: Determination of the Surrounding Agricultural Land rating is based upon identification of a project's Zone of Influence (ZOI), which is defined as that land near a given project, both directly adjoining and within a defined distance away, that is likely to influence, and be influenced by, the agricultural land use of the subject project site. The Surrounding Agricultural Land rating is designed to provide a measurement of the level of agricultural land use for lands close to a given project. The LESA rates the potential significance of the conversion of an agricultural parcel that has a large proportion of surrounding land in agricultural production more highly than one that has relatively small percentage of surrounding land in agricultural production. The definition of the ZOI that accounts for surrounding lands (up to a minimum of 0.25 mile from the project boundary) is the result of several iterations during model development for assessing an area that will generally be a representative sample of surrounding land use.

The Surrounding Protected Resource Land Rating: The Surrounding Protected Resource Land rating is essentially an extension of the Surrounding Agricultural Land rating, and it is scored in a similar manner. Protected resource lands are those lands with long-term use restrictions that are compatible with or supportive of agricultural uses of land. Included among them are the following:

- Williamson Act contracted lands
- Publicly owned lands maintained as a park, forest, or watershed resources
- Lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such land to urban and industrial uses

Final LESA Scoring

A single LESA score is generated for a given project after all the individual LE and SA factors have been scored and weighted. The LESA is weighted so that 50 percent of the total LESA score of a given project is derived from the LE factors and 50 percent is derived from the SA factors. The final LESA score was determined for the proposed Project and the modeling results are described in Table 3.2-1.

Table 3.2-1
Land Evaluation and Site Assessment Model Scoring Summary

Category	Factor	Factor Scores	Factor Weight	Weighted Factor Points
Land Evaluation	Land Capability Classification	100	0.25	25
	Storie Index	80.66	0.25	20.17
	LE Subtotal		**0.50**	**45.17**
Site Assessment	Project Size	100	0.15	15
	Water Resource Availability	100	0.15	15
	Surrounding Agricultural Land	80	0.15	12
	Surrounding Protected Resource Lands	40	0.05	2
	SA Subtotal		**0.50**	**44**
		Final LESA Score:		**89.17**

LESA Thresholds of Significance

The LESA is designed to make determinations of the potential significance of a project's conversion of agricultural lands during the CEQA process. Scoring thresholds are based upon both the total LESA score and the component LE and SA separate subscores. In this manner, the scoring thresholds are dependent upon the attainment of a minimum score for the LE and SA subscores so that a single threshold is not the result of heavily skewed subscores (i.e., a site with a very high LE score but a very low SA score, or vice-versa). The LESA scoring thresholds are described in Table 3.2-2.

Table 3.2-2
LESA Scoring Thresholds

Total LESA Score	Scoring Decision
0 to 39 points	Not considered significant
40 to 59 points	Considered significant only if LE and SA subscores are each greater than or equal to 20 points
60 to 79 points	Considered significant unless either LE or SA subscore is less than 20 points
80 to 100 points	Considered significant

LESA Results and Impact Determination

According to the LESA Threshold of Significance, the total score of 89.17 for the proposed Project site is considered significant. As such, the Project is subject to the City's General Plan Land Use Policy LU-P-34 which requires mitigation for the loss of farmland.

The Project consists of 507 acres, of which approximately 29.3 acres are already within the City limits of Visalia (zoned R-M-3) and, being within Tier I, are not subject to the City's agricultural mitigation policy. The 29.3 acres of prime farmland was previously evaluated under the City's General Plan EIR, adopted in October 2014 (State Clearinghouse #2010041078). The remaining 478 acres are within an unincorporated area of Tulare County, are currently zoned AE-40 (Exclusive Agriculture-40 acres minimum), are within Tiers II and III, and are proposed for annexation into the City. As such, the 478 acres proposed for annexation are subject to the City's agricultural mitigation policy (See MM AG – 1).

The General Plan identifies the need for the conversion of agricultural land to urban development. The City has set aside three-tiered areas planned for development which contain land designated as Prime Farmland and Farmland of Statewide Importance. The Project is within Tier 2 and Tier 3, which has been deemed as land to be converted from agricultural land to urban development.

The 2014 General Plan Policy LU-P-34 contained a requirement for an Agricultural Mitigation Program to address the conversion of Prime Farmland and Farmland of Statewide Importance within the Tier 2 and Tier 3 growth boundaries. Policy LU-P-34 requires the adoption of this type of program notwithstanding that such a program would not reduce the environmental effects from the loss of such farmland to a level of less than significant. In order to meet the requirements of this policy, the City is preparing an Agricultural Preservation Ordinance applicable to properties within Tier 2 and Tier 3 that requires a 1:1 ratio of agricultural land preserved to agricultural land converted towards urban development. The Ordinance is anticipated to be adopted in mid-2023 and must be adopted for other pending entitlements submitted to the City of Visalia that are located within Tier 2 to be developed. The Ordinance will require that an equivalent amount of agricultural land converted be preserved outside the urban development boundary and within the southern San Joaquin Valley, or that a project comply with regulations within the Ordinance that will cause an equivalent amount of agriculture land to be preserved. Additionally, the preserved agricultural land must demonstrate adequate water supply and agricultural zoning. Policy LU-P-34 notes that such a program shall, to the extent feasible and practicable, be integrated with the agricultural easement programs adopted by Tulare County and nearby cities. The City of Visalia's program shall allow for compliance with the preservation ordinance to be completed by purchase of easements, and that such easements be held by a

qualifying entity, such as a local land trust, and require the submission of annual monitoring reports to the City. Prior to the adoption of the Ordinance the Project proponent could mitigate for the loss of agricultural land and begin conversion of agricultural lands by providing verification to the City that it has preserved agricultural land at a 1:1 ratio using easements that meet the requirements identified in Policy LU-P-34 or participation in an agricultural preservation program adopted by another agency within the southern San Joaquin Valley that meet the these requirements for preserving agricultural land.

As this is a requirement for consistency with the General Plan, the Project's compliance is mandatory. Therefore, compliance with General Plan Policy LU-P-34 will allow the Project to convert Prime Farmland and Farmland of Statewide Importance and preserve offsite farmland outside of the urban development boundaries at an equivalent ratio.

Although the Project will comply with the City's agricultural mitigation policy based on City General Plan Policy LU-P-34 (Mitigation Measure AG – 1), conversion of agricultural land to urban use is not directly mitigable, aside from preventing development altogether. There is no additional feasible mitigation measure that would reduce the impacts related to the Prime Farmland converted as a result of development of the proposed Project. Therefore, even with mitigation, impacts as a result of farmland conversion are considered ***Significant and Unavoidable.***

Mitigation Measures

AG - 1: Prior to the issuance of grading or building permits, the Project proponent shall mitigate impacts for loss of up to 478 acres of Prime Farmland and Farmland of Statewide Importanceon the Project site at a 1:1 ratio. The amount of land requiring mitigation shall correspond to the amount of land associated with the issuance of the grading or building permit, or for residential land associated with a subdivision map, the amount of land associated with the subdivision map. The Project proponent shall implement one or more of the following measures to mitigate the loss: Payment of in-lieu fees, mitigation banks, fee title acquisition, and/or conservation easements on land(s) within the Southern San Joaquin Valley of California, specifically within Kern County, Tulare County, Kings County, Fresno County, or Madera County. The City shall require, at a minimum: evidence that the preserved land has adequate water supply, agricultural zoning, evidence of land encumbrance documentation, documentation that the easement/regulations are permanent and monitored, and documentation that the mitigation strategy is appropriately endowed. This mitigation shall be verified by

the City prior to issuance of grading or building permits. Should the City of Visalia develop an Agricultural Mitigation Program, the Project proponent, at its election, may mitigate for the loss of agricultural land through compliance with the Program that is adopted by the City in lieu of mitigating on a 1:1 ratio as described above.

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

Less Than Significant With Mitigation.

Williamson Act Contract

As previously noted, the Project site is not subject to a Williamson Act contract, pursuant to Government Code Section 51200 et seq. Therefore, there would be no conflict with a Williamson Act Contract and as such, ***no impacts*** to this subject area.

Agricultural Zoning

Total Project acreage is 507 acres, of which approximately 29.3 acres are already within the City limits of Visalia (zoned R-M-3) and no land use changes are proposed for the 29.3 acres. The remaining 478 acres are within an unincorporated area of Tulare County, with the zoning as AE-40 (Exclusive Agriculture-40 acres minimum) and are proposed for annexation into the City. Onced annexed, the zoning designations for 478 acres will be changed from agriculture to urban uses as described in Section 2.2 – Project Description. The new zoning would accommodate the proposed Project and as such, there would be no impact resulting from a zoning conflict. However, in order to ensure that existing agricultural operations in the area can be maintained, a Right-to-Farm Covenant will be required as identified in Mitigation Measure AG – 2. After mitigation, the impact is determined to be ***less than significant.***

Mitigation Measures

AG – 2 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 residential 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.

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 in the central/eastern portion of the Central Valley floor, 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. The proposed Project site is located in an area that is surrounded by farmland / agricultural operations to the north, a proposed/future industrial complex to the west, existing residential to the south, and residential/agricultural land to the east. Total Project acreage is 507 acres, of which approximately 29.3 acres are already within the City limits of Visalia (zoned R-M-3) and no land use changes are proposed for the 29.3 acres. The remaining 478 acres are within an unincorporated area of Tulare County, with the zoning as AE-40 (Exclusive Agriculture-40 acres minimum) and are proposed for annexation into the City. Onced annexed, the zoning designations for the 478 acres will be changed from agriculture to urban uses as described in Section 2.2 – Project Description.

The existing City's Urban Growth Boundary (UGB) runs along the northern border of the proposed Project site along Avenue 320. The UBG represents the limits of available development for the City of Visalia in the Project area unless the UGB is amended in the future by the City and County. Therefore, development to the north is unlikely. There are existing and proposed urban developments to the south, east and west of the Project site, thus there is no possibility to induce further conversion of agricultural lands in these areas.

According to the LESA prepared for the Project, the site is substantially surrounded by Prime Farmland to the north (existing agriculture), east (already planned for future urban development) and west (already planned for future urban development). However, the requested General Plan Amendment and annexation is site specific and does not apply to any properties other than the proposed Project site. Therefore, it is unlikely that the Project would result in the conversion of other farmland or forest land. In addition, Mitigation Measure AG – 2 (identified in Impact 3.2-3) will ensure that agricultural operations can be maintained on adjacent sites. The Mitigation Measure includes a Right-to-Farm Covenant, which will further reduce the likelihood of additional conversion of farmland. Therefore, the impact is ***less than significant after mitigation.***

Mitigation Measures

Implementation of Mitigation Measure AG – 2.

Cumulative Impacts

Significant, Unavoidable and Cumulatively Considerable. 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 includes the significant impact related to the conversion of protected farmland to urban uses. The Project will be required to mitigate the loss of farmland as identified in Mitigation Measure AG – 1. However, even with mitigation, the Project would have a ***significant and unavoidable and cumulatively considerable impact*** on agricultural resources.

3.3 Air Quality

This section of the DEIR evaluates the potential air quality impacts associated with the implementation of the proposed Project. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows the Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) prepared by the San Joaquin Valley Air Pollution Control District (District or SJVAPCD) for quantification of emissions and evaluation of potential impacts to air resources. The information and analysis presented in this Section are based on the Air Quality and Greenhouse Gas/Energy Analysis Report (AQGGEA) prepared for this Project by Johnson, Johnson & Miller Air Quality Consulting. The full AQGGEA can be reviewed in Appendix C. During the NOP comment period, the City received a letter from the SJVAPCD that identified the District's applicable guidelines and requirements associated with air emissions from construction and operation of the Project (See Appendix A).

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 PM_{10}.

Existing Air Quality Conditions

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the Project area. Table 3.3-1 summarizes 2018 through 2020 published monitoring data, which is the most recent three-year period available. The table displays data from the Visalia-N. Church Street (located approximately 3.69 miles southeast of the Project site.) The data shows that during the past few years, the Project area has exceeded the standards for ozone (state and national), PM_{10} (state and national), and $PM_{2.5}$ (state and national). The data in the table reflects the concentration of the pollutants in the air measured using air monitoring equipment. This differs from emissions, which are calculations of a pollutant being emitted over a certain period. No recent monitoring data for Tulare County or the San Joaquin Valley Air Basin was available for CO or SO_2. Generally,

[1] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. Revised March 19, 2015. Website: https://www.valleyair.org/transportation/GAMAQI.pdf. Accessed August 1, 2022 and April 5, 2023.

no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

Table 3.3-1
Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2018	2019	2020
Ozone[1]	1 Hour	Max 1 Hour (ppm)	**0.112**	**0.093**	**0.127**
		Days > State Standard (0.09 ppm)	**8**	0	**7**
Ozone[1]	8 Hour	Max 8 Hour (ppm)	**0.095**	**0.082**	**0.103**
		Days > State Standard (0.07 ppm)	**58**	26	**37**
		Days > National Standard (0.070 ppm)	**36**	**22**	**53**
Carbon monoxide (CO)	8 Hour	Max 8 Hour (ppm)	ND	ND	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND
Nitrogen dioxide (NO_2)[1]	Annual	Annual Average (ppm)	0.010	0.009	0.009
	1 Hour	Max 1 Hour (ppm)	0.069	0.070	0.053
		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})[1]	Annual	Annual Average (µg/m^3)	**52.0**	**46.3**	**60.5**
	24 hour	24 Hour (µg/m^3)	**159.6**	**418.5**	**305.7**
		Days > State Standard (50 µg/m^3)	**164.4**	**115.8**	**157.0**
		Days > National Standard (150 µg/m^3)	0.0	**5.0**	**20.2**
Fine particulate matter ($PM_{2.5}$)[1]	Annual	Annual Average (µg/m^3)	**17.4**	**12.3**	**19.6**
	24 Hour	24 Hour (µg/m^3)	**96.2**	**47.2**	**127.1**
		Days > National Standard (35 µg/m^3)	**42.3**	**19.9**	**51.2**

Notes:
> = exceed ppm = parts per million µg/m^3 = micrograms per cubic meter
ID = insufficient data ND = no data max = maximum
Bold = exceedance
State Standard = California Ambient Air Quality Standard
National Standard = National Ambient Air Quality Standard
[1] Visalia–N. Church Street Monitoring Station
Source: California Air Resources Board (ARB). 2021a. iADAM: Air Quality Data Statistics. Website: https://www.arb.ca.gov/adam/. Accessed September 27, 2021.

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 U.S. Environmental Protection Agency (EPA) developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air.

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

Table 3.3-2
Air Quality Index and Health Effects from Ozone[2]

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI—51–100—Moderate Concentration 55–70 ppb	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Unusually sensitive individuals may experience respiratory symptoms.
	Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.
AQI—101–150—Unhealthy for Sensitive Groups Concentration 71–85 ppb	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	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 Concentration 86–105 ppb	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	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 Concentration 106–200 ppb	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	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

[2] Air Now. 2021. AQI Calculator: AQI to Concentration. Website: https://www.airnow.gov/aqi/aqi-calculator-concentration/. Accessed August 1, 2022.

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
	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 zero days in the last three years that would be categorized as very unhealthy (AQI 201–300), and as many as 137 days that were either unhealthy (AQI 151–200) or unhealthy for sensitive groups (AQI 101–150), violating the 70-ppb standard as measured at the Visalia–N. Church Street monitoring station. The highest reading was 103 parts per billion (ppb) in 2020, compared with the 105-ppb cutoff point for unhealthy. The most days over the standard was 58 days in 2018.

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 $\mu g/m^3$. An AQI of 101 to 150 or 35.5 to 55.4 $\mu g/m^3$ is considered unhealthful for sensitive groups. When concentrations reach this amount, it is considered an exceedance of the federal $PM_{2.5}$ standard. The monitoring station nearest the Project exceeded the standard on approximately 113.4 days in the three-year period spanning from 2018 to 2020. The highest number of exceedances was recorded in 2020 with 51.2 days over the standard. 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 $\mu g/m^3$. 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 Visalia–N. Church Street monitoring station in the last three years was 127.1 $\mu g/m^3$ (AQI 192) in 2020. 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 provided in Table 3.3-3.

Table 3.3-3
Air Quality Index and Health Effects of Particulate Pollution[3]

Air Quality Index/ $PM_{2.5}$ Concentration	Health Effects Description
AQI—51–100—Moderate Concentration 12.1–35.4 µg/m^3	**Sensitive Groups**: Some people who may be unusually sensitive to particle.
	Health Effects Statements: Unusually sensitive people should consider reducing prolonged or heavy exertion.
	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.
AQI—101–150—Unhealthy for Sensitive Groups Concentration 35.5–55.4 µg/m^3	**Sensitive Groups**: Sensitive groups include people with heart or lung disease, older adults, children, and teenagers.
	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.
	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.
AQI—151–200—Unhealthy Concentration 86–105 µg/m^3	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	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,

[3] Ibid.

Air Quality Index/ $PM_{2.5}$ Concentration	Health Effects Description
	especially children, should limit prolonged outdoor exertion.
AQI—201–300—Very Unhealthy Concentration 106–200 µg/m^3	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
	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.

Attainment Status

The EPA and the California Air Resources Board (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, PM_{10}, and $PM_{2.5}$.

Table 3.3-4
San Joaquin Valley Air Basin Attainment Status

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

Source of State status: California Air Resources Board (ARB). 2013c. Area Designation Maps/State and National. 2012 State Area Designations. Page last reviewed October 18, 2017. Website: https://ww2.arb.ca.gov /resources/documents/maps-state-and-federal-area-designations. Accessed April 3, 2021.
Source of National status: U.S. Environmental Protection Agency (EPA). 2021a. Green Book Nonattainment Areas for Criteria Pollutants as of September 30, 2021. Website: https://www.epa.gov/green-book. Accessed October 7, 2021 and April 5, 2023.
Source of additional status information: San Joaquin Valley Air Pollution Control District (SJVAPCD). 2017a. Ambient Air Quality Standards & Valley Attainment Status. Website: https://www.valleyair.org/aqinfo/attainment.htm. Accessed August 1, 2022 and April 5, 2023.

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

prevent environmental and property damage are called secondary standards.[4] 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 (NO_2)
- Lead
- Particulate matter (PM_{10} 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.[5]

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 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. The federal and state ambient air quality standards, relevant effects, properties, and sources of the pollutants are summarized in Table 2 of Appendix C. Additional discussion related to air pollutants and health effects is provided on pages 25 through 27 of the Air Quality and Greenhouse Gas/Energy Analysis Report included as Appendix C. The discussion of Toxic Air Contaminants is provided on page 19 of Appendix C.

[4] U.S. Environmental Protection Agency (EPA). 2014. Clean Air Act Requirements and History. Website: https://www.epa.gov/clean-air-act-overview/clean-air-act-requirements-and-history. Accessed September 26, 2021.

[5] California Air Resources Board (ARB). 2016. https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. May 4. Website: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed October 7, 2021 and April 5, 2023.

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 District at the air basin level.

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 (SIP) 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 SIP 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 SIP 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 SIP 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. The EPA considers public input before taking final action on a state's plan. If the 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 the EPA disapproves a plan, the EPA is required to develop a federal implementation plan (FIP). The SIP approval process often takes several years.

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 PM2.5 National Ambient Air Quality Standard (NAAQS) of 35 $\mu g/m^3$. 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. EPA designated the San Joaquin Valley as Extreme nonattainment for this standard in August 2018, with an attainment deadline of 2037. The SJVAPCD is mandated under federal Clean Air Act requirements to develop a new attainment plan for the revised ozone standard by 2022.[6]

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.[7]

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.[8]

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[6] Ibid. Page 32.

[7] Ibid.

[8] Ibid. Page 32.

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.

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.[9]

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.[10]

[9] Ibid, Page 33.

[10] Ibid, Page 34.

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 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.[11]

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. 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

[11] Ibid. Page 34.

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 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.

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.[12]

San Joaquin Valley Air Pollution Control District Regulations

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

[12] Ibid, Page 35.

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 District 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 District 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.[13]

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 District'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 District also requested a reclassification to extreme nonattainment. ARB approved the plan in June 2007, and the EPA approved the request for reclassification to extreme nonattainment on April 15, 2010.

The 2007 Ozone Plan contains measures to reduce ozone and particulate matter precursor emissions to bring the Basin into attainment with the federal 8-hour ozone standard. The 2007 Ozone Plan calls for a 75 percent reduction of NO_x and a 25 percent reduction of reactive organic gases (ROG). Figure 1 of the Air Quality and Greenhouse Gas/Energy Analysis Report included in

[13] Ibid, Page 35.

Appendix C displays the anticipated NO_X reductions attributed in the 2007 Ozone Plan (Source: 2007 Ozone Plan). The plan, with innovative measures and a "dual path" strategy, assures expeditious attainment of the federal 8-hour ozone standard for all Air Basin residents. The District Governing Board adopted the 2007 Ozone Plan on April 30, 2007. The ARB approved the plan on June 14, 2007. The 2007 Ozone Plan requires yet to be determined "Advanced Technology" to achieve additional reductions after 2021, in order to attain the standard at all monitoring stations in the Air Basin by 2024 as allowed for areas designated extreme nonattainment by the federal Clean Air Act.

The Air Basin is designated as an extreme ozone nonattainment area for the EPA's 2008 8-hour ozone standard of 75 ppb. The District'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.[14] 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 District to prepare a new attainment to achieve the more stringent emission level within 20 years from the effective date of designation.[15]

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 PM_{10}. The Air Basin is also designated nonattainment of state and federal standards for $PM_{2.5}$.

[14] Ibid, Page 36.

[15] Ibid.

To meet Clean Air Act requirements for the PM_{10} standard, the District adopted a PM_{10} Attainment Demonstration Plan (Amended 2003 PM_{10} Plan and 2006 PM_{10} Plan), which has an attainment date of 2010. The District adopted the 2007 PM_{10} Maintenance Plan in September 2007 to assure the San Joaquin Valley's continued attainment of the EPA's PM_{10} standard. The EPA designated the valley as an attainment/maintenance area for PM_{10} on September 25, 2008. Although the San Joaquin Valley has exceeded the standard since then, those days were 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 SO_2 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 District'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 District 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 District 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 $\mu g/m^3$. The ARB approved the District's 2012 $PM_{2.5}$ Plan for the 2006 standard at a public hearing on January 24, 2013.[16] This plan seeks to bring the Valley into attainment with the standard by 2019.

The 2015 Plan for the 1997 $PM_{2.5}$ Standard approved by the District 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.[17]

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

[16] Ibid, Page 37.
[17] Ibid, Page 38.

of the Valley from Moderate nonattainment to Serious nonattainment. The 2016 $PM_{2.5}$ Plan is under ARB review.[18]

The District 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 $\mu g/m^3$ and 24-hour $PM_{2.5}$ standard of 65 $\mu g/m^3$; the 2006 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$; and the 2012 annual $PM_{2.5}$ standard of 12 $\mu g/m^3$. This plan demonstrates attainment of the federal $PM_{2.5}$ standards as expeditiously as practicable. 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 $\mu g/m^3$. 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 were planned to continue in 2020; however, federal review of portions of the plan that pertain to the other $PM_{2.5}$ is currently ongoing (SJVAPCD 2020; SJVAPCD 2022).[19]

District Rules and Regulations

The District rules and regulations that may apply to the Project include, but are not limited to the following:

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.

[18] Ibid.

[19] Ibid.

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 District amended Rule 4902 to strengthen the rule by lowering the limit to 10 nanograms per joule (ng/J) for new or replacement water 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 PM_{10} Prohibitions. Rules 8011–8081 are designed to reduce PM_{10} 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 PM_{10} 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 District-administered projects, or a combination of the two. The Project is subject to Rule 9510.

Local Regulations

City of Visalia Air Quality Goals and Policies

The Visalia General Plan was adopted on October 14, 2014 (City of Visalia 2014). The General Plan lists the following policies that are supportive of improved air quality. Policies that are directly related to the Project are listed below:

- **AQ-P-2.** Require use of Best Management Practices (BMPs) to reduce particulate emission as a condition of approval for all subdivisions, development plans and grading permits, in conformance with the San Joaquin Valley Air Pollution Control District Fugitive Dust Rule.
- **AQ-P-3.** Support implementation of the San Joaquin Valley Air Pollution Control District's regulations on the use of wood-burning fireplaces, as well as their regulations for the installation of EPA-certified wood heaters or approved wood-burning appliances in new residential development and a "No Burn" policy on days when the air quality is poor.

- **AQ-P-7.** Be an active partner with the Air District in its "Spare the Air" program. Encourage businesses and residents to avoid pollution-producing activities such as the use of fireplaces and wood stoves, charcoal lighter fluid, pesticides, aerosol products, oil-based paints, and automobiles and other gasoline engines on days when high ozone levels are expected and promote low-emission vehicles and alternatives to driving.

- **AQ-P-8**. Update the Zoning Ordinance to strictly limit the development of drive-through facilities, only allowing them in auto-oriented areas and prohibiting them in Downtown and East Downtown.

- **AQ-P-9.** Continue to mitigate short-term construction impacts and long-term stationary source impacts on air quality on a case-by-case basis and continue to assess air quality impacts through environmental review. Require developers to implement Best Management Practices (BMPs) to reduce air pollutant emissions associated with the construction and operation of development projects.

- **AQ-P-11.** Continue to work in conjunction with the San Joaquin Valley Air Pollution Control District and others to put in place additional Transportation Control Measures that will reduce vehicle travel and improve air quality and to implement Air Quality Plans.

City of Visalia General Plan Environmental Impact Report (EIR)

The General Plan lists General Plan Policies to reduce air quality associated with buildout of the General Plan, as analyzed in the General Plan EIR. The following policies from the *Air Quality & Greenhouse Gases Element* were identified in the EIR to help reduce VMT in the City. AQ-P-8, AQ-P-11, and the following:

- **AQ-P-13.** Where feasible, replace City vehicles with those that employ low-emission technology.

The following policies from the *Land Use Elemen*t support sustainable growth, including infill and mixed-used development, which the General Plan EIR states will help reduce VMT in the City: LU-P-44, LU-P-45, LU-P-46, LU-P-52, LUT-P-55, LUT-P-56, LUT-P-57, LU-P-72, LU-P-74, LUT-P-78, LUT-P-80, LUT-P-83, LUT-P-85, LUT-P-100, and LU-P-108.

The following policies from the *Land Use Element* support pedestrian-oriented design, which the General Plan EIR states will help reduce VMT in the City: LU-P-74, LU-P-62, LU-P-63, LU-P-66, LU-P-91, and LU-P-93.

The following policy from the *Parks, Schools, Community Facilities, and Utilities Element* supports biking and walking, which the General Plan EIR states will help reduce VMT in the City: PSCU-P-11.

The following policies from the *Circulation Element* promote transit and non-motorized transportation (e.g., bicycling), which the General Plan EIR states will help reduce VMT in the City: T-P-1, T-P-29, T-P-30, T-P-31, T-P-32, T-P-33, T-P-34, T-P-35, T-P-36, T-P-37, T-P-38, T-P-44, T-P-45, T-P-46, T-P-47, TP-48, T-P-49, T-P-50, T-P-51, T-P-52, T-P-53, and T-P-54.

The following policies from the *Air Quality & Greenhouse Gases Element* help directly reduce area and mobile sources in the Planning Area: AQ-P-2, AQ-P-3, AQ-P-7, AQ-P-8, AQ-P-9, AQ-P-11, and the measures listed below.

- **AQ-P-4.** Support the San Joaquin Valley Air Pollution Control District's "change-out" program, which provides incentives to help homeowners replace old word-burning fireplaces with EPA-certified non woodburning appliances.

  Smoke released from fireplaces and wood stoves contains carbon monoxide, nitrogen dioxide, volatile organic compounds, and inhalable particulate matter (PM_{10}). The change-out programs have been successful in areas of the State where emissions from woodburning fireplaces cause significant air pollution. Many grant programs offer cash rebates to encourage replacement of old wood-burning appliances with more efficient ones.

- **AQ-P-12.** Support the implementation of Voluntary Emissions Reduction Agreements (VERA) with the San Joaquin Valley Air Pollution Control District (the District) for individual development projects that may exceed District significance thresholds.

  A VERA is a voluntary mitigation measure where a project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emissions reduction projects, with the District serving a role of administrator of emissions reduction programs and verifier of successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project-specific emissions by providing funds for the District's Strategies and Incentives Program. The funds are disbursed in the form of grants for projects that achieve emission reductions.

- **AQ-P-13.** Where feasible, replace City vehicles with those that employ low-emission technology.

The following policies from the *Land Use Element* and *Parks, Schools, Community Facilities, and Utilities Element* support energy conservation, which will help reduce building energy consumption and associated area source emissions: LU-P-38 and PSCU-P-14.

The policies described above from the *Land Use Element, Parks, Schools, Community Facilities, and Utilities Element, and Circulation Element* that would reduce VMT would also reduce associated mobile source emissions.

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. 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 District 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 District thresholds and methodologies are contained under each impact statement below.

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(s). The GAMAQI indicates that projects that do not exceed SJVAPCD regional criteria pollutant emissions quantitative thresholds would not conflict with or obstruct applicable air quality plans (AQPs). 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 employs 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 is addressed by comparing the Project's emissions to the thresholds of significance for criteria pollutants.
2. Will the Project comply with applicable control measures in the AQPs? The primary control measures applicable to development projects include Regulation VIII—Fugitive PM_{10} Prohibitions and Rule 9510 Indirect Source Review.

Contribution to Air Quality Violations

A measure for determining if a project is consistent with the air quality plans is whether the project would 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 incremental contribution. Because of the region's nonattainment status for ozone, $PM_{2.5}$, and $PM_{10,}$ if project-generated emissions of either of the ozone precursor pollutants (ROG and NO_X), PM_{10}, 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 3.3-2 below, emissions of ROG, NO_X, CO, and PM_{10} associated with the operation of the Project would exceed the SJVAPCD's regional significance thresholds. Although

the Project would exceed the criteria pollutant thresholds for several pollutants, the Visalia General Plan EIR had already considered air quality to be a significant and unavoidable impact. In addition, the proposed Specific Plan would provide residential uses that will be designed to satisfy existing and future demand for quality housing in the area and would provide conveniently located commercial development to serve north Visalia residents and the Carleton Acres development in a growing area of the City of Visalia. Several goals and policies contained in the City of Visalia's General Plan promote walkable mixed-use development. As a mixed-use project located in a developing area of a built-up city, the proposed Specific Plan would create a considerable amount of internal capture among its components to reduce VMT compared to the same level of development built with land uses geographically separated from each other. Nonetheless, the impact would remain significant and unavoidable under this criterion.[20]

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 the Project is provided below.

SJVAPCD Rule 9510—Indirect Source Review (ISR) is a control measure in the 2006 PM_{10} Plan that requires NO_X and PM_{10} emission reductions from development projects in the San Joaquin Valley. The NO_X emission reductions help reduce the secondary formation of PM_{10} in the atmosphere (primarily ammonium nitrate and ammonium sulfate) and also reduce the formation of ozone. Reductions in directly emitted PM_{10} 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 PM_{10} **Prohibitions** is a control measure that is one main strategies from the 2006 PM_{10} for reducing the PM_{10} 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

[20] Air Quality and Greenhouse Gas/Energy Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson, Johnson & Miller Air Quality Consulting. See Appendix C, page 88.

Project, or individual developments contemplated under the proposed Specific Plan, will be required to prepare DCPs 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 under this criterion.[21]

Conclusion

In conclusion, the Project's emissions are significant for ROG, NO_X, CO, and PM_{10} 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 the proposed Carleton Acres Specific Plan is included in the City of Visalia's General Plan (refer to Section 3.14 – Population & Housing, specifically Impact 3.14-1 for more information regarding Project inclusion within the growth assumptions of the City's General Plan) ; therefore, it is consistent with the land use assumptions used to prepare the AQP. The Carleton Acres Specific Plan includes numerous design features to reduce motor vehicle trips and increase walking, bicycling, and transit use. In addition, development contemplated under the Specific Plan would be subject to SJVAPCD 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, total emissions will still exceed the SJVAPCD quantitative thresholds of significance for several pollutants. Incorporation of mitigation that would reduce the proposed Project's regional criteria and ozone precursor emissions is identified under Impact 3.3-2. Because the combined emissions from operations of development under the proposed Specific Plan would continue to exceed at least one regional threshold after compliance with SJVAPCD Rule 9510 and incorporation of mitigation, the impact would be significant.

[21] Air Quality and Greenhouse Gas/Energy Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson, Johnson & Miller Air Quality Consulting. See Appendix C, page 89.

Implementation of Mitigation Measure AIR-2A and AIR-2B will reduce impacts; however, even after mitigation, impacts remain ***significant and unavoidable.***

Mitigation Measures

Implementation of Mitigation Measures AIR-2A and AIR-2B.

Impact 3.3-2: *Would the project 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?*

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

- Regional analysis: emissions of nonattainment pollutants must be below the District's regional significance thresholds. This is an approach recommended by the District in its GAMAQI.

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 construction and operation of the Project are ROG, NO_X, PM_{10}, and $PM_{2.5}$. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NO_X, ROG, SO_X, PM_{10}, 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 PM_{10}, and $PM_{2.5}$; therefore, substantial emissions generated by the Project 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 PM_{10}
- 15 tons per year $PM_{2.5}$

The Project does not contain sources that would produce substantial quantities of SO_2 emissions during construction and operation. Modeling conducted for the Project show that SO_2 emissions are well below the SJVAPCD GAMAQI thresholds, as shown in the modeling results contained in Appendix C. No further analysis of SO_2 is required.

Construction Emissions

Construction emissions were modeled using the CalEEMod version 2020.4.0. The results of the modeling are presented in Table 3.3-5 and Table 3.3-6. For large plan areas, individual residential tracts and commercial projects are constructed gradually with the various construction activities happening throughout the buildout period. The specific timing of individual development projects contemplated under the proposed Specific Plan is unknown and are dependent on market demand and other factors; therefore, the annual average construction emissions were calculated for comparison to the annual threshold of significance (see Table 3.3-5). In addition, the maximum annual emissions are presented and compared to the applicable thresholds in Table 3.3-6.

The emissions reflect compliance with SJVAPCD regulations that apply to construction activities. As shown in Table 3.3-5, the annual average emissions are below the SJVAPCD significance thresholds. The maximum annual emissions exceed the applicable threshold for regional emissions of NO_X.

Table 3.3-5
Construction Air Pollutant Emissions (Unmitigated)[22]

Construction Activity	Emissions (tons per year)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 Tier 1 Multifamily Residential	2.11	5.18	6.83	1.07	0.46
Phase 1 Tier 2 Multifamily Residential	1.10	2.76	3.72	0.48	0.22
Phase 1 Single-family Residential	6.38	30.92	36.39	4.18	2.16
Phase 1 Commercial	1.44	5.75	7.46	1.54	0.57
Phase 2 Multifamily Residential	6.96	22.22	35.20	10.20	3.17
Phase 2 Single-family Residential	11.90	42.83	63.17	11.17	3.97
Phase 2 Commercial	0.32	2.07	2.61	0.30	0.15
Phase 2 Basin	0.07	0.64	0.64	0.14	0.07
Average Annual Construction Emissions (15 Years)[1]	***2.02***	***7.49***	***10.40***	***1.94***	***0.72***
Significance threshold (tons/year)	**10**	**10**	**100**	**15**	**15**
Exceed threshold—significant impact?	**No**	**No**	**No**	**No**	**No**

Notes:
1 Average annual construction emissions were calculated by summing emissions for all construction activities and then dividing by the anticipated construction duration of 15 years.
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; therefore, totals may not appear to sum exactly due to rounding.
Source: CalEEMod output (Appendix A of Appendix C).

Table 3.3-6
Construction Air Pollutant Emissions Summary –
Maximum Annual Emissions by Development Year (Unmitigated)

Construction Year	Maximum Annual Emissions (tons per year)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Total Annual Emissions (2022)	0.22	2.29	1.53	0.60	0.33
Total Annual Emissions (2023)	1.56	13.14	14.96	2.07	1.04
Total Annual Emissions (2024)	2.45	8.84	10.74	1.45	0.66
Total Annual Emissions (2025)	1.20	9.57	12.66	1.56	0.68
Total Annual Emissions (2026)	2.31	13.10	15.66	2.62	1.22
Total Annual Emissions (2027)	5.15	15.67	20.28	4.02	1.58
Total Annual Emissions (2028)	1.96	11.62	15.07	3.34	1.20

[22] Air Quality and Greenhouse Gas/Energy Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson, Johnson & Miller Air Quality Consulting. See Appendix C, page 91.

Total Annual Emissions (2029)	1.16	8.46	11.61	2.92	0.93
Total Annual Emissions (2030)	1.02	5.93	10.66	2.33	0.69
Total Annual Emissions (2031)	0.98	5.90	10.47	2.33	0.69
Total Annual Emissions (2032)	0.96	5.89	10.36	2.34	0.69
Total Annual Emissions (2033)	3.83	3.96	7.28	1.19	0.37
Total Annual Emissions (2034)	0.60	3.00	5.24	0.80	0.25
Total Annual Emissions (2035)	0.91	2.83	5.25	0.80	0.24
Total Annual Emissions (2036)	5.20	2.14	4.19	0.69	0.20
Total Annual Emissions (2037)	0.79	0.02	0.07	0.02	0.01
Maximum Annual Emissions	**5.20**	**15.67**	**20.28**	**4.02**	**1.58**
Significance threshold (tons/year)	**10**	**10**	**100**	**15**	**15**
Exceed threshold—significant impact?	**No**	**Yes**	**No**	**No**	**No**

Notes:
PM_{10} and $PM_{2.5}$ emissions reflect compliance with Regulation VIII—Fugitive PM_{10} Prohibitions.
ROG = reactive organic gasesNO_X = nitrogen oxides PM_{10} and $PM_{2.5}$ = particulate matter
Calculations use unrounded numbers; therefore, totals may not appear to sum exactly due to rounding.
Source: CalEEMod output (Appendix A of Appendix C).

As shown in Table 3.3-5, annual average emissions are below the applicable SJVAPCD significance thresholds; however, construction of the Project exceeds the regional threshold for NO_X under the unmitigated scenario presented in Table 3.3-6. Therefore, the regional construction emissions have potentially significant impact on a project basis and mitigation is required.

Mitigation Measure AIR-2A requires the Project applicant, Project sponsor, or construction contractor for individual development projects under the Specific Plan to provide documentation to the City of Visalia that the construction fleet meets the following requirement: all off-road diesel-powered construction equipment greater than 75 horsepower meet EPA or ARB Tier 4 Final off-road emissions standards. Table 3.3-7 provides the emission estimates with incorporation of Mitigation Measure AIR-2A.

Table 3.3-7
Construction Air Pollutant Emissions Summary – Maximum Annual Emissions by Development Year (Mitigated)

Construction Activity	Maximum Annual Emissions (tons per year)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Total Annual Emissions (2022)	0.05	0.63	1.77	0.50	0.24
Total Annual Emissions (2023)	0.69	3.77	16.55	1.56	0.57
Total Annual Emissions (2024)	1.89	3.16	11.79	1.13	0.37
Total Annual Emissions (2025)	0.70	5.51	13.89	1.28	0.42
Total Annual Emissions (2026)	1.57	7.45	17.72	2.20	0.83
Total Annual Emissions (2027)	4.26	6.80	22.55	3.54	1.15
Total Annual Emissions (2028)	1.36	5.54	16.65	3.03	0.91
Total Annual Emissions (2029)	0.81	5.13	12.42	2.73	0.74
Total Annual Emissions (2030)	0.73	4.94	11.23	2.30	0.65
Total Annual Emissions (2031)	0.69	4.91	11.05	2.30	0.65
Total Annual Emissions (2032)	0.66	4.90	10.94	2.31	0.65
Total Annual Emissions (2033)	3.55	2.87	7.74	1.15	0.33
Total Annual Emissions (2034)	0.40	1.69	5.57	0.78	0.23
Total Annual Emissions (2035)	0.72	1.68	5.59	0.79	0.23
Total Annual Emissions (2036)	5.05	1.23	4.45	0.68	0.19
Total Annual Emissions (2037)	0.78	0.00	0.07	0.02	0.01
Maximum Annual Emissions	**5.05**	**7.45**	**22.55**	**3.54**	**1.15**
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 gasesNO_X = nitrogen oxides PM_{10} and $PM_{2.5}$ = particulate matter
Calculations use unrounded numbers; therefore, totals may not appear to sum exactly due to rounding.
Source: CalEEMod output (Appendix A of Appendix C).

As shown in Table 3.3-7, impacts would be less than significant on a project-level basis after incorporation of Mitigation Measure AIR-2A. Therefore, regional construction emissions would have a less-than-significant impact on a project basis with the incorporation of mitigation.

Operational Emissions (Non-Permitted)

Non-permitted operational emissions occur over the lifetime of the Project and are from three main sources: area sources, energy consumption, and motor vehicles (or mobile sources). Project buildout for Phase 1 is assumed to occur in 2028, while buildout for Phase 2 of the Project would be completed in 2037. The SJVAPCD considers construction and operational emissions separately when making significance determinations. Furthermore, the SJVAPCD considers permitted and non-permitted emission sources separately when making significance determinations related to criteria pollutants. The emissions modeling results for non-permitted Project operational sources are summarized in Table 3.3-8.

As shown in Table 3.3-8, the non-permitted operational emissions exceed the SJVAPCD thresholds for ROG, NO_X, CO, and PM_{10} after compliance with Rule 9510. The Project emissions include quantification of 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. Non-permitted Project operational emissions would result in a significant impact.

Table 3.3-8
Operational Air Pollutant Emissions (Non-Permitted Sources)[23]

Phase and Year	Emissions (tons per year)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 (with design features)					
Area	6.19	0.54	8.90	0.08	0.08
Energy	0.13	1.09	0.48	0.09	0.09
Mobile	10.84	17.07	99.47	25.21	6.87
Phase 1 Total	**17.16**	**18.70**	**108.85**	**25.39**	**7.04**
Phase 2 (with design features)					
Area	10.35	0.95	15.62	0.15	0.15
Energy	0.21	1.79	0.76	0.14	0.14
Mobile	2.99	6.93	40.24	17.35	4.69
Phase 2 Total	**13.54**	**9.67**	**56.62**	**17.65**	**4.98**
Combined Project Phases 1 and 2					
Area	16.54	1.49	24.52	0.23	0.23
Energy	0.34	2.88	1.24	0.23	0.23
Mobile	13.83	24.00	139.71	42.56	11.56
Total Project Emissions (Non-Permitted)	**30.71**	**28.37**	**165.47**	**43.02**	**12.02**
Significance threshold	**10**	**10**	**100**	**15**	**15**
Exceed threshold—significant impact?	**Yes**	**Yes**	**Yes**	**Yes**	**No**

Notes:
ROG = reactive organic gasesNO_X = nitrogen oxides PM_{10} and $PM_{2.5}$ = particulate matter
Area source emissions include emissions from natural gas, landscape, and painting.
Source: CalEEMod output (Appendix A of Appendix C).

As shown in Table 3.3-8, the operational emissions exceed the SJVAPCD thresholds for ROG, NO_X, CO, and PM_{10}. Therefore, Project operational emissions would result in a significant impact prior to the incorporation of mitigation. Mitigation Measure AIR-2A and Mitigation Measure AIR-2B are recommended to reduce emissions from all development under the Specific Plan. These measures would help reduce operational emissions; however, at the time of this analysis,

[23] Air Quality and Greenhouse Gas/Energy Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson, Johnson & Miller Air Quality Consulting. See Appendix C, page 94.

the precise emission reductions associated with these measures cannot be accurately determined because of a lack of sufficient information about how the proposed Specific Plan would operate and to what extent the measures would affect those activities. Projects subject to project-level review would be required to assess residual impacts after incorporation of all applicable measures; however, it is not anticipated that all future development would be subject to discretionary review. Therefore, the Project may continue to exceed the applicable thresholds of significance even after incorporation of mitigation. This represents a significant impact.

Operational Emissions (Permitted Sources)

Estimated emissions from permitted sources are shown in Table 3.3-9. VOC emissions from gasoline transfer and dispensing activities at the proposed gas station were calculated based on maximum VOC limits as shown in Table 3.3-10. For the proposed gasoline station, an estimated throughput of 25.6 million gallons of gasoline per year based on project-specific information was used.

Table 3.3-9
Operational Air Pollutant Emissions (Permitted Sources)

Phase and Year	Emissions (tons per year)				
	ROG/VOC [1]	NO_X	CO	PM_{10}	$PM_{2.5}$
Permitted Sources					
Gasoline Transfer and Dispensing Activities	9.97	—	—	—	—
Total Project Emissions (Permitted)	**9.97**	**—**	**—**	**—**	**—**
Significance threshold	**10**	**10**	**100**	**15**	**15**
Exceed threshold—significant impact?	**No**	**No**	**No**	**No**	**No**

Notes:
VOC = volatile organic compounds ROG = reactive organic gases NO_X = nitrogen oxides
PM_{10} and $PM_{2.5}$ = particulate matter
[1] Although there are slight differences in the definition of ROG and VOCs, the two terms are often used interchangeably.
Source: CalEEMod output (Appendix A of Appendix C).

As shown above in Table 3.3-9, estimated emissions from the permitted sources associated with the proposed Costco gasoline station included as part of the Specific Plan would not exceed any applicable criteria pollutant regional threshold.

Factors used to estimate the VOC emissions were obtained from the SJVAPCD and are shown below in Table 3.3-10.

Table 3.3-10
Emission Factors Used to Estimate Regional Criteria Pollutants from the Proposed Gasoline Dispensing Station

Process	Emission Factor (lb VOC/1,000 gal gasoline)	Toxic Speciation
Tank Filling Loss	0.15	Vapor
Vehicle Refueling	0.356	Vapor
Breathing Loss	0.024	Vapor
Hose Permeation	0.009	Vapor
Spillage	0.24	Liquid

Conclusion

The Project's operational emissions exceed SJVAPCD regional criteria pollutant thresholds for ROG, NO_X, CO, and PM_{10}; therefore, this is considered a significant impact. The EIR for the Visalia General Plan identifies proposed General Plan policies to reduce air quality impacts that have since become policies included in the adopted General Plan for the City of Visalia. The EIR 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 reduction measures for regional emission impacts from the City of Visalia's General Plan EIR and the Specific Plan's consistency with the measures are provided below in Table 3.3-11.

Table 3.3-11
Proposed Specific Plan's Consistency with Measures Identified in the General Plan EIR to Reduce Air Quality Impacts

General Plan Reduction Measure	Project Consistency
AQ-P-2. Require use of Best Management Practices (BMPs) to reduce particulate emission as a condition of approval for all subdivisions, development plans and grading permits, in conformance with the San Joaquin Valley Air Pollution Control District Fugitive Dust Rule.	**Consistent.** Regulation VIII—Fugitive PM_{10} Prohibitions is a control measure that is one of the main strategies from the 2006 PM_{10} Plan for reducing the PM_{10} 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, or individual developments contemplated under the

	proposed Specific Plan, will be 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 under this criterion.
AQ-P-3. Support implementation of the San Joaquin Valley Air Pollution Control District's regulations on the use of wood-burning fireplaces, as well as their regulations for the installation of EPA-certified wood heaters or approved wood-burning appliances in new residential development and a "No Burn" policy on days when the air quality is poor.	**Consistent.** The Project will comply with all existing regulations and building codes regarding the installation of wood-burning fireplaces and appliances.
AQ-P-4. Support the San Joaquin Valley Air Pollution Control District's "change-out" program, which provides incentives to help homeowners replace old word-burning fireplaces with EPA-certified non-woodburning appliances. *Smoke released from fireplaces and wood stoves contains carbon monoxide, nitrogen dioxide, volatile organic compounds, and inhalable particulate matter (PM_{10}). The change-out programs have been successful in areas of the State where emissions from woodburning fireplaces cause significant air pollution. Many grant programs offer cash rebates to encourage replacement of old wood-burning appliances with more efficient ones.*	**Consistent.** Implementation of the Specific Plan will not inhibit the ability of existing homeowners to participate in the San Joaquin Valley Air Pollution Control District's "change out" program. In addition, all new developments in the Specific Plan area will comply with existing regulations and building codes regarding the installation of wood-burning fireplaces and appliances.
AQ-P-7. Be an active partner with the Air District in its "Spare the Air" program. Encourage businesses and residents to avoid pollution-producing activities such as the use of fireplaces and wood stoves, charcoal lighter fluid, pesticides, aerosol products, oil-based paints, and automobiles and other gasoline engines on days when high ozone levels are expected and promote low-emission vehicles and alternatives to driving.	**Consistent.** The City will continue to encourage these measures in this new development in the same way that they are already encouraging these measures presently with existing developments. As a mixed-use focused project, the Project is intrinsically positioned to reduce vehicle miles traveled and increase walkability due the proximity of residential and commercial development to each other.

AQ-P-8. Update the Zoning Ordinance to strictly limit the development of drive-through facilities, only allowing them in auto-oriented areas and prohibiting them in Downtown and East Downtown. *Drive-through businesses result in the idling of car engines and the concentrated emission of carbon monoxide and other tailpipe air pollutants.*	**Consistent.** The Project will be in an auto-oriented area and is not located in the Downtown or East Downtown areas.
AQ-P-9. Continue to mitigate short-term construction impacts and long-term stationary source impacts on air quality on a case-by-case basis and continue to assess air quality impacts through environmental review. Require developers to implement Best Management Practices (BMPs) to reduce air pollutant emissions associated with the construction and operation of development projects.	**Consistent.** The appropriate project-specific studies and analyses were done for the Specific Plan in order to adequately quantify, address, and mitigate short-term and long-term construction and operational impacts associated with the Specific Plan. In addition, please refer to the consistency analysis for AQ-P-2 for the discussion regarding Best Management Practices (BMPs).
AQ-P-11. Continue to work in conjunction with the San Joaquin Valley Air Pollution Control District and others to put in place additional Transportation Control Measures that will reduce vehicle travel and improve air quality and to implement Air Quality Plans.	**Consistent.** As a Specific Plan with a focus on mixed-use development, the Project is uniquely positioned to reduce vehicle travel in the Project area which in turn will reduce localized air quality impacts when compared to non-mixed-use focused development.
AQ-P-12. Support the implementation of Voluntary Emissions Reduction Agreements (VERA) with the San Joaquin Valley Air Pollution Control District (the District) for individual development projects that may exceed District significance thresholds. *A VERA is a voluntary mitigation measure where a project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emissions reduction projects, with the District serving a role of administrator of emissions reduction programs and verifier of successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project-specific emissions by providing funds for the District's Strategies and Incentives Program. The funds are disbursed in the form of grants for projects that achieve emission reductions.*	**Consistent.** Implementation of the Specific Plan will not impede the ability of future developments in the area to enter into Voluntary Emissions Reduction Agreements.
AQ-P-13. Where feasible, replace City vehicles with those that employ low-emission technology.	**Not Applicable.** This mitigation measure specifies actions that the City must take in order to fulfill the City's own obligations. The proposed Specific Plan does not include municipal operations. As such, it is not relevant to this Specific Plan.

As demonstrated in Table 3.3-11, the Specific Plan development would be consistent with several measures identified in the General Plan EIR, while one measure would not be applicable . In addition, the Project would comply with all local regulations required by the City of Visalia. The Project would incorporate design features and required mitigation measures (including MM AIR-2A and MM AIR-B) that reduce air quality impacts. In addition, regulations adopted by the SJVAPCD and the State of California provide emission reductions that would align with requirements of the mitigation measures included in the EIR and relevant General Plan policies. For example, Rule 9510 ISR, adopted in 2006, requires projects subject to the Rule to reduce operational NO_X emissions by 33 percent and PM_{10} 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 EIR was prepared. Solar panels are now required for low-rise residential projects under 2019 Title 24 and continue to be required under 2022 Title 24 standards that became effective on January 1, 2023. Individual development projects will be subject to the most recent Title 24 in effect that building permits are issued, which will ensure that building energy consumption would not be wasteful or inefficient. Buildout of the proposed Specific Plan would provide future residents, visitors, and employees connectivity within the Project site and to adjoining land uses through pedestrian and bicycle connections. The proximity of the proposed new development to existing transit and existing buildout in the City of Visalia, coupled with the design features of the proposed Specific Plan, would increase accessibility to public transportation and would improve mobility within the Project area. Overall, the proposed Specific Plan would create a considerable amount of internal capture between its components to reduce VMT compared to the same level of development built with land uses geographically separated from each other.

Overall, the proposed Specific Plan would create a considerable amount of internal capture between its components to reduce VMT compared to the same level of development built with land uses geographically separated from each other; however, as described above, Project emissions will exceed significance thresholds for both construction and operations. After incorporation of MM AIR-2A, regional construction emissions generated by the proposed Project would have a less-than-significant impact (see Table 3.3-7). However, non-permitted emissions generated during Project operations would exceed the applicable regional thresholds for ROG,

NO_X, CO, and PM_{10} even after incorporation mitigation (see Table 3.3-8). Therefore, even after mitigation, the impacts are ***significant and unavoidable***.

Mitigation Measures

AIR-2A This measure shall be applied to all development under the proposed Specific Plan to reduce emissions from construction. Before a construction permit is issued for the proposed Project, the Project applicant, Project sponsor, or construction contractor shall provide compliance with the following requirements to the City of Visalia Planning Department:

- Where portable diesel engines are used during construction, all off-road equipment with engines greater than 75 horsepower shall have engines that meet either EPA or ARB Tier 4 Final off-road emission standards except as otherwise specified herein. If engines that comply with Tier 4 Final off-road emission standards are not commercially available, then the construction contractor shall use the next cleanest piece of off-road equipment that is commercially available. For purposes of this mitigation measure, "commercially available" shall mean the equipment at issue is available taking into consideration factors such as (i) critical-path timing of construction; and (ii) geographic proximity to the Project site of equipment. If the relevant equipment is determined by the Project applicant to not be commercially available, the contractor can confirm this conclusion by providing letters from at least two rental companies for each piece of off-road equipment that is at issue.

AIR-2B The following measure shall be applied to all development under the proposed Specific Plan during construction to facilitate the use of electric landscaping equipment during Project operations:

- Provide electrical outlets on the outside of buildings or in other accessible areas to facilitate the use of electrically powered landscape equipment.

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

Significant and Unavoidable. Those who are sensitive to air pollution include children, the elderly, and persons with preexisting 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 north, east, south, and west. Since the proposed Specific Plan has two defined phases, sensitive receptors for each phase are discussed separately below. For Phase 1, the surrounding land uses are as follows:

- North—To the north of the Phase 1 area is undeveloped land and a middle school, followed by agricultural land as well as a dairy. The middle school would be considered a sensitive receptor land use.
- East—To the east of the Phase 1 area is a middle school and a planned high school, followed by a subdivision of single-family homes. The residences, the existing school, and the planned school would be considered sensitive receptor land uses.
- South—To the south of the Phase 1 area is a subdivision of single-family homes, followed by another subdivision of single-family homes. The residences would be considered sensitive receptor land uses.
- West—To the west of Phase 1 is agricultural land, followed by more agricultural land.

During and following buildout of Phase 1 construction, residences proposed as part of development contemplated under the proposed Specific Plan would result in new sensitive receptors as the Project is built out.

It is anticipated that Phase 2 would begin construction once the low-density residential of Phase 1 is at 60 percent completion. Land uses and the surrounding area for Phase 2 are described below and include new land uses that are proposed as part of Phase 1. The surrounding land uses for Phase 2 are as follows:

- North—To the north of the Phase 2 area is a dairy, agricultural land, and a few rural residences.
- East—To the east of the Phase 2 area is agricultural land followed by more agricultural land.

- South—To the south of the Phase 2 area is the Phase 1 residential and commercial development, as well as a middle school and a planned high school.
- West—To the west of the Phase 2 area is a feedlot, followed by agricultural land.

Depending on the order of buildout for Phase 2, the nearest sensitive receptors for Project activities are expected to change as newly developed uses included in Phase 2 would begin to be occupied prior to full buildout.

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.[24] The studies conducted by the U.S. Occupation Safety and Health Administration (OSHA) to assess health effects from exposure to asphalt fumes 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.

[24] U.S. Occupational Safety and Health Administration (OSHA). Asphalt (Bitumen) Fumes. Website: https://www.osha.gov/asphalt-fumes. Accessed April 5, 2022.

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.

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 PM_{10}, $PM_{2.5}$, 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. Construction and operations are addressed separately below.

Construction Localized Pollutant Screening Analysis — Maximum Daily Construction Emissions

Impacts to receptors located outside the Project boundaries would occur primarily during Project construction. Construction emissions were modeled to begin as early as October 2022 and continue over the anticipated 15-year Project buildout. The use of an earlier construction schedule presents a conservative estimate of construction emission and related impacts, as emissions for the same level of activity are expected to decrease in future years due to the replacement of older equipment with cleaner models, increasingly more stringent regulations, and technological improvements.

Construction activities are expected to occur over several years as the Specific Plan area and individual developments are gradually built out. For each area, most emissions are expected to occur during the initial site preparation and grading activities and to a lesser extent during ground-up construction.

The maximum daily emissions generally occur during Project grading activities except for ROG emissions, which are highest during application of architectural coatings. In instances where the duration of the construction activity was shortened to match the expected construction schedule, daily building construction emissions may be higher than phases that are typically more intense (such as grading and site preparation) because it was assumed that an increase in construction activity would be necessary to accommodate the shortened schedule. The construction screening

analysis uses on-site emissions. To account for on-site travel and idling from on-road construction vehicle trips, emissions from construction vehicle trips were included after a 0.5-mile trip length was applied. The results of the construction screening analysis are presented in Table 3.3-12. Project maximum daily construction emissions for each development area would be less than the screening threshold for all pollutants; therefore, no additional analysis is required for localized criteria pollutant impacts in regards to the Project's potential to create an ambient air quality impact from construction.

Table 3.3-12
Maximum Daily Air Pollutant Emissions During Construction (Unmitigated)

Maximum Daily Emissions by Development	Emissions (pounds per day)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Phase 1 Tier 1 Multifamily Residential	78.93	38.87	29.21	10.47	6.03
Phase 1 Tier 2 Multifamily Residential	74.36	32.40	27.87	10.08	5.68
Phase 1 Single-family Residential	29.94	83.81	88.06	12.60	7.95
Phase 1 Commercial	37.88	27.20	21.59	10.08	5.68
Phase 2 Multifamily Residential	60.48	27.96	26.46	20.75	11.10
Phase 2 Single-family Residential	39.95	62.56	76.12	11.66	6.94
Phase 2 Commercial	7.53	25.28	18.05	9.94	5.55
Phase 2 Basin	2.92	27.97	26.47	9.94	5.55
Maximum Emissions in Development	**78.93**	**83.81**	**88.06**	**20.75**	**11.10**
Screening Thresholds	**—**	**100**	**100**	**100**	**100**
Exceeds Threshold (Yes or 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 winter model output. There is no ambient air quality standard for ROG.
Source: CalEEMod output (Appendix A of Appendix C).

Operational Localized Pollutant Screening Analysis — 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 were assessed separately for Phase 1 and Phase 2 of the proposed Specific Plan and are presented by showing the maximum daily emissions for the largest individual development projects within each phase. Emissions were modeled for individual development

projects within the Specific Plan to reflect localized impacts. The Specific Plan is located on approximately 507 acres, while localized impacts are commonly assessed in increments of five (5) acres. The individual development projects were modeled for the operational year immediately following construction buildout for each phase, which presents a conservative analysis compared to using a later operational year. Using earlier operational years constitutes 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 Table 3.3-13.

Table 3.3-13
Maximum Daily Air Pollutant Emissions during Operations[25]

Maximum Daily Emissions per Source Category	Emissions (pounds per day)				
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Largest Individual Development Project in Phase 1 (Phase 1 Commercial/Mixed Use)					
Area	3.79	0.00	0.02	<0.01	<0.01
Energy	0.03	0.29	0.24	0.02	0.02
Mobile	27.25	21.71	146.61	7.42	2.07
Phase 1 Maximum Development Total	**31.07**	**22.00**	**146.87**	**7.44**	**2.09**
Screening threshold	**—**	**100**	**100**	**100**	**100**
Exceed screening threshold?	**—**	**No**	**Yes**	**No**	**No**
Largest Individual Development Project in Phase 2 (Phase 2 Single-family Residential)					
Area	38.87	10.94	92.94	1.30	1.30
Energy	0.76	6.52	2.78	0.53	0.53
Mobile	6.00	7.90	48.50	3.60	0.98
Phase 2 Maximum Development Total	**45.63**	**25.36**	**144.21**	**5.42**	**2.81**
Screening threshold	**—**	**100**	**100**	**100**	**100**

[25] Air Quality and Greenhouse Gas/Energy Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson, Johnson & Miller Air Quality Consulting. See Appendix C, page 107.

Exceed screening threshold?	**—**	**No**	**Yes**	**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 winter model output. There is no ambient air quality standard for ROG.
Source: CalEEMod output (Appendix A of Appendix C).

The Project would not exceed SJVAPCD screening thresholds for localized operational criteria pollutant impacts for NO_X, PM_{10}, or $PM_{2.5}$; however, emissions would exceed the localized screening thresholds for CO. Specifically, the area-source emissions from residential uses are contributing to this exceedance. A review of the CalEEMod output files shows that the majority of area-source emissions are estimated to be from landscaping activities. The following option would reduce the operational CO emissions below the 100-pound-per-day screening threshold:

- Utilize only electric landscaping equipment in perpetuity.

As noted above, the option available to reduce the majority of CO emissions caused by area-sources during operations would require the use of restricted equipment by future occupants in perpetuity. Future occupants (including residents) would have access to landscaping equipment available on the marketplace. Regulation of landscaping equipment available on the marketplace is not within the control of any individual project applicant or lead agency. Therefore, requiring the use of only electric landscaping equipment in perpetuity is neither feasible nor enforceable. Mitigation Measure AIR-2B requires design plans that encourage the use of electric landscaping by all components of the proposed Specific Plan. It is not anticipated that any single receptor would be exposed to hazardous levels of CO from landscaping equipment because the emissions from landscaping at each home would occur at dispersed locations throughout the development. However, commercial development projects would continue to have the potential to exceed the localized ambient air quality screening thresholds, even after compliance with regulations and the incorporation of Mitigation Measure AIR-2B; this represents a significant and unavoidable impact. A project that would not create or contribute to a carbon monoxide hotspot would not be considered to have a localized CO impact from mobile-source emissions; therefore, further analysis is provided below to address CO impacts from mobile-source emissions. As discussed below, a CO hotspot is not anticipated to occur in the Specific Plan area.

Operation: CO from Motor Vehicles (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.

Construction of the Project 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 an increase in daily trips that on roads serving the site. Roads serving the site have been evaluated in the City of Visalia's General Plan EIR. The City of Visalia's General Plan EIR shows the 1-hour and 8-hour CO concentrations for the six most heavily trafficked intersections with the lowest LOS in Visalia. The CO concentrations in the EIR were modeled for both the year the study was done in 2012 and for projections based on the City of Visalia's 2030 General Plan. Since the final buildout of the Project is scheduled to conclude in 2037, numbers for the 2030 General Plan would be more applicable to the proposed Project. Of the six intersections monitored and modeled as part of the EIR, the Riggin Avenue/Shirk Road intersection would be the most applicable to the proposed Project, as it is immediately adjacent to the Project area. The highest background 1-hour average CO concentration modeled in the EIR is 3.1 ppm, which is 85 percent lower than the CAAQS of 20 ppm and 92 percent lower than the NAAQS of 35 ppm. The highest background 8-hour average CO concentration modeled in the EIR is 1.9 ppm, which is 79 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 EIR 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 345,864 peak-hours VMT, the hourly concentration would be 9.3 ppm and an 8-hour concentration of 5.7 ppm. Based on this analysis, it is not anticipated that a CO hotspot will occur in the Plan Area. No CO hotspot modeling is required for new projects during General Plan buildout unless peak-hour VMT more than triple what was analyzed in the General Plan EIR, which is not projected to occur with the proposed Specific Plan. Furthermore, CO emissions are predicted to continue to decline as old vehicles are retired and cleaner new motor vehicles take their place. Therefore, the Project's localized impact from generation of CO from mobile sources during Project operations 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: PM_{10}, PM2.5, NO_X

As shown in Table 3.3-13, localized emissions of PM_{10}, $PM_{2.5}$ and NO_X would not exceed the SJVAPCD screening thresholds at full Project buildout for any individual development contemplated under the proposed Specific Plan. Residential development is an insignificant source of these pollutants, except for projects that allow woodburning devices that emit PM_{10}, $PM_{2.5}$ in wood smoke. The Project will include only natural gas-fueled fireplaces and inserts that are insignificant sources of $PM_{2.5}$ and PM_{10}. 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 of PM_{10}, $PM_{2.5}$, and NO_X would not exceed the screening threshold; therefore, the Project would not expose sensitive receptors located near the commercial sites to substantial criteria air pollutant concentrations during operation.

Operation: CO

As shown in Table 3.3-13, emissions generated by the Project would exceed the localized screening thresholds for CO. Although the Project exceeds the 100-pound-per screening threshold for CO, the majority of the estimated emissions are from landscaping equipment for residential developments. Furthermore, the Project's operational impacts from CO are assessed by evaluating the Project's potential to create or contribute to a CO hotspot. emissions of CO from mobile sources would not have a localized significant impact. The ARB has identified the need to reduce emissions from small off-road engines used in California, and the SJVAPCD currently facilitates the Clean Green Yard Machines Voucher Program that provides incentives for the replacement of landscape maintenance equipment to lawn care providers in the San Joaquin Valley. Mitigation Measure AIR-2B is required to decrease emission of CO from landscaping equipment. If assessed for elevated CO concentrations in smaller areas and with incorporation of Mitigation Measure AIR-2B, it is not anticipated that any single receptor would be exposed to hazardous levels of CO from landscaping equipment because the emissions from landscaping at each home, business, or public use would occur at dispersed locations throughout the development. However, because commercial development projects may continue to exceed or substantially contribute to an area-wide exceedance, even after the incorporation of Mitigation Measure AIR-2B, the impact is considered significant and unavoidable.

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. However, SJVAPCD comment letters in recent years have emphasized that multi-year construction projects are also of concern in the San Joaquin Valley and have the potential to expose sensitive receptors to significant health risk impacts. 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 limit exposure to sensitive receptors. Implementation of Mitigation Measure AIR-3A would ensure that projects that have the potential to cause a significant impact would be evaluated. Due to the uncertainties related to the potential for construction emissions to expose sensitive receptors to elevated levels of TACs that could exceed applicable thresholds, this impact would be significant and unavoidable.

Operation: Toxic Air Contaminants

Project Operations as Toxic Air Contaminants Generator

The proposed Specific Plan contemplates the development of residential uses, commercial uses, and public facilities within the Specific Plan area to complement and support a developing area of the City of Visalia. Specific land uses included in the proposed Specific Plan include up to 3,262 dwelling units (a mix of densities and both single-family and multi-family uses), 35.1 acres of commercial uses, and park and public spaces. Unlike warehouses or distribution centers, the daily vehicle trips generated by development under the proposed Specific Plan would be primarily generated by passenger vehicles. Passenger vehicles typically use gasoline engines rather than the diesel engines that are found in heavy-duty trucks. Gasoline-powered vehicles do emit TACs in the form of toxic organic gases, some of which are carcinogenic. Compared to the combustion of diesel, the combustion of gasoline had relatively low emissions of TACs. Thus, residential and most neighborhood commercial projects produce limited amounts of TAC emissions during operation and thus have not been subject to project TAC analysis. Consistent with SJVAPCD guidance, an operational Health Risk Assessment would not be necessary for most land uses associated with the proposed Specific Plan. Specifically, implementation of the proposed Specific Plan is not expected to result in significant health impacts during operation from buildout of residential uses; however, uses allowed under the commercial portion of the

Specific Plan could include uses that could results in truck deliveries that could expose existing or planned sensitive receptors to potentially significant levels of DPM from on-site and localized travel and on-site and localized idling.

In addition, the commercial portions of the Specific Plan could include uses that could emit elevated levels of known carcinogenic substances within distances of existing or planned sensitive receptors that would warrant further analysis. Prior to mitigation, the impact for the Project to expose sensitive receptors to elevated levels of toxic air contaminants during Project operations is potentially significant. Mitigation Measure AIR-3A (which would require further evaluation of commercial uses to evaluate the development's potential to expose future sensitive receptors to evaluated levels of TACs during operations) is required to reduce the impact to the extent feasible.

Although the exact uses and placements for most of the commercial development contemplated under the proposed Specific Plan are still yet to be determined at this time, the Specific Plan includes a proposed Costco in the commercial mixed use land use in Phase 1. Because the planned location of the Costco gasoline station, warehouse, and other relevant parameters are known, health risk impacts were evaluated as part of the preparation of this Specific Plan. The results of the Health Risk Assessment (HRA) prepared to evaluate the gasoline fueling and warehouse activities are summarized below, while the full HRA is included in Appendix B of Appendix C. The Costco HRA represents implementation of Mitigation Measure AIR-3A for the Costco development.

Project Operations as Toxic Air Contaminants Generator – Proposed Costco Gasoline Station and Warehouse

Out of the toxic compounds emitted from gasoline stations, benzene, ethylbenzene, and naphthalene have cancer toxicity values. However, benzene is the TAC which drives the risk, accounting for 85 percent of cancer risk from gasoline vapors. Furthermore, benzene constitutes more than three to four times the weight of gasoline than ethylbenzene and naphthalene, respectively (SCAQMD 2015). The specific processes associated with fuel storage tanks and fuel dispensers that emit air toxics include loading, breathing, refueling, and spillage, as described below:

- Loading – Emissions occur when a fuel tanker truck unloads gasoline into the storage tanks. The storage tank vapors, displaced during loading, are emitted through its vent pipe. (A required pressure/vacuum valve installed on the tank vent pipe significantly reduces these emissions.)

- Breathing – Emissions occur through the storage tank vent pipe as a result of temperature and pressure changes in the tank vapor space.
- Refueling – Emissions occur during motor vehicle refueling when gasoline vapors escape through the vehicle/nozzle interface.
- Spillage – Emissions occur from evaporating gasoline that spills during vehicle refueling.

Health risk impacts from the proposed gasoline station were estimated in the "Human Health Risk Assessment for the Operation of the Proposed Gasoline Dispensing Facility and Warehouse within the Carleton Acres Specific Plan in Visalia, California" memorandum prepared by Ramboll US Consulting Inc., dated February 23, 2023 (included as Appendix B of Appendix C). Results of the health risk analysis from operations of the proposed gasoline station and warehouse are summarized in Table 3.3-14.

Table 3.3-14
Summary of the Health Impacts from Operations from the Proposed Costco Gasoline Station and Warehouse

Exposure Scenario	Maximum Cancer Risk (Risk per Million)	Chronic Non-Cancer Hazard Index[1]	Acute Non-Cancer Hazard from Maximum Hourly Benzene
Residential	6.6	0.0	0.2
Sensitive	0.4	0.0	0.0
Worker	4.0	0.1	0.5
Applicable Threshold of Significance	**20**	**1**	**1**
Exceeds Individual Source Threshold in Any Scenario?	**No**	**No**	**No**

[1] Chronic and acute hazard indices shown as 0.0 are non-zero values; however, they are below a meaningful reporting level for this analysis.
Source: Appendix B of Appendix C.

As shown above in Table 3.3-14, the calculated health metrics from the proposed Project's operational emissions would not exceed the cancer risk significance threshold, the non-cancer hazard index significance threshold, or the acute non-cancer hazard in any scenario analyzed. Therefore, the proposed Project would not result in a significant impact on nearby sensitive receptors (including future residents within the Specific Plan area) from Project-generated TACs from gasoline fueling activities and operational DPM from the proposed Costco gasoline station and warehouse. Mitigation Measure AIR-3A has thus been fully implemented for the Costco development.

Mitigation Measure AIR-3A, which requires further evaluation of proposed commercial and commercial mixed-use development within the Specific Plan area, would require individual projects to reduce impacts to an acceptable level. Although individual development projects would be required to implement all feasible and enforceable mitigation to reduce a significant impact, information is insufficient to determine whether impacts would be less-than-significant after incorporation of all applicable mitigation. Therefore, this impact remains significant.

Project Operations Land Use Compatibility: ARB Air Quality and Land Use Handbook Recommendations

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", 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 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 northwest corner of N. Akers Street and W. Riggin Avenue in Visalia, California. The traffic volumes on the road segments nearest the Project are available for Akers Street east of the Project site for 2018 and Riggin Avenue south of the Project site for 2020. The traffic volume of Akers

Street was 3,220 trips per day in 2018. The traffic volume on Riggin Avenue was 9,150 trips per day in 2020. No roads serving the Project would exceed this criterion.[26]

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.[27]

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 1300 N Demaree Street, approximately 1.5 miles southeast of the Project site.[28] In addition, potential health risks from fueling operations associated with the proposed Costco included as part of the Specific Plan were evaluated as part of the Air Quality and Greenhouse Gas/Energy Analysis Report for the Carleton Acres Specific Plan (see Appendix C).

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 1.1 miles south of the Project site at 5219 W Goshen Avenue.[29]

Auto body shops. Auto body shops have the potential to emit TACs related to painting. The nearest auto body shop is located at 601 E Acequia Avenue approximately 4.0 miles southeast of the Project site, which is beyond the distance that would result in a measurable impact.[30]

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.

[26] Air Quality and Greenhouse Gas/Energy Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson, Johnson & Miller Air Quality Consulting. See Appendix C, page 112.
[27] Ibid.
[28] Ibid.
[29] Ibid.
[30] Ibid.

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, Tulare, and Merced counties) and Central Coast (San Luis Obispo County) regions. California experienced 6,490 new cases of Valley fever in 2020. A total of 195 Valley fever cases were reported in Tulare County in 2020.[31]

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*:

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

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

1) Cultivated fields

[31] California Department of Public Health (CDPH). 2021. Coccidioidomycosis in California Provisional Monthly Report January 2021. Website: https://www.cdph.ca.gov/Programs/CID /DCDC/CDPH%20Document%20Library/CocciinCAProvisionalMonthlyReport.pdf. Accessed October 5, 2021.

2) Heavily vegetated areas (e.g. grassy lawns)

3) Higher elevations (above 7,000 feet)

4) Areas where commercial fertilizers (e.g. ammonium sulfate) have been applied

5) Areas that are continually wet

6) Paved (asphalt or concrete) or oiled areas

7) Soils containing abundant microorganisms

8) Heavily urbanized areas where there is little undisturbed virgin soil.

The Project site is situated in a city growth area. The Project includes urbanization of a site that was formerly used for agricultural purposes. 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 District'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 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, there are no such areas in the Project area.[32] Therefore, development of the Project is not anticipated to expose receptors to naturally occurring asbestos. Impacts would be less than significant.

[32] Air Quality and Greenhouse Gas/Energy Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson, Johnson & Miller Air Quality Consulting. See Appendix C, page 114.

Conclusion

In summary, the Project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant during Project construction. The localized emissions of PM_{10}, $PM_{2.5}$, and NO_X would not exceed the screening thresholds during Project operations. Furthermore, the Project would not have a significant impact in regard to ROG during Project operations. The Project would not be a suitable habitat for Valley fever spores and is not in area known to have naturally occurring asbestos. However, the Project may expose sensitive receptors to substantial concentrations of TACs from construction and/or operations of the Project and may expose sensitive receptors to significant levels of CO during Project operations. Therefore, the Project could result in significant impacts to sensitive receptors. As the exact timing, details surrounding potential sources, and exact locations and occupancy of planned residential receptors is unknown at this time, the impact is considered significant.

Mitigation measures are included to reduce the severity of potential impacts; however, impacts are still ***significant and unavoidable.***

Mitigation Measures

Implement Mitigation Measures AIR-2A, AIR-2B, and the following:

AIR-3A Prior to future discretionary approval for commercial or commercial mixed-use projects, the City of Visalia shall evaluate potential health risk impacts from new development proposals for any individual development projects within 1,000 feet of an existing or planned sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use. Such projects shall submit the following to the City of Visalia's Planning Division:

A Health Risk Prioritization Screening Analysis or a Health Risk Assessment (HRA) for the project's potential to expose sensitive receptors to elevated levels of TACs during project construction and operations prepared in accordance with SJVAPCD guidance. If the HRA shows that the incremental health risks exceed their respective thresholds, as established by the SJVAPCD at the time a project is considered, the project applicant shall be required to identify and incorporate commercially feasible mitigation including appropriate enforcement mechanisms to reduce risks to an acceptable level.

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. 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 informational purposes 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 Table 3.3-15.

Table 3.3-15
Screening Levels for Potential Odor Sources[33]

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
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

[33] San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015a. Guidance for Assessing and Mitigating Air Quality Impacts. Revised March 19, 2015. Website: http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Accessed August 1, 2022 and April 5, 2023.

According to the SJVAPCD's 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 Analysis

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. There are two potential odor sources in the screening area of the Project: a dairy directly across the street to the north of the Project and a feedlot directly across the street to the west. Additionally, the next closest odor sources are a landfill located 1.1 miles to the north of the Project site and a chemical manufacturing plant 1.1 miles to the southwest of the Project site. There are various other odor sources in the vicinity of the Project area; however, they are all located more than 2.5 miles away (with the exception of the odor sources mentioned previously). As this distance is far beyond the screening distance for every listed odor source provided by the SJVAPCD, they are not relevant to the Specific Plan area.

As a mixed-use development that includes residential development, the Project has the potential to place sensitive receptors near existing odor sources. As previously mentioned, residences may

be located within 50 feet of both the feedlot to the west as well as the dairy to the north of the Project area.

For all facilities outlined above, there are existing residential uses located closer to each facility than the proposed Specific Plan. Considering all of the information, the uses in the specific plan area vicinity would not cause substantial odor impacts to future residents occupying development built out under the proposed Specific Plan. The proposed Specific Plan would not place odor-sensitive receptors near an existing or planned source of odor affecting a substantial number of people. Therefore, operational odor impacts in terms of the planning area as an odor-sensitive receptor would be ***less than significant.***

Mitigation Measures

None Required.

Cumulative Impacts

In analyzing cumulative impacts from the proposed Project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants of concern for the San Joaquin Valley Air Basin (Air Basin). A project would be considered to have a significant cumulative impact if its contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact). The geographic context for the analysis of cumulative impacts related to air quality is the Air Basin. The SJVAPCD's attainment statuses are a result of cumulative emissions from all sources of these air pollutants and their precursors within the Air Basin. For pollutants that the Air Basin is designated as non-attainment for the California Ambient Air Quality Standards and National Ambient Air Quality Standards, a cumulative impact exists regardless of the project's incremental contribution. Significance thresholds established by the SJVAPCD are used to manage total regional and local emissions within the Air Basin based on the Air Basin's attainment status for criteria pollutants.

Cumulative impacts from the proposed Project are as follows:

- As identified in Impact 3.3-1, the Project would conflict with the applicable air quality plans and impacts were demonstrated to be significant and unavoidable, even with mitigation. Because the Project-level impacts were determined to be significant and unavoidable, coupled with consideration that other projects in the Air Basin could also

conflict with these plans a cumulative impact exists. Because the Project's contribution to the cumulative impact was determined to be significant, the impact is considered to be ***cumulatively significant and unavoidable***.

- Cumulative criteria pollutant impacts are discussed in Impact 3.3-2 and, within that analysis, the Project's contribution to cumulative impacts were demonstrated to be significant and unavoidable. As such, cumulative impacts, even with mitigation, are considered ***cumulatively significant and unavoidable***.

- As identified in Impact 3.3-3, after mitigation, the Project may expose sensitive receptors to substantial concentrations of TACs from construction and/or operations of the Project and may expose sensitive receptors to substantial levels of CO during Project operations. As the exact timing, details surrounding potential sources, and extract locations and occupancy of planned residential receptors is unknown at this time, the impact is considered significant at the Project level. As such, cumulative impacts, even with mitigation, are considered ***cumulatively significant and unavoidable***.

- As identified in Impact 3.3-4, the Project would not result in other emissions such as odors. Therefore, evaluation of the information supports a finding that the Project's contribution would be ***less than cumulatively considerable*** under this impact because the proposed Project's local impact would be less than significant.

3.4 Biological Resources

This section of the DEIR addresses the biological resources present within the proposed Project area. The section includes a discussion of the special-status species that may potentially occur within the proposed Project area as well as any sensitive habitats in the area. It also recognizes the potential impacts of implementing the proposed Project on such resources and identifies mitigation measures, where appropriate. No NOP comment letters were received pertaining to this topic. The information and analysis presented in this Section are based on the desktop review and reconnaissance site survey conducted by Colibri Ecological Consulting, LLC (Colibri). The full biological evaluation is provided in Appendix D.

Environmental Setting

The City of Visalia is located in the center of the Central Valley in the western part of Tulare County. Agricultural lands form a perimeter around the City, which is mostly urbanized. Scattered Valley oaks exist in and around the City and along water courses creating riparian corridors, along areas of pristine Valley oak woodland and Valley oak riparian woodland. The Project site is underlain by Akers-Akers saline-sodic complex, 0 to 2 percent slopes and Grangeville sandy loam, 0 to 2 percent slopes. The Project site is at an elevation of 304–312 feet above mean sea level.[1]

Desktop Review

Colibri obtained a USFWS species list for the Project as a framework for the evaluation and reconnaissance survey. In addition, the California Natural Diversity Data Base and the California Native Plant Society Inventory of Rare and Endangered Plants were searched 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, CNDDB, and CNPS database searches confined to the Visalia 7.5-minute United States Geological Survey (USGS) topographic quadrangle, which encompasses the Project site, and the eight surrounding quadrangles (Traver, Monson, Ivanhoe, Goshen, Exeter, Paige, Tulare, and Cairns Corner). A local list of special-status species was compiled using CNDDB 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. Aerial imagery from Google Earth and other sources,

[1] Biological Resource Evaluation for the Carleton Acres Development Project. Prepared by Colibri Ecological Consulting August 2021. Appendix D. Page 11.

USGS topographic maps, the Web Soil Survey, the National Wetlands Inventory, and relevant literature were also searched.

The USFWS species list for the Project included eight species listed as threatened or endangered under the FESA.[2] Of those eight species, none are expected to occur on or near the Project site due to either (1) the lack of habitat, (2) the Project site being outside the current range of the species, or (3) the presence of development that would otherwise preclude occurrence, as demonstrated in Table 3.4-1. As identified in the species list, the Project site does not occur in USFWS-designated or proposed critical habitat for any species.

Searching the CNDDB for records of special-status species from the Visalia 7.5-minute USGS topographic quadrangle and the eight surrounding quadrangles produced 210 records of 41 species.[3] Of those 41 species, four were not considered further because state or federal regulatory agencies or public interest groups do not recognize them through special designation.[4] Of the remaining 37 species, 23 are known from within 5 miles of the Project site, as demonstrated in Figure 3.4-1. Of those 23 species, 21 are not expected to occur on or near the Project site due to either (1) the lack of habitat, (2) the Project site being outside the current range of the species, (3) their absence during the reconnaissance survey, or (4) a combination thereof. The remaining two species, Swainson's hawk (*Buteo swainsoni*) and burrowing owl (*Athene cunicularia*), could occur on or near the Project site. One additional species known to occur from within seven miles of the Project site, Sanford's arrowhead (*Sagittaria sanfordii*), could occur on or near the Project site.

[2] Biological Resource Evaluation for the Carleton Acres Development Project. Prepared by Colibri Ecological Consulting August 2021. Appendix D. Page 11.
[3] Ibid. Table 1 of Appendix D.
[4] Ibid. Appendix D.

Table 3.4-1
Special Status Species, Listing Status, Habitat and Occurrence Potential[5]

Species	Status[1]	Habitat	Potential to Occur[2]
Federally and State-Listed Endangered or Threatened Species			
California jewelflower (*Caulanthus californicus*)	FE, SE, 1B.1	Chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland at 150–3300 feet elevation.	**None.** Habitat lacking; the Project site includes routinely disturbed agricultural land cover.
Hoover's spurge[3] (*Euphorbia hooveri*)	FT, 1B.2	Vernal pools and depressions.	**None.** Habitat lacking; no vernal pools or depressions were found in the survey area.
San Joaquin adobe sunburst (*Pseudobahia peirsonii*)	FE, SE, 1B.1	Cismontane woodland, valley and foothill grassland with bark, dark clay soils at 300–3000 feet elevation.	**None.** Habitat lacking; the Project site lacked clay soils.
San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*)	FT, SE, 1B.1	Vernal pools at or below 2700 feet elevation.	**None.** Habitat lacking; no vernal pools were found in the survey area.
Crotch bumble bee[3] (*Bombus crotchii*)	SCE	Open grassland and scrub supporting open flowers with short petals.	**None.** Habitat lacking; the Project site consisted of agricultural land cover and lacked suitable flowering plants.
Valley elderberry longhorn beetle	FT	Elderberry (*Sambucus* sp.) plants with stems > 1-inch diameter at ground level.	**None.** Habitat lacking; the Project site is outside the current known range of this species; no elderberry

[5] Biological Resource Evaluation for the Carleton Acres Development Project. Prepared by Colibri Ecological Consulting August 2021. Appendix D. Page 12.

Species	Status[1]	Habitat	Potential to Occur[2]
(*Desmocerus californicus dimorphus*)			plants were found in the survey area.
Vernal pool fairy shrimp[3] (*Branchinecta lynchi*)	FT	Vernal pools; some artificial depressions, stock ponds, vernal swales, ephemeral drainages, and seasonal wetlands.	**None.** Habitat lacking; no vernal pools or other potentially suitable aquatic features were found in the survey area.
Vernal pool tadpole shrimp[3] (*Lepidurus packardi*)	FE	Vernal pools, clay flats, alkaline pools, and ephemeral stock tanks.	**None.** Habitat lacking; no vernal pools, clay flats, alkaline pools, or ephemeral stock tanks were found in the survey area.
Delta smelt (*Hypomesus transpacificus*)	FT, SE	River channels and tidally influenced sloughs.	**None.** Habitat lacking; no connectivity to the aquatic habitat this species requires.
California red-legged frog (*Rana draytonii*)	FT, SSSC	Creeks, ponds, and marshes for breeding; burrows for upland refuge.	**None.** Habitat lacking; the Project site is outside the current known range of this species.
California tiger salamander[3] (*Ambystoma californiense*)	FT, ST	Vernal pools or seasonal ponds for breeding; small mammal burrows for upland refugia in natural grasslands.	**None.** Habitat lacking; the Project site and surrounding lands consisted of agricultural land cover that has been intensively farmed at least since 1985 (Google 2021); no seasonal water bodies in the survey area; the Project site is outside the current known range of this species.
Blunt-nosed leopard lizard (*Gambelia sila*)	FE, SE, FP	Upland scrub and sparsely vegetated	**None.** Habitat lacking; Project site consisted of agricultural land cover; the Project site is outside the

Species	Status[1]	Habitat	Potential to Occur[2]
		grassland with small mammal burrows.	current known range of this species.
Giant garter snake (*Thamnophis gigas*)	FT, ST	Marshes, sloughs, ponds, or other permanent sources of water with emergent vegetation, and grassy banks or open areas during active season; uplands with underground refuges or crevices during inactive season.	**None.** Habitat lacking; no suitable aquatic resources in the survey area; the Project site is outside the current known range of this species.
Swainson's hawk[3] (*Buteo swainsoni*)	ST	Large trees for nesting with adjacent grasslands, alfalfa fields, grain fields, or other low-growing agricultural crops or open areas for foraging.	**Moderate.** The Project site lacked nesting habitat but provided potential foraging habitat; additionally, potential nest trees were within 0.5 miles of the Project site.
Tricolored blackbird (*Agelaius tricolor*)	ST, SSSC	Freshwater emergent wetlands, some agricultural fields, irrigated pastures, grassland, and silage fields near dairies.	**None.** Habitat lacking; no suitable aquatic resources or suitable agricultural land in the survey area.
Western yellow-billed cuckoo[3] (*Coccyzus americanus occidentalis*)	FT, SE	Open woodlands with dense, low vegetation along waterways.	**None.** Habitat lacking; the last record of this species in the vicinity was from 1919; all habitat within 5 miles is thought to have been destroyed by agricultural development.
San Joaquin kit fox[3] (*Vulpes macrotis mutica*)	FE, ST	Grassland and upland scrub and fallowed agricultural lands adjacent to natural	**None.** Habitat lacking; the survey area consisted of agricultural land cover, lacked adjacent natural

Species	Status[1]	Habitat	Potential to Occur[2]
		grasslands or upland scrub.	lands, and the most recent records from within 5 miles were from 2003.
Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*)	FE, SE	Grassland and upland scrub with sparse to moderate shrub cover and saline soils; also fallowed agricultural fields adjacent to natural grasslands or upland scrub.	**None.** Habitat lacking; the survey area consisted of agricultural land cover that lacked adjacency to natural land cover.
State Species of Special Concern			
Northern leopard frog (*Lithobates pipiens*)	SSSC	Wet meadows, canals, bogs, marshes, and reservoirs in grassland, forest, and woodland.	**None.** Habitat lacking; the Project site includes routinely disturbed agricultural land cover.
Western spadefoot[3] (*Spea hammondii*)	SSSC	Open areas with sandy or gravelly soils in mixed woodland, grassland, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains with nearby rainpools for breeding.	**None.** Habitat lacking; the Project site supported routinely disturbed agricultural land cover.
Northern California legless lizard[3] (*Anniella pulchra*)	SSSC	Moist warm loose soil with plant cover in beach dunes, chaparral, pine-oak woodlands, sandy areas and stream terraces.	**None.** Habitat lacking; the Project site supported routinely disturbed agricultural land cover.

Species	Status[1]	Habitat	Potential to Occur[2]
Northwestern pond turtle[3] (*Actinemys marmorata*)	SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation and woody debris for basking and adjacent natural upland areas for egg laying.	**None.** Habitat lacking; no suitable water bodies were found in the survey area.
Burrowing owl[3] (*Athene cunicularia*)	SSSC	Grassland and upland scrub with friable soil; some agricultural or other developed and disturbed areas with ground squirrel burrows.	**Low.** The Project site provided some fallow fields with ground squirrel burrows that could host burrowing owl.
Loggerhead shrike[3] (*Lanius ludovicianus*)	SSSC	Open areas with short vegetation and well-spaced shrubs or low trees for nesting.	**None.** Habitat lacking; the Project site supported routinely disturbed agricultural land cover.
American badger (*Taxidea taxus*)	SSSC	Open, dry areas with friable soils and small mammal populations in grassland, conifer forests, and desert.	**None.** Habitat lacking; the Project site and surrounding area are too fragmented and routinely disturbed to support this species.
Pallid bat (*Antrozous pallidus*)	SSSC	Arid or semi-arid locations in rocky areas and sparsely vegetated grassland near water. Rock crevices, caves, mine shafts, bridges, building, and tree hollows for roosting.	**None.** Habitat lacking; no rocky areas, caves, mines, bridges, buildings, or suitable trees in the survey area.
Western mastiff bat[3]	SSSC	Roosts in crevices in cliff faces, buildings, trees, and tunnels in open semi-arid and	**None.** Habitat lacking; roosting habitat is not present in the survey area.

Species	Status[1]	Habitat	Potential to Occur[2]
(*Eumops perotis californicus*)		arid habitats such as conifer forest, oak woodland, coastal scrub, chaparral, grassland, desert scrub, and urban areas.	
California Rare Plants			
Alkali-sink goldfields[3] (*Lasthenia chrysantha*)	1B.1	Vernal pools and wet saline flats below 320 feet elevation.	**None.** Habitat lacking; no vernal pools or wet saline flats were found in the survey area.
Brittlescale[3] (*Atriplex depressa*)	1B.2	Alkaline or clay soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools below 1000 feet elevation.	**None.** Habitat lacking; the survey area lacked clay soils and consisted of disturbed agricultural land cover.
California alkali grass[3] (*Puccinellia simplex*)	1B.2	Scrub, meadows, seeps, grassland, vernal pools, saline flats, and mineral springs below 3000 feet elevation.	**None.** Habitat lacking; the Project site consisted of agricultural land cover.
California satintail[3] (*Imperata brevifolia*)	2B.1	Moist to wet sites in arid desert canyons, or rocky slopes, near seeps, springs, and streams below 1700 feet elevation.	**None.** Habitat lacking; the survey area lacked clay soils and consisted of disturbed agricultural lands.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	1B.1	Saltmarsh, playas, and vernal pools below 4000 feet elevation.	**None.** Habitat lacking; no saline areas or vernal pools were found in the survey area.

Species	Status[1]	Habitat	Potential to Occur[2]
Earlimart orache[3] (*Atriplex cordulata* var. *erecticaulis*)	1B.2	Saline or alkaline soils in Central Valley and foothill grassland below 230 feet elevation.	**None.** Habitat lacking; the survey area is above the elevational range of this species.
Heartscale[3] (*Atriplex cordulata* var. *cordulata*)	1B.2	Saline or alkaline soils in grassland, meadows and seeps, and chenopod scrub communities below 230 feet elevation.	**None.** Habitat lacking; the survey area is above the elevational range of this species.
Lesser saltscale[3] (*Atriplex minuscula*)	1B.1	Sandy alkaline soils in chenopod scrub, playa, and grassland in the San Joaquin Valley below 328 feet elevation.	**None.** Habitat lacking; the survey consisted of disturbed agricultural lands.
Recurved larkspur (*Delphinium recurvatum*)	1B.2	Poorly drained, fine, alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland at 10–2800 feet elevation.	**None.** Habitat lacking; the survey consisted of disturbed agricultural lands.
Sanford's arrowhead (*Sagittaria sanfordii*)	1B.2	Ponds, sloughs, and ditches at sea level to 650 feet elevation.	**Low.** Ditches within the Project site could support this species.
Spiny-sepaled button-celery[3] (*Eryngium spinosepalum*)	1B.2	Vernal pools and swales in valley and foothill grassland at 330–4200 feet elevation.	**None.** Habitat lacking; no vernal pools or swales were found in the survey area.
Subtle orache[3] (*Atriplex subtilis*)	1B.2	Saline depressions below 230 feet elevation.	**None.** Habitat lacking; the survey area is above the

Species	Status[1]	Habitat	Potential to Occur[2]
			elevational range of this species.
Vernal pool smallscale (*Atriplex persistens*)	1B.2	Alkaline vernal pools in the Central Valley below 377 feet elevation.	**None.** Habitat lacking; no vernal pools were found in the survey area.
Winter's sunflower (*Helianthus winteri*)	1B.2	Steep, south-facing grassy slopes, rock outcrops, and road cuts at 590–1509 feet elevation.	**None.** Habitat lacking; the survey area is below the elevational range of this species.

Species	Status[1]	Habitat	Potential to Occur[2]

Status[1]

FE = Federally listed Endangered

FT = Federally listed Threatened

FP = State Fully Protected

SCE = State Candidate Endangered

SE = State listed Endangered

ST = State listed Threatened

SR = State-designated Rare

SSSC = State Species of Special Concern

CNPS California Rare Plant Rank1:

1B – plants rare, threatened, or endangered in California and elsewhere.

2B – plants rare, threatened, or endangered in California but more common elsewhere.

3 – plants about which more information is needed.

4 – plants have limited distribution in California.

Potential to Occur[2]

None: Species or sign not observed; conditions unsuitable for occurrence.

Low: Neither species nor sign observed; conditions marginal for occurrence.

Moderate: Neither species nor sign observed; conditions suitable for occurrence.

High: Neither species nor sign observed; conditions highly suitable for occurrence.

Present: Species or sign observed; conditions suitable for occurrence.

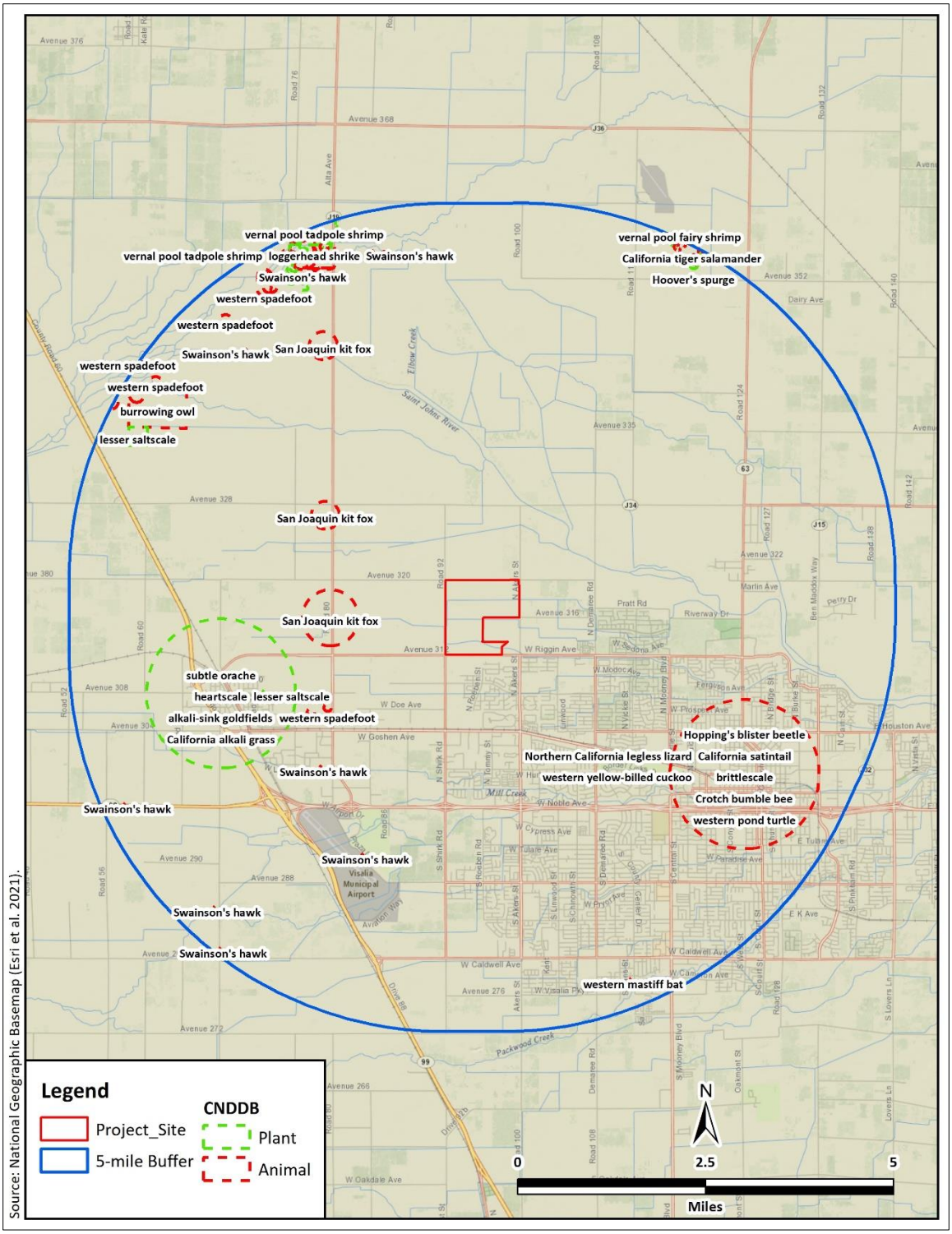
Threat Ranks1:

0.1 – seriously threatened in California (> 80% of occurrences).

0.2 – moderately threatened in California (20-80% of occurrences).

0.3 – not very threatened in California (<20% of occurrences).

Figure 3.4-1
CNDDB Species within 5 miles of Project site[6]



[6] Biological Resource Evaluation for the Carleton Acres Development Project. Prepared by Colibri Ecological Consulting August 2021. Appendix D. Page 20.

Field Surveys

Land Use and Habitats

The Project site supported agricultural land that has been used for cultivation since at least 1985.[7] The Project site was bordered by almond orchards to the east and west, two small dairies on the western and northwestern boundaries, and residential development to the south. Ridgeview Middle School formed most of the eastern border of the Project site. The northwestern portions of the Project site supported vineyards, the southwestern portions supported row crops of corn, and a small parcel just west of Ridgeview Middle School supported row crops of soybean. Portions of the Project site in the southeasternmost corner and in the western portion of the Project site were fallow. Most of the surrounding land use in the vicinity of the Project site was agricultural or dense residential.

Observed Species

A total of 17 plant species (five native and 12 nonnative), 16 bird species, and one mammal species were observed during the survey (Table 3.4-2).

Table 3.4-2
Species Observed During Site Reconnaissance[8]

Common Name	Scientific Name	Status
Plants		
Family Amaranthaceae		
Palmer's amaranth	*Amaranthus palmeri*	Native
Family Asteraceae		
Canada horseweed	*Erigeron canadensis*	Native
Common sunflower	*Helianthus annuus*	Native
Prickly lettuce	*Lactuca serriola*	Nonnative

[7] Biological Resource Evaluation for the Carleton Acres Development Project. Prepared by Colibri Ecological Consulting August 2021. Appendix D. Page 21.

[8] Biological Resource Evaluation for the Carleton Acres Development Project. Prepared by Colibri Ecological Consulting August 2021. Appendix D. Page 23.

Common Name	Scientific Name	Status
Family Chenopodiaceae		
Big saltbush	*Atriplex lentiformis*	Native
White goosefoot	*Chenopodium album*	Nonnative
Family Convolvulaceae		
Ivyleaf morning glory	*Ipomoea hederacea*	Nonnative
Family Lamiaceae		
White horehound	*Marrubium vulgare*	Nonnative
Family Poaceae		
Johnsongrass	*Sorghum halepense*	Nonnative
Ripgut brome	*Bromus diandrus*	Nonnative
Wall barley	*Hordeum murinum*	Nonnative
Wild oat	*Avena fatua*	Nonnative
Family Polygonaceae		
Prostrate knotweed	*Polygonum aviculare*	Nonnative
Family Portulacaceae		
Common purslane	*Portulaca oleracea*	Nonnative
Family Solanaceae		
Coyote tobacco	*Nicotiana attenuata*	Native
Silverleaf nightshade	*Solanum elaeagnifolium*	Nonnative
Family Zygophyllaceae		
Puncture vine	*Tribulus terrestris*	Nonnative
Birds		
Family Accipitridae		
Cooper's hawk	*Accipiter cooperii*	MBTA, CFGC

Common Name	Scientific Name	Status
Family Cathartidae		
Turkey vulture	*Cathartes aura*	MBTA, CFGC
Family Charadriidae		
Killdeer	*Charadrius vociferus*	MBTA, CFGC
Family Columbidae		
Mourning dove	*Zenaida macroura*	MBTA, CFGC
Family Corvidae		
American crow	*Corvus brachyrhynchos*	MBTA, CFGC
Family Fringillidae		
House finch	*Haemorhous mexicanus*	MBTA, CFGC
Lesser goldfinch	*Spinus psaltria*	MBTA, CFGC
Family Hirundinidae		
Barn swallow	*Hirundo rustica*	MBTA, CFGC
Family Icteridae		
Brewer's blackbird	*Euphagus cyanocephalus*	MBTA, CFGC
Family Mimidae		
Northern mockingbird	*Mimus polyglottos*	MBTA, CFGC
Family Passerellidae		
Lark sparrow	*Chondestes grammacus*	MBTA, CFGC
Family Passeridae		
House sparrow	*Passer domesticus*	--
Family Sturnidae		
European starling	*Sturnus vulgaris*	--
Family Trochilidae		

Common Name	Scientific Name	Status
Anna's hummingbird	*Calypte anna*	MBTA, CFGC
Family Turdidae		
American robin	*Turdus migratorius*	MBTA, CFGC
Family Tyrannidae		
Black phoebe	*Sayornis nigricans*	MBTA, CFGC
Mammals		
Family Procyonidae		
Raccoon	*Procyon lotor*	Native
MBTA = Protected under the Migratory Bird Treaty Act (16 USC § 703 et seq.); CFGC = Protected under the California Fish and Game Code (FGC §§ 3503 and 3513).		

Nesting Birds

Migratory birds could nest on or near the Project site. Bird species that may nest on or near the property include, but are not limited to, mourning dove (*Zenaida macroura*) and northern mockingbird (*Mimus polyglottos*).

Regulated Habitats

One potentially jurisdictional feature (a retention pond along the western border of Ridgeview Middle School) was outside of the Project site but partially within the survey area. No impacts to this feature are anticipated. Modoc Ditch (which is likely regulated by the SWRCB and CDFW) runs east-west across the middle of the Project site.[9] The National Wetlands Inventory (USFWS 2021b) lists Modoc Ditch as an intermittent riverine streambed that is seasonally flooded and excavated. Another channelized creek, Mosquito Creek – Cross Creek, runs east-west along the southern half of the Project site (Figure 10) and is likely regulated by the SWRCB and CDFW. The National Wetlands Inventory also lists Mosquito Creek – Cross Creek as an intermittent riverine streambed that is seasonally flooded and excavated. Lastly, an unnamed canal runs north – south

[9] Biological Resource Evaluation for the Carleton Acres Development Project. Prepared by Colibri Ecological Consulting August 2021. Appendix D. Figures 9-11.

along the northeastern boundary of the Project site (Figure 11) and may also be a regulated by the SWRCB and CDFW. It is not listed on the National Wetlands Inventory. No impacts to these features are anticipated. If there are changes to the proposed Project, further delineation of their boundaries and consultation with the SWRCB and CDFW may be required.

Regulatory Setting

Federal Regulations

Federal Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (16 U.S.C. 704)(MBTA) 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 Endangered Species Act of 1973

Section 3 of the federal Endangered Species Act (ESA) defines an endangered species as any species or subspecies "in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as any species or subspecies of fish, wildlife, or plants "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Threatened or endangered species and their critical habitat are designated through publication of a final rule in the Federal Register. Designated endangered and threatened animal species are fully protected from "take" unless an applicant has an incidental take permit issued by the USFWS under Section 10 or incidental take statement issued under Section 7 of the ESA. A take is defined as the killing, capturing, or harassing of a species. Proposed endangered or threatened species, or their critical habitats, are those for which a proposed regulation, but no final rule, has been published in the Federal Register.

State of California Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA establishes

that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats. Under State law, plant and animal species may be formally designated as rare, threatened, or endangered through official listing by the California Fish & Game Commission. Listed species are given greater attention during the land use planning process by local governments, public agencies, including the California Department of Fish & Wildlife (CDFW) and landowners than are species that have not been listed.

On private property, endangered plants may also be protected by the Native Plant Protection Act (NPPA) of 1977. Threatened plants are protected by CESA, and rare plants are protected by the NPPA. However, CESA authorizes that "Private entities may take plant species listed as endangered or threatened under the ESA and CESA through a Federal incidental take permit issued pursuant to Section 10 of the ESA, if the CDFG certifies that the incidental take statement or incidental take permit is consistent with CESA."

In addition, the California Environmental Quality Act (CEQA) requires disclosure of any potential impacts on listed species and alternatives or mitigation that would reduce those impacts.

California Environmental Quality Act—Treatment of Listed Plant and Animal Species

ESA and CESA protect only those species formally listed as threatened or endangered (or rare in the case of the State list). Section 15380 of the CEQA Guidelines independently defines "endangered" species of plants or animals as those whose survival and reproduction in the wild are in immediate jeopardy and "rare" species as those who are in such low numbers that they could become endangered if their environment worsens. Therefore, a project normally will have a significant effect on the environment if it will substantially affect a rare or endangered species of animal or plant or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

Section 1602 of the California Fish and Game Code

Streambeds and other drainages that occur within the Planning Area are subject to regulation by the CDFW. Please note that although the agency is now called the California Department of Fish & Wildlife, the State Code is still named the California Department of Fish and Game (CDFG) Code. For purposes of this document, these terms are interchangeable. 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. CDFW jurisdiction typically extends to the edge of the riparian canopy, and therefore, usually encompasses a larger area than Corps jurisdiction.

Porter-Cologne Act

The California State Water Resources Control Board (SWRCB) has determined in response to the U.S. Supreme Court decisions that reduce federal jurisdiction over Waters of the U.S., that the State would require that a Report of Waste Discharge be required for any discharge of waste, including fill, into "waters of the state", other than those projects requiring a federal Clean Water Act (CWA) Section 404 permit and the State's CWA Section 401 Certification of the federal permit, under the authority of the state Porter-Cologne Act. The Central Valley Regional Water Quality Control Board (Central Valley RWQCB) is responsible for issuing Waste Discharge Requirements (WDRs) to protect state surface and groundwater quality after reviewing a Report of Waste Discharge.

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.

Local Regulations

City of Visalia General Plan

Under City of Visalia General Plan policies, any new development would have to ensure minimal disruption/loss of habitat that could support special status animal species. Natural Communities Conservation Plans (NCCP) will be required for development that would potentially affect sensitive habitat. The Natural Communities Conservation Planning Act allows a process for developing NCCPs under DFG direction. NCCPs provide regional protection of wildlife diversity, while allowing compatible development. The following policies apply to the Project:

Objective OSC-0-10: Protect and enhance natural vegetation throughout the Planning Area, especially types that are considered sensitive natural communities by the Department of Fish and Game.

Policy OSC-P-30: Require assessments of biological resources prior to approval of any discretionary development projects involving riparian habitat, wetlands, or special status species habitat. Early in the development review process, consult with California Department of Fish and Game, U.S. Fish and Wildlife Service, and other agencies.

Policy OSC-P-31: Protect and enhance habitat for special status species, designated under state and federal law. Require protection of sensitive habitat areas and special status species in new development in the following order: (1) avoidance; (2) onsite mitigation, and (3) offsite mitigation.

Policy OSC-P-35: Use native trees in street and public landscaping designs, where appropriate, to preserve Visalia's character.

Policy OSC-P-37: Design selected storm water ponds and retention basins to serve a dual role as wildlife habitat by planting species appropriate for food and cover needs. Work with a trained professional in design, selection, and management of each site.

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:

- 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;
- 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;

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

Impacts and Mitigation Measures

Impact 3.4-1: *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?*

Less than Significant Impact with Mitigation Incorporated. As discussed in Table 3.4-1, one special-status plant species and two special-status animal species could occur on or near the Project site, as detailed below.

Sanford's arrowhead

Sanford's arrowhead is an aquatic emergent, rhizomatous perennial herb in the family Alismataceae with a CRPR of 1B.2. It is endemic to the Central Valley of California where it occupies ponds, ditches, sloughs, marshes, and slow-moving rivers below 984 feet elevation; it flowers May–October.[10]

One CNDDB record from 2018 is known from approximately 7 miles northeast of the Project site. Although this species was not detected during the reconnaissance survey, which was conducted

[10] Biological Resource Evaluation for the Carleton Acres Development Project. Prepared by Colibri Ecological Consulting August 2021. Appendix D. Page 27.

within the blooming period, aquatic habitat on and near the Project site could support this species. However, the frequent disturbance to these water conveyance features through vegetation clearing minimizes the potential of this species to occupy these habitats. Implementation of BIO-1 will ensure any impacts to Sanford's arrowhead are less than significant.

Burrowing owl

Burrowing owl is a member of the family Strigidae recognized as a species of special concern by the CDFW. Burrowing owl depends on burrow systems excavated by other species such as California ground squirrel (*Otospermophilus beecheyi*) and American badger (*Taxidea taxus*). Burrowing owl uses burrows for protection from predators, weather, as roosting sites, and dwellings to raise young. It commonly perches outside burrows on mounds of soil or nearby fence posts. Prey types include insects, especially grasshoppers and crickets, small mammals, frogs, toads, and lizards. The nesting season begins in March, and incubation lasts 28–30 days. The female incubates the eggs while the male forages and delivers food items to the burrow-nest; young then fledge between 44 and 53 days after hatching. Adults can live up to 8 years in the wild.[11]

There are two CNDDB records, from 1998 and 2006, of burrowing owl from within 5 miles of the Project site. Several California ground squirrel burrows that could support this species were found on the periphery of the Project site and within the fallow fields on the Project site. These fallowed fields could provide foraging habitat and thus support burrowing owl. However, the habitat is routinely disked, which minimizes the potential of this area to support this species. Mitigation measure BIO-2 shall be implemented to reduce potential impacts to less than significant.

Swainson's hawk

Swainson's hawk is a state listed as threatened raptor in the family Accipitridae. It is a migratory breeding resident of Central California. 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. Swainson's hawks build small to medium-sized nests 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

[11] Biological Resource Evaluation for the Carleton Acres Development Project. Prepared by Colibri Ecological Consulting August 2021. Appendix D. Page 27.

America. Nest building commences within one to two weeks of arrival to the breeding area and lasts about one week. 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. Swainson's hawks depart for the non-breeding grounds between August and September.[12]

There are three CNDDB records, from 2012–2017, of Swainson's hawk from within 5 miles of the Project site. The fallow fields of the Project site provide potential foraging habitat for Swainson's hawk, and several potential nest trees were observed within 0.5 mile of the Project site. Therefore, the potential for this species to occur is moderate. Mitigation measures BIO-3 and BIO-4 shall be required to reduce impacts to Swainson's hawk.

As described above, significant impacts to special status species could occur; however, implementation of mitigation measures BIO-1 through BIO-4 would provide specific avoidance and protection measures that will help ensure that potential impacts are ***less than significant.***

Mitigation Measure:

BIO-1: Protect Sanford's arrowhead

If the Project will impact Modoc Ditch, Mosquito Creek – Cross Creek, or the unnamed canal, a qualified biologist shall conduct a pre-construction survey of the feature(s) to be impacted on and within 50 feet of the Project site within the May–October blooming period of Sanford's arrowhead. The survey shall be conducted during the blooming period concurrent with the start of construction or immediately preceding the start of construction if construction will be initiated between November and April. If Sanford's arrowhead is detected, the qualified biologist shall establish an exclusion zone of 50 feet between any population and the area of direct or indirect impacts. If a 50-foot exclusion zone cannot be established, a site-specific plan to minimize the potential for Project activities to affect individual plants shall be developed by the qualified biologist and implemented in consultation with the CDFW. Such a plan would require: (i) salvaging or relocating affected plants, or (ii) articulating when salvaging/relocating plants is required.

[12] Ibid. Page 28.

BIO-2: Protect burrowing owl

Conduct focused burrowing owl surveys to assess the presence/absence of burrowing owl in accordance with the *Staff Report on Burrowing Owl Mitigation*[13] and *Burrowing Owl Survey Protocol and Mitigation Guidelines*.[14] These involve conducting four pre-construction survey visits.

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.

BIO-3: Protect nesting Swainson's hawks

To the extent practicable, construction shall be scheduled to avoid the Swainson's hawk nesting season, which extends from March through August.

If it is not possible to schedule construction between September and February, a qualified biologist shall conduct surveys for Swainson's hawk in accordance with the Swainson's Hawk Technical Advisory Committee's *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*.[15] These methods require six surveys, three in each of the two survey periods, prior to project initiation. Surveys shall be conducted within a minimum 0.5-mile radius around the Project site.

If an active Swainson's hawk nest is found within 0.5 miles of the Project site, and the qualified biologist determines that Project activities would disrupt the nesting birds, a construction-free buffer or limited operating period shall be implemented in consultation with the CDFW.

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[13] California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency. March 7, 2012. 34 pp.

[14] California Burrowing Owl Consortium (CBOC). 1997. Burrowing Owl Survey Protocol and Mitigation Guidelines. Pages 171–177, *in* Lincer, J. L. and K. Steenhof (editors). 1997. The Burrowing Owl, its Biology and Management. Raptor Research Report Number 9.

[15] Swainson's Hawk Technical Advisory Committee (SWTAC). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. 5 pages.

BIO-4: Compensate for loss of Swainson's hawk foraging habitat

Compensate for loss of Swainson's hawk foraging habitat (i.e., the fallow fields on the Project site) in accordance with the CDFW *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California*.[16] The CDFW requires that projects adversely affecting Swainson's hawk foraging habitat provide Habitat Management (HM) lands to the department. Projects within 1 mile of an active nest shall provide one acre of HM lands for each acre of development authorized (1:1 ratio). Projects within 5 miles of an active nest but greater than 1 mile from the nest shall provide 0.75 acres of HM lands for each acre of urban development authorized (0.75:1 ratio). And projects within 10 miles of an active nest but greater than 5 miles from an active nest shall provide 0.5 acres of HM lands for each acre of urban development authorized (0.5:1 ratio). No compensation is required if an active nest is not found within 10 miles of the Project site.

Impact 3.4-2: *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, or have a substantial adverse effect on federally or state-protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. The proposed Project site does not support any sensitive natural communities. No riparian habitat, wetlands or other sensitive natural community is present and the site does not overlap critical habitat. Therefore, the Project would have no impacts to sensitive natural communities.

Mitigation Measures

None are required.

[16] California Department of Fish and Game (CDFG). 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawk (*Buteo swainsoni*) in the Central Valley of California. California Nongame Bird and Mammal Section Report #94.18.

Impact 3.4-3: *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?*

Less Than Significant Impact with Mitigation Incorporated. The proposed Project could impede the use of nursery sites for native birds protected under the MBTA and CFGC. 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 can be considered take under the MBTA and CFGC. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Construction activities such as excavating, trenching, and grading that disturb a nesting bird on the Project site or immediately adjacent to the construction zone could constitute a significant impact. Mitigation Measure BIO-5 shall be required to reduce potential impacts to a ***less than significant*** level.

Mitigation Measure

BIO-5: **Protect nesting birds**

To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.

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 the implementation of the Project. A pre-construction survey shall be conducted 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. 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.

Impact 3.4-4: *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. No trees or biologically sensitive areas will be impacted and there is no adopted. Habitat Conservation Plan, Natural Communities Conservation Plan or other approved local, regional, or state habitat conservation plan has been adopted in the area. There is ***no impact.***

Mitigation Measure

None are required.

Cumulative Impacts

Would the Project make a cumulatively considerable contribution to a significant cumulative impact related to biological resources?

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to biological resources are the geographic areas covered by the City of Visalia General Plan / EIR and the County of Tulare 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 potential 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, the Project will involve developing a 507-acre parcel that currently supports agriculture into a mixed-use residential development. The Project site could provide habitat for the CRPR 1B.2 Sanford's arrowhead, foraging habitat for the state listed as threatened Swainson's hawk, and habitat for state species of special concern burrowing owl. However, implementing Mitigation Measures BIO-1 through BIO-5 would reduce any impacts to less than significant, resulting in a less than considerable contribution to cumulative impacts. 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 could result in potential 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, with mitigation, would not make a cumulatively considerable contribution to any significant impact to biological resources.

3.5 Cultural Resources

This section of the DEIR identifies potential impacts of the proposed Project on cultural, archaeological and historical resources.

Cultural resources include prehistoric-era archaeological sites, historic-era archaeological sites, Native American traditional cultural properties, sites of religious and cultural significance, and historical buildings, structures, objects, and sites. The importance of any single cultural resource is defined by the context in which it was first created, current public opinion and modern yet evolving analysis. From the analytical perspective temporal and geographic considerations help to define the historical context of the Project area.

A Cultural Resources Survey was prepared for the Project by ASM Affiliates, Inc. (December 2021) and is the basis for analysis for the discussion herein (see Appendix E). Tribal consultations pursuant to SB 18 and AB 52 are addressed in Section 3.18 – Tribal Cultural Resources.

Environmental Setting

Natural Environment

The proposed Project is located on approximately 507-acres in the northern area of the City of Visalia, California and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses.

The elevation of the Project area ranges between 303 ft. and 315 ft. amsl. Currently this region can be characterized as a dry open valley bottom now utilized for agriculture. Prior to reclamation and channelization, the region would have been a low-lying, water-rich area characterized by streams, sloughs, marshes, and swamps. Occasionally inundated by floodwaters, in many years portions of this region would have been swampy during the winter rainy season and marsh land during other parts of the year. Historical and recent land-use has changed the vegetation that was once present within and near the Project area. The immediate Project location historically most

likely fell within the Valley Grassland community, however, with Riparian Woodlands present along streams and freshwater marshes common in the area.[1]

Ethnography and Ethnohistory

Penutian-speaking Yokuts tribal groups occupied the southern San Joaquin Valley region and much of the nearby Sierra Nevada. According to the Cultural Resources Survey Report, the Project area was located in Telamni territory (generally Visalia and Goshen), but no known historical villages were located in the general area. Village locations were instead concentrated to the east, in the foothills, or west, closer to the Tulare Lake shore. The Yokuts settlement pattern was largely consistent, regardless of specific tribe involved. Winter villages were typically located along lakeshores and major stream courses (as these existed circa AD 1800), with dispersal phase family camps located at elevated spots on the valley floor and near gathering areas in the foothills.

Most Yokuts groups, again regardless of specific tribal affiliation, were organized as a recognized and distinct tribelet; a circumstance that almost certainly pertained to the tribal groups noted above. Tribelets were land-owning groups organized around a central village and linked by shared territory and descent from a common ancestor. The population of most tribelets ranged from about 150 to 500 peoples (Kroeber 1925).

Although population estimates vary and population size was greatly affected by the introduction of Euro-American diseases and social disruption, the Yokuts were one of the largest, most successful groups in Native California. Cook (1978) estimates that the Yokuts region contained 27 percent of the aboriginal population in the state at the time of contact; other estimates are even higher. Many Yokuts people continue to reside in the southern San Joaquin Valley today, including at the nearby Santa Rosa Rancheria.[2]

[1] Carleton Acres Phase I Survey (Dec. 2021), page 5 (Appendix D).

[2] Carleton Acres Phase I Survey (Dec. 2021), pages 5-7 (Appendix D).

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 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").

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, § 4852 and § 15064.5(a)(3)). In addition, pursuant to CEQA and Public Resources Code § 21084.1, historical resources included on a local register or otherwise determined locally to be historically significant shall also be considered.

Local Regulations

City of Visalia Historic Preservation Ordinance

The Historic Preservation Ordinance, adopted in 1979 and updated in 2001, established the Historic Preservation Advisory Committee (HPAC). HPAC is responsible for periodically updating the Local Register, nominating properties to the State and Federal Registers, and reviewing planning and development actions related to historic structures or in the Historic District. With regard to zoning changes and applications for planned development permits within the historic district, HPAC's recommendations are forwarded to the Planning Commission for its consideration. For applications for construction, exterior alteration, enlargement, or sign permits within the historic district or for "exceptional" or "focus" structures outside the district, HPAC has the power to approve, modify, or disapprove applications based on the criteria set forth in the Ordinance. Where HPAC has disapproved an application, the Building Official may only issue permits when authorized by the City Council. HPAC also reviews all applications for the demolition or moving of structures within the historic district or listed on the Local Register. The Historic Preservation Ordinance allows HPAC to deny demolition or moving permits for buildings listed as "exceptional" on the Local Register, and to apply a six-month moratorium on demolition for other historically-listed structures, during which time alternatives are to be sought. In general, owners are encouraged to maintain historic structures and make every reasonable effort to find compatible uses for them.

City of Visalia General Plan

The following lists goals and policies from the City of Visalia General Plan pertaining to cultural resources that are applicable to the proposed Project.

LU-O-27: Provide adequate area for office developments in areas where they can be effectively integrated into surrounding areas and/or where they can provide close-in employment opportunities.

LU-O-29: Ensure the continued viability of Visalia's existing commercial areas and enable the conversion of older or historic houses to office uses, where appropriate.

LU-P-48 Preserve established and distinctive neighborhoods throughout the City by maintaining appropriate zoning and development standards to achieve land use compatibility in terms of height, massing and other characteristics; providing design guidelines for high-quality new development; supporting housing rehabilitation programs; and other means.

H-O-1: Assure the recognition of the City's history through the preservation of historic sites, structures and featuring zoning overlay designation and discretionary review procedures for the Historic District.

H-O-2: Maintain historic residential areas as healthy, cohesive neighborhood units, and assure consistency of appearance within the historic area through conservation plans and historic preservation guidelines.

H-O-3: Support efforts to use the Local Register of Historic Structures and the Historic District to identify and promote community history through the use of walking tours and other public outreach.

H-O-4: Promote the maintenance and identification of historic resources in the community as key components of tourism and increased economic diversity for the City.

H-O-5: Promote the benefits of historic property ownership through programs such as tax incentives, available grants and loans, including but not limited to Federal Tax credits and similar programs for properties within the Historic District or on the Local Register of Historic Structures.

OSC-O-11: Preserve and protect historic features and archaeological resources of the Visalia planning area including its agricultural surrounding for aesthetic, scientific, educational and cultural values.

OSC-P-42: Establish requirements to avoid potential impacts to sites suspected of being archeologically, paleontologically, or historically significant or of concern, by:

- Requiring a records review for development proposed in areas that are considered archaeologically or paleontologically sensitive;
- Determining the potential effects of development and construction on archaeological or paleontological resources (as required by CEQA);
- Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity (defined as areas identified according to the National Historic Preservation Act as part of the Section 106 process); and
- Implementing appropriate measures to avoid the identified impacts, as conditions of project approval. In the event that previously unidentified historical, archaeological, or paleontological resources are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected. A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures or appropriate mitigation should be completed, according to CEQA Guidelines. The State Office of Historic Preservation has issued recommendations for the preparation of Archaeological Resource Management Reports that will be used as guidelines.

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, the project would have a significant impact on cultural resources if it would cause any of the following conditions to occur:

- Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5; or
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5; or

- Disturb any human remains, including those interred outside of dedicated cemeteries.

Under CEQA, significant cultural resources are those archaeological resources and historical properties that:

- Are associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Are associated with the lives of persons important in our past;
- Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- Have yielded, or may be likely to yield, information important in prehistory or history.

Unique resources under CEQA, in slight contrast, are those that represent:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2(g)).

Preservation in place is the preferred approach under CEQA to mitigating adverse impacts to significant or unique cultural resources.

Impacts and Mitigation Measures

Impact 3.5-1: *Cause a substantial adverse change in the significance of a historical 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. A Cultural Resources Survey was prepared for the Project and is the basis for analysis for the discussion herein (see Appendix D) and is summarized herein.

Archival Records Search

An archival records search conducted by the staff of the Southern San Joaquin Valley Information Center (IC), California State University Bakersfield, on July 19, 2021. The records search was completed to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the study areas; (ii) if the Project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the general area within which the Project lies was known to contain archaeological sites and to thereby be archaeologically sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest.

The records search indicated there have been no previous cultural or historical studies that have been conducted within the Project area and no cultural resources of any kind are known to exist within it. Historical maps that included the Project area were consulted to identify potential historical structures or resources. According to USGS topographic quandrangles, historical aerials, and Google Earth imagery, the Project area has undergone minimal development since at least the early twentieth century.[3]

Field Survey

An intensive Phase I cultural resources survey for the Project study area was conducted by ASM Associate Archaeologist Robert Azpitarte, B.A., with the assistance of ASM Assistant Archaeologists Maria Silva, B.A., Cameron Jackson, B.A., and Maggie Lemus, B.A. The field methods employed

[3] Carleton Acres Phase I Survey (Dec. 2021), pages 13 (Appendix D).

included intensive pedestrian examination of the ground surface for evidence of archaeological sites in the form of artifacts, surface features (e.g., bedrock mortars, historical mining equipment), and archaeological indicators (e.g., organically enriched midden soil, burnt animal bone). Special attention was paid to any exposed ground surface areas, rodent burrow spoils piles, cut-banks, cleared edges of disturbed areas, and other spots with better ground surface visibility. The survey methodology was designed to include the identification and location of any discovered sites, should they have been present; tabulation and recording of surface diagnostic artifacts; site sketch mapping; preliminary evaluation of site integrity; and site recording, following the California Office of Historic Preservation Instructions for Recording Historic Resources, using DPR 523 forms.

No prehistoric cultural resources were identified within the Project area as a result of the intensive pedestrian survey. However, two late nineteenth-century irrigation ditches were identified within the Project area: Wutchumna Ditch and Modoc Ditch. Both ditches are earthen in construction and they bisect the Project parcel in a general east-west direction.

Both ditches date from 1870 – 1880 and reflect the establishment of an irrigation system in this portion of Tulare County. They thus could be potentially eligible for CRHR listing due to their association with this important historic event (CRHR Criterion 1). They have no known association with an important historical figure (CRHR Criterion 2) and, as common property types, are not notable in terms of design, materials or engineering (CRHR Criterion 3). They also lack research value not better provided by historical records and documents (CRHR Criterion 4).

Both ditches, however, have experienced changes in alignment, alterations to their immediate and landscape surroundings (including suburbanization along certain of their segments and the construction of modern bridge crossings), and the replacement of their original water control features with modern equipment (such as concrete culverts and metal gates). Both ditches therefore lack integrity of original location, setting, design, materials and feeling and they cannot convey their historical association.

The Wutchumna and Modoc ditches are recommended as not CRHR eligible and they do not constitute significant or unique historical resources under CEQA due to their lack of integrity. No other cultural resources of any kind were identified during a Phase I study of the Project study

area. The proposed Carleton Specific Plan Project therefore does not have the potential to result in adverse impacts to known historical properties.[4]

Determination

As previously described, according to the records search and site survey, there are no recorded cultural resources within the Project area. Project construction and operation would occur on existing disturbed lands (most recently in agricultural use); however, further disturbance associated with the Project 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: In the event that historical or archaeological cultural resources are discovered during project-related activities or decommissioning, operations shall stop within 100 feet of the find, and a qualified archeologist and/or paleontologist (as applicable) shall determine whether the resource requires further study. The qualified archaeologist and/or paleontologist shall determine the measures that shall be implemented to protect the discovered resources including, but not limited to, excavation of the finds and evaluation of the finds in accordance with § 15064.5 of the CEQA Guidelines. Measures may include, but are not limited to, avoidance, preservation in-place, recordation, additional archaeological resting, and data recovery, among other options. Any previously undiscovered resources found during project-related activities within the project area shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance. No further ground disturbance shall occur in the immediate vicinity of the discovery until approved by the qualified archaeologist.

The Lead Agency, along with other relevant or tribal officials, shall be contacted upon the discovery of cultural resources to begin coordination on the disposition of the find(s). Treatment of any significant cultural resources shall be undertaken with the approval of the Lead Agency.

[4] Carleton Acres Phase I Survey (Dec. 2021), page 19 (Appendix D).

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: In order to ensure that the proposed Project does not impact buried human remains during Project construction, the Project proponent shall be responsible for on-going monitoring of Project construction. Prior to the issuance of any grading permit, the Project proponent shall provide the City with documentation identifying construction personnel that will be responsible for on-site monitoring. If buried human remains are encountered during construction, further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall be halted until the Tulare County coroner is contacted and the coroner has made the determinations and notifications required pursuant to Health and Safety Code Section 7050.5. If the coroner determines that Health and Safety Code Section 7050.5(c) require that he give notice to the Native American

Heritage Commission, then such notice shall be given within 24 hours, as required by Health and Safety Code Section 7050.5(c). In that event, the NAHC will conduct the notifications required by Public Resources Code Section 5097.98. Until the consultations described below have been completed, the landowner shall further ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices where Native American human remains are located, is not disturbed by further development activity until the landowner has discussed and conferred with the Most Likely Descendants on all reasonable options regarding the descendants' preferences and treatments, as prescribed by Public Resources Code Section 5097.98(b). The NAHC will mediate any disputes regarding treatment of remains in accordance with Public Resources Code Section 5097.94(k). The landowner shall be entitled to exercise rights established by Public Resources Code Section 5097.98(e) if any of the circumstances established by that provision become applicable

Cumulative Impacts

Would the Project make a cumulatively considerable contribution to a significant cumulative impact related to cultural resources?

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to cultural resources is all of Tulare County. Development in Tulare 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. Implementation of the proposed Project, with mitigation, would not make a cumulatively considerable contribution to any significant impact to cultural resources.

3.6 Energy

This section of the DEIR analyzes the Project's potential impacts on energy resources. The data utilized for analysis of this section is based on the Energy Analysis Report (EAR) (combined in Appendix C as "Air Quality and Greenhouse Gas / Energy Analysis Report") prepared for this Project by Johnson Johnson & Miller Air Quality Consulting. The full EAR can be reviewed in Appendix C. No NOP comments were received pertaining to energy.

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 6,923 trillion BTU in 2020 (the most recent year for which this specific data is available), which equates to an average of 175 million BTU per capita.[1] Of California's total energy usage, the breakdown by sector is 34 percent transportation, 24.6 percent industrial, 19.6 percent commercial, and 21.8 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.

[1] U.S. Energy Information Administration, California State Profile and Energy Estimates. https://www.eia.gov/state/print.php?sid=CA. Accessed January 2023.
[2] Ibid.

The electricity consumption attributable to Tulare County from 2011 to 2021 is shown in Table 3.6-1. As indicated, energy consumption in Tulare County varied approximately 30 percent over the last 10 years.

Table 3.6-1

Electricity Consumption in Tulare County 2011 – 2021[3]

Year	Electricity Consumption (in millions of kilowatt hours)
2011	3,747
2012	4,136
2013	4,317
2014	4,492
2015	4,477
2016	4,363
2017	4,244
2018	4,438
2019	4,249
2020	4,643
2021	4,878

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.

[3] California Energy Commission. Energy Reports. Electricity Consumption by County. https://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed January 2023.

Natural gas is provided to the Project area by Southern California Gas. The natural gas consumption attributable to Tulare County from 2011 to 2021 is provided in Table 3.6-2. Natural gas consumption in Tulare County varied approximately 13 percent over the 10-year span.

Table 3.6-2

Natural Gas Consumption in Tulare County 2011 – 2021[4]

Year	Natural Gas Consumption (in millions of Therms)
2011	159
2012	158
2013	158
2014	151
2015	149
2016	151
2017	150
2018	157
2019	155
2020	159
2021	168

Transportation Energy

According to the U.S. Energy Administration, transportation accounted for approximately 34 percent of California's total energy consumption in 2020.[5] In 2020, California consumed approximately 524 million barrels, or 2 billion gallons, of gasoline (including aviation gasoline). California has the highest number of motor vehicles registered and vehicle miles than any other state.[6]

[4] California Energy Commission. Energy Reports. Gas Consumption by County. http://www.ecdms.energy.ca.gov/gasbycounty.aspx Accessed December 2021.

[5] U.S. Energy Information Administration, California State Profile and Energy Estimates. https://www.eia.gov/state/print.php?sid=CA. Accessed January 2023.

[6] U.S. Energy Information Administration. California Profile Analysis. Updated February 18, 2021. https://www.eia.gov/state/analysis.php?sid=CA. Accessed January 2023.

According to the Board of Equalization (BOE), statewide taxable sales figures estimate a total of 181 million gallons of gasoline and 66 million gallons of diesel fuel were sold in Tulare county in 2021.[7]

Regulatory Setting

Federal Regulations

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Energy Policy and 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 (EISA) of 2007

This Act set increased Corporate Average Fuel Economy (CAFE) 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

[7] California Energy Commission. California Retail Fuel Outlet Annual Reporting (CEC-A15) Results. https://www.energy.ca.gov/media/3874 Accessed January 2023.

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.[8]

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

The CAFE law, first introduced in 1975, has become more stringent over time. 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 NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014 – 2018. The standards for CO2 emissions and fuel consumption

[8] 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 December 2021.

are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.

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 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.[9]

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.[10]

State of California Regulations

Integrated Energy Policy Report

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

The 2021 Integrated Energy Policy Report (IEPR) was adopted in March 2022, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in

[9] U.S. Department of Transportation. Briefing Room. EPA and DOT Finalize Greenhouse Gas and Fuel Efficiency Standards for Heavy-Duty Trucks. https://www.transportation.gov/briefing-room/epa-and-dot-finalize-greenhouse-gas-and-fuel-efficiency-standards-heavy-duty-trucks. Accessed January 2023.

[10] U.S. Department of Transportation. SAFE. The Safer Affordable Fuel-Efficient 'SAFE' Vehicles Rule. https://www.nhtsa.gov/corporate-average-fuel-economy/safe. Accessed January 2023.

California.[11] The IEPR provides the results of the CEC's assessments of energy issues facing the state. The IEPR discusses building decarbonization, energy reliability, decarbonizing California's gas system, and the state's 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 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)

Part 6 of the Title 24 refers to California's Energy Efficiency Standards for Residential and Nonresidential Buildings which was first adopted 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. The 2019 Building Energy Efficiency Standards went into effect on January 1, 2020. The 2022 Standards went into effect January 1, 2023, replacing the 2019 standards.

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

[11] California Energy Commission. 2021 Integrated Energy Policy Report Update. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report. Accessed January 2023.

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.

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.

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 Tulare CAG region were 13 percent by year 2020 and 16 percent by year 2035 beginning in October of 2018.[12]

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.

[12] California Air Resources Board. Regional Plan Targets. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed January 2023.

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 S-01-07 Low Carbon Fuel Standard Regulation

CARB initially adopted 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.[13]

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

[13] 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 2023.

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 functions as an addendum, highlighting the most important actions State agencies took 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, during project construction or operation; or
- Conflict with or obstruct state or local plans for renewable energy or energy efficiency.

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. The Project would result in a less than significant impact as it will not entail wasteful, inefficient, or unnecessary use of energy. While the Project implementation could increase the demand for electricity and natural gas within the Project area and could increase the demand for gasoline and diesel consumption in the region during construction and operation of new land use developments(as described below), it involves a necessary and efficient use of energy resources.

Construction Energy Consumption

Project construction is assumed to be completed over approximately 15 years. Construction activities would consume energy through the operation of heavy off-road equipment, trucks, and worker traffic. Construction equipment fuel consumption for each Phase of development was based on equipment lists generated using CalEEMod default values. Equipment fuel consumption was calculated using Offroad2017 v1.0.1 with data for Tulare County. Fuel

consumption was estimated assuming all equipment would be diesel-powered, and based on the horsepower, usage hours, and load factors from the CalEEMod model runs prepared for the Project's air quality analysis.

Based on the anticipated construction schedule and hours of use, off-road construction equipment would result in the consumption of approximately 317,589 gallons of diesel fuel in Phase 1 and 483,671 gallons of diesel fuel for Phase 2, for a total of 801,260 gallons over the entire construction period.

Worker, vendor, and haul trips would result in approximately 53,183,343 VMT over the entire construction period (9,347,418 Construction VMT in Phase 1 and 43,835,925 Construction VMT in Phase 2). Fuel consumption averages were calculated for worker, vendor, and haul trips separately and per phase based on data from EMFAC 2017 for Tulare County. EMFAC 2017 was used, as this database corresponds with the data used in CalEEMod version 2020.4.0. The calculated averages for fuel economy based on the EMFAC2017 data as it pertains to this project for Phase 1 and Phase 2 are 27.8 miles/gallon (mi/g) and 31.7 mi/g for worker trips, 9.4 mi/g and 9.9 mi/g for vendor trips, and 6.7 mi/g and 7.4 mi/g for haul trips, respectively. The results indicate that construction trips would consume approximately 443,792 gallons of motor fuel for Phase 1 development and 1,868,512 gallons of motor fuel for Phase 2 development for a total of 2,312,304 gallons over the entire projected 15-year construction period.

Although the proposed Project would result in the consumption of an estimated 801,260 gallons of diesel from off-road equipment and 2,312,304 gallons of motor vehicle fuels during construction, the Project is expected to use equipment and fuel in a manner that is typical for mixed-use 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 requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. Considering these factors that optimize transportation fuel use and that the Project would be built to meet demand for housing and commercial space, 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 C. Construction energy use is summarized in Table 3.6-3.

Table 3.6-3
Construction Energy Consumption[14]

Activity		Energy Consumption Activity	Consumption Amount
Phase 1			
Construction Equipment Diesel Fuel Use	Off-road Construction Equipment fuel	13,588,140 Horsepower Hours (total)	317,589 gallons (diesel)
On-road Construction Vehicle Fuel	Worker	7,816,457 VMT (miles)	280,977 gallons (gasoline and diesel combined)
	Vendor	1,525,642 VMT (miles)	162,021 gallons (gasoline and diesel combined)
	Haul	5,320 VMT (miles)	793 gallons (diesel)
	Phase 1 Construction Vehicle Fuel Subtotal	*9,347,418 VMT (miles)*	*443,792 gallons (gasoline and diesel combined)*
Phase 2			
Construction Equipment Diesel Fuel Use	Off-road Construction equipment fuel	20,714,975 Horsepower Hours (total)	483,671 gallons (diesel)
On-road Construction Vehicle Fuel	Worker	36,953,280 VMT (miles)	1,164,765 gallons (gasoline and diesel combined)
	Vendor	6,877,805 VMT (miles)	703,096 gallons (gasoline and diesel combined)
	Haul	4,840 VMT (miles)	651 gallons (diesel)
	Phase 2 Construction Vehicle Fuel Subtotal	*43,835,925 VMT (miles)*	*1,868,512 gallons (gasoline and diesel combined)*

[14] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 144.

Activity	Energy Consumption Activity	Consumption Amount
Notes: VMT = vehicle miles traveled Source of data for construction and VMT: CalEEMod 2020.4.0 Source of data for consumption rates: EMFAC 2017 (see Appendix A of Appendix C). Modeling results and calculations are provided in Appendix A of Appendix C.		

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. These are discussed individually below. In addition, this analysis evaluates whether renewable features could be incorporated into the proposed Project.

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 results. The results of the analysis indicate that the Phase 1 development would consume approximately 23,553,340 thousand British thermal units (kBTU) of natural gas per year and Phase 2 development would consume 38,770,625 kBTU of natural gas per year for a total of 62,323,965 kBTU per year during operation. It should be noted that these estimates were based on CalEEMod default consumption values, which do not take into account the current Title 24 regulations and, therefore, represent a conservative estimate of natural gas consumption.

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 Phase 1 development would use approximately 9,025,740 kilowatt-hours (kWh) of electricity per year, Phase 2 development would use 13,587,571 kWh per year, and the total is 22,613,311 kWh per year for phases of the proposed Project. Title 24 (2022 standards) requires the installation of solar panels in residential developments, including most newly constructed single-family homes and low-rise multi-family 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 show total consumption, most electricity used by the residential portions of the proposed Project is expected to be generated by zero emission renewable sources because rooftop photovoltaic solar is required for all newly constructed single-family residences that would produce electricity that would be used at those homes. In addition, commercial development associated with the proposed Project may install solar panels voluntarily to take advantage of energy cost savings that are increasingly possible as the cost of solar has declined over time.

As described above, the proposed Project would result in a long-term increase in demand for electricity from SCE. 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. The Project would also be built to meet demand for housing and commercial space, and therefore, the Project would not result in wasteful or inefficient use of electricity or natural gas during operation of the project, and 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 CalEEMod using project-specific trip generation rates and default trip lengths. The results show that the vehicle trips generated would result in approximately 62,519,489 VMT per year from Phase 1 development and 43,217,718 VMT from Phase 2 development for a total of 105,737,207 VMT from the Project. As shown in Table 3.6-4, the proposed Project would result in the consumption of an estimated 2,175,089 gallons per year of transportation fuel for Phase 1 and 1,270,556 gallons per year of transportation fuel for Phase 2.

Table 3.6-4
Long Term Operational Vehicle Fuel Consumption[15]

Vehicle Type	Percent of Vehicle Trips	Annual VMT	Average Fuel Economy (miles/gallon)	Total Annual Fuel Consumption (gallons)
Phase 1				
Passenger Cars (LDA)	53.0	33,145,359	37.19	891,279
Light Trucks and Medium Duty Vehicles (LDT1, LDT2, MDV)	39.9	24,952,085	27.76	898,915
Light-Heavy to Heavy-Heavy Diesel Trucks (LHD1, LHD2, MHDT, HHDT)	4.9	3,087,803	10.02	308,155
Motorcycles (MCY)	1.5	941,746	38.01	24,776
Other (OBUS, UBUS, SBUS, MH)	0.6	392,496	7.55	51,965
Phase 1 Total	**100%**	**62,519,489**	**-**	**2,175,089**
Phase 2				
Passenger Cars (LDA)	49.4	21,358,912	42.44	503,327
Light Trucks and Medium Duty Vehicles (LDT1, LDT2, MDV)	46.2	19,951,790	33.64	593,118
Light-Heavy to Heavy-Heavy Diesel Trucks (LHD1, LHD2, MHDT, HHDT)	3.1	1,340,730	11.0	121,739
Motorcycles (MCY)	0.4	165,515	38.07	4,347
Other (OBUS, UBUS, SBUS, MH)	0.9	400,700	8.35	48,025
Phase 2 Total	**100%**	**43,217,718**	**—**	**1,270,556**

[15] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 144.

Vehicle Type	Percent of Vehicle Trips	Annual VMT	Average Fuel Economy (miles/gallon)	Total Annual Fuel Consumption (gallons)
Phases 1 and 2 Combined				
Phase 1 and Phase 2 Total Annual Fuel Consumption (gallons of gasoline and diesel combined)				**3,445,645**

Notes:

VMT = vehicle miles traveled

"Other" consists of buses and motor homes.

Source of data for vehicle trips and VMT: CalEEMod 2020.4.0

Source of Tulare County miles/gallon for years modeled (2028 for Phase 1 and 2037 for Phase 2): EMFAC 2017.

Modeling results are provided in Appendix A of Appendix C.

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 trails that will increase trips by walking and bicycling. In addition, 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. While the Project would increase the consumption of gasoline and diesel proportionately with projected population growth, the Project will be built to accommodate expected population growth and demand for housing and commercial space and would, therefore, not result in wasteful fuel use. The Project would be built to meet demand for housing and commercial space, therefore, energy impacts related to wasteful and inefficient use of transportation fuel during Project operations would be less than significant.

In summary, as described above, the Project would result in less than significant impacts, and it would not result in 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 2022 Title 24 standards is required for most residential development.

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 result in 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 Table 3.6-5.

Table 3.6-5
Summary of Estimated Operational Annual Energy Consumption[16]

Energy Consumption Activity	Annual Consumption
Phase 1	
Electricity Consumption	9,025,740 kWh/year
Natural Gas Consumption	23,553,340 kBTU/year
Total Vehicle Fuel Consumption	2,175,089 gallons/year (gallons of gasoline and diesel)
Phase 2	
Electricity Consumption	13,587,571 kWh/year
Natural Gas Consumption	38,770,625 kBTU/year
Total Vehicle Fuel Consumption	1,270,555 gallons/year (gallons of gasoline and diesel)
Notes: kWh = kilowatt-hour kBTU = kilo-British Thermal Unit VMT = vehicle miles traveled Source: Appendix A of Appendix C.	

[16] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 145.

Based on the analysis herein, the Project would not result in the unnecessary, inefficient, or wasteful use of energy resources. 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 Project would comply with all applicable goals and measures identified in the City of Visalia Climate Action Plan (CAP). The City of Visalia has adopted local plans that promote renewable energy and energy efficiency, many of which are summarized in the CAP. Actions that the City took to increase energy efficiency taken prior to adoption of the Climate Action Plan are summarized below.

- In January 2007, the Visalia City Council authorized the Mayor to sign the U.S. Mayors "Cool Cities" Climate Protection Agreement, which sets the goal of reducing City-wide CO2 emissions.
- The City participated in an initiative called the Southwest Solar Transformation Initiative, a regional team of public and private entities committed to advancing solar power adoption across the partner municipalities in the Southwest United States. This facilitated an increase in solar photovoltaic (PV) installations in Visalia's community.
- The City of Visalia promoted and raised community awareness of the Energy Upgrade California program.
- The City of Visalia coordinated Direct Install opportunities for businesses in Visalia through the Southern California Edison Small Business Direct Install Program. As part of this program, SCE contracts with energy efficiency experts to provide free services to SCE business customers to increase energy efficiency.
- Facilitated and promoted the Southern California Gas Weatherization Program, which provided Energy Savings Assistance Programs to residential SoCalGas customers.
- Community Service Employment Training (CSET), a private nonprofit corporation that serves as the community action agency for Tulare County, has been working closely with Visalia's low-income residents for a number of years to weatherize their homes.
- In 2000, the City established a partnership with the Urban Tree Foundation to plant over 3,000 trees in the Downtown and along streets and medians. In 2004, the City Council adopted the Street Tree Ordinance, which requires all new commercial and residential

development to plant street trees. Additionally, landscape standards require shade over at least 25 percent of area in city pocket parks.

- The City encouraged the use of Compact Fluorescent Lights throughout the community.

The most recent City of Visalia General Plan and CAP build on the efforts that were in place at the time the 2013 CAP was being developed. The City of Visalia General Plan includes goals and strategies related to energy efficiency. The following policies are applicable to the proposed Project:

- **A-P-16.** Support State efforts to reduce greenhouse gases and emissions through local action that will reduce motor vehicle use, support alternative forms of transportation, require energy conservation in new construction, and energy management in public buildings, in compliance with AB 32.

  By proposing compact development, mixed-use centers, walkable neighborhoods, green building technology, and jobs-housing balance, the City will be helping to implement many of the strategies and programs in the San Joaquin Valley 2007 Ozone Plan.

- **LU-P-39.** Improve tree planting, landscaping and site design standards to minimize the visual impact of large parking lots and buildings, to enhance and promote natural characteristics compatible with urban form, to minimize heat gain and promote energy conservation, and to improve stormwater infiltration.
- **LU-P-63.** In higher-intensity and mixed-use areas, require pedestrian-oriented amenities such as small plazas, outdoor seating, public art, and active street frontages, with ground floor retail, where appropriate and justified.

  New development can help create pedestrian environments with buildings oriented to the street, continuous walkways and sidewalks, limited blank walls, pedestrian-scaled buildings and signage, parking screened from street view, landscaping and shading, and places for people to rest and meet.

Construction

As discussed under Impact 3.6-1, the proposed Specific Plan would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. California Code of Regulations Title 13, Sections 2449(d)(3) and 2485, limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. The proposed Specific Plan would comply with these regulations. Consistent with A-P-16, LU-P-39, and LU-P-63, implementation of the proposed Specific Plan would increase the use of energy conservation

features and renewable sources of energy within the City due to the mixed-use nature of the proposed Specific Plan. The proposed Specific Plan includes residences, commercial development, and schools, and it is designed for ease of travel using alternative transportation methods such as biking or walking, facilitated by the presence of bike lanes and trails throughout the Project area. Thus, it is anticipated that construction of the proposed Specific Plan would not conflict with or obstruct policies of the City of Visalia General Plan and CAP aimed at reducing energy use or increasing the use of renewable energy. Therefore, construction-related energy efficiency and renewable energy standards consistency impacts would be less than significant.

Operation

The proposed Specific Plan would be served with electricity provided by SCE. SCE's 2019 Green Rate 50 percent option includes 67.5 percent eligible renewable resources, including wind, geothermal, solar, eligible hydroelectric, and biomass and biowaste; 4 percent large hydroelectric; 8.1 percent natural gas; 4.1 percent nuclear; 0.1 percent other; and 16.3 percent unspecified sources of power. SCE's 2019 Green Rate 100 percent option includes 100 percent eligible renewable resources, composed entirely of solar. Approximately 43 percent of the electricity that SCE delivered in 2020 was a combination of renewable and GHG-emissions-free resources.[17] SCE is ahead of schedule in meeting the California's RPS 2020 mandate of serving its load with at least 33 percent RPS-eligible resources. SCE would be required to meet California's RPS standards of 60 percent by 2030 and carbon-free sourced-electricity by 2045.

Part 11, Chapter 4 and 5, of the State's Title 24 energy efficiency standards establishes mandatory measures for residential and nonresidential buildings, including solar, electric vehicle (EV) charging equipment, bicycle parking, energy efficiency, water efficiency and conservation, and material conservation and resource efficiency. The proposed Specific Plan would be required to comply with these mandatory measures, notably to incorporate renewable energy generation. The proposed Specific Plan would locate housing next to jobs in order to reduce or eliminate motor vehicle travel for home-to-work trips and provide connectivity through pedestrian and bicycle connections. Compliance with these mandatory measures would ensure that the proposed Specific Plan would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, operational

[17] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 148.

energy efficiency and renewable energy standards consistency impacts would be less than significant.

The Project was reviewed for consistency with local and State of California plans that aim to reduce GHG emissions in Chapter 3.8. These plans also serve as the applicable 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 are expected to become more energy efficient over time, as vehicle and equipment manufactured and/or sold in the regional will continue to be subject to Statewide regulations.

The Project is consistent with applicable plans and policies discussed above and would not result in wasteful or inefficient use of nonrenewable energy sources; therefore, impacts would be less than significant.

The impact is ***less than significant.***

Mitigation Measures

None Required.

Cumulative Impacts

Less Than Cumulatively Considerable. Potential cumulative impacts on energy would result if the proposed Project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. This could result from development that would not incorporate sufficient building energy efficiency features, would not achieve building energy efficiency standards, or would result in the unnecessary use of energy during construction and/or operation. The cumulative projects within the areas serviced by the energy service providers would be applicable to this analysis; this includes existing aging structures that are energy inefficient. Projects that include development that would have the potential to consume energy in an inefficient manner would have the potential to contribute to a cumulative impact.

As previously described, the proposed Project would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary use of energy due to various design features, including installation of solar, EV charging equipment, bicycle parking, as well as following standards that promote energy efficiency, water efficiency and conservation, and material conservation and resource efficiency. Similar to the proposed Project, newly constructed cumulative projects would be subject to CALGreen, which provides energy efficiency standards for commercial and residential buildings. Over time, CALGreen would implement increasingly stringent energy efficiency standards that would require the proposed Project and newly constructed cumulative projects to minimize the wasteful and inefficient use of energy. 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 of cumulative projects.

Development associated with buildout of the proposed Project would be required 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 compared to existing 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, energy that would be consumed by the Project is not considered unnecessary, inefficient, or wasteful. Considering the information provided above, the proposed Project, in conjunction with other cumulative development, would not result in a significant cumulative impact to energy resources. Impacts are ***not cumulatively considerable.***

3.7 Geology/Soils

This section of the DEIR identifies potential impacts of implementing the proposed Project on geology and soils. No NOP comment letters were received pertaining to this topic.

Environmental Setting

Geologic Setting

Visalia is part of the Central Valley province, one of several geomorphic provinces in California. The Central Valley is in a basin bounded by the Sierra Nevada foothills and mountains to the east and the Coast Ranges to the west, and is filled with deep layers of sediment from the Sierra Nevada. The Visalia area is basically flat, lying at an elevation of approximately 330 feet above sea level. The St. Johns River flows through the northeastern portion of the City. The river, as well as smaller streams and canals, form alluvial fans.

The San Joaquin Valley represents the southern portion of the Great Central Valley of California. The San Joaquin Valley is a structural trough up to 200 miles long and 70 miles wide. It is filled with up to 32,000 feet of marine and continental sediments deposited during periodic inundation by the Pacific Ocean and by erosion of the surrounding mountains, respectively. Continental deposits shed from the surrounding mountains form an alluvial wedge that thickens from the valley margins toward the axis of the structural trough. This depositional axis is below to slightly west of the series of rivers, lakes, sloughs, and marshes, which mark the current and historic axis of surface drainage in the San Joaquin Valley.

Sediments comprising the Tulare Lake subbasin include younger and older alluvium, flood-basin deposits, lacustrine and marsh deposits and continental deposits. Younger alluvium consists of a heterogeneous complex of interstratified discontinuous beds of unsorted to fairly well sorted clay, silt, sand, and gravel. This unit is very permeable but largely above the water table. Older alluvium consists of poorly sorted lenticular deposits of clay, silt, sand, and gravel, which may be loosely consolidated to cemented. Older alluvium is moderately to highly permeable and yields large quantities of water to wells. The unit is a major aquifer in the subbasin. Flood basin deposits are relatively impermeable silt and clay with some moderately to poorly permeable sand layers. This unit is not an important source of ground water, but locally, may yield sufficient supplies for domestic and stock use. Lacustrine and marsh deposits are reduced deposits of silt, clay, and fine sand. In the subsurface, lacustrine clay interfingers as tongues with continental and alluvial deposits. The lacustrine and marsh deposits include the Corcoran Clay which underlies the subbasin at depths ranging between about 300 and 900 feet. Continental deposits consist of

poorly sorted lenticular deposits of clay, silt, sand, and gravel. These deposits are moderately to poorly permeable and yield low to large quantities of water to wells. Land subsidence of one to four feet due to deep compaction of fine-grained units has occurred in the subbasin. (California's Groundwater Bulletin 118, 2006).[1]

Topography

The Project site is located in northern Visalia, to the northeast of the West Riggin Avenue and North Shirk Road intersection. The immediate area is primarily agriculture with residential to the south, and the Ridgeview Middle School to the southeast. The site is generally flat and averages approximately 309 feet above mean sea level. The topography in the area consists of a slight slope to the west / southwest.[2]

Soils

A Custom Soil Resource Report was prepared for the Project (Appendix F). According to that Report, the soil on the Project site consists primarily of Akers-Akers and Grangeville sandy loam soils. Akers-Akers soils consists of very deep, well drained soils formed in alluvium derived from granite rock. The soil is well drained and is suitable for various crop productions, cattle/dairy production and building site development.[3] Grangeville sandy loam soils consist of very deep, somewhat poorly drained soils that formed in moderate coarse textured alluvium dominantly from granite rock sources. This type of soil is typically used for a variety of crops as well as for urban development.[4]

Faults

The City of Visalia is in a seismically stable region of the State. While the southern San Joaquin Valley contains some small faults, the closest of these are 30 miles away, and none are known to be active. In comparison to many regions in California, Visalia exhibits relatively little tectonic activity. The major fault systems in the area include the San Andreas Fault, located 75 miles away

[1] Carleton Acres Phase I ESA (June 2021), Appendix G, page 14.

[2] Ibid, page 13.

[3] https://soilseries.sc.egov.usda.gov/OSD_Docs/A/AKERS.html (accessed Sept. 2021).

[4] https://soilseries.sc.egov.usda.gov/OSD_Docs/G/GRANGEVILLE.html (accessed Sept. 2021).

from Visalia, and the Owens Valley Fault Group, located east of the Sierras and more than 125 miles away from the City.[5]

Asbestos

Asbestos is a naturally occurring fibrous material once commonly used as a fireproofing and insulating agent in building construction before the EPA banned such uses in the 1970s. Asbestos can also be atmospherically deposited from vehicle brake shoes. Naturally occurring asbestos can be found in serpentinite or other metamorphosed ultramafic rocks such as dunite, peridotite, and pyroxenite. According to large scale mapping of ultramafic rocks in California, no known ultramafic rocks outcrops are present in the City of Visalia.

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.

[5] Visalia General Plan EIR (2014), page 3.7-4.

Paleontological Resources Preservation Act

The primary legislation pertaining to fossils from National Park Service (NPS) and other federal lands is the Paleontological Resources Preservation Act of 2009 (PRPA) (16 U.S.C. § 470aaa 1-11) which was enacted on March 30, 2009 within the Omnibus Public Land Management Act of 2009. PRPA directs the Department of Agriculture (U.S. Forest Service) and the Department of the Interior (National Park Service, Bureau of Land Management, Bureau of Reclamation, and Fish and Wildlife Service) to manage and protect paleontological resources on Federal land using scientific principles and expertise.

State 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 Environmental Quality Act

The California Environmental Quality Act (CEQA) requires lead agencies to consider the potential effects of a project on unique paleontological resources. CEQA requires an assessment of impacts associated with the direct or indirect destruction of unique paleontological resources or sites that are of value to the region or the state.

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 Visalia Building Code

The City of Visalia adopted the California Building Code as the City's building code and ordinance (Title 15: Buildings and Construction). The Subdivision Ordinance requires that a preliminary soils report be provided as part of the application for a tentative subdivision map, unless the city engineer determines that no preliminary analysis is necessary (Title 16: Subdivisions).

General Plan Seismic Safety Element

The existing Visalia General Plan incorporates the Seismic Safety Element completed in 1974 by the Five-County Seismic Safety Committee, with participation from the Tulare Council of Governments. The Safety Element determines that ground shaking is the main potential hazard in the southern Central Valley, and the risk of ground shaking in the Visalia area is low. The Element includes a number of policies, calling for the creation of a public relations and education program to build awareness; development of an Earthquake Disaster Plan; consideration of seismic hazards in the environmental impact assessment process; and adoption and enforcement of the Uniform Building Code, among others.

Tulare County Multi-Jurisdictional Hazard Mitigation Plan

A hazard mitigation plan is a formal document that outlays the plans to reduce or eliminate the long-term risk to human life and property from natural or man-made hazards. Visalia participates in the preparation of the Multi-Jurisdictional Local Hazard Mitigation Plan (MJ-LHMP) which covers Tulare County and eleven participating cities. The plan has been designed to meet four goals; (1) significantly reduce life loss and injuries, (2) minimize damage to structures and property, as well as disruption of essential services and human activities, (3) protect the environment, and (4) promote hazard mitigation as an integrated public policy.

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?

Less Than Significant Impact. This impact analysis evaluates the proposed Project's potential to expose persons or structures to seismic hazards (fault rupture, ground shaking, ground failure, and landsliding). Each of these hazards and their potential environmental impacts are discussed below.

Fault Rupture

The City of Visalia is in a seismically stable region of the State. While the southern San Joaquin Valley contains some small faults, the closest of these are 30 miles away, and none are known to be active. In comparison to many regions in California, Visalia exhibits relatively little tectonic activity. The major fault systems in the area include the San Andreas Fault, located 75 miles away from Visalia, and the Owens Valley Fault Group, located east of the Sierras and more than 125 miles away from the City.[6] Because there are no faults in the Project area, there is limited risk of ground rupture.

Strong Ground Shaking

As described above, there is not a significant risk of significant ground shaking due to seismic activity. Although the City of Visalia is located in an area of low seismic activity, the regional faults have the potential to produce high-magnitude earthquakes throughout the area. The City of Visalia is located on alluvial deposits, which tend to experience greater ground shaking intensities than areas located on hard rock. However, the distance to the faults that are the expected sources of the shaking would be sufficiently great that the effects should be minimal.

To ensure that impacts remain less than significant, the City of Visalia, as well as Project's Specific Plan, requires the applicant to prepare and submit a design-level geotechnical study that complies with all applicable seismic design standards of the California Building Standards Code. The design-level analysis shall address site preparation measures and foundation design requirements of the project. The design-level analysis shall be prepared to the satisfaction of the City of Visalia. Final design-level project plans shall be designed in accordance with the approved geotechnical analysis. This shall include certification of engineered fills and subgrade preparation

[6] Visalia General Plan EIR (2014), page 3.7-4.

through monitoring of earthwork and compaction testing by a geotechnical engineer during construction. Seismic design standards account for peak ground acceleration, soil profile, and other site conditions and they establish corresponding design standards intended to protect public safety and minimize property damage. This geotechnical study would ensure potential ground shaking impacts remain ***less than significant***.

Seismic Related Ground Failure (including Liquefaction)

Liquefaction is a phenomenon where earthquake-induced ground vibrations increase the pore pressure in saturated, granular soils until it is equal to the confining, overburden pressure. When this occurs, the soil can completely lose its shear strength and enter a liquefied state. The possibility of liquefaction is dependent upon grain size, relative density, confining pressure, saturation of the soils, and intensity and duration of ground shaking. In order for liquefaction to occur, three criteria must be met: "low density", coarse-grained (sandy) soils, a groundwater depth of less than about 50 feet, and a potential for seismic shaking from nearby large-magnitude earthquake. Since the depth to groundwater in the Project area is estimated to be approximately 110 feet bgs[7], there is a negligible risk of liquefaction occurring at the Project site during a design level seismic event. Therefore, the impact is considered ***less than significant.***

Landsliding

There are no substantial slopes on or near the Project site. Therefore, the opportunity for slope failure in response to the long-term geologic cycle of uplift, mass wasting, and difference of slopes is unlikely. Compliance with all applicable seismic design standards of the California Building Standards Code would ensure that design features would not present a hazard involving landslides. Therefore, the impact is considered ***less than significant.***

Mitigation Measures

None are required.

[7] https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer#gwlevels (accessed Sept. 2021).

Impact 3.7-2: *Result in substantial soil erosion or the loss of topsoil?*

Less Than Significant Impact With Mitigation. Soils on the Project site consists primarily of Akers-Akers and Grangeville sandy loam soils. Akers-Akers soils consists of very deep, well drained soils formed in alluvium derived from granite rock. The soil is well drained and is suitable for various crop productions, cattle/dairy production and building site development.[8] Grangeville sandy loam soils consist of very deep, somewhat poorly drained soils that formed in moderate coarse textured alluvium dominantly from granite rock sources. This type of soil is typically used for a variety of crops as well as for urban development.[9]

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 1 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 Best Management Practices (BMPs) as part of a Stormwater Pollution Prevention Plan

[8] https://soilseries.sc.egov.usda.gov/OSD_Docs/A/AKERS.html (accessed Sept. 2021).

[9] https://soilseries.sc.egov.usda.gov/OSD_Docs/G/GRANGEVILLE.html (accessed Sept. 2021).

(SWPPP) that would be required and submitted to the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) in accordance with the National Pollution Discharge Elimination System (NPDES). In addition, soil erosion and loss of topsoil would be minimized through implementation of the San Joaquin Valley Air Pollution Control District (SJVAPCD) fugitive dust control measures (See Section 3.3 – Air Quality). Once construction is complete, the Project would not result in significant soil erosion or loss of topsoil. Mitigation Measure GEO – 1 (requirement to prepare a SWPPP) will ensure that impacts remain ***less than significant.***

Mitigation Measures:

GEO – 1 In order to reduce on-site erosion due to project construction and operation, an erosion control plan and Storm Water Pollution Prevention Plan (SWPPP) shall be prepared for the site preparation, construction, and post-construction periods by a registered civil engineer or certified professional. The erosion control plan shall incorporate best management practices consistent with the requirements of the National Pollution Discharge Elimination System (NPDES). The erosion component of the plan must at least meet the requirements of the SWPPP required by the Central Valley RWQCB. If earth disturbing activities are proposed between October 15 and April 15, these activities shall be limited to the extent feasible to minimize potential erosion related impacts. Additional erosion control measures may be implemented in consultation with the City of Visalia. Prior to the issuance of any permit, the Project proponent shall submit detailed plans to the satisfaction of the City of Visalia. The components of the erosion control plan and SWPPP shall be monitored for effectiveness by the City of Visalia. Erosion control measures may include, but not be limited to, the following:

- **i.** Limit disturbance of soils and vegetation disturbance removal to the minimum area necessary for access and construction;
- **ii.** Confine all vehicular traffic associated with construction to the right-of-way of designated access roads;
- **iii.** Adhere to construction schedules designed to avoid periods of heavy precipitation or high winds;
- **iv.** Ensure that all exposed soil is provided with temporary drainage and soil protection when construction activity is shut down during the winter periods; and
- **v.** Inform construction personnel prior to construction and periodically during construction activities of environmental concerns, pertinent laws and regulations, and elements of the proposed erosion control measures.

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 With Mitigation. As previously discussed herein, the proposed Project would not be located within an area identified as a landslide hazard area. The proposed Project is located on relatively flat agricultural fields, and the threat of a landslide occurring on or adjacent to the project site is considered low. Therefore, potential impacts associated with landslides would be ***less than significant.***

The proposed Project would be located on soils that exhibit low to moderate potential for liquefaction during an earthquake, and the potential for lateral spreading to occur is considered low. A design-level geotechnical analysis will be required as identified in Mitigation Measure GEO – 2. The site would be designed in accordance with engineering design standards and structural improvement requirements to withstand the effects of soil settlement and collapsible soils. Engineered compacted fill would likely be used during construction in accordance with building code requirements, which would reduce the potential for lateral spreading of soils from Project construction. Therefore, with implementation of Mitigation Measure GEO – 2, and structural/foundation design in accordance with the City of Visalia and current California Building Code standards, ground shaking impacts on the proposed Project area would be ***less than significant with mitigation.***

Mitigation Measures

GEO – 2 The project proponent shall retain a registered geotechnical engineer to prepare a design level geotechnical analysis prior to the issuance of any grading and/or building permit. The design-level analysis shall address site preparation measures and foundation design requirements of the project. The design-level analysis shall be prepared to the satisfaction of the City of Visalia. Final design-level project plans shall be designed in accordance with the approved geotechnical analysis. This shall include certification of engineered fills and subgrade preparation through monitoring of earthwork and compaction testing by a geotechnical engineer during construction.

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. As previously described, the soils present on the Project site have low to moderate potential for expansion. As discussed under Impact 3.7-3 above, the proposed Project would be designed in accordance with all applicable building code requirements and structural improvement requirements, which would also address expansive soil hazards. Engineered compacted fill would likely be used during construction in accordance with building code requirements, which would reduce the potential for impacts from expansive soil on Project development. Therefore, with foundation and structural design in accordance with the City of Visalia and current California Building Code standards, impacts from expansive soil on the proposed Project 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 proposed Project will connect to the City's wastewater/sewer system (Please refer to Section 3.19 – Utilities for the discussion pertaining to Project-related wastewater and connection to the City's sewer system). The Project does not include the construction, replacement, or disturbance of septic tanks or alternative wastewater disposal systems. Therefore, there is ***no impact.***

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 in the Project Area.

While the discovery of paleontological resources within the Project footprint is considered unlikely, Project buildout would adhere to California Public Resources Code Section 21083.2 which requires all earth-disturbing work to be temporarily suspended or redirected until a qualified paleontologist has evaluated the nature and significance of the records, in accordance with federal, State, and local guidelines. In addition, 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 with mitigation***.

Mitigation Measure

CUL-1, as described in Section 3.5.

Cumulative Impacts

Would the project make a cumulatively considerable contribution to a significant cumulative impact related to geology, soils, seismicity, or paleontological resources?

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 individual development projects allowed under the Visalia or Tulare County General Plan may result in individual project 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, the City's General Plan goals, objectives and policies, as well as State and federal regulations, 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. Implementation of the proposed Project would not make a cumulatively considerable contribution to any significant impact to geological or soils resources.

3.8 Greenhouse Gas Emissions

This section discusses regional greenhouse gas (GHG) emissions and climate change impacts that could result from implementation of the proposed Project. The information and analysis presented in this section are based on the Air Quality and Greenhouse Gas Analysis Reports (AQGGA) prepared for this Project by Johnson Johnson & Miller Air Quality Consulting. The full AQGGA can be reviewed in Appendix C. No NOP comment letters were received pertaining to this topic.

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."

Consequences of Climate Change in California

In California, climate change may result in consequences such as the following[2]:

[1] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 45.

[2] Ibid.

- **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.

- **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.

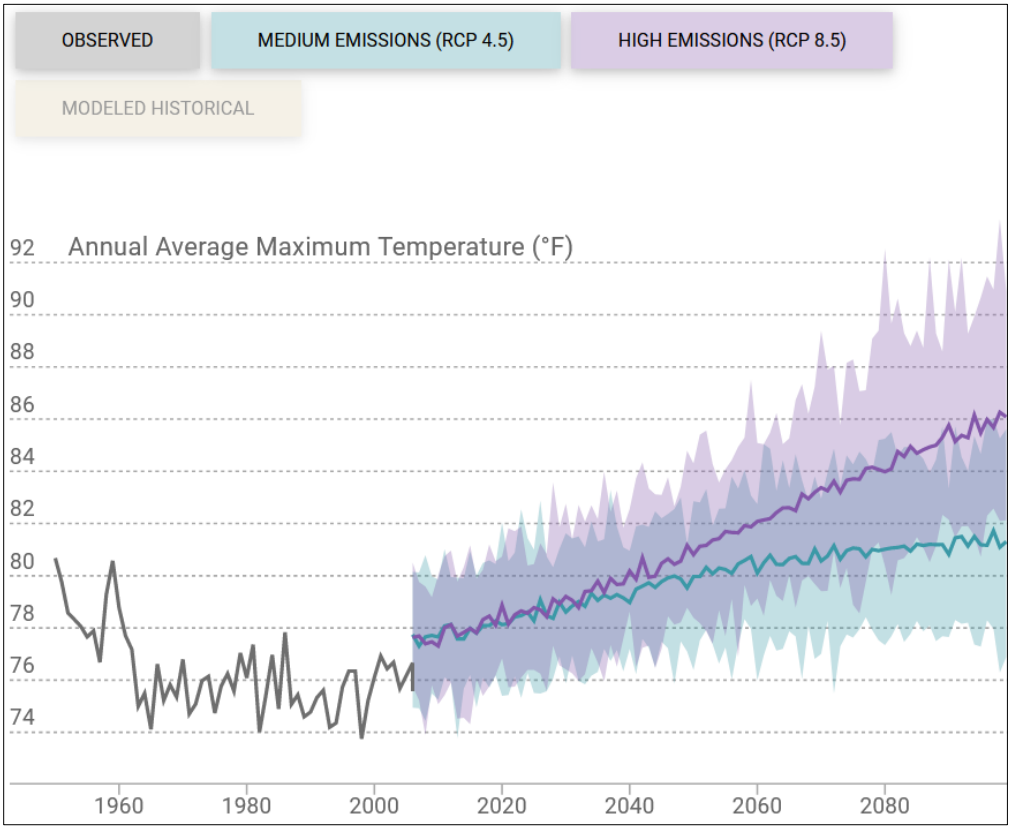
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

Consequences of Climate Change in the Visalia Area

Figure 3.8-1 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 by the end of the century are predicted to increase by 5.0 degrees Fahrenheit (°F) under the low emission scenario and 8.6°F under the high emissions scenario.[3]

Figure 3.8-1

Observed and Projected Temperatures for Climate Change in the Project Area[4]



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, CO_2, methane, NO_x, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, ozone, and

[3] Ibid. Page 48.

[4] Ibid, Page 47.

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 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, CO_2.

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, CO_2. For example, CH_4's warming potential of 25 indicates that CH_4 has 25 times greater warming effect than CO_2 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 (see the Climate Change Regulatory Environment section for a description) include CO_2, CH_4, NOX, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. They are 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, incorporated into the CalEEMod version 2020.4.0, are 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 Gases[5]

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 298.	Microbial processes in soil and water, fuel combustion, and industrial processes.
Methane	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 25.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural GHG. 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	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 124 to 14,800.	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.
Perfluorocarbons	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 from7,390 to 12,200.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200	This gas is man-made and used for insulation in electric power transmission equipment, in the magnesium industry, in

[5] Ibid, Page 49.

Greenhouse Gas	Description and Physical Properties	Sources
	years. It has a high global warming potential of 22,800.	semiconductor manufacturing, and as a tracer gas.
Nitrogen trifluoride	Nitrogen trifluoride (NF_3) was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. It has a high global warming potential of 17,200.	This gas is used in electronics manufacture for semiconductors and liquid crystal displays.

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 coordinate 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.[6]

The short-lived climate pollutants include three main components: black carbon, fluorinated gases, and methane. Fluorinated gases and methane are described in Table 3.8-1 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.[7]

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 precursor emissions—VOC and NO_x on a regional scale and CH_4 on a hemispheric scale—will be subject of the strategy.[8]

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

[6] Ibid, Page 50.
[7] Ibid.
[8] Ibid.

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 CO_2 allows more water vapor to enter the atmosphere.[9]

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 approximately 43,286 million metric tons of carbon dioxide equivalents ($MMTCO_2e$) in 2012. As shown in Figure 3.8-2, China was the largest GHG emitter with over 10 billion metric tons of CO_2e, and the United States was the second largest GHG emitter with over 6 billion metric tons of CO_2e.[10]

[9] Ibid, Page 51.
[10] Ibid.

Figure 3.8-2

Greenhouse Gas Emission Trends[11]

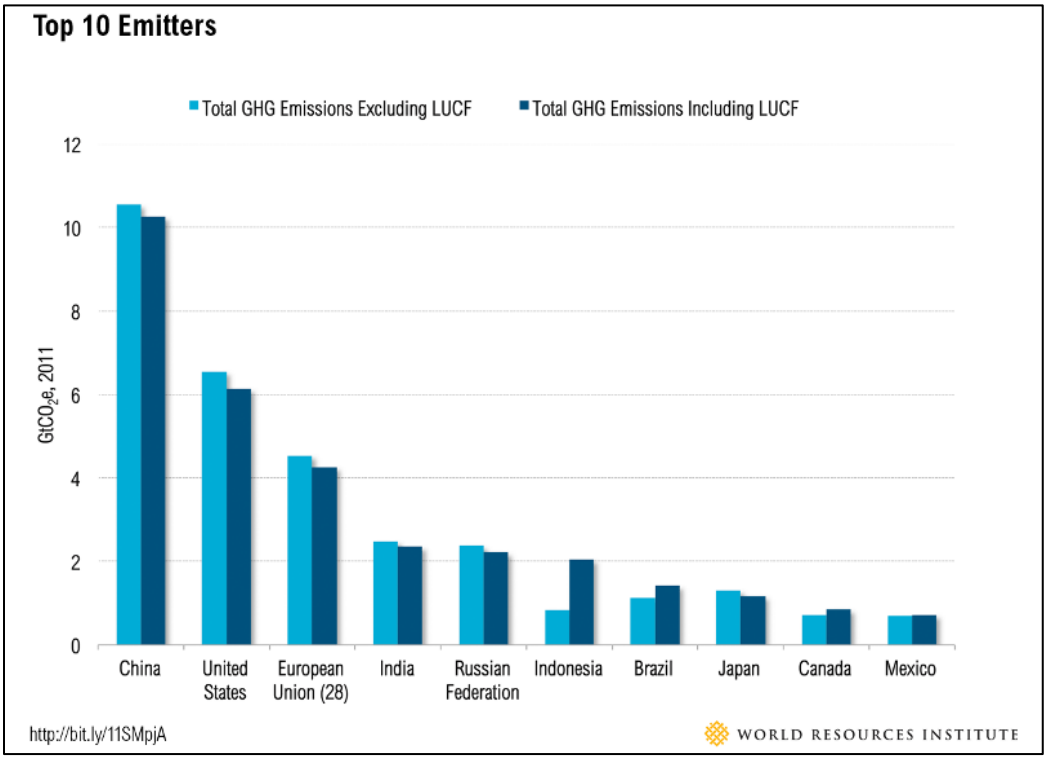


Figure 3.8-3 presents 2019 United States GHG emissions by economic sector. Emissions decreased from 2018 to 2019 by approximately 1.7 percent. This decrease was driven largely by a decrease in emissions from fossil fuel combustion resulting from a decrease in total energy use in 2019 compared to 2018 and a continued shift from coal to natural gas and renewables in the electric power sector. Total U.S. emissions have increased by 1.8 percent from 1990 to 2019 (from 6,437 MMT CO2e in 1990 to 6,558 MMT CO2e in 2019).[12]

[11] Ibid.

[12] Ibid, page 51.

Figure 3.8-3

2019 U.S. Greenhouse Gas Emissions by Economic Sector[13]

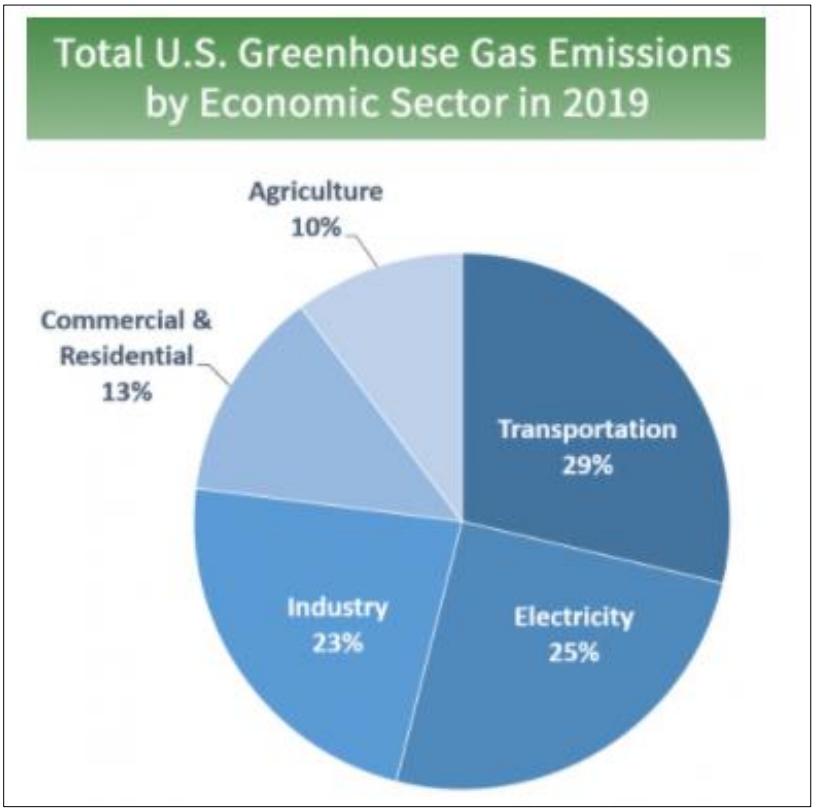
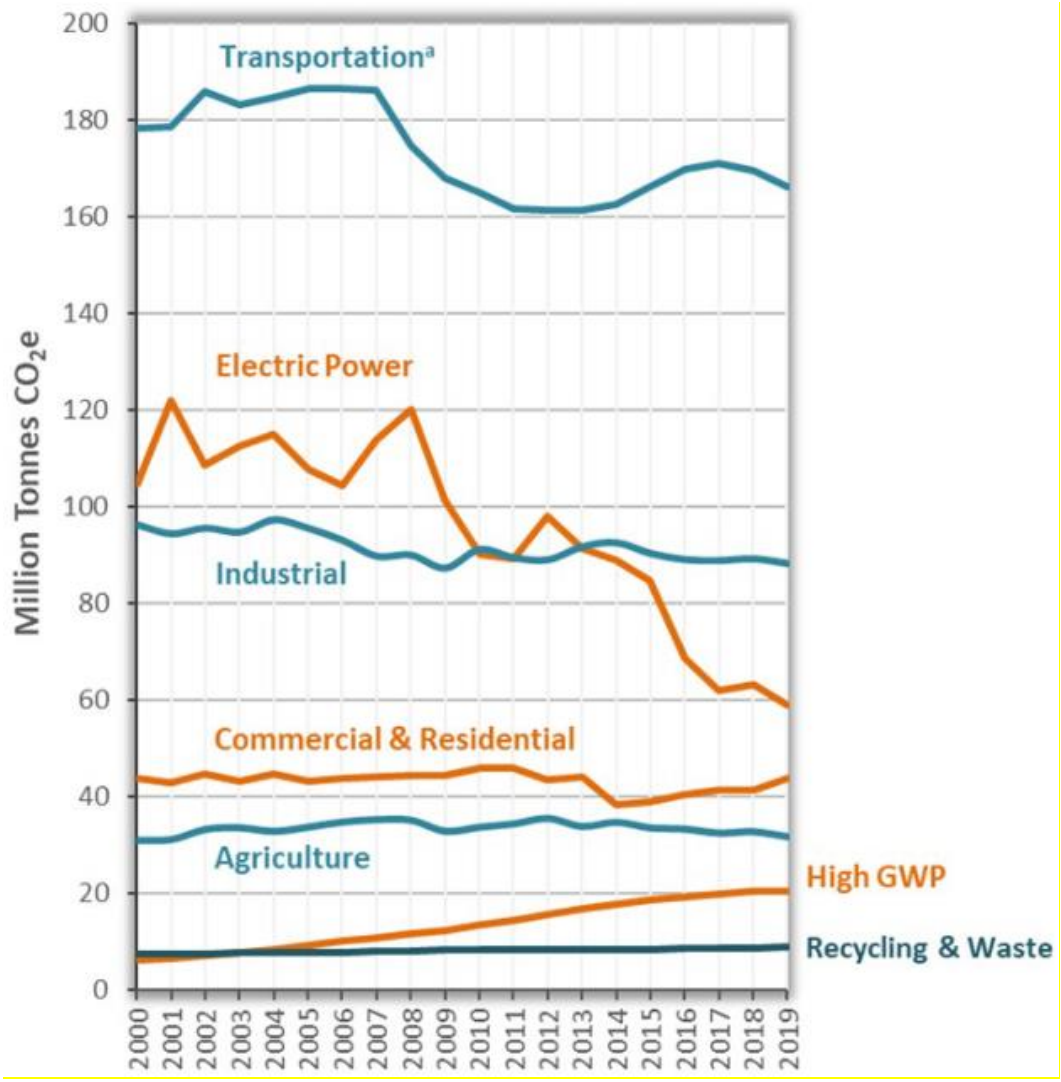


Figure 3.8-3 shows the contributors of GHG emissions in California between years 2000 and 2019 by Scoping Plan category. The main contributor was transportation. The second highest sector in 2019 was industrial, which includes sources from refineries, general fuel use, oil and gas extraction, cement plants, and cogeneration heat output. Emissions from the electricity sector account for 14 percent of the inventory and have shown a substantial decrease in 2019 due to increases in renewables. ARB reported that California's GHG emissions inventory was 418.2 MMTCO2e in 2019.

[13] Ibid, Page 52.

Figure 3.8-4

Greenhouse Gas Emission Trends by Scoping Plan Category in California[14]



Regulatory Setting

International Regulations

Intergovernmental Panel on Climate Change

In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change. The panel was tasked with assessing the scientific,

[14] Ibid, Page 53.

technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change (Convention)

On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at average of five percent against 1990 levels over the five-year period from 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

Paris Agreement

Parties to the United Nations Framework Convention on Climate Change (UNFCCC) reached a landmark agreement on December 12, 2015 in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating in a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen those efforts in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties, or COP 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2 degrees Celsius, while urging efforts to limit the increase to 1.5 degrees;

- Establish binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they will "represent a progression" beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address "loss and damage" resulting from climate change, which explicitly will not "involve or provide a basis for any liability or compensation;"
- Require parties engaging in international emissions trading to avoid "double counting;" and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC.[15]

Between June 1, 2017 and January 20, 2021, the United States had temporarily withdrawn from the Paris Climate Agreement.

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 U.S. Environmental Protection Agency (EPA) regulate four GHGs, including CO_2, 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

[15] Ibid, Page 55.

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.[16]

Clean Vehicles

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.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon; that is, if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second-phase joint rulemaking, establishing national standards for light-duty vehicles for

[16] Ibid, Page 56.

model years 2017 through 2025 in August 2012 (EPA 2012b). The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 miles per gallon if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that began in the 2014 model year and achieve up to a 20-percent reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10-percent reduction for gasoline vehicles, and a 15-percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10-percent reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

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.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units.

As required by a settlement agreement, the EPA proposed new performance standards for emissions of carbon dioxide for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output based standard of 1,000 pounds of carbon dioxide per megawatt-hour, based on the performance of widely used natural gas combined cycle technology. President Trump signed the Executive Order on Energy Independence (E.O. 13783), which calls for a review of the Clean Power Plan. On October 16, 2017, the EPA issued the proposed rule Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units an Energy Independence.

Cap-and-Trade

Cap-and-Trade refers to a policy tool where emissions are limited to a certain amount and can be traded, or provides flexibility on how the emitter can comply. There is no federal GHG Cap-and-Trade program currently; however, some states have joined to create initiatives to provide a mechanism for Cap-and-Trade.

The Regional Greenhouse Gas Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps carbon dioxide emissions from power plants, auctions carbon dioxide emission allowances, and invests the proceeds in strategic energy programs that further reduce

emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008.

The Western Climate Initiative partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15 percent below 2005 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Quebec. Currently, only California and Quebec are participating in the Cap-and-Trade program.[17]

State of California Regulations

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 Assembly Bill (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 CO_2, 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 $MMTCO_2e$ 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 $MMTCO_2e$. Emissions in 2020 in a BAU scenario were estimated to be 596 $MMTCO_2e$, which

[17] Ibid, Page 58.

do not account for reductions from AB 32 regulations (ARB 2008a). At that rate, a 28 percent reduction was required to achieve the 427 $MMTCO_2e$ 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.

Calculation of the original 1990 limit approved in 2007 was revised in 2014 using the scientifically updated IPCC AR4 global warming potential values, to 431 $MMTCO_2e$. ARB approved 431 $MMTCO_2e$ as the 2020 emission limit with the approval of the First Update to the Scoping Plan on May 22, 2014.[18]

ARB 2008 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.

[18] Ibid, Page 59.

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.[19]

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:

> 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.[20]

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:

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[19] Ibid, Page 60.

[20] Ibid.

> 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.[21]

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 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.[22]

SB 32 and 2017 Scoping Plan. 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:

1. SB 350
    - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.

[21] Ibid, Page 61.

[22] Ibid, Page 60.

- 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.
   - 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.

2022 Scoping Plan and AB 1279. ARB adopted the 2022 Scoping Plan on December 16, 2022 that addresses long-term GHG goals set forth by AB 1279.[23] The 2022 Scoping Plan outlines the State's pathway to achieve carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045. Unlike the 2017 Scoping Plan Update, ARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy consistent with CEQA Guidelines section 15183.5.

The key elements of ARB's 2022 Scoping Plan focus on the transportation sector, where reductions are primarily influenced by regulations at the state level. Under the 2022 Scoping Plan, the State will lead efforts to meet the 2045 carbon neutrality goal through implementation of the following objectives:[24]

- Reimagine roadway projects that increase VMT in a way that meets community needs and reduces the need to drive.
- Double local transit capacity and service frequencies by 2030.
- Complete the High-Speed Rail (HSR) System and other elements of the intercity rail network by 2040.
- Double local transit capacity and service frequencies by 2030.
- Complete the High-Speed Rail (HSR) System and other elements of the intercity rail network by 2040.
- Expand and complete planned networks of high-quality active transportation infrastructure.
- Increase availability and affordability of bikes, e-bikes, scooters, and other alternatives to light-duty vehicles, prioritizing needs of underserved communities.
- Shift revenue generation for transportation projects away from the gas tax into more durable sources by 2030.

[23] The Final 2022 Scoping Plan was released on November 16, 2022 and adopted by ARB on December 16, 2022.
[24] California Air Resources Board (ARB). 2022. 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan). Website: https://ww2.arb.ca.gov/resources/documents/2022-scoping-plan-documents. November 16. Accessed January 11, 2023.

- Authorize and implement roadway pricing strategies and reallocate revenues to equitably improve transit, bicycling, and other sustainable transportation choices.
- Prioritize addressing key transit bottlenecks and other infrastructure investments to improve transit operational efficiency over investments that increase VMT.
- Develop and implement a statewide transportation demand management (TDM) framework with VMT mitigation requirements for large employers and large developments.
- Prevent uncontrolled growth of autonomous vehicle (AV) VMT, particularly zero-passenger miles.
- Channel new mobility services towards pooled use models, transit complementarity, and lower VMT outcomes.
- Establish an integrated statewide system for trip planning, booking, payment, and user accounts that enables efficient and equitable multimodal systems.
- Provide financial support for low-income and disadvantaged Californians' use of transit and new mobility services.
- Expand universal design features for new mobility services.
- Accelerate infill development in existing transportation-efficient places and deploy strategic resources to create more transportation-efficient locations.
- Encourage alignment in land use, housing, transportation, and conservation planning in adopted regional plans (RTP/SCS and RHNA) and local plans (e.g., general plans, zoning, and local transportation plans).
- Accelerate production of affordable housing in forms and locations that reduce VMT and affirmatively further fair housing policy objectives.
- Reduce or eliminate parking requirements (and/or enact parking maximums, as appropriate) and promote redevelopment of excess parking, especially in infill locations.
- Preserve and protect existing affordable housing stock and protect existing residents and businesses from displacement and climate risk.

Included in the 2022 Scoping Plan is a set of Local Actions (Appendix D to the 2022 Scoping Plan) aimed at providing local jurisdictions with tools to reduce GHGs and assist the state in meeting

the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, ARB identifies several recommendations and strategies that should be considered for new development to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on residential and mixed-use projects. Specifically, ARB states:

> "The recommendations outlined in this section apply only to residential and mixed-use development project types. California currently faces both a housing crisis and a climate crisis, which necessitates prioritizing recommendations for residential projects to address the housing crisis in a manner that simultaneously supports the State's GHG and regional air quality goals. CARB plans to continue to explore new approaches for other land use types in the future." (Page 21 of Appendix D to the 2022 Scoping Plan)

Considering the information summarized above, it would be inappropriate to apply the requirements contained in Appendix D of the 2022 Scoping Plan to any land use types other than residential or mixed-use residential development.

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.

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.[25]

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 CO_2 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

[25] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, Page 64.

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.[26]

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. Supply, conveyance, treatment, and distribution of water for the Project all require the use of electricity, which would result in associated indirect GHG emissions.

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

[26] Ibid, Page 66.

retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that 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. The regulation was amended in 2018 to strengthen and smooth carbon intensity benchmarks through 2030, in-line with GHG reduction target enacted through SB 32.[27]

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. The executive order directs ARB to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal. This goal is in addition to the statewide targets of reducing greenhouse gas emissions.

[27] Ibid, Page 67.

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.

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 CEC adopted the 2022 Energy Code, effective January 1, 2023.

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 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.

CEQA Guidelines.

Section 15064.4(b) of the CEQA Guidelines provides direction for lead agencies for assessing the significance of impacts of GHG emissions:

- The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
- 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.

Section 15064.4(c) states that a lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

Section 156437 of the CEQA Guidelines includes the following discussion regarding thresholds of significance.

> (d) Using environmental standards as thresholds of significance promotes consistency in significance determinations and integrates environmental review with other environmental program planning and regulation. Any public agency may adopt or use an environmental standard as a threshold of significance. In adopting or using an environmental standard as a threshold of significance, a public agency shall explain how the particular requirements of that environmental standard reduce project impacts, including cumulative impacts, to a level that is less than significant, and why the environmental standard is relevant to the analysis of the project under consideration. For the purposes of this subdivision, an "environmental standard" is a rule of general application that is adopted by a public agency through a public review process and that is all of the following:
>
> (1) a quantitative, qualitative or performance requirement found in an ordinance, resolution, rule, regulation, order, plan or other environmental requirement;
>
> (2) adopted for the purpose of environmental protection;
>
> (3) addresses the environmental effect caused by the project; and,
>
> (4) applies to the project under review.

CEQA emphasizes that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (see CEQA Guidelines Section 15130(f)).

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 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.
- **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'].)"
- **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.
- **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.

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.[28]

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 or programs must be specified in law or adopted

[28] Ibid, Page 73.

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 2008 Scoping Plan.

The SJVAPCD has not yet adopted BPS for development projects, so quantification of Project emissions is required. The SJVAPCD has not updated its guidance to address SB 32 2030 targets.[29]

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.[30]

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

[29] Ibid, Page 73.

[30] Ibid, Page 74.

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.
- 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

Regional Transportation Plan

Tulare County Association of Governments (TCAG) is the Metropolitan Planning Organization (MPO) for Tulare County and has responsibilities as Tulare County's Council of Governments (COG), transportation authority, and the Regional Transportation Planning Agency (RTPA).

The Regional Transportation Plan (RTP) is a long-range plan that every MPO is required to complete. The plan is meant to provide a long-range, fiscally constrained guide for the future of Tulare County's transportation system. The 2018 RTP plan extends to the year 2042 in its scope. As required by the Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375), the 2018 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) contains a Sustainable Communities Strategy that considers both land use and transportation together in a single, integrated planning process that accommodates regional housing needs and projected growth. The 2018 RTP/SCS meets the requirements of SB 375 and demonstrates how the integrated land use and transportation plan achieves the region's mandated GHG emission targets for passenger vehicles.[31]

City of Visalia General Plan

The City of Visalia General Plan includes numerous policies aimed at reducing and controlling GHG emissions. The City of Visalia included a Climate Action Plan (CAP) as part of the General Plan Update that incorporates strategies that would help reduce GHG emissions associated with development projects. The General Plan policies included in the Air Quality and Greenhouse Gases

[31] Ibid, Page 74.

chapter to support the City's objective to reduce emissions of GHGs that contribute to climate change in accordance with federal and state law (AQ-O-3) are listed below.

- **AQ-P-12.** Support the implementation of Voluntary Emissions Reduction Agreements (VERA) with the San Joaquin Valley Air Pollution Control District (the District) for individual development projects that may exceed District significance thresholds.

  A VERA is a voluntary mitigation measure where a project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emissions reduction projects, with the District serving a role of administrator of emissions reduction programs and verifier of successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project-specific emissions by providing funds for the District's Strategies and Incentives Program. The funds are disbursed in the form of grants for projects that achieve emission reductions.

- **AQ-P-13.** Where feasible, replace City vehicles with those that employ low-emission technology.
- **AQ-P-14.** Promote and expand the trip-reduction program for City employees to reduce air pollution and emissions of greenhouse gas.

  The program may include carpooling and ridesharing; reimbursement of transit costs; encouragement of flexible work schedules, telecommuting, and teleconferencing.

- **AQ-P-15.** Maintain an inventory of greenhouse gas emissions from City operations and track related solid waste, energy, economic, and environmental data. Update the inventory periodically as additional data and methodologies become available.
- **AQ-P-16.** Support State efforts to reduce greenhouse gases and emissions through local action that will reduce motor vehicle use, support alternative forms of transportation, require energy conservation in new construction, and energy management in public buildings, in compliance with AB 32.

  By proposing compact development, mixed-use centers, walkable neighborhoods, green building technology, and jobs-housing balance, the City will be helping to implement many of the strategies and programs in the San Joaquin Valley 2007 Ozone Plan.

- **AQ-P-17.** Prepare and adopt a Climate Action Plan that incorporates a Greenhouse Gas (GHG) Emissions Reduction Plan. The GHG Emissions Reduction Plan will quantify current and anticipated future emissions and focus on feasible actions the City can take to minimize the adverse impacts of General Plan implementation on climate change and air quality.

City of Visalia General Plan Environmental Impact Report (EIR)

The General Plan EIR relies on General Plan goals and policies to mitigate GHG emissions to the extent feasible. Many of the policies are applicable at a city level and are only applicable to municipal operations, while those applicable to community development projects would apply to individual development projects through compliance with regulations. General Plan policies listed in the EIR section include AQ-P-12, AQ-P-13, AQ-P-14, AQ-P-15, AQ-P-16 and the additional measures provided below.

- **T-P-20.** Work with major employers and the Tulare County Association of Governments (TCAG) to reduce total vehicle miles traveled [VMT] and the total number of daily and peak hour vehicle trips and provide better utilization of the transportation system through development and implementation of Transportation Demand Management (TDM) strategies that are tailored to the needs of geographic areas within the city and the time period of traffic congestion.

  These may include the implementation staggered work hours, utilization of telecommunications, increased use of ridesharing in the public and private sectors, and provision for bicyclists.

- **T-P-41.** Integrate the bicycle transportation system into new development and infill redevelopment. Development shall provide short term bicycle parking and long term bicycle storage facilities, such as bicycle racks, stocks, and rental bicycle lockers. Development also shall provide safe and convenient bicycle and pedestrian access to high activity land uses such as schools, parks, shopping, employment, and entertainment centers.
- **T-P-53.** Develop flexible parking requirements in the zoning ordinance for development proposals based on "best practices" and the proven potential to reduce parking demand. These could include projects that integrate transit facilities, incorporate a mix of uses with differing peak parking demand periods (e.g., residential and office), incorporate shared parking or common area parking, or incorporate other Transportation Demand Management (TDM) Strategies for residents or tenants (car-sharing, requiring paid parking, etc.).
- **T-P-67.** Participate in the planning process for a potential Cross Valley Rail Line, which could provide east-west light rail service from Visalia to Huron and potentially connect to a future High Speed Rail system.
- **T-P-77.** Work with TCAG to ensure that the Regional Transportation Plan (RTP) and Sustainable Communities Strategy are consistent with Visalia's Land Use and Transportation policies.

Visalia Climate Action Plan

Visalia's 2013 CAP includes a baseline GHG emissions inventory of municipal and community emissions, identification and analysis of existing and proposed GHG reduction measures, and reduction targets to help Visalia work toward the State's goal of an 80 percent reduction below baseline emissions by 2050. The plan sets 2020 and 2030 reduction targets, and it includes reduction actions for energy, transportation, and waste and resource conservation. The CAP includes targets and action steps for the municipal and community sectors. The CAP was prepared concurrently with the General Plan, with an environmental review conducted through the EIR prepared for the General Plan. The CAP includes objectives and specific policies from the proposed General Plan to address long-term emissions reduction efforts by the City.

The CAP provides the following reduction targets for Visalia's community and municipal sectors based on the baseline year emissions and emissions projections estimates:

- A reduction target of 15% below 2005 baseline year level by 2020 (selected to be in-line with ARB's recommended reduction targets)
- A reduction target of 30% below 2005 baseline year level by 2030 (strategy consistent with Executive Order S-3-05)

Visalia's Climate Change Initiatives

In January 2007, Visalia's mayor signed the "Cool Cities" pledge, part of the U.S. Mayors Climate Protection Agreement. By entering into this agreement, the City has adopted the goal of reducing citywide GHG emissions to 7% below 1990 levels by 2012. As detailed in the CAP, this goal was subsequently expanded in response to ARB's recommended reduction target of 15% below the 2005 baseline, and the City added a 2030 mitigation target to correlate with the 2030 General Plan Update and the goal of achieving an 80% reduction by 2050. In 2008, the City also became a partner with the San Joaquin Valley Clean Energy Organization, which is a non-profit serving the eight-county region. This partnership led to the development of the Valley Innovative Energy Watch: a partnership with Southern California Edison (SCE), Southern California Gas Company (SoCalGas), Pacific Gas & Electric (PG&E), San Joaquin Valley Clean Energy Organization, and other public jurisdictions in Kings/Tulare Counties. One major task in this initiative was assisting each of the local government partners to develop comprehensive clean energy/GHG reduction plans, including the identification of baseline GHG emissions and energy use.

Thresholds of Significance

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment."

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97 and most recently amended December 28, 2019. A significant impact would occur if the project would:

(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

(b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Approach to Analysis

Section 15064.4(b) of the CEQA Guidelines 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.

Visalia's 2013 CAP provides the following reduction targets for Visalia's community and municipal sectors based on the baseline year emissions and emissions projections estimates:

- A reduction target of 15 percent below 2005 baseline year level by 2020 (*selected to be in-line with ARB's recommended reduction targets*)
- A reduction target of 30 percent below 2005 baseline year level by 2030 (*strategy consistent with Executive Order S-3-05*)

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. 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. In addition, the State reported that the 2016 greenhouse gas inventory was below the 2020 target for the first time. Furthermore, the 2017 Scoping Plan states that California is on track to achieve the 2020 target. In addition, the 2022 Scoping Plan outlines objectives, regulations, planning efforts, and investments in clean technologies and infrastructure that outlines how the State can achieve carbon-neutrality by 2045. First occupancy at the Project site is expected to occur as early as 2023, which is after the AB 32 target year. Full buildout of the single family portion is expected to take up to fifteen (15) years with the remaining to be determined by demand. Until a new threshold or BPS are identified for projects constructed after 2020, significance is based on making continued progress toward the SB 32 2030 goal.

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. This analysis is included under Impact 3.8-1 as one of two considerations used to determine if the proposed Project would generate direct or indirect greenhouse emissions that would result in a significant impact on the environment.

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 assesses whether the Project would achieve a 15 percent reduction from 2005 emissions by 2020 and a 30 percent reduction from 2005 emissions by 2030 to demonstrate consistency with the City of Visalia CAP targets. 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. These analyses that fulfil Consideration #2 are included under Impact 3.8-1 as one of two considerations used to determine if the proposed Project would generate direct or indirect greenhouse emissions that would result in a significant impact on the environment.

Consistent with Consideration #3, the analysis prepared for the Project also includes qualitative assessments of compliance with 2008 Scoping Plan, the 2017 Scoping Plan, the 2022 Scoping Plan, and the City of Visalia CAP to support GHG significance findings under Impact 3.8-2. This analysis is used to answer whether the proposed Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases and is included under Impact 3.8-2.

Impacts and Mitigation Measures

Impact 3.8-1: *Would the project generate direct or indirect greenhouse emissions that would result in a significant impact on the environment?*

Less Than Significant. The proposed Project would have a significant impact if the Project would generate direct or indirect GHG emissions that would have a significant impact on the environment.

Impact Analysis

Construction

Total GHG emissions generated during all phases of construction were combined and are presented in Table 3.8-2. The SJVAPCD does not recommend assessing the significance of construction-related emissions. However, construction emissions may remain in the atmosphere for years after construction is complete. In order to account for the construction emissions, amortizations of the total emissions generated during construction were based on the assumed life of the proposed Project (30 years) and added to the operational emissions.

Table 3.8-2
Construction Greenhouse Gas Emissions[32]

Phase/Year	$MTCO_2e$ per year
Phase 1	
Phase 1 Tier 1 Multifamily Residential	1,420.67
Phase 1 Tier 2 Multifamily Residential	708.53
Phase 1 Single-family Residential	6,671.01
Phase 1 Commercial – mixed use	2,196.24
Phase 1 Total	**10,996.45**
Amortized Over 30 Years	***366.55***
Phase 2	
Phase 2 Multifamily Residential	11,629.29
Phase 2 Single-family Residential	15,853.92
Phase 2 Commercial	516.88
Phase 2 Basin	124.53
Phase 2 Total	**28,124.62**
Amortized Over 30 Years	***937.49***
Phases 1 and 2 Combined	
Grand Total for All Construction Activities	**39,121.07**
Amortized over 30 years	***1,304.04***

Notes:
Calculation totals use unrounded numbers from CalEEMod output; therefore, totals may not appear to sum exactly due to rounding.
$MTCO_2e$ = metric tons of carbon dioxide equivalents
Source: CalEEMod output (Appendix A of Appendix C).

[32] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 121.

Operation

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 2020.4.0. Modeling assumptions for the year 2005 were used to represent 2028, 2037, 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. The vehicle fleet mix was revised to reflect the residential fleet mix approved by SJVAPCD for 2013, which is the earliest residential fleet mix provided by SJVAPCD. Full assumptions and CalEEMod model outputs are provided in Appendix A of Appendix C.

2028, 2037, and 2030 Operational Emissions

Operational emissions were modeled using CalEEMod for the years 2028 for Phase 1 development and 2037 for Phase 2 development. Phases 1 and 2 were also modeled in year 2030 to assess 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. The reductions obtained from each regulation and the source of the reduction amount used in the analysis are described below.

Land use-related sources are analyzed separately from permitted stationary sources of emissions. Permitted sources would be subject to Best Available Control Technologies to minimize impacts, which would be enforced as part of the permitting process.

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, 2016, and 2019 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:

- Renewables Portfolio Standard (RPS) requirements for year 2030
- Green Building Code Standards (indoor water use)
- California Model Water Efficient Landscape Ordinance (Outdoor Water)
- 2022 Title 24 Energy Efficiency Standards

Title 24 reductions for 2013 and 2016 updates were added to CalEEMod 2016.3.2 and were carried into CalEEMod 2020.4.0. Title 24 reductions for 2019 were added to CalEEMod 2020.4.0. The proposed Project is expected to include solar panels on each single-family residential unit in quantities that meet or exceed Title 24 requirements.

RPS is not accounted for in CalEEMod 2020.4.0. Reductions from RPS for operational years 2030 and beyond are addressed by revising the electricity emission intensity factor in CalEEMod to account for the utility RPS rate forecast for 2030. The utilities will be required by SB 100 to increase the use of renewable energy sources to 60 percent by 2030. The latest power content label for SCE was used to estimate a revised CO_2 intensity factor for use in the modeling; calculations and related sources are provided in Appendix C.

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 Tulare County achieving the CalRecycle 75 Percent Initiative by 2020 compared with a 45 percent baseline. Reductions are taken using the CalEEMod mitigation component.

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 VMT compared with default values. The Project would construct pedestrian infrastructure connecting within the project and to adjacent land uses. 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 5 miles from existing Downtown Visalia, providing shorter-than-average trip lengths to a job center and other important destinations.

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 output results are provided in Appendix C. The combined results for the full Project are presented in Table 3.8-3.

Table 3.8-3
Full Buildout Project Operational Greenhouse Gases (Phases 1 and 2 Combined)[33]

Source	Emissions ($MTCO_2e$ per year)		
	Business as Usual	**2028 (with Regulation and Design Features)**	**Percent Reduction**
Area	1,462.54	1,461.66	0.06%
Energy	8,271.80	6,931.72	16.2%
Mobile	55,009.18	34,580.06	37.1%
Waste	1,577.78	1,182.91	25.0%
Water	630.47	475.50	24.6%
Amortized Construction Emissions	1,304.04	1,304.04	0.0%
Total	**68,255.81**	**45,935.89**	**32.7%**
Reduction from BAU		**22,319.62**	—
Percent Reduction		**32.7%**	—
Significance Threshold (AB 32 Consistency)		**21.7%**	—
Significance Threshold (SJVAPCD)		**29%**	—
Significance Threshold (City of Visalia CAP)		**30%**	—
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. SJVAPCD has not set a new percent reduction target for 2030.

As demonstrated in Table 3.8-3, the Project operations for the full project would achieve a reduction from BAU of 32.7 percent, which exceeds the 21.7 percent reduction required by the State to achieve the 2020 target by 11.0 percent and the SJVAPCD 29.0 percent target by 3.7 percent. No new threshold has been adopted by the SJVAPCD for the 2030 target, so in the interim the project must make continued progress toward the 2030 goal. In addition, the City of Visalia

[33] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 124.

identifies a reduction target of 30 percent below 2005 baseline year level by 2030. The 2030 reduction target identified by the City of Visalia CAP was selected to show consistency with Executive Order S-3-05.

The ARB originally identified a reduction of 29 percent from BAU as needed to achieve AB 32 targets. The 2008 recession and slower growth in the years since 2008 have reduced the growth forecasted for 2020, and the amount needed to be reduced to achieve 1990 levels as required by AB 32. The California Department of Finance (DOF) population forecast for 2020 to 2030 predicts growth in the State of 8.1 percent by the 2030 target year or 0.8 percent per year.[34]

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 32.7 percent reduction from BAU is 11.0 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.

An additional analysis for the 2030 operational scenario is summarized in Table 3.8-4. The 2030 analysis was prepared to show continued progress toward meeting the SB 32 2030 target.

[34] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 126.

Table 3.8-4
Full Buildout Project Operational Greenhouse Gases
(2030 Operational Year Scenario)

Source	Emissions ($MTCO_2e$ per year)		
	Business as Usual	2030 (with Regulation and Design Features)	Percent Reduction
Area	1,462.67	1,461.66	0.07%
Energy	8,271.80	4,793.25	42.1%
Mobile	54,624.74	30,381.39	44.4%
Waste	1,577.78	1,104.45	30.0%
Water	630.47	456.61	27.6%
Amortized Construction Emissions	1,304.04	1,304.04	0.0%
Total	**67,871.51**	**39,501.40**	**41.8%**
Reduction from BAU		**28,370.11**	**—**
Percent Reduction		**41.8%**	**—**
Significance Threshold (AB 32 Consistency)		**21.7%**	—
Significance Threshold (SJVAPCD)		**29%**	—
Significance Threshold (City of Visalia CAP)		**30%**	—
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. SJVAPCD has not set a new percent reduction target for 2030.
Source: CalEEMod output (Appendix A of Appendix C).

As shown in Table 3.8-4, the full project at buildout under a 2030 operational year scenario would achieve a 41.8 percent reduction from BAU that would exceed the 21.7 percent reduction required by the State to achieve the 2020 target by 20.1 percent and the SJVAPCD 29.0 percent target by 12.8 percent in the 2030 operational buildout scenario. The Project would also exceed the CAP 2030 percent reduction requirement of 30 percent by 11.8 percent.

The analysis presented above does not include several new strategies proposed in the 2017 Scoping Plan Update or the recently adopted 2022 Scoping Plan. The updates provide 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. Governor Newsom issued the executive order for zero-emission by 2035 (N-79-20), in January 2021. This executive order requires sales of all new passenger vehicles to be zero-emission by 2035 and additional measures aimed to eliminate emissions from the transportation sector. 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.

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 Table 3.8-5. The 2017 Scoping 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.

Table 3.8-5
2017 Scoping Plan Update Estimated Change in GHG Emissions by Sector[35]

Scoping Plan Sector	Emissions ($MMTCO_2e$ 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
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**

[35] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 126.

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. 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 of 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 proposed Project would achieve reductions of 11.0 percent beyond the ARB 2020 21.7 percent target, 3.7 percent beyond the SJVAPCD 29 percent reduction from BAU requirements, and 17.7 percent beyond the 15 percent reduction identified in the City of Visalia CAP from adopted regulations and on-site design features for Project operation in 2028. Furthermore, the proposed Project would achieve a 41.8 percent reduction when assessed for the 2030 operational year scenario, which is 11.8 percent over the City's 2030 target of 30 percent. No new threshold has been adopted by the SJVAPCD for the SB 32 2030 target; however, the reductions from BAU by 2030 are 20.1 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 and the 2022 Scoping Plan 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. The 2022 Scoping Plan heavily emphasizes the need for GHG reductions in the transportation sector and recognizes the need for mixed-use development to meet housing needs as well as environmental-focused goals. As the Project would comply with VMT targets adopted to comply with SB 375, would make continued progress towards 2030 GHG reduction goals, and is designed as a mixed-use development, the Project would not conflict with the 2022 Scoping Plan goals. Therefore, the impact in terms of Considerations #1 and #2 would be less than significant.

Mitigation Measures:

None Required.

Impact 3.8-2: *Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less Than Significant. The proposed Project would have a significant impact if the Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. To address whether the proposed Project could conflict with an appliable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases, the following analysis assesses the Project's compliance with Consideration #3 regarding consistency with adopted plans to reduce GHG emissions. The Project's consistency with the City of Visalia's 2013 CAP is assessed below. The proposed 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, the 2017 Scoping Plan Update, and the 2022 Scoping Plan.

City of Visalia Climate Action Plan

As detailed above in Impact GHG-1, the Project would achieve reductions of 17.7 percent beyond the 15 percent reduction below 2005 baseline year level by 2020 identified in the City of Visalia CAP from adopted regulations and on-site design features. Furthermore, the Project would achieve 2.7 percent beyond the City of Visalia's target of 30 percent below 2005 baseline year level by 2030 when assessed at Project buildout and would achieve 11.8 over the City's 2030 target when assessed in a 2030 operational year scenario. As such, the Project would be consistent with the City of Visalia CAP. The proposed Specific Plan would provide residential uses that will be designed to satisfy existing and future demand for quality housing in the area provide and would provide conveniently located commercial development to serve north Visalia residents and the

Carleton Acres development in a growing area of the City of Visalia. The trails, parks, and public spaces would serve to increase walkability. The Project would comply with all applicable rules and regulations, including Building Code standards. The Project design would also support goals and policies called out in the CAP and the General Plan to reduce GHG emissions, such as providing a variety of locally serving land uses and providing connectivity and public spaces. Therefore, the Project would not conflict with any local plan, policy, or regulation adopted by the City of Visalia to reduce emissions of GHGs.

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.

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 3.8-6, the proposed 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.

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 Scoping Plan and the City of Visalia CAP and City of Visalia General Plan. As demonstrated in the impact analysis above, the Project would achieve a 41.8 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 the AB 32 Scoping Plan.

Table 3.8-6
Project Consistency with AB Scoping Plan[36]

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. 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.
	Low Carbon Fuel Standard.	2009 readopted in 2015. Regulations to Achieve Greenhouse Gas Emission	**Consistent.** This measure applies to transportation fuels utilized by vehicles in California. The Project would not conflict with

[36] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 130.

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
		Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	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 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).
	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 Portfolio Standard/Renewable Electricity Standard.	2010 Regulation to Implement the Renewable Electricity Standard (33% 2020)	**Consistent**. SCE obtained 35 percent of its power supply from renewable sources such as solar and geothermal in 2020, and about 43 percent of the

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
		SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)	electricity it delivers is carbon-free. The owners of residences within the Project and future business 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.
	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 Specific Plan area will be able to take advantage of incentives that are in place at the time of construction. The residential portion of 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 reduction in indoor water use. The Project will also comply with the MWELO as required by the City's development code and water ordinance.
		SBX 7-7—The Water Conservation Act of 2009	
		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 a mixed-use project and does not include industrial land uses.
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
		AB 341 Statewide 75 Percent Diversion Goal	

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
			Project would utilize City of Visalia recycling services.
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	**Consistent**. The regulations are applicable to refrigerants used by large air conditioning systems and large commercial and industrial refrigerators and cold storage system. The Project includes development commercial areas, could accommodate multi-family developments, and may include public facilities where large air conditioning systems may be used. These systems will comply with all aspects of applicable guidelines and regulations.
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.

Consistency with the 2017 Scoping Plan

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. Table 3.8-7 provides an analysis of the proposed Project's consistency with the 2017 Scoping Plan Update measures.

Table 3.8-7
Consistency with SB 32 2017 Scoping Plan Update[37]

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.	**Consistent**: The Project will purchase electricity from a utility subject to the SB 350 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. While there are currently existing structures in the Project area, they are not a part of the proposed development.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**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**. Future Project occupants and visitors 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. Furthermore, home and business deliveries will be made by increasing numbers of ZEV delivery trucks.

[37] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 137.

Scoping Plan Measure	Project Consistency
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 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 reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent**. The Project residences will include only natural gas hearths that produce very little black carbon compared to woodburning fireplaces and heaters. Commercial uses contemplated as part of the proposed Project are not expected to be sources of black carbon.
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Consistent**. The Project will provide mixed-use 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 includes mixed-use development including schools, residential, and commercial within the same area, which will also contribute to reductions in VMT.
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.	**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. 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.

Scoping Plan Measure	Project Consistency
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.	**Not Applicable**. The Project is residential and commercial development and will not be considered natural or working lands.

Consistency with the 2022 Scoping Plan and Summary of the Project's 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 addressed by the 2017 Scoping Plan Update. The 2017 Scoping 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 2017 Scoping Plan, local government plays a supporting role through its land use authority and control over local transportation infrastructure. The 2017 Scoping Plan includes reductions from implementation of SB 375 that applies to VMT from passenger vehicles. Tulare 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 TCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The RTP/SCS envisions expanded use of transit and 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.

Since 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.

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.

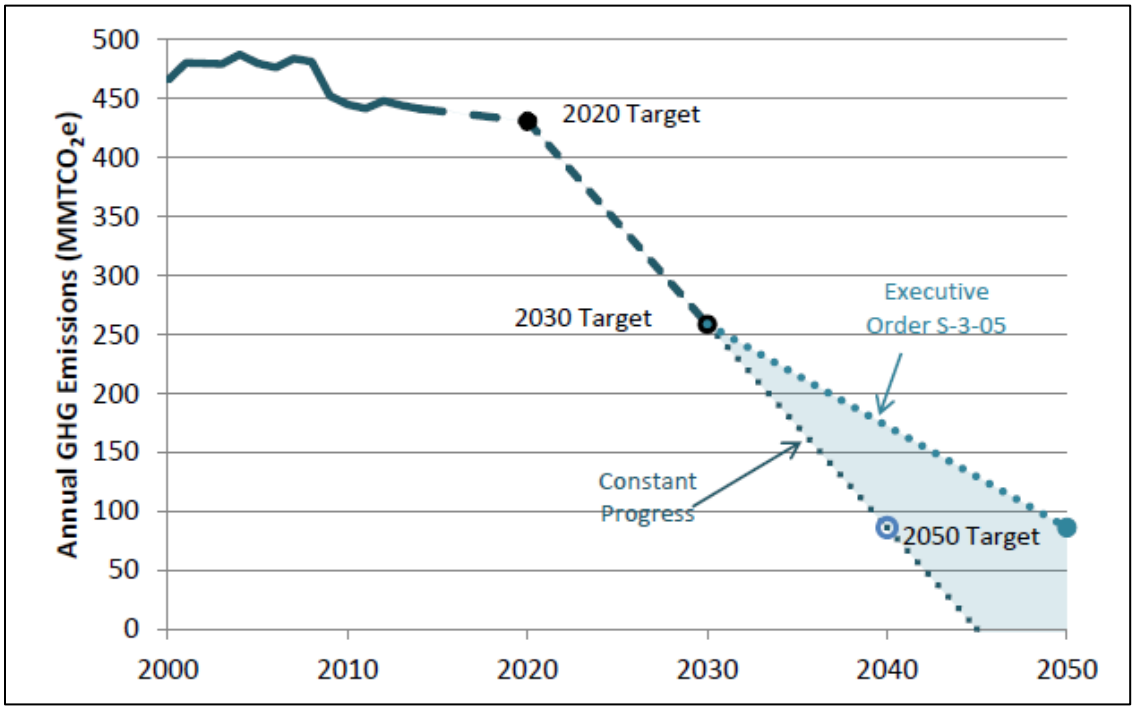
- **Transportation Sector:** Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the Project's emissions level.

- **Water Sector:** The Project's emissions level will be reduced as a result of further desired enhancements to water conservation technologies.

- **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 3.8-5.

Figure 3.8-5
California's Path to Achieving the 2050 Target[38]



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 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

[38] Air Quality and Greenhouse Gas Analysis Report for the Carleton Acres Specific Plan. Prepared by Johnson Johnson & Miller Air Quality Consulting. See Appendix C, page 135.

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.

ARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. The key elements of the 2022 CARB Scoping Plan focus on reducing GHG emissions in the transportation sector. Notably, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector in California are adopted and enforced by ARB on vehicle manufacturers and are outside the jurisdiction and control of individual projects or local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

The 2022 Scoping Plan Appendix D lists potential actions that support the State's climate goals. However, the 2022 Scoping Plan notes that the applicability and performance of the actions may vary across the regions. The document is organized into two categories: (1) examples of plan-level GHG reduction actions that could be implemented by local governments, and (2) examples of on-site project design features, mitigation measures, that could be required of individual projects under CEQA, if feasible, when the local jurisdiction is the lead agency.

The proposed Project would include a majority of the feasible operational mitigation measures listed in the 2022 Scoping Plan Appendix D as project design features. Specifically, some of the recommended operational measures would include: providing bicycle parking; creating on- and off-site safety improvements for bike, pedestrian, and transit connections; and requiring solar panels, drought-tolerant landscaping, and energy conserving appliances.

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, 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 future year targets.

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. In addition, the 2022 Scoping Plan outlines objectives, regulations, planning efforts, and investments in clean technologies and infrastructure that outlines how the State can achieve carbon-neutrality by 2045.

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, carbon neutral by 2045, and 80 percent below 1990 levels by 2050, and does not obstruct their attainment. Impacts are ***less than significant.***

Mitigation Measures:

None Required.

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 DEIR identifies potential impacts of the proposed Project pertaining to hazards and hazardous materials, proximity to airports/schools, and assessment of wildfire risk. To assist in this analysis, a Phase I Environmental Site Assessment (Phase I) was prepared by Sierra Delta Consulting, LLC (SDC) in June 2021 for the proposed Project site (See Appendix G). The California Department of Conservation – Geologic Energy Management Division (Division) provided an NOP comment letter. The letter identified that a previously plugged and abandoned well is present on the site. The well was abandoned to current Division requirements and the Division provided guidance on constructing over the well. The disposition of the well is discussed within this section.

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.

Environmental Setting

Project Site

The Project site is located in northern Visalia, to the northeast of the West Riggin Avenue and North Shirk Road intersection. The immediate area is primarily agriculture with residential to the south, and the Ridgeview Middle School to the southeast. Industrial land uses are proposed to the west of the site. The site is generally flat and averages approximately 309 feet above mean sea level. Based on archival research, it appears the Project site has been developed in various forms of agriculture since at least 1946.[1]

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

[1] Carleton Acres Phase I ESA (June 2021), page 17.

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. The California Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) 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 include: Permitted–Operating, Post-Closure Permitted, and Historical Non-Operating. According to the environmental records search conducted by Environmental Data Resources, Inc (EDR) on 02/16/2021 revealed that there is one permitted hazardous waste facility (HWP) site located at 7227 W Doe Avenue, approximately 0.77 miles south-southwest of the proposed Project site[2].

GeoTracker is the SWRCB's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks,

[2] California Department of Toxic Substances Control. Envirostor Database. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=visalia+ca. Accessed June 2022.

Department of Defense, Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. The Subject Property was not identified within the GeoTracker Database. The Database did not identify any PUST facilities, or open LUST / SLIC cases in the search radius of this report (GeoTracker, 2021). There are three locations within seven miles of the proposed Project site that are listed in the GeoTracker database for Leaking Underground Storage Tanks (LUST).[3] All three locations have undergone LUST cleanup and the State has closed each case.

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 SRA zones: 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 for the 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 or adjacent to the City of Visalia or the Project site is designated as a Very High Fire Hazard Severity Zone.[4]

[3] California Water Resource Control Board. GeoTracker Database. https://geotracker.waterboards.ca.gov/map/. Accessed June 2022.

[4] California State Geoportal. California Fire Hazard Severity Zone Viewer. https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414. Accessed June 2022.

Airports

The nearest public airport is the Visalia Municipal Airport, approximately 2.75 miles southwest of the Project site.

Schools

Ridgeview Middle School is part of the Visalia Unified School District and has an enrollment of 735 students.[5] It is located west of Akers Street and adjacent to the Project site. In addition, the City is currently planning a new high school that will be constructed adjacent to and west of Ridgeview Middle School and would be surrounded by the proposed Project to the north, west and south. There are no other schools located within 1/4 mile of the Project site, however, Denton Elementary School is located approximately 1/3 mile south of the Project boundary.

Regulatory Setting

Federal Regulations

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act of 1975 (HMTA) as amended, is the major federal transportation-related statute affecting the transportation of hazardous material in commerce. 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 empowers the Secretary of Transportation to 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."[6]

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[5] California Department of Education. School Profile: Ridgeview Middle. https://www.cde.ca.gov/sdprofile/details.aspx?cds=54722560133819. Accessed June 2022.

[6] United States Department of Labor. Occupational Safety and Health Administration. Transporting Hazardous Materials. https://www.osha.gov/trucking-industry/transporting-hazardous-materials. Accessed June 2022.

Superfund

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly referred to as "Superfund", was enacted on December 11, 1980. The purpose of CERCLA was to provide authorities with the ability to respond to uncontrolled releases of hazardous substances from inactive hazardous waste sites that endanger public health and the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at such sites, and established a trust fund to provide for cleanup when no responsible party could be identified. Additionally, CERCLA provided for the revision and republishing of the National Contingency Plan (NCP) that provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also provides for the National Priorities List, a list of national priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action.

Superfund Amendments and Reauthorization Act SARA amended CERCLA on October 17, 1986. This amendment increased the size of the Hazardous Response Trust Fund to $8.5 billion, expanded EPA's response authority, strengthened enforcement activities at Superfund sites; and broadened the application of the law to include federal facilities. In addition, new provisions were added to the law that dealt with emergency planning and community right to know. SARA also required EPA to revise the Hazard Ranking System to ensure that the system accurately assesses the relative degree of risk to human health and the environment posed by sites and facilities subject to review for listing on the National Priorities List.

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 the federal Environmental Protection Agency (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 (RCRA)

The Resource Conservation and Recovery Act (RCRA) provides the EPA with 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. The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focus 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.

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.

Title 27 of the CCR sets forth a variety of regulations relating to the construction, operation and

maintenance of the State's landfills. The title establishes a landfill classification system and categories of waste. Each class of landfill is constructed to contain specific types of waste (household, inert, special, and hazardous).

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 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.

California Vehicle Code §31600 (Transportation of Explosives)

Establishes requirements related to the transportation of explosives in quantities greater than 1,000 pounds, including licensing and route identification.

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

Local Regulations

City of Visalia General Plan

The purpose of the Safety and Noise Element of City of Visalia's General Plan is to identify the natural and man-made public health and safety hazards that exist within the City, and to establish preventative and responsive policies and programs to mitigate their potential impacts. This Element addresses geologic hazards, flood hazards, hazardous materials, wildfire hazards, and safety services. The following list of goals and policies from the Safety and Noise Element are applicable to the proposed project.

S-P-15 Require remediation and cleanup of sites contaminated with hazardous substances.

S-P-16 Promote the reduction, recycling, and safe disposal of household hazardous wastes through public education and awareness. Collection programs should be reviewed annually and expanded where appropriate. The City will also coordinate with hazardous waste recyclers to increase the frequency of hazardous waste collection events under this program.

S-P-18 Coordinate enforcement of the Hazardous Material Disclosure Law and the implementation of the Hazardous Material Emergency Response Plan with the Tulare County Health and Human Service Agency.

S-P-19 Coordinate with the Tulare County Environmental Health Division and other appropriate regulatory agencies during the review process of all proposals for the use of hazardous materials or those involving properties that may have toxic contamination, such as petroleum hydrocarbons, CAM 17 metals, asbestos, and lead.

S-P-21 Develop a community wildfire mitigation plan that identifies and prioritizes areas for hazard fuel reduction treatments, and recommend the types of methods of treatments.

S-P-27 Implement a fuel modification program, which also includes residential maintenance requirements and enforcement, plan submittal and approval process, guidelines for planting, and a listing of undesirable plant species. Require builders and developers to submit their plans, complete with proposed fuel modification zones, to the Fire Department for review and approval prior to beginning construction.

S-P-28 Assist in solving the incendiary problem by improving law enforcement and investigation equipment, adapting equipment available in other fields; and purchasing new equipment where needed. Implement "no burn" programs, particularly in areas outside of immediate response zones of fire stations.

S-P-29 Ensure availability of adequate water supplies to meet public health and safety needs, and for resource protection, by maintaining the following order of priority for water use:

- Potable water supply, fire protection, and domestic use
- Resource protection and preservation

- Industrial, irrigation and commercial uses
- Water-oriented or water-enhanced recreation
- Air conditioning

S-P-30 Integrate the Tulare County Hazard Mitigation Plan, in particular the hazard analysis and mitigation strategy sections, into the development review process, the emergency operations plan, and capital improvement program, as appropriate.

S-P-32 Continue to make available fire alarm systems, as referred to in this Element, to be tied directly and automatically to the Visalia City Fire Chief's alarm-receiving center.

S-P-37 Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog conditions.

S-P-38 Continue to rely on the Tulare County Office of Emergency Services to maintain inventories of available resources to be used during disasters.

Tulare County Environmental Health Division

In Visalia, the Tulare County Environmental Health Division (TCEHD) is the local agency responsible for the implementation of the state-mandated Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. Tulare County has prepared a Hazardous Materials Business Plan and a Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) which serves as the County's emergency response plan for hazardous materials emergency incidents. In addition, the TCEHD acts as lead agency to ensure proper remediation of leaking underground petroleum storage tank sites and certain other contaminated sites. TCEHD provides three permanent Household Hazardous Waste (HHW) drop-off facilities in the County including one in Visalia, and operates mobile collection events throughout the year. These services are available free of charge to any Tulare County resident.

The City of Visalia Fire Department provides some oversight of hazardous materials. The Fire Department is responsible for conducting inspections for code compliance and fire-safe practices and for investigation of fire and hazardous materials incidents. The Fire Department regulates explosive and hazardous materials under the Uniform Fire Code, and permits the handling, storage and use of any explosive or other hazardous material.

Tulare County Multi-Jurisdictional Local Hazard Mitigation Plan

A hazard mitigation plan is a formal document that outlays the plans to reduce or eliminate the long-term risk to human life and property from natural or man-made hazards. Visalia participates in the preparation of the Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP) which covers Tulare County and eleven participating cities. The MJLHMP was prepared to assess the natural, technological, and human-caused risks to County communities, to reduce the potential impact of the hazards by creating mitigation strategies. The 2017 MJLHMP represents the County's commitment to create a safer, more resilient community by taking actions to reduce risk and by committing resources to lessen the effects of hazards on the people and property of the County.

The plan has been designed to meet four goals; (1) significantly reduce life loss and injuries, (2) minimize damage to structures and property, as well as disruption of essential services and human activities, (3) protect the environment, and (4) promote hazard mitigation as an integrated public policy.

This plan complies with The Federal Disaster Mitigation Act of 2000 (DMA 2000), Federal Register 44 CFR Parts 201 and 206, which modified the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) by adding a new section, 322 - Mitigation Planning. This law, as of November 1, 2004, requires local governments to develop and submit hazard mitigation plans as a condition of receiving Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) and other mitigation project grants. The County; the Cities of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia, and Woodlake; the Tule River Tribe; and Tulare County Office of Education staffs have coordinated preparation of the MJLHMP in cooperation with stakeholders, partner agencies and members of the public, will seek MJLHMP approval and adopt their appropriate sections.

The development, approval, and implementation of the MJLHMP can dramatically reduce future risk and loss by evaluating risk and identifying mitigation actions. The MJLHMP will also assist the County in qualifying for several types of funding offered by FEMA including Pre-Disaster Mitigation (PDM) funds (funding for projects that are implemented before a disaster occurs), and HMGP (post-disaster funds funding for hazard reduction projects). In addition, the MJLHMP improves the County's access to other types of Federal disaster assistance, including funds for permanent repairs. This increased eligibility for grant programs affords the County an opportunity to prepare for the future and work with neighbors to protect the local community.

As the costs of damage from natural disasters continue to increase, governmental and local agencies, as well as the general public, have come to realize the importance of identifying effective ways to reduce vulnerability and losses. The MJLHMP assists entities and jurisdictions in reducing impacts from hazards by recognizing vulnerability in relation to risk, identifying resources, creating an orderly data collection process and developing strategies for risk reduction, while helping to guide and coordinate mitigation activities. The resources and information within the MJLHMP:

- Establish a basis for coordination and collaboration among agencies and the public
- Assist in the integration of mitigation goals and objectives with other County and community plans
- Identify existing mitigation projects and prioritize future projects
- Assist in meeting the requirements of Federal mitigation programs
- Lay the foundation for future MJLHMP updates and MJLHMP maintenance

In addition, the MJLHMP is designed to ensure the long-term values of the community are not compromised in the course of preparing for, responding to or recovering from, natural and manmade hazards.

Standardized Emergency Management System (SEMS)

The standardized emergency management system (SEMS) is a structure for coordination between the government and local emergency response organizations. It provides and facilitates the flow of emergency information and resources within and between the organizational levels of field response, local government, operational areas, regions and state management. SEMS facilitates priority setting, integrated coordination, effective flow of resources and information between all stakeholders. SEMS incorporates the use of the Incidental Command System (ICS), Master Mutual Aid Agreement (MMAA), Operational Area (OA) concept and multi-agency and interagency coordination. State agencies and local government units are to use SEMS in order to become eligible for reimbursement costs led by the state's disaster assistance program.

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.[7] 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.

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.

Certified Unified Program Agency (CUPA)

The California Environmental Protection Agency designates specific local agencies as Certified Unified Program Agencies (CUPA), typically at the county level. The Tulare County Environmental Health Department (EHD) is the agency that has been designated the Certified Unified Program Agency (CUPA) for the County. Each designated CUPA is responsible for the implementation of six statewide programs within its jurisdiction. These programs include:

- Underground storage of hazardous substances (USTs)
- Hazardous Materials Business Plan (HMP) requirements
- Hazardous Waste Generator requirements
- California Accidental Release Prevention (Cal-ARP) program
- Uniform Fire Code hazardous materials management plan
- Above Ground Storage Tanks (Spill Prevention Control and Countermeasures Plan only)

Implementation of these programs involves:

- Permitting and inspection of regulated facilities
- Providing educational guidance and notice of changing requirements stipulated in State or Federal laws and regulations
- Investigations of complaints regarding spills or unauthorized releases

[7] San Joaquin Valley Air Pollution Control District. About the District. https://www.valleyair.org/General_info/aboutdist.htm#Mission. Accessed June 2022.

- Administrative enforcement actions levied against facilities that have violated applicable laws and regulations

Thresholds of Significance

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

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- 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.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

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 into the environment?*

Less Than Significant Impact With Mitigation. 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

The proposed Project consists of construction and operation of a mixed-use development that will feature single-family residential, multi-family residential, commercial, educational and park / trail facilities on approximately 507 acres. 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 Mitigation Measure GEO-1 (refer to Section 3.7 *Geology and Soils*), which ensures the Project adhere to 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, after mitigation, no significant impacts would occur during construction activities.

Operation

The operational phase of the proposed Project would occur after construction is completed and residents and employees 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, commercial uses, open space, parks / recreation areas and a stormwater basin. 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 and commercial 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.

Handling and use of hazardous materials and the disposal of the resulting hazardous wastes would be required to follow the applicable laws and regulations, as described in the Regulatory Setting section herein.

Hazardous materials would typically be stored in their original containers prior to use. As required, the hazardous materials would be stored in each building, in locations according to compatibility and in storage enclosures (i.e., flammable material storage cabinets and biological

safety cabinets) or in areas or rooms specially designed, protected, and contained for such storage, in accordance with applicable regulations. Hazardous materials would be handled and used in accordance with applicable regulations by personnel that have been trained in the handling and use of the material and that have received proper hazard-communication training. Hazardous materials reporting (i.e., California Hazardous Materials Business Planning, California Proposition 65 notification, and Emergency Planning and Community-Right-to-Know Act reporting) would be completed as required.

Compliance with all federal, State and local regulations, and the City of Visalia General Plan Implementing Policies S-P-3, S-P-15 through S-P-19, S-P-21, S-P-27 through S-P-30, S-P-32, S-P-37, and S-P-38 in the Safety and Noise Element 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. In addition, Mitigation Measure GEO – 1 (requirement for SWPPP and erosion BMPs) will ensure impacts remain less than significant.

Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be ***less than significant*** after mitigation.

Mitigation Measures:

Implement Mitigation Measure GEO – 1.

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 With Mitigation. As previously noted, a Phase I Environmental Site Assessment was prepared for the Project (See Appendix G). The results of the Phase I are summarized as follows:

<u>Recognized Environmental Conditions</u>

A recognized environmental condition (REC) refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

The Phase I report revealed evidence of RECs on or associated with the proposed Project site. The long-term use of the Project site for agricultural purposes indicates the potential for agricultural chemicals (pesticides, herbicides, etc.) to have been applied. Higher concentrations are generally associated with storage and mixing operations and localized to long-term farm staging areas. Residual concentrations of agricultural chemicals tend to be relatively uniform, low in concentration, and confined to the upper two feet of soil (typical depth of agricultural disturbance) over areas of routine application. Even low, uniform concentrations may exceed regulatory guidelines for certain / sensitive land uses.[8]

Based on the results of the Phase I, the Project will require subsurface investigation to evaluate the potential for elevated residual concentrations of agricultural chemicals that could potentially be present on site. Mitigation Measure HAZ – 1 will be implemented to reduce the impact to a less than significant level.

Controlled Recognized Environmental Conditions

A controlled recognized environmental condition (CREC) refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. No CRECs were identified on the Project site.[9]

Historical Recognized Environmental Conditions

A historical recognized environmental condition (HREC) refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. No HRECs were identified on the Project site.[10]

Business Environmental Risks (BER)

A Business Environmental Risk (BER) refers to a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of

[8] Phase I ESA (June 2021), Sierra Delta Consultants LLC, page 32

[9] Ibid, page ii.

[10] Ibid, page iii.

a parcel of commercial real estate, not necessarily limited to those environmental issues identified by the Phase I ESA. No BERs were identified on the Project site.

Other Issues

Although the Phase I did not identify any previous oil / gas wells on or adjacent to the site, the California Department of Conservation – Geologic Energy Management Division (Division) provided an NOP comment letter that indicated there is one (1) well on the Project site that has been abandoned to current Division requirements as prescribed by law. However, the Division recommends that the Project provide a delineation of the well location and to provide notice to present and future property owners that an abandoned well may be on site. This is identified in Mitigation Measure HAZ – 2. In addition, Mitigation Measure HAZ – 3 has been included in the event that any unknown wells are uncovered or damaged during excavation or grading activities. Because the existing well has been abandoned pursuant to the Division's requirements and because additional investigation will occur prior to issuance of grading permits (with any remedial action required),after implementation of Mitigation Measures HAZ-1, HAZ-2, and HAZ – 3, the Project's impacts would be reduced to a ***less than significant*** level.

Mitigation Measures:

HAZ-1 Prior to the issuance of grading or building permits, the Project proponent shall conduct a subsurface investigation of the Project site to evaluate the potential for elevated residual concentrations of agricultural chemicals on the site. If remedial action is required, the Project will be responsible for cleanup and any remedial actions. For portions of the project site where there is known contamination, a project specific site management plan should be prepared under the oversight of the Water Board and/or DTSC, as appropriate.

The plan shall include measures for identifying, testing, and managing soil and groundwater suspected of or known to contain hazardous materials.

The plan shall: (1) provide procedures for evaluating, handling, storing, testing, and disposing of soil and groundwater during project excavation and dewatering activities, respectively; (2) describe required worker health and safety provisions for all workers potentially exposed to hazardous materials in accordance with State and federal worker safety regulations; and (3) designate personnel responsible for implementation of the plan.

For sites with potential residual contamination that are planned for development with an occupied building, a vapor intrusion assessment shall be performed by a licensed environmental professional. If the results of the vapor intrusion assessment indicate the potential for significant vapor intrusion into an occupied building, project design shall include vapor controls or source removal, as appropriate, in accordance with regulatory agency requirements. Soil vapor mitigations or controls could include vapor barriers, passive venting, and/or active venting

Evidence of compliance shall be submitted to the City of Visalia department of Community Development Department.

HAZ – 2 Prior to the issuance of grading or building permits, the Project proponent or contractor shall provide a site plan that clearly delineates the locations of all known oil wells. A copy of the map shall be submitted to the California Department of Conservation, Geologic Energy Management Division (CalGEM) for review and evaluation. The Project proponent will work with CalGEM to implement any remedial actions that may result from CalGEM's review of the on-site abandoned well. Evidence of compliance shall be submitted to the City of Visalia department of Community Development Department. In addition, the Project proponent shall include information about any abandoned wells within the Project site in the Tulare County Recorder's title information of the Project site.

HAZ–3 In the event that abandoned or unrecorded wells are uncovered or damaged during excavation or grading activities, all work shall cease in the vicinity of the well, and the California Department of Conservation, Geologic Energy Management Division (CalGEM) shall be contacted for requirements and approval. CalGEM may determine that remedial plugging operations may be required. Copies of said approvals shall be submitted to the City of Visalia Community Development Department

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. Ridgeview Middle School is within ¼ mile of the proposed Project site. There are no other schools within ¼ mile, however, a new high school is planned immediately east of Ridgeview Middle School near the center area of the Carleton Acres Project

area. In addition, a potential elementary school could also be located within the northern boundaries of the proposed Project.

As noted in Chapter 3.3 *Air Quality*, Project construction would involve the use of diesel-fueled vehicles and equipment that emit diesel particulate matter (DPM), which is considered a toxic air contaminant (TAC). 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.

As identified in Chapter 3.3 *Air Quality*, the Project would not exceed SJVAPCD localized emission daily screening levels for any criteria pollutant, and the Project is not a significant source of TAC emissions during construction or operation. Therefore, the Project would not result in significant impacts to sensitive receptors such as schools.

Based on the proposed Project description of a mixed use residential and commercial 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. Residential and general commercial developments 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 (Geotracker[11] and DTSC EnviroStor[12] databases). In addition, the Phase I did not identify any Geotracker or DTSC occurrences within the Project site. However, the EnviroStor Database identified Ridgeview

[11] California State Water Resources Control Board GeoTracker. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=visalia%2C+ca. Accessed June 2022.
[12] California Department of Toxic Substances Control. Envirostor. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Visalia+california. Accessed June 2022.

Middle School, adjacent site to the southeast, as a Certified Closed School Cleanup Site. The site was certified closed on 04/04/2018 with no further actions required for the school cleanup. Ridgeview Middle School was constructed at the site in 2016. Based on the cleanup and status of the site, it is considered a low risk to the Project site. There are no hazardous materials sites that impact schools within ¼ mile of the Project site and the Project would not create a significant hazard to the public or the environment. 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 public airport is the Visalia Municipal Airport in Visalia, approximately 2.8 miles southwest of the Project site. The nearest private airport is the Swanson Ranch NR 2 Airport, approximately 8.6 miles to the northwest. There are no public or private airport land use plans that are applicable to the Project.

Therefore, 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 California Emergency Services Act (Government Code Section 8550-8668) provides a framework for local jurisdictions to prepare and maintain an Emergency Plan for natural, manmade, or war-caused emergencies that result in conditions of disaster or in extreme peril to life. The Tulare County Emergency Operations Plan (EOP) includes planning and response scenarios for seismic hazards, extreme weather conditions, landslides, dam failure and other flooding, wildland fires, hazardous materials incidents, transportation emergencies, civil disturbance, and terrorist attacks. It is meant to work in conjunction with the State Emergency Plan. The Fire Department is represented on the County's Emergency Council, which meets for regional coordination purposes at least four times per year. The Fire Department also houses the City's Emergency Operations Center and lead emergency preparedness and

planning for the City. In addition, the City Fire Department has specific procedures for hazardous materials emergency response.

The overall layout of the proposed Project is block form, with shortened roadway lengths and cul-de-sacs in order provide limited thru-traffic and to create a walkable urban environment. The site has been designed with 13 points of ingress and egress. Additional access points will be provided for the commercial uses that are proposed to occur at the southwest corner of the site and for the high-density residential development at the northwest corner of the site. The City of Visalia has reviewed the Project layout and street configuration and has determined that the Project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities and as such, the Project would not interfere with the City's adopted emergency response plan. Any impacts are ***less than significant***.

Mitigation Measures: None are required.

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. Wildfire hazard data for the City of Visalia is provided by the California Department of Forestry and Fire Protection. The majority of the City is considered to have either little or no threat, with very small portions having a moderate threat of wildfire.[13] According to the City of Visalia 2030 General Plan Hazards and Safety Services Figure 8-4[14], neither the proposed Project nor its vicinity have a high wildfire threat. In addition, and as described in the Environmental Setting section, only a very small portion of land within Tulare County is designated as a Very High Fire Hazard Severity Zone by the Local Responsibilities Area mapping program.[15]

There are no other factors of the proposed Project or the surrounding area that would exacerbate wildfire or the uncontrolled spread of a wildfire. For these reasons, the impact is considered ***less than significant***.

Mitigation Measures: None are required.

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[13] Ibid. Page 8-12.
[14] Ibid. Page 8-13.
[15] California State Geoportal. California Fire Hazard Severity Zone Viewer. https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414. Accessed June 2022.

Cumulative Impacts

Less Than Cumulatively Considerable with Mitigation. 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), or the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated.

With respect to impacts related to the creation of a hazard through upset or accident conditions involving the release of a hazardous material, the following could occur during Project construction and operation: site grading that would generate dust, inadvertently damage the existing abandoned wells, and unknown wells could be discovered. However, conformance with existing State and City regulations, as well as project safety design features, and implementation of mitigation measures GEO-1, HAZ-1 through HAZ-3, identified herein, would render this impact less than significant. This impact does not have the potential to contribute to cumulative hazards associated with other projects. The impacts would be localized, occurring only in the immediate vicinity of the project sites, and the implementation of appropriate safety measures during construction of the proposed Project would reduce the impact to a level that would not contribute to cumulative effects.

Because the project is located within ¼ mile of an existing school, with implementation of GEO-1 and HAZ-1 through HAZ-3, it will not contribute to cumulative effects resulting from hazardous emissions or the handling of hazardous materials, substances, or waste. The project is not located on a listed hazardous materials site and accordingly would not contribute to cumulative impacts resulting from the creation of a significant hazard to the public due to its location.

Because of the Project's location in an area with adequate emergency response times and the absence of project features that would physically impair emergency response or evacuation, the Project would not contribute to cumulative impacts on an adopted emergency response plan or evacuation plan. Similarly, the Project would not contribute to cumulative wildland fire-related impacts due to its location in an area with low wildland fire risk. 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, with implementation of GEO-1 and HAZ-1 through HAZ-3, 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 with mitigation***.

3.10 Hydrology and Water Quality

This section of the DEIR identifies potential impacts of the proposed Project pertaining to hydrology, water supply and water quality. To assist in evaluation of this environmental impact, an SB 610 Water Supply Assessment (Appendix H) was prepared.

Environmental Setting

Project Site

The proposed Project site is located in a developing area planned as part of the City of Visalia. The site is comprised of two parcels: APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia, with the zoning as R-M-3 (Multi-Family Residential). APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County, with the zoning as AE-40 (Exclusive Agriculture-40 acres minimum). However, both parcels are within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia. The Project site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses.

The Project site is currently developed with agriculture, with canals and ag-wells present. The immediate area is primarily agriculture with residential to the south, and the Ridgeview Middle School to the southeast. The Project site is underlain with Akers-Akers and Grangeville sandy loam soil[1]. The Visalia area is basically flat, lying at an elevation of approximately 330 feet above sea level. Tulare County is located on the Central Valley floor, in the San Joaquin valley.

The Project site contains portions of three canals that are owned by the Modoc Ditch Company. The canals are not listed on the National Wetlands Inventory.

The majority of the Project is designated Flood Insurance Rate Map Zone "X" (outside the 500-year flood zone) while small portions of the site along the northern and northwestern boundary are in Flood Zone "AE". The AE Zone includes areas subject to risk from a 100-year flood. Urban development is allowed under both flood zones.

[1] Web Soil Survey, U.S. Department of Agriculture. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed July 2022.

Water Agencies and Providers

The California Water Service Company (Cal Water) Visalia provides water supplies for the City. The Project involves annexation of the Project site into the City of Visalia. Upon annexation, the site will be added to the Cal Water Visalia District service area. Cal Water Visalia District is part of a regional group of agencies and providers within the Greater Visalia Area as follows:

- Mid-Kaweah Groundwater Sustainability Agency (MKGSA)
- Kaweah Delta Water Conservation District (KDWCD)
- Kaweah River Basin Regional Water Management Group

In the region in which the Visalia District is located, Cal Water participates with the Kaweah Delta Water Conservation District (KDWCD), the City of Visalia and others in the Groundwater Management Plan (GMP) established under the provisions of Assembly Bill 3030. KDWCD is the lead agency in this effort. KDWCD has historically focused on the conservation of flows of the Kaweah River for groundwater recharge. Cal Water is also a stakeholder group participant to Kaweah River Basin Integrated Regional Water Management Plan adopted December 2014.

The Visalia District is an urban retail water supplier, as defined by CWC §10608.12. Visalia District does not provide water at wholesale. The sole source of water supply for the customers of the Visalia District is groundwater. The Visalia District of Cal Water pumps from the Kaweah basin, which has been designated by DWR as critically over drafted (COD).[2]

Local Groundwater Basin

The Kaweah Basin provides the main source of water supply for the City of Visalia and surrounding communities. The Kaweah Delta Water Conservation District (KDWCD) manages the Basin. KDWCD and other irrigation districts and companies have historically managed groundwater through the conjunctive use of surface water. KDWCD regularly provides programs that benefit local agricultural customers by making available additional surface water supplies for irrigation. These programs effectively reduce the withdrawals of groundwater resulting in in-lieu recharge of the aquifer. Groundwater is normally used by agriculture as an alternate source when surface supplies are not available and is the sole source in areas within KDWCD jurisdiction that do not have access to surface water.

[2] Carleton Acres Water Supply Assessment, 4Creeks Engineering (Oct. 2022), page 2.

KDWCD also operates about 40 dedicated water management basins with a total area of approximately 2,100 acres for the multiple purposes of flood control and groundwater replenishment. The basins have the capacity to recharge approximately 983 acre-feet per day under optimal conditions. Visalia District operates the Public Water Systems (PWS) listed in Table 3.10-1. Public Water Systems are the systems that provide drinking water for human consumption and these systems are regulated by the State Water Resources Control Board (Board), Division of Drinking Water[3].

Table 3.10-1: Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 (AF)
5410016	Visalia	45,325	30,034
5400935	Mullen	42	21
5410041	Tulco	183	97
Total		**45,550**	**30,152**

Regulatory Setting

Federal Agencies and Regulations

Clean Water Act (CWA) and Associated Programs

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.

[3] Carleton Acres Water Supply Assessment, 4Creeks Engineering (Oct. 2022), page 3.

Construction activities that are subject to this general permit include clearing, grading, stockpiling, and excavation that result in soil disturbances to at least one acre of the total land area. Construction activities that disturb less than one acre are still subject to this general permit if the activities are part of a large common plan of development or if significant water quality impairment would result. In California, the Construction General Permit, revised in September 2009, is implemented by the SWRCB.

Section 401

CWA Section 401 requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the United States. In California, USEPA has delegated to SWRCB and the RWQCBs the authority to issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and that region's water quality control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that might result in the discharge to waters of the United States must also obtain a Section 401 water quality certification to ensure that any such discharge would comply with the applicable provisions of the CWA.

Section 404

CWA Section 404 regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the afore-mentioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of USACE under the provisions of CWA Section 404. Construction activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of the CWA.

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 of California Regulations

Department of Water Resources (DWR)

DWR's major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources; planning, designing, constructing, operating, and maintaining the State Water Resources Development System; regulating dams; providing flood protection; assisting in emergency management to safeguard life and property; educating the public; and serving local water needs by providing technical assistance. In addition, DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water facilities voluntary water transfers; and, when needed, operates a State drought water bank.

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 activities which may adversely affect the quality of waters of the State to attain the highest water quality which is reasonable, considering a full range of demands and values. The act authorizes the SWRCB 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. Much of the implementation of the SWRCB's responsibilities is delegated to nine Regional Water Quality Control Boards (RWQCBs). The proposed Project site is located within the jurisdiction of the Central Valley RWQCB.

California Water Code

The Federal CWA establishes certain guidelines for the states to follow in developing programs for the control of surface water pollution and for planning the development and use of water resources. Under certain circumstances, the CWA allows the federal Environmental Protection Agency (EPA) to withdraw the primary responsibility for these programs 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 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 must conform with the policies set forth in the Porter-Cologne Act and established by the State water policy adopted by the SWRCB. 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.

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 that a lead agency obtain a water supply assessment from an applicable public water system for certain projects subject to the California Environmental Quality Act, which are defined 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. 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 Central Valley RWQCB administers the NPDES storm water-permitting program in the Central Valley region, including Visalia. 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 must include specifications for Best Management Practices (BMPs) that will be implemented during proposed 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 SWRCB and the Central Valley RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established 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 describes measures to prevent or control runoff degradation after construction is complete, and identifies a plan to inspect and maintain these facilities or project elements.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state fall under the jurisdiction of the appropriate Regional Water Quality and Control Board (RWQCB). Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as

actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification or waiver under CWA Section 401.

Sustainable Groundwater Management Act

In 2014, California enacted the Sustainable Groundwater Management Act (SGMA) (Water Code §10720 et seq.). SGMA requires that groundwater basins designated by the state Department of Water Resources (DWR) as high priority and/or critically overdrafted must be managed under a Groundwater Sustainability Plan (GSP) that avoids "undesirable results" as defined in the Act within 20 years from January 31, 2020. The GSP must be developed by a Groundwater Sustainability Agency (GSA) approved by the DWR. The City of Visalia (California Water Service Company) is part of the Mid-Kaweah Groundwater Sustainability Agency.

Local Regulations

City of Visalia General Plan

The following lists policies and implementing actions from the City of Visalia General Plan pertaining to hydrology and water quality that are applicable to the proposed Project.

GUIDING POLICIES

PSCU-P-26 Encourage cooperative agreements with the City and the Kaweah Water Conservation District, levee districts, irrigation companies, school district, College of the Sequoias, Southern California Edison Company and other public agencies and utilities to explore innovative recreation open space facilities throughout the Visalia planning area.

PSCU-P-44 Continue to improve and expand the City's Water Conservation Program, consistent with the Urban Water Management Plan as appropriate, including an active public outreach component and an online presence. The program should provide information and links to additional resources on water-efficient plumbing fixtures and planting and irrigation methods, and the development of safe and effective gray water systems. It should also maintain an up-to-date list of incentive programs.

PSCU-P-45 Continue to improve and expand the City's Water Conservation Program, consistent with the Urban Water Management Plan as appropriate, including an active public outreach component and an online presence. The program should provide information and links to additional resources on water-efficient plumbing fixtures and planting and irrigation methods, and the development of safe and effective gray water systems. It should also maintain an up-to-date list of incentive programs.

PSCU-P-46 Continue the City's active role in regional and local water management planning, building on partnerships with Kaweah Delta Water Conservation District and participation in the Integrated Regional Water Management Planning (IRWM) in implementing the Urban Water Management Plan and the Groundwater Management Plan. Continue to develop and implement projects that address groundwater overdraft mitigation and support additional groundwater recharge, using funds generated from the Water Resources Management and Groundwater Overdraft Mitigation Fee Ordinance and other sources. Projects may include but are not limited to:

- Acquisition of surface water rights and surface water supplies;
- Development of groundwater recharge programs and facilities;
- Reconfiguration of stormwater facilities designed to retain as much stormwater as possible within and near the City;
- Enhancement of cooperative programs with local water management agencies and companies; and
- Development of more extensive recycled water delivery systems in support of the Urban Water Management Plan.

PSCU-P-59 Require new developments to incorporate floodwater detention basins into project designs where consistent with the Stormwater Master Plan and the Groundwater Recharge Plan.

Thresholds of Significance

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

- 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 and urban run-off).

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.

The Project site is located within the Central Valley RWQCB and is subject to the applicable requirements of the Basin Plan administered by the RWQCB in accordance with the Porter-Cologne Water Quality Control Act.

In accordance with the NPDES Stormwater Program, and as described in Section 3.6 - Geology and Soils, Mitigation Measure GEO – 2 ensures the Project will 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 GEO - 2 would ensure that the proposed Project would have a less than significant impact.

As noted in Section 3.3 – Biological Resources, the Project site contains portions of three canals that are owned by the Modoc Ditch Company. The canals are not listed on the National Wetlands

Inventory and no significant impacts are anticipated. However, the Project developer will be required to obtain agreements with the Modoc Ditch Company prior to any construction activity associated with any proposed abandonment and/or replacement of the Company's facilities on the Project site.

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 Visalia Development Standards. See Section 3.10-3 herein regarding Project specific design and stormwater capacity. A drainage and storage plan has been developed that will ensure Project impacts are less than significant.

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 the proposed residential and commercial developments and will connect to the City's sewer system. The Project site would be located within the service area of the City of Visalia Wastewater Treatment Plant (WWTP). Since the WWTP is considered a publicly owned treatment facility, operational discharge flows treated at the WWTP would be required to comply with applicable water discharge requirements issued by the Regional Water Quality Control Board (RWQCB). Compliance with conditions or permit requirements established by the City as well as water discharge requirements outlined by the RWQCB would ensure that wastewater discharges

coming from the proposed Project site and treated by the WWTP system would not exceed applicable Central RWQCB wastewater treatment requirements. See also Section 3.19 – Utilities and Service Systems for further discussion regarding the Project's wastewater (sewer) impacts.

The Project will not result in a violation of any water quality standards or waste discharge requirements. Therefore, with mitigation, impacts result in a ***less than significant impact.***

Mitigation Measures:

Implement MM GEO-2.

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. The proposed Project would add demand for potable water to the Visalia District of the California Water Service Company (Cal Water) water system, which is reliant on groundwater to serve its customers. The information herein is based, in part, on the SB 610 Water Supply Assessment that was prepared for the Project (Appendix H). The results are summarized herein.

Assumptions

Project water demand is estimated using information from the City's adopted 2020 Urban Water Management Plan (UWMP), a study from the Pacific Institute, a study prepared for the U.S. Environmental Protection Agency, the U.S. Energy Information Administration, as well as from the Integrated Regional Water Management Plan (IRWMP) prepared by the Kaweah River Basin Regional Water Management Group. Project water demand is calculated on the following assumptions[4]:

- **Residential:** The Project is proposing 3,262 residential units (see Table 2-2 for the breakdown of housing types).
- **Per Capita Water Use:** The average residential water uses in gallons per capita per day (GPCD) for 2020 in the City of Visalia was 128 GPCD per person, as stated in the 2020 Urban Water Management Plan. The 2020 UWMP identified the average residential water

[4] Carleton Acres Water Supply Assessment, 4Creeks Engineering (Oct. 2022), page 9.

use as decreasing over time. Projected GPCD per person obtained from the 2020 UWMP will be used to calculate projected water demand from the Project. This is inclusive of water used for outdoor landscaping.

- **Household Size:** According to the City of Visalia Housing Element, the average household size is 3 persons per household. Although some of the housing products/floor plans proposed by the Project would likely result in fewer than 3 persons per residence, the figure is being used to conservatively estimate Project water demand.
- **Public Parks:** The Project includes approximately 13.8 acres of parks/trails/recreational facilities. To be conservative, it is assumed that the entire park space acreage will be irrigated lawn and will require approximately 5 acre-feet of water per acre per year. This figure is based on information about water requirements for large, irrigated lawns such as golf courses in the region. It should be noted that the WSA analyzed up to 17.3 acres of park space when calculating Project water demands, and therefore the WSA likely overstates the Project's water demand, ensuring that its analysis is conservative.
- **Public Areas / Landscaping:** In addition to park space, the outdoor public spaces (excluding backyards) will be maintained by a Landscape and Lighting District.
- **Commercial:** The Project contains two commercial portions. The first is 28.7 acres of commercial mixed-use in the southwest corner of the Project site. This area is planning to have a Costco store with gas pumps as the anchor tenant. The maximum square footage is 170,000 sq ft, and this will be the assumed size. In addition, a car wash and six smaller buildings totaling approximately 40,000 square feet are included. Anticipated uses at this location may include developments such as a gas station, drug store, retail, restaurants (including drive-throughs), and similar uses. The second commercial portion is 6.4 acres of neighborhood commercial in the northeast corner of the Project site. This includes three buildings totaling approximately 25,000 sq ft. Anticipated uses are convenience stores, gas stations, drug stores, restaurants, and retail stores.
- **Commercial Demand:** The water demand from commercial uses will be found using gallons per employee per day (GED). According to the Pacific Institutes' study, full-service restaurants demand 265 GED, grocery stores demand 170 GED, and other retail stores demand 152 GED. Because the uses for the six buildings in the Mixed-Use Commercial and the three buildings in the Neighborhood Commercial are not finalized, the average GED of these three uses will be utilized. This number is 196 GED. For the car wash, a report for the U.S. Environmental Protection Agency was utilized. This report states that car washes use an average of 2,302 gallons of water per day.
- **Commercial Employees**: To estimate the number of employees, information from the U.S. Energy Information Administration was utilized. Square footage per worker is used.

Foodservice average 567 sq ft per employee, Food sales average 1,033 sq ft per employee, and Mercantile average 1,200 sq ft per employee. The average of these three uses will be used for the buildings beside the anchor building and car wash. This number is 933 sq ft per employee.

Project Water Demand

Based on the previous assumptions, Project water demand is calculated as follows:

Residential: 3,262 dwelling units X 3.0 persons per dwelling unit = 9,786 persons X GPCD (Varies) X 365 = total number of gallons per year.

It is anticipated that when the Project is complete in 2038, residential water use from the Project will be 446,486,250 gallons per year or approximately 1,370 AF per year. A breakdown of water uses for low density residential, medium-density residential, and high-density residential is broken down in Table 3.10-2[5].

Table 3.10-2
Project Residential Water Demands

Land Use	Phase 1 (DU)	Phase 2 (DU)	Dwelling Units (Total)	Population	2038 Water Use (Gal/Year)	2038 Water Use (AF/Year)
LDR	505	1,087	1,592	4,776	217,905,000	669
MDR	91	667	758	2,274	103,751,250	318
HDR	586	326	912	2,736	124,830,000	383
Total	**1,182**	**2,080**	**3,262**	**9,786**	**446,486,250**	**1,370**

Commercial: (Square footage / employees per square feet) = Estimate Employees

Estimated Employees X GPE = Total gallons per day

It is anticipated that when the Project is complete in 2038, commercial water use from the Project will be 16,025,527 gallons per year or approximately 49.2 AF per year. A breakdown of water uses for commercial uses is shown in Table 3.10-3[6].

[5] Carleton Acres Water Supply Assessment, 4Creeks Engineering (Oct. 2022), page 10.

[6] Ibid.

Table 3.10-3
Project Commercial Water Demands

Land Use	Phase 1 (Sqft)	Phase 2 (Sqft)	Employees	Daily Water Demand	2038 Water Use (Gal/Year)	2038 Water Use (AF/Year)
Anchor Building	170,000	0	165	27,977	10,211,520	31.3
Car Wash	N/A	0	N/A	2,302	840,230	2.6
Remaining Commercial	40,000	25,000	70	13,627	4,973,777	15.3
Total	**210,000**	**25,000**	**234**	**43,906**	**16,025,527**	**49.2**

Parks: 17.3 acres X 5.0 acre/feet/year = ~87 acre/feet/year

Based on the calculations for the proposed residential, commercial and parks water demand, it is anticipated that the Project would require approximately **1,506 acre/feet/year** of water per year (at full build out)[7].

City-Wide Future Estimated Water Use

Table 3.10-4 shows the projected supply volumes through 2045. Cal Water is assuming that current and planned basin recharge activities and land use conversions will result in sufficient groundwater supplies to meet demand through 2045. Therefore, the groundwater supply amounts shown in Table 3.10-4 equal the projected demand for each year. As the SGMA process unfolds and as Cal Water and its partners gain a better understanding of the basin and what is required to sustain it, this assumption will be continually reassessed. Future decisions on basin recharge activities and the potential development of other supply sources will be based on the accumulated knowledge gained about the groundwater basin[8].

[7] Carleton Acres Water Supply Assessment, 4Creeks Engineering (Oct. 2022), page 10.

[8] Ibid, page 13.

Table 3.10-4
Projected Retail Water Supplies

Retail: Water Supplies – Projected (AF)										
Water Supply	Projected Water Supply *Report To the Extent Practicable*									
	2025		2030		2035		2040		2045	
	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*
Groundwater	32,520		35,276		38,310		41,258		44,529	
Total	**32,520**		**35,276**		**38,310**		**41,258**		**44,529**	

Comparison of Project Demand to Water Supply Sources

Table 3.10-6 provides an analysis of projected water demands needed to serve the City of Visalia for the next 20 years, comparing projected baseline community growth against the reasonably expected population growth resulting from the Carleton Acres Project. The table is labeled with lettering corresponding to each column of information.

Columns A through F represent the reasonably expected baseline condition for the Visalia District. Columns G through I represent the reasonably expected baseline condition for the Visalia District if the Project site was not developed at all. Columns J through L represents the population added by the Carleton Acres Project alone. Columns M through S represent the Visalia District water demand with Carleton Acres.

Column A represents the calendar year projection used in the analysis. Column B displays expected daily water use per person, which decreases over time due to measures taken by the District to increase water efficiency. Column C displays the forecast for the Visalia District population, which was excerpted from the Visalia District UWMP and is derived from the California Department of Transportation's (Caltrans) long-term socio-economic forecast model, which utilizes historic growth to forecast future population growth. The annual growth rate calculated from this forecast is shown in Column D.

Column E represents the expected residential water demand forecasted by the Visalia District UWMP. The values in Column E are derived from the forecasted average per capita daily water consumption (Column A). Column F represents the expected commercial water demand forecasted by the Visalia District UWMP.

Column G depicts the baseline future service area population with no development of the Project site. Because the site was planned for residential and commercial development, it was important to calculate the service area population with no development of the site to identify an appropriate baseline to which Project-related water use should be added. Existing residential General Plan Land Use designations on the site were Low-Density Residential (4 DU/acre), Medium-Density Residential (10 DU/Acre), and High- Density Residential (16.5 DU/Acre). Using these values and the acreage of each planned land use on the site, it was determined that the site was planned for 3,158 dwelling units or 9,474 residents (See Table 3.10-5, below). The values in Column G were calculated by subtracting 9,744 residents from the population that was expected to be added between 2021 and 2037 (Column C). These dates were selected because they coincide with the proposed build-out of the Carleton Acres Project. The annual growth rate with no development of the site is shown in Column H. Column I is the baseline commercial water demand with no development of the Project site. The General Plan states that 11.4 acres were dedicated to Neighborhood Commercial. The General Plan assumes a FAR of .25. This assumption results in 124,146 sq ft of commercial space. Using the same assumptions as the commercial for the Project, this results in an expected demand of 29.15 AFY. From 2022 to 2038, this would be 1.71 AFY added each year. To calculate Column I, the expected Commercial demand was subtracted from the Commercial demand in the UWMP[9].

Table 3.10-5
Comparison of Planned Land Uses to Proposed Project

	Existing (City of Visalia General Plan)				Proposed (Carleton Acres)			
	Acres	Land Use Density (DU/Acre)	DU	Project Area Population[1]	Acres	Land Use Density (DU/Acre)	DU	Project Area Population[1]
Low Density	349.5	4.0	1398	4194	305.4	5.0	1527	4581
Medium Density	75.8	10.0	758	2274	75.8	10.0	758	2274
High Density	60.7	16.5	1002	3006	60.7	15.0	912	2736
Commercial/ Neighborhood	11.4	N/A	N/A	0	6.4	N/A	N/A	0
Mix Use Commercial	0	N/A	N/A	0	28.7	N/A	N/A	0
Public/ Institutional	9.9	N/A	N/A	0	13	N/A	N/A (or 65)	195
Basin	0	N/A	N/A	0	17.3	N/A	N/A	0
Totals	507.3		3158	9474	507.3		3262	9786
Change in Population from Project								+313
1. Assumes 3 persons per dwelling unit (City of Visalia Housing Element)								

[9] Carleton Acres Water Supply Assessment, 4Creeks Engineering (Oct. 2022), page 17.

The purpose of the remainder of the table (Columns J thru S) is to demonstrate the expected reasonable impact on water demand from the Carleton Acres Project and to quantify any necessary new water supply needed from Carleton Acres to mitigate the reasonably foreseeable impacts. Columns J and K show the expected additional population resulting from the Carleton Acres Project by year, in dwelling units and population. Column L identifies the total accrued population of Carleton Acres for each year during construction.

Column M represents the expected population growth for the Visalia District with the Carleton Acres Project included. The Values in Column M were calculated by adding the accrued population of Carleton Acres to the projected Service Aera Population with no development of the Project site. The resulting adjusted growth rate is depicted in Column N. Column O provides the resulting residential water demand for the service area with the Carleton Acres Project included. Column P provides the change in residential water demand attributable to the Carleton Acres Development. Column P is calculated by finding the difference between the service area residential water demand assumed by the Visalia UWMP and the residential water demand of the service area with the Carleton Acres Project. Columns Q and R show the change in commercial water demand. Column S is the total demand change.

The Visalia District UWMP estimated the residential water demand within the service area to be 30,732 AFY by 2045. The residential water demand in the service area with Carleton Acres was calculated to be 30,531 AFY by 2045. The UWMP estimated a commercial demand of 7,364 AFY in 2045. With the Project, the estimated commercial water demand is 7,384. Combined, the Project is expected to demand less water than the demand estimated by the Visalia UWMP. Because the service area water demand forecasted by the Visalia District UWMP is higher than the estimated water demand with the Carleton Acres Project, it can be assumed that available water supplies will be able to meet the projected demand resulting from the Carleton Acres Project[10]. Therefore, the Project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin. The impact is determined to be ***less than significant.***

Mitigation Measures: None are required.

[10] Carleton Acres Water Supply Assessment, 4Creeks Engineering (Oct. 2022), page 18.

Table 3.10-6
Anticipated City Water Demands and Available Supply: Years 2021 - 2045[11]

Anticipated City Water Demands and Available Supply: Years 2021 – 2045																		
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Year	Per Capita Water Use[1]	Service Area Population Anticipated by Visalia UWMP[1]	Service Area Growth Rate Assumed by Visalia UWMP	Service Area Residential Water Demand Assumed by Visalia UWMP	Service Area Commercial Water Demand Assumed by Visalia UWMP	Service Area Population with no development of project site[2,3]	Service Area Growth Rate with No Development of the Project Site[3]	Service Area Commercial Demand with No Development of the Project Site[3]	Added Population from Carleton Acres		Total Carleton Acres Population (accrued)	Service Area Population with Carleton Acres[3,4]	Service Area Growth Rate with Carleton Acres[3]	Service Area Residential Water Demand with Carleton Acres	Change in Service Area Residential Water Demand attributable to Carleton Acres Development	Service Area Commercial Water Demand With Carleton Acres	Change in Commercial Water Demand Attributable to Carleton Acres Development	Change in Total Water Demand Attributable to Carleton Acres Development
	Gal/Person/ Day			AFY	AFY				DU Added	Population Added				AFY	AFY	AFY	AFY	AFY
2021	128	149,830	0.0%	20953	5,318	149,830		5,318	0	0		149,830		20,952.61	0.00	5,318	0.00	0
2022	128	152,577	1.83%	21337	5,397	151,985	1.44%	5,395	164	492	492	152,477	1.77%	21,322.77	-13.98	5,398	1.18	-12.8
2023	128	155,368	1.83%	21727	5,476	154,184	1.45%	5,473	164	492	984	155,168	1.76%	21,699.09	-27.97	5,478	2.36	-25.61
2024	128	158,201	1.82%	22123	5,555	156,425	1.45%	5,550	164	492	1476	157,901	1.76%	22,081.28	-41.95	5,559	3.53	-38.42
2025	128	161,087	1.82%	22527	5,634	158,719	1.47%	5,627	264	792	2268	160,987	1.95%	22,512.83	-13.98	5,639	4.71	-9.27
2026	128	164,002	1.81%	22934	5,709	161,042	1.46%	5,700	269	807	3075	164,117	1.94%	22,950.54	16.08	5,715	5.89	21.97
2027	127	166,968	1.81%	23167	5,784	163,416	1.47%	5,774	251	753	3828	167,244	1.91%	23,205.11	38.30	5,791	7.07	45.37
2028	127	170,002	1.82%	23588	5,859	165,858	1.49%	5,847	250	750	4578	170,436	1.91%	23,648.00	60.22	5,867	8.25	68.47
2029	127	173,106	1.83%	24018	5,934	168,370	1.51%	5,920	236	708	5286	173,656	1.89%	24,094.78	76.31	5,943	9.42	85.73
2030	126	176,265	1.82%	24264	6,009	170,937	1.52%	5,994	211	633	5919	176,856	1.84%	24,345.56	81.36	6,020	10.60	91.96
2031	126	179,462	1.81%	24704	6,097	173,542	1.52%	6,080	211	633	6552	180,094	1.83%	24,791.29	87.00	6,109	11.78	98.78
2032	126	182,686	1.80%	25148	6,185	176,174	1.52%	6,166	217	651	7203	183,377	1.82%	25,243.22	95.12	6,198	12.96	108.08
2033	126	185,935	1.78%	25595	6,272	178,831	1.51%	6,252	215	645	7848	186,679	1.80%	25,697.77	102.42	6,287	14.13	116.55
2034	126	189,210	1.76%	26046	6,360	181,514	1.50%	6,338	237	711	8559	190,073	1.82%	26,164.98	118.80	6,376	15.31	134.11
2035	126	192,510	1.74%	26500	6,448	184,222	1.49%	6,424	180	540	9099	193,321	1.71%	26,612.09	111.64	6,464	16.49	128.13
2036	125	195,839	1.73%	26745	6,537	186,959	1.49%	6,511	115	345	9444	196,403	1.59%	26,821.78	77.02	6,554	17.67	94.69
2037	125	199,198	1.72%	27203	6,625	189,726	1.48%	6,598	114	342	9786	199,512	1.58%	27,246.36	42.88	6,644	18.85	61.73
2038	125	202,583	1.70%	27666	6,714	192,519	1.47%	6,685	0	0	9786	202,305	2.60%	27,627.78	-37.97	6,734	20.02	-17.95
2039	124	205,994	1.68%	27907	6,802	195,761	1.68%	6,773	0	0	9786	205,547	1.70%	27,845.90	-60.62	6,822	20.02	-40.6
2040	124	209,431	1.67%	28372	6,891	199,027	1.67%	6,862	0	0	9786	208,813	1.70%	28,288.39	-83.75	6,911	20.02	-63.73
2041	124	212,889	1.65%	28841	6,986	202,313	1.65%	6,956	0	0	9786	212,099	1.70%	28,733.58	-107.02	7,006	20.02	-87
2042	124	216,366	1.63%	29312	7,080	205,617	1.63%	7,051	0	0	9786	215,403	1.60%	29,181.22	-130.42	7,100	20.02	-110.4
2043	124	219,852	1.61%	29784	7,175	208,930	1.61%	7,146	0	0	9786	218,716	1.60%	29,630.01	-153.88	7,195	20.02	-133.86
2044	124	223,347	1.59%	30257	7,269	212,251	1.59%	7,240	0	0	9786	222,037	1.60%	30,079.97	-177.40	7,289	20.02	-157.38
2045	124	226,850	1.57%	30732	7,364	215,580	1.57%	7,335	0	0	9786	225,366	1.60%	30,530.95	-200.98	7,384	20.02	-180.96

1. Provided by Visalia Urban Water Management Plan
2. Calculated based on 9473 fewer residents added to population from 2021 to 2037 than was assumed by the Visalia UWMP. Reduction in population based on site's GPLU designation
3. Assumes normal growth rate would resume in 2038, when construction of Carleton Acres would be complete.
4. Calculated as: Previous Year Population + Anticipated Change in Population with No Development + Population Added from Proposed Development

[11] Carleton Acres Water Supply Assessment, 4Creeks Engineering (Oct. 2022), page 19.

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 With Mitigation. Construction and long-term operations of the proposed Project could result in potential 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 Visalia Development Standards. The Project will discharge stormwater runoff through a proposed storm drain system that drains into a proposed drainage basin onsite.

A site survey was conducted to identify the appropriate location of the drainage basin based on site slopes and other factors. The basin is proposed to be integrated into the western edge of the Project site at the northeast corner of Shirk Road and Shannon Parkway. The proposed basin location is in the lowest elevation of the Project site and is in the natural drainage/low area of the development. This allows for natural stormwater runoff. The basin is approximately 17.3 gross acres, 11.4 net acres, with a capacity of 97.85 acre/feet. The 97.85 acre/feet of capacity is in excess of the 90.80 acre/feet of storage capacity that would be required by the Project. Half of the basin is proposed to be completed for Phase 1. In addition to serving the proposed development, the basin will be designed to accommodate storm drainage for the existing Ridgeview Middle School, the future High School, future elementary school, and the City Park at the intersection of Akers

Street and Riggin Avenue. A bioswale will be used to collect storm water from developments adjacent to the existing Modoc Ditch. The bioswale shall be connected to the proposed basin. The location of the bioswale adjacent to the bike path trail will enhance the landscape space. See Figure 3.10-1 for the conceptual location of the drainage basin and associated storm drain pipelines.

Since the basin's 97.85 acre/feet of capacity is in excess of the 90.80 acre/feet of storage capacity that would be required by the Project, the Project will not result in exceedance of the City's storm drain capacity.

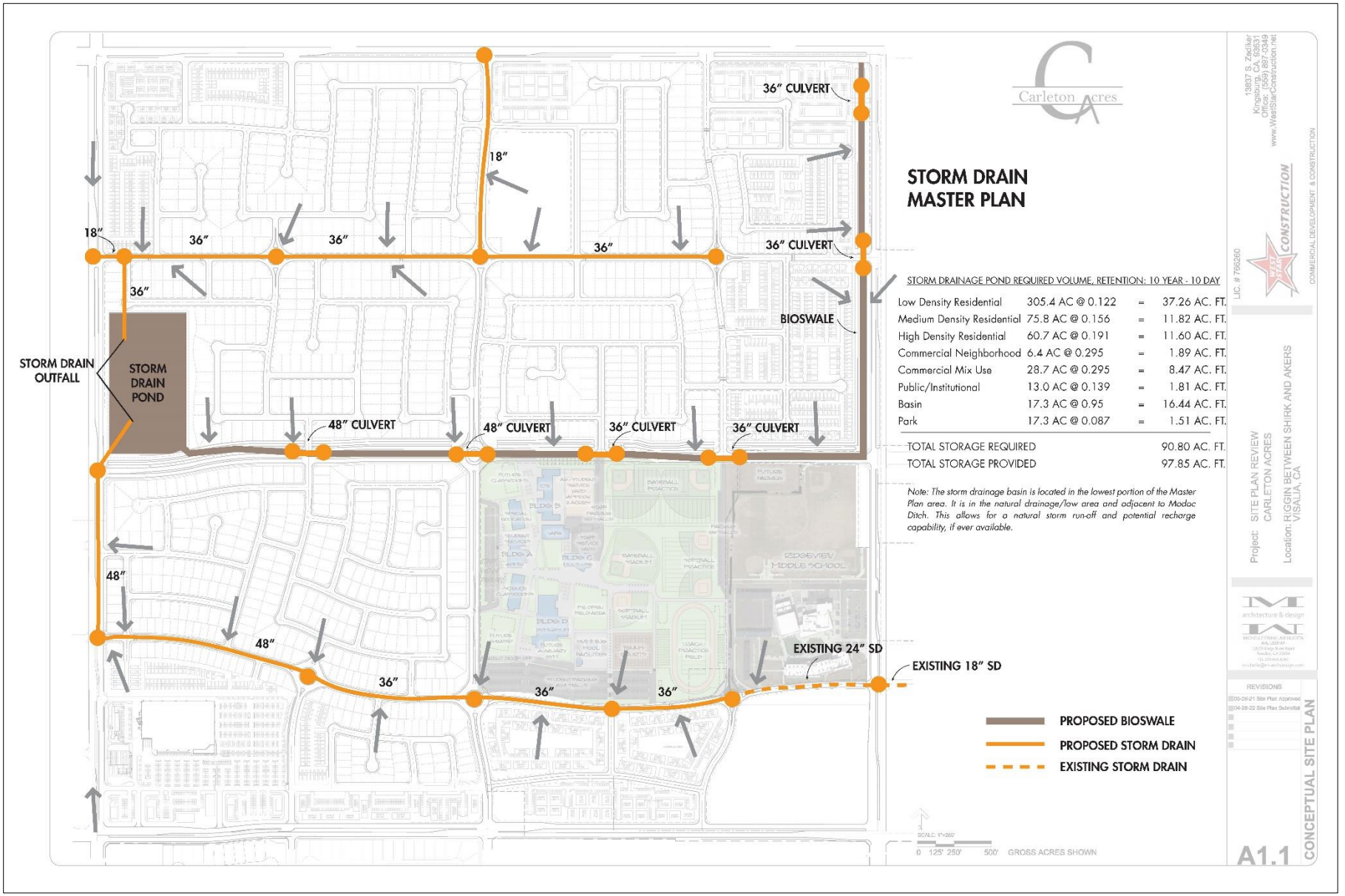
As noted in Section 3.3 – Biological Resources, the Project site contains portions of three canals that are owned by the Modoc Ditch Company. The canals are not listed on the National Wetlands Inventory and no significant impacts are anticipated. However, the Project developer will be required to obtain agreements with the Modoc Ditch Company prior to any construction activity associated with any proposed abandonment and/or replacement of the Company's facilities on the Project site.

Substantial erosion, siltation or flooding are not expected to occur as the site is developed. In accordance with the NPDES Stormwater Program, and as described in the Section 3.6 - 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. Construction of the storm drain basin and implementation of Mitigation Measure GEO - 2 would ensure that the proposed Project would have a less than significant impact relative to this topic.

Mitigation Measures:

Implement Mitigation Measure GEO-2.

Figure 3.10-1
Storm Drain Master Plan

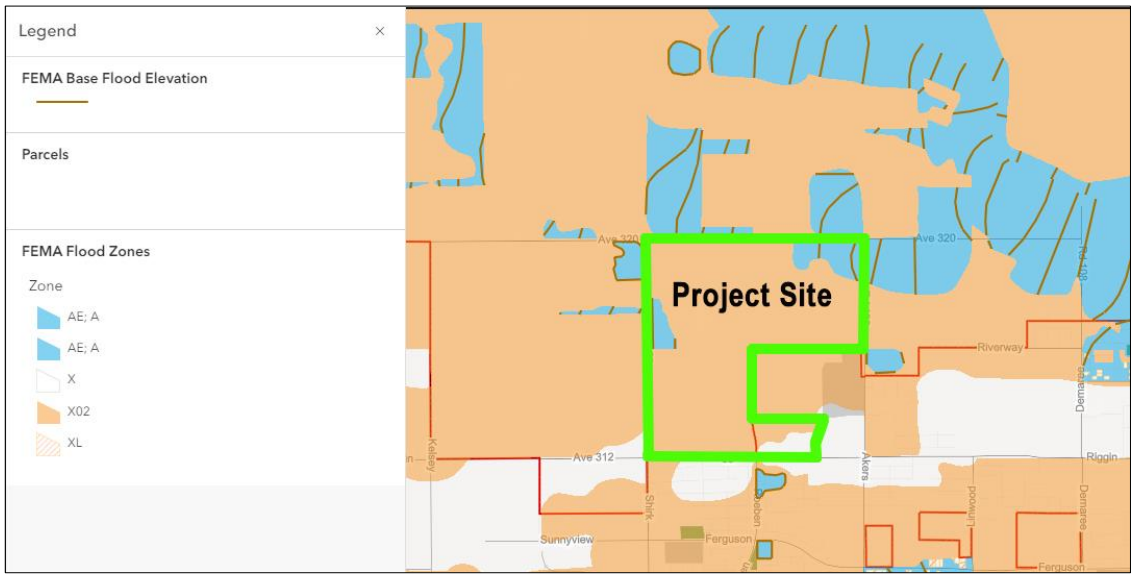


Impact 3.10-4: *In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?*

Less Than Significant. The majority of the Project is designated Flood Insurance Rate Map Zone "X" (outside the 500-year flood zone) while small portions of the site along the northern and northwestern boundary are in Flood Zone "AE". The AE Zone includes areas subject to risk from a 100-year flood. Urban development is allowed under both flood zones. The site has been designed with adequate storm drain capacity, and compliance with the requirements for SWPPP and BMPs (see Section 3.10-3) will ensure that risk of release of pollutants due to project inundation is less than significant. Figure 3.10-2 shows the Project site relative to the flood zones. The site is also located more than 75 miles from the nearest ocean that could cause a tsunami and there are no bodies of water near the Project site that would represent any impacts related to seiche zones. Therefore, there is a ***less than significant impact*** related to flooding and related hazards.

Mitigation Measures: None are required.

Figure 3.10-2
FEMA Floodplain Map



Impact 3.10-5: *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less Than Significant With Mitigation. See the response to Impacts 3.9-1 and 3.9-4 pertaining to water quality. 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 Visalia Development Standards. In addition, water quality protection measures are included as mitigation and the Project would be in compliance with the City's Storm Drain Master Plan. This will ensure Project water quality impacts are less than significant.

The City of Visalia (through Cal Water) is part of the Mid-Kaweah Groundwater Sustainability Agency (MKGSA). The proposed Project, if approved, would come under the jurisdiction and purview of Cal Water which is subject to MKGSA's Groundwater Sustainability Plan (GSP). The GSP was submitted to the Department of Water Resources on January 31, 2020. Projects and management actions described in the Mid-Kaweah GSA GSP include: groundwater recharge projects and programs, surface reservoir projects, leveraged surface water exchange programs, a groundwater extraction measurement implementation program, a conceptual groundwater marketing program, and future urban and agricultural conservation. The Mid- Kaweah GSA GSP states that the GSA will work during the period from 2020 to 2025 to develop a pumping allocation program to achieve, along with neighboring GSAs, the Kaweah Subbasin's sustainable yield by 2040. The Mid-Kaweah GSA plans to prioritize the projects/programs above to serve as the first means to achieve sustainability, but by 2026, it is anticipated that an allocation plan would be ready for implementation if necessary to achieve sustainability.

Upon approval, the Project will be subject to the rules and requirements of MKGSA's GSP. Therefore, the Project will not conflict with or obstruct a sustainable groundwater management plan.

Mitigation Measures:

None are required.

Cumulative Impacts

Cumulatively Significant and Unavoidable. The geographic area for cumulative hydrology analysis is the land area included in the Kaweah Sub Basin. Buildout of the City's General Plan and other pending projects in the Basin area will contribute to changes to stormwater collection systems and groundwater quality as well as an increase in groundwater demand.

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. Mitigation Measure MM GEO-2 would require the Project to prepare and implement a SWPPP in accordance with City requirements. Similarly, all projects that would not retain all runoff onsite would be required to prepare a SWPPP, which would include BMPs designed to prevent the mixture of sediment and other pollutants with stormwater and degrading water quality. With implementation of Mitigation Measure GEO-2, cumulative impacts of the Project to water quality would be less than significant. Therefore, cumulative impacts associated with stormwater collection and water quality is less than cumulatively considerable.

With respect to erosion, drainage, and flooding, the Project would implement Mitigation Measure GEO-2 would minimize direct impacts on erosion, drainage, and flooding. It is anticipated that other cumulative scenario projects would be required to implement similar measures, in order to minimize erosion, drainage, and flooding related impacts. Additionally, drainage related impacts from cumulative scenario projects would be primarily localized. Therefore, cumulative scenario impacts on erosion, drainage, and flooding are not anticipated to be cumulatively considerable, and the Project would not contribute to a cumulative impact on flooding, erosion, or drainage.

With respect to water supplies, the City of Visalia (through Cal Water) is part of the Mid-Kaweah Groundwater Sustainability Agency (MKGSA). The proposed Project, if approved, would become under the jurisdiction and purview of Cal Water which is subject to MKGSA's Groundwater Sustainability Plan. The City of Visalia utilizes groundwater as its sole source of potable water. As identified herein and in the SB 610 Water Supply Assessment, the City anticipates being able to provide adequate potable water to the City through the year 2042. However, development of the Project in combination with future projects within the Basin would increase the amount of overdraft in the Basin, which is already in a state of overdraft. Therefore, even with compliance with the GSP and implementation of water-reduction measures required by Cal Water, the Project would result in ***cumulatively considerable and unavoidable significant impacts*** to groundwater supplies in the Basin.

3.11 Land Use and Planning

This section of the DEIR evaluates the potential environmental effects related to land use and planning associated with implementation of the proposed Project.

Environmental Setting

The proposed Project is located on approximately 507-acres in the northern area of the City of Visalia, California and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north.

The Project Applicant is proposing a Specific Plan to develop approximately 507-acres of land into a mixed-use development. The Project will feature a variety of uses including single-family residential, multi-family housing, commercial, educational, and parks/trails facilities. The proposed Project components are described below. Refer also to Table 2-1: Summary of Proposed Land Uses and Figure 2-5: Site Layout Plan.

The site is comprised of two parcels: APN 077-100-088 and APN 077-100-105. APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County while APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses. Refer to Figures 2-1 to 2-4. Existing land uses surrounding the Project site consist of dairy farm/agricultural uses to the north and west, agricultural uses to the east, and residential/Church/water storage tank to the south.

Residential

The proposal features several different types of housing for a total of up to 3,262 residential units at buildout which is broken down as follows:

- Low Density Residential: Up to 1,592 units
- Medium Density Residential: 758 units
- High Density Residential: 912 units

It should be noted that the number of proposed units for low density residential portion of the development is currently proposed to include a maximum of 1,592 units, which may be lower depending on final configuration of the lots. In addition, the 13.0 acres currently shown in Figure 2-5 for a new elementary school could potentially be converted to low density residential.

Therefore, for purposes of providing the maximum number of potential residential units, a total of 65 units was added to the total for both phases (13.0 acres X 5.0 units per acre = 65 units), for a maximum development potential of 1,592 low density residential units.

Commercial

The proposed Project includes up to 35.1 acres of commercial development in two locations within the Project for a total of approximately 205,000 square feet of gross leasable commercial area. The commercial developments will occur in the proposed Mixed Use Commercial Zone and the Neighborhood Commercial Zone. The maximum size for a single or anchor tenant shall be 170,000 square feet within the Mixed Use Commercial Zone as shown in Figure 2-5. The first commercial area consists of up to 28.7 acres of Mixed-Use Commercial at the intersection of Riggin Avenue and Shirk Road. Anticipated uses at this location may include development such as a Costco, gas station, car wash, drug store, retail, restaurants (including drive-throughs), and similar uses. The second consists of up to 6.4 acres of Commercial Neighborhood at the northeast corner of the development. Anticipated uses at this location may include development such as retail, services and restaurants. The commercial facilities are located to provide efficient accessibility to residents of the Project and the surrounding areas.

Other Project Components

Other proposed uses include approximately 13.0 acres for a potential site for a future elementary school, 17.3 gross acres for a drainage basin, and approximately 17.3 acres of parks/trails/recreational facilities. Various other infrastructure improvements (water, stormwater and wastewater infrastructure, roadway improvements, and related improvements) will be required by the Project. Refer to further descriptions of these components in Chapter Two – Project Description.

Regulatory Setting

Federal Regulations

There are no federal regulations pertinent to local land use and planning.

State of California Regulations

The Cortese-Knox-Herztberg Local Government Reorganization Act

The Cortese-Knox-Herztberg 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-Herztberg 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 to 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.

Specific Plans

A specific plan is a plan that provides detailed design and implementation tools for a specific portion of the area covered by a general plan. A specific plan may include all regulations, conditions, programs, and/or proposed legislation which may be necessary for convenient for the systematic implementation of any general plan element(s).

Local Regulations

Local Agency Formation Commission of Tulare County

Local Agency Formation Commissions (LAFCOs) review proposals for the formation of new local governmental agencies and for changes in the organization of existing agencies. The Tulare County LAFCO is responsible for coordinating logical and timely changes in local governmental boundaries, conducting special studies which review ways to reorganize, simplify, and streamline governmental structure and preparing Spheres of Influence for each city and special district within the county. The Commission's efforts are directed to seeing that services are provided efficiently and economically while agricultural and open-space lands are protected.

City of Visalia General Plan

The City of Visalia's General Plan is the City's long-range planning document, to the year 2030.[1] It consists of nine chapters: Introduction; Land Use; Historic Preservation; Circulation; Parks, Schools, Community Facilities and Utilities; Open Space and Conservation; Air Quality and Greenhouse Gases; Safety and Noise; and Implementation. The Land Use Chapter presents the guiding principles of the land use framework, the General Plan Diagram, the land use classification system, and the buildout of this Plan to the year 2030.[2]

City of Visalia General Plan Policies

Note: The General Plan policies listed on the following page are only from the Land Use Element of the City's General Plan. For the list of other applicable General Plan policies (e.g. Community Design, Circulation, Public Utilities, etc.), please refer to Table 3.11-2 for a list of all applicable General Plan policies and associated Project consistency determination.

Relevant General Plan Land Use Element policies are as follows:

Economic Development Policies:

LU-P-11 wherein the City will continue to coordinate planning, economic development, local workforce training, tourism, and other activities of regional significance with the Chamber of Commerce, Tulare County and other cities and organizations to foster the economic health of the area.

Urban Boundaries and Growth Management Policies:

LU-P-19 wherein the City will ensure growth occurs in a compact and concentric fashion by implementing the General Plan's phased growth strategy.

LU-P-20 wherein the City will allow annexation and development of residential, commercial, and industrial land to occur within the "Tier I" Urban Development Boundary (UDB) at any time, consistent with the City's Land Use Diagram.

LU-P-21 wherein the City will allow annexation and development of residential, commercial, regional retail, and industrial land to occur within the Urban Development Boundary

[1] City of Visalia 2030 General Plan. https://www.visalia.city/depts/community_development/planning/gp.asp. Accessed January 2023.

[2] Ch. 2 Land Use, City of Visalia 2030 General Plan. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30474. Accessed January 2023.

(Tier II) and the Urban Growth Boundary (Tier III) consistent with the City's Land Use Diagram, according to the following phasing thresholds:

- "Tier II": Tier II supports a target buildout population of approximately 178,000. The expansion criteria for land in Tier II is that land would only become available for development when building permits have been issued in Tier I at the following levels, starting from April 1, 2010:

  Residential: after permits for 5,850 housing units have been issued; and,

  Commercial: after permits for 480,000 square feet of commercial space on designated Commercial, Mixed Use, Downtown Mixed Use, Office, and Service Commercial land have been issued.

  Regional Retail: New Regional Retail areas in the Tier II Growth Boundary shall be eligible for urban development upon satisfactory demonstration that the following criteria have been met:

  1. Existing Regional Retail Commercial zoned land south of Caldwell Avenue. that was undeveloped as of the date of adoption of the General Plan has received at least 922,383 sq.ft. of commercial building permits [formula: 121 acres @43,560 sq.ft. per gross acre = 5,270,760sq.ft. x .25 (assumed FAR for Regional Retail development) x 0.7 (recommended flex factor)]

  2. The uses and tenants proposed for the area will substantially further the community's goal of providing high level regional retail goods and services.

  3. That there is sufficient roadway capacity and adequate public facilities and infrastructure to accommodate the proposed development. The regional retail zone classification shall provide for permitted and conditional uses that are of a regional draw only. Uses that are not exclusively of a regional draw may be allowed where a finding is made that such uses are ancillary or associated with the regional uses. Uses of a neighborhood or convenience level draw only shall not be permitted.

- "Tier III": Tier III comprises full buildout of the General Plan. The expansion criteria for land in Tier III is that land would only become available for development when building permits have been issued in Tier I and Tier II at the following levels, starting from April 1, 2010:

  Residential: after permits for 12,800 housing units have been issued.

Commercial: after permits for 960,000 square feet of commercial space on designated Commercial Mixed Use, Downtown Mixed Use, Office, and Service Commercial land have been issued; and

Industrial: after permits for 2,800,000 square feet of commercial space on designated Industrial, Light Industrial, and Business Research Park land have been issued.

LU-P-22 wherein the City will allow for City Council approval of master plans, following Planning Commission review and recommendation, for sites under a single ownership or unified control, which may include developable land within both multiple development tiers. Allow for pre-zoning of this masterplanned land, subject to execution of a development agreement between the City and the land owner conforming to the requirements of Government Code Section 65864 et seq., with the project allowed to annex and develop while the City is still limiting development approvals to land within the Tier I or Tier II designation.

Rural Buffer and Edge Conditions:

LU-P-28 wherein the City will continue to use natural and man-made edges, such as major roadways and waterways within the City's Urban Growth Boundary, as urban development limit and growth phasing lines.

Residential Neighborhoods:

LU-P-47 wherein the City will ensure that new neighborhoods meet land use mix standards established in Table 2-7 of the General Plan. The ranges indicated—the minimum and maximum levels of development for each type of land use—are intended to allow for flexibility in master planning in response to market conditions, infrastructure costs, and site planning policies.

LU-P-50 wherein the City will provide development standards to ensure that a mix of detached and attached single-family and multi-family housing types can be compatible in a single development.

LU-P-51 wherein the City will provide development standards to ensure residential development is not negatively affected by adjacent non-residential land uses.

LU-P-52 wherein the City will facilitate high-quality building and site design for multi-family developments by updating development standards in the zoning ordinance and providing clear rules for development review and approval and by creating and adopting design guidelines to be used in the development review and approval process.

LU-P-53 wherein the City will integrate multi-family development with commercial, office, and public uses in neighborhood nodes, Downtown, and with Commercial Mixed-Use areas in East Downtown, along the Mooney corridor and elsewhere.

LU-P-55 wherein the City will update the Zoning Ordinance to reflect the Low-Density Residential designation on the Land Use Diagram for development at 2 to 10 dwelling units per gross acre, facilitating new planned neighborhoods and infill development in established areas.

LU-P-56 wherein the City will update the Zoning Ordinance to reflect the Medium Density Residential designation on the Land Use Diagram for development at 10 to 15 dwelling units per gross acre.

LU-P-57 wherein the City will update the Zoning Ordinance to reflect the High-Density Residential designation on the Land Use Diagram for development at 15 to 35 dwelling units per gross acre, accommodating townhouses, two- and four-plexes, and multistory condominium and apartment buildings.

Commercial Land Use and Mixed-Use Development:

LU-P-66 wherein the City will update the Zoning Ordinance to reflect the Commercial Mixed Use designation on the Land Use Diagram, to allow for either horizontal or vertical mixed use development and a range of commercial, service, office, and residential uses.

LU-P-67 wherein the City will update the Zoning Ordinance to reflect the Neighborhood Commercial designation on the Land Use Diagram, intended for small-scale commercial development that primarily serves surrounding residential areas, wherein small office uses as well as horizontal or vertical residential mixed use are also supported. Provide standards to ensure that neighborhood commercial uses are economically-viable and also integrated into neighborhoods, with multimodal access and context-sensitive design.

LU-P-72 wherein the City will ensure that noise, traffic, and other potential conflicts that may arise in a mix of commercial and residential uses are mitigated through good site planning, building design, and/or appropriate operational measures.

Institutional & Civic:

LU-P-108 wherein the City will designate land for Public/Institutional uses on the Land Use Diagram, including City Hall and other City buildings, County and other government

buildings, schools, colleges and universities, hospitals, police and fire stations, the Municipal Airport, and waste management facilities.

City of Visalia Zoning Ordinance

The City of Visalia Zoning Ordinance establishes regulations governing the development and use of land in accordance with the City of Visalia General Plan in a manner that protects the public health, safety, comfort and convenience, and welfare of residents and businesses of Visalia. The zoning code provides information to facilitate the efficient review of development proposals, while providing opportunity for public review and comment for proposals that may have a significant impact on the community.

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, the project would have a significant impact on land use if the project would:

- Physically divide an established community?
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Impacts and Mitigation Measures

Impact 3.11-1: *Physically divide an established community?*

Less Than Significant. The proposed Project site has historically been used for agricultural purposes and there are no residences or businesses on the site. Areas to the west and east are planned for urban development and there are scattered rural residences and agricultural facilities to the north. There are no established communities that would be divided by the Project. The site is located in a developing area planned as part of the City of Visalia. Currently, Ridgeview Middle School is located adjacent to and west of Akers Street and would abut the proposed Project site. In addition, the City is currently planning a new high school that will be constructed adjacent to and west of Ridgeview Middle School and would be surrounded by the proposed Project to the north, west and south. Land uses of adjacent parcels surrounding the Project site are as follows:

North – dairy farm/agriculture; South – residential, church, water storage tank; West – dairy farm/agriculture; and East – agriculture.

Because the Project would not physically divide an established community, the impact is determined to be ***less than significant.***

Mitigation Measures

None are required.

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?*

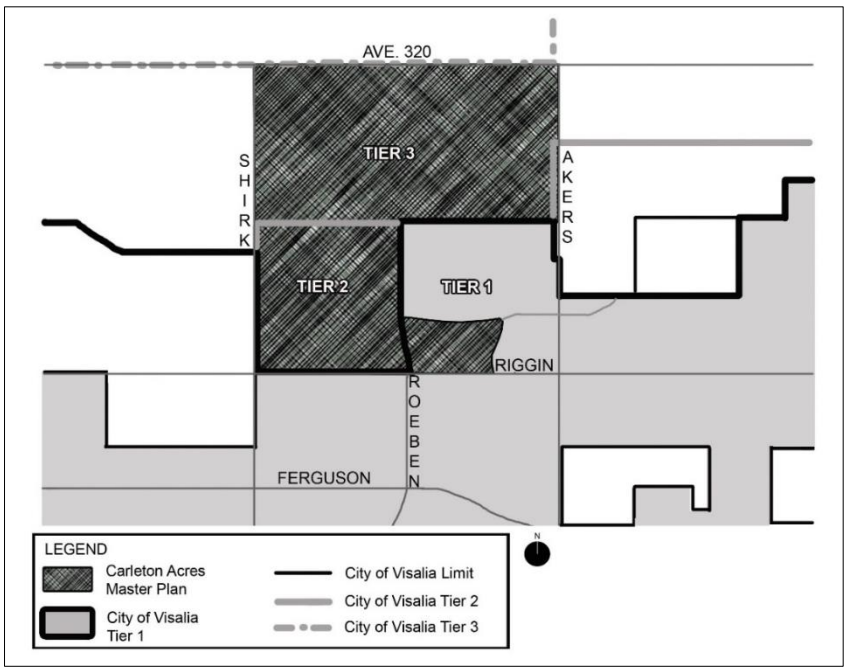
Less Than Significant. The City of Visalia General Plan and Zoning Ordinance establish land use policies and regulations that are applicable to the proposed Project. Upon annexation, the Project would be subject to the land use plans, policies and regulations of these documents. The following discussion evaluates the conformity of the proposed Project to the plans, policies and regulations that have been adopted for the purpose of avoiding or mitigating an environmental effect.

The site comprises two parcels: APN 077-100-088 and APN 077-100-105. APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County while APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses. Refer to Figure 2-1: Regional Location Map, Figure 2-2: City Boundary Map, Figure 2-3: Existing Land Use Designations, and Figure 2-4: Aerial Site Vicinity Map.

The City of Visalia's General Plan includes a three-tier system to account for future growth (Tier 1, Tier 2 and Tier 3). Thresholds were set on residential permits, commercial square footage, industrial square footage and regional commercial square footage. Tier 1 currently allows development to occur within the Tier 1 boundary. Tier 2 also currently allows development to occur within the Tier 2 boundary, being that the City of Visalia met the thresholds for expansion into Tier 2 as outlined in Policy LU-P-21 in July 2021 and the City Council of the City of Visalia endorsed the moving into Tier 2. Tier 3 can be developed after certain thresholds are met during/after buildout of Tier 1. Under the City of Visalia's General Plan Policy LU-P-22, an approved specific-planned site can be annexed before development is permitted in Tier 2 or Tier 3. Annexations are reviewed within the context of the regulations and polices in the Cortese-

Knox-Hertzberg Local Governments Reorganization Act of 2000 and the Tulare County Local Agency Formation Commission Policy and Procedure Manual regarding development and inventory of existing vacant land designed for urban uses in the City limits. The City of Visalia's General Plan Policy LU-P-22 allows the City Council to approve master-planned developments for sites under single ownership or unified control, which may include developable land within multiple Tiers. A Development Agreement will be prepared, which is a separate document that details the overall development, density, phasing, infrastructure needs and financing, as well as outlines the responsibilities of each party. The Development Agreement and the Master Plan have a consistent vision with Visalia's General Plan and the City's interest in growth through phasing. The figure below identifies the City's Tier boundaries relative to the Project site.

City of Visalia Tier Boundaries



Consistency with Zoning Ordinance

Once annexed into the City, the Project site will be zoned for a variety of development consisting of residential, commercial, public facilities, and parks/recreational designations. These zone districts are appropriate for uses such as those proposed by the Project. Therefore, upon annexation, the Project site will be consistent with the City's Zoning Ordinance.

Consistency with the General Plan

The site comprises two parcels: APN 077-100-088 and APN 077-100-105. APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County while APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses. Table 3.11-1 summarizes the proposed Project's consistency with the applicable goals and policies of the City's General Plan. As demonstrated in the table, the proposed Project would be consistent with the applicable objectives and policies of the General Plan.

Table 3.11-1

General Plan Consistency Analysis

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
Aesthetics	OSC-P-13	In new neighborhoods that include waterways, improvement of the waterway corridor, including preservation and/or enhancement of natural features and development of a continuous waterway trail on at least one side, shall be required.	**Yes:** The project includes trails adjacent to Modoc ditch and includes enhancements to the facilities.
Aesthetics	OSC-P-17	Require that new development along waterways maintain a visual orientation and active interface with waterways. Develop design guidelines to be used for review and approval of subdivision and development proposals to illustrate how this can be accomplished for different land uses in various geographic settings.	**Yes:** The project includes trails adjacent to Modoc ditch and has been designed to take advantage of the visual benefits of the waterway.
Aesthetics	OSC-P-34	Enhance views and public access to Planning Area waterways and other significant features such as Valley Oak groves consistent with flood protection, irrigation water conveyance, habitat preservation and recreation planning policies.	**Yes:** The project includes trails adjacent to Modoc ditch and has been designed to take advantage of the visual benefits of the waterway.
Aesthetics	OSC-P-35*	Use native trees in street and public landscaping designs, where appropriate, to preserve Visalia's character.	**Yes:** The City of Visalia will review all public landscaping associated with the project prior to

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
			installation.
Aesthetics	LU-P-28*	Continue to use natural and man-made edges, such as major roadways and waterways within the City's Urban Area Boundary, as urban development limit and growth phasing lines.	**Yes:** The project is surrounded by major roadways and is within the development tiers established by the City. Once annexed, the site would be entirely within City limits.
Aesthetics	LU-P-29	Use regional and community parks and open space to enhance gateways to the City and as a buffer between adjacent communities.	**Not applicable.** The site is not considered a gateway to the City and there are no adjacent communities to the project site.
Aesthetics	LU-P-34*	Work with Tulare County to prevent urban development of agricultural land outside of the current growth boundaries and to promote the of use agricultural preserves, where they will promote orderly development.	**Yes:** The site is located within the development tiers established by the City.
Aesthetics	LU-P-39*	Improve tree planting, landscaping and site design standards to minimize the visual impact of large parking lots and buildings, to enhance and promote natural characteristics compatible with urban form, to minimize heat gain and promote energy conservation, and to improve stormwater infiltration.	**Yes:** The project includes landscaping at the proposed commercial sites. The City of Visalia will review all public landscaping associated with the project prior to installation.
Aesthetics	LU-P-59	Ensure that natural and open space features, such as Valley Oak trees and community waterways, are treated as special site amenities as part of any residential development.	**Yes:** The project includes trails adjacent to Modoc ditch and has been designed to take advantage of the visual benefits of the waterway. There are no existing oak tress on the site.
Aesthetics	LU-P-72*	Ensure that noise, traffic, and other potential conflicts that may arise in a mix of commercial and residential uses	**Yes:** As identified within this EIR, the project contains design features

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
		are mitigated through good site planning, building design, and/or appropriate operational measures.	to reduce potential conflicts and numerous mitigation measures are imposed on the project that will ensure impacts are less than significant.
Agriculture	LU-O-12	Provide for an orderly and efficient transition from rural to urban land uses.	**Yes:** The project is within the development tiers established by the City. The project would result in contiguous growth (to existing developments) in this area of the City and would serve as an orderly and efficient transition from rural to urban land uses. Agricultural uses will remain to the north of the project site (north of Avenue 320), but there is planned development to the west (industrial/commercial) and east (residential).
Agriculture	LU-O-13	Minimize urban sprawl and leap-frog development by encouraging compact, concentric and contiguous growth.	**Yes:** The project is within the development tiers established by the City. The project would result in contiguous growth (to existing developments) in this area of the City and would serve as an orderly and efficient transition from rural to urban land uses. Agricultural uses will remain to the north of the project site (north of Avenue 320), but there is planned development to

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
			the west (industrial/commercial) and east (residential).
Agriculture	LU-P-19*	Ensure that growth occurs in a compact and concentric fashion by implementing the General Plan's phased growth strategy.	**Yes:** The project is within the development tiers established by the City. The project would result in contiguous growth (to existing developments) in this area of the City and would serve as an orderly and efficient transition from rural to urban land uses. Agricultural uses will remain to the north of the project site (north of Avenue 320), but there is planned development to the west (industrial/commercial) and east (residential).
Agriculture	LU-P-20*	Allow annexation and development of residential, commercial, and industrial land to occur within the "Tier I" Urban Development Boundary (UDB) at any time, consistent with the City's Land Use Diagram.	**Yes:** The project will include development in Tier I, which is already inside City limits.
Agriculture	LU-P-21*	Allow annexation and development of residential, commercial, regional retail, and industrial land to occur within the Urban Development Boundary (Tier II) and the Urban Growth Boundary (Tier III) consistent with the City's Land Use Diagram, according to the following phasing thresholds: • "Tier II": Tier II supports a target buildout population of approximately 178,000. The expansion criteria for land in Tier II is that land would only become available for development when building permits have been issued in Tier I at the following levels, starting from April 1, 2010: o Residential: after permits for 5,850 housing units have been issued; and, o Commercial: after permits for 480,000 square feet of commercial space on designated	**Yes:** Under the City of Visalia's General Plan Policy LU-P-22, an approved specific-planned site can be annexed before development is permitted in Tier 2 or Tier 3. Annexations are reviewed within the context of the regulations and polices in the Cortese-Knox-Hertzberg Local Governments

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
		Commercial, Mixed Use, Downtown Mixed Use, Office, and Service Commercial land have been issued.	Reorganization Act of 2000 and the Tulare County Local Agency Formation Commission Policy and Procedure Manual regarding development and inventory of existing vacant land designed for urban uses in the City limits. The City of Visalia's General Plan Policy LU-P-22 allows the City Council to approve master-planned developments for sites under single ownership or unified control, which may include developable land within multiple Tiers. A Development Agreement will be prepared, which is a separate document that details the overall development, density, phasing, infrastructure needs and financing, as well as outlines the responsibilities of each party. The Development Agreement and the Master Plan have a consistent vision with Visalia's General Plan and the City's interest in growth through phasing.
Agriculture	LU-P-34*	Work with Tulare County and other state and regional agencies, neighboring cities, and private land trust entities to prevent urban development of agricultural land outside of the current growth boundaries and to promote the use of agricultural preserves, where they will	**Yes:** In order to meet the requirements of this policy, the City is preparing an Agricultural

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
		promote orderly development and preservation of farming operations within Tulare County. Conduct additional investigation of the efficacy of agricultural conservation easements by engaging local, regional, and state agencies and stakeholders in order to further analyze their ongoing efforts and programs that attempt to mitigate impacts from the conversion of agricultural lands through the use of agricultural conservation easements. Support regional efforts to prevent urban development of agricultural lands, specifically at the county level. Tulare County's General Plan 2030 Update Policy contains two policies (AG-1.6 Conservation Easements and AG-1.18 Farmland Trust and Funding Sources) that discuss establishing and implementing an Agricultural Conservation Easement Program (ACEP). The City supports the implementation of these measures by the County, in which the City may then participate. Such a regional program could include a fee to assist and support agricultural uses, and would be most feasibly and strategically developed on a countywide or other regional basis. In addition to supporting regional efforts to prevent urban development of agricultural lands, the City shall create and adopt a mitigation program to address conversion of Prime Farmland and Farmland of Statewide Importance in Tiers II and III. This mitigation program shall require a 1:1 ratio of agricultural land preserved to agricultural land converted and require agricultural land preserved to be equivalent to agricultural land converted. The mitigation program shall also require that the agricultural land preserved demonstrate adequate water supply and agricultural zoning, and shall be located outside the City UDB, and within the southern San Joaquin Valley. The mitigation program shall, to the extent feasible and practicable, be integrated with the agricultural easement programs adopted by the County and nearby cities. The City's mitigation program shall allow mitigation to be provided by purchase of conservation easement or payment of fee, but shall indicate a preference for purchase of easements. The mitigation program shall require easements to be held by a qualifying entity, such as a local land trust, and require the submission of annual monitoring reports to the City. The mitigation program shall specifically allow exemptions for conversion of agricultural lands in Tier I, or conversion of agricultural lands for agricultural processing uses, agricultural buffers, public facilities, and roadways.	Preservation Ordinance applicable to properties within Tier 2 and Tier 3 that requires a 1:1 ratio (or fee equivalent) of agricultural land preserved to agricultural land converted towards urban development. The Ordinance is anticipated to be adopted in mid-2023 and the Project will comply with the Ordinance. The Ordinance will require that an equivalent amount of agricultural land converted be preserved outside the urban development boundary and within the southern San Joaquin Valley, or that a project comply with regulations within the Ordinance that will cause an equivalent amount of agriculture land to be preserved. Additionally, the preserved agricultural land must demonstrate adequate water supply and agricultural zoning. Policy LU-P-34 notes that such a program shall, to the extent feasible and practicable, be integrated with the agricultural easement programs adopted by Tulare County and nearby cities. The City

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
			of Visalia's program shall allow for compliance with the preservation ordinance to be completed by purchase of easements, and that such easements be held by a qualifying entity, such as a local land trust, and require the submission of annual monitoring reports to the City. Prior to the adoption of the Ordinance the Project proponent could mitigate for the loss of agricultural land and begin conversion of agricultural lands by providing verification to the City that it has preserved agricultural land at a 1:1 ratio using easements that meet the requirements identified in Policy LU-P-34 or participation in an agricultural preservation program adopted by another agency within the southern San Joaquin Valley that meet the these requirements for preserving agricultural land. As this is a requirement for consistency with the General Plan, the Project's compliance is mandatory. Therefore,

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
			compliance with General Plan Policy LU-P-34 will allow the Project to convert Prime Farmland and Farmland of Statewide Importance and preserve offsite farmland outside of the urban development boundaries at an equivalent ratio. The project includes MM AG – 1 which requires mitigating at a 1:1 ratio as described in LU-P-34.
Agriculture	LU-P-35	Adopt the County's Right-to-Farm ordinance to support continued agricultural operations at appropriate locations within the City limits, with no new provisions.	**Yes:** The project includes MM AG – 2 which includes a Right-to-Farm covenant.
Air Quality	AQ-P-2	Require use of Best Management Practices (BMPs) to reduce particulate emission as a condition of approval for all subdivisions, development plans and grading permits, in conformance with the San Joaquin Valley Air Pollution Control District Fugitive Dust Rule.	**Yes:** The project is required to comply with SJVAPCD's Regulation VIII – Fugitive PM10 Prohibitions and other regulations pertaining to particulate emissions
Air Quality	AQ-P-3	Support implementation of the San Joaquin Valley Air Pollution Control District's regulations on the use of wood-burning fireplaces, as well as their regulations for the installation of EPA-certified wood heaters or approved wood-burning appliances in new residential development and a "No Burn" policy on days when the air quality is poor.	**Yes:** The project is in compliance with regulations pertaining to wood-burning fireplaces.
Air Quality	AQ-P-4	Support the San Joaquin Valley Air Pollution Control District's "change-out" program, which provides incentives to help homeowners replace old word-burning fireplaces with EPA-certified non woodburning appliances.	**Not applicable:** This is a new development, thus the "change-out" program does not apply.

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
Air Quality	AQ-P-9	Continue to mitigate short-term construction impacts and long-term stationary source impacts on air quality on a case-by-case basis and continue to assess air quality impacts through environmental review. Require developers to implement Best Management Practices (BMPs) to reduce air pollutant emissions associated with the construction and operation of development projects.	**Yes:** The project included a full analysis of air quality impacts, greenhouse gas impacts, and energy use impacts. Mitigation measures will be imposed and other SJVAPCD regulations and BMPs will be followed.
Air Quality	AQ-P-11	Continue to work in conjunction with the San Joaquin Valley Air Pollution Control District and others to put in place additional Transportation Control Measures that will reduce vehicle travel and improve air quality and to implement Air Quality Plans.	**Yes:** The project is below the City's vehicle miles traveled threshold.
Biological Resources	OSC-P-30	Require assessments of biological resources prior to approval of any discretionary development projects involving riparian habitat, wetlands, or special status species habitat. Early in the development review process, consult with California Department of Fish and Game, U.S. Fish and Wildlife Service, and other agencies.	**Yes:** The project included a biological resources survey and technical report. There are no significant biological impacts associated with the project.
Biological Resources	OSC-P-31	Protect and enhance habitat for special status species, designated under state and federal law. Require protection of sensitive habitat areas and special status species in new development in the following order: (1) avoidance; (2) onsite mitigation, and (3) offsite mitigation.	**Yes:** The project included a biological resources survey and technical report. There are no significant biological impacts associated with the project. Mitigation measures will be included for preconstruction surveys and avoidance.
Biological Resources	OSC-P-37	Design selected storm water ponds and retention basins to serve a dual role as wildlife habitat by planting species appropriate for food and cover needs. Work with a trained professional in design, selection, and management of each site.	**Yes:** The project storm drain system will be reviewed by the City of Visalia.
Cultural Resources	H-P-10	Regularly review the Local Register of Historic Structures to ensure that properties are appropriately listed.	**Yes:** A cultural resources survey and technical report was prepared for

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
			this project. There are no known cultural or historical resources associated with the site.
Cultural Resources	OSC-P-42	Establish requirements to avoid potential impacts to sites suspected of being archeologically, paleontologically, or historically significant or of concern, by: • Requiring a records review for development proposed in areas that are considered archaeologically or paleontologically sensitive; • Determining the potential effects of development and construction on archaeological or paleontological resources (as required by CEQA); • Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity (defined as areas identified according to the National Historic Preservation Act as part of the Section 106 process); and • Implementing appropriate measures to avoid the identified impacts, as conditions of project approval. In the event that previously unidentified historical, archaeological, or paleontological resources are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected. A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures or appropriate mitigation should be completed, according to CEQA Guidelines. The State Office of Historic Preservation has issued recommendations for the preparation of Archaeological Resource Management Reports that will be used as guidelines.	**Yes:** A cultural resources survey and technical report was prepared for this project. There are no known cultural or historical resources associated with the site. Mitigation Measures CUL – 1 (protection of undiscovered historical or archaeological resources) and CUL – 2 (protection of buried human remains) will be imposed on the Project.
Energy	LU-P-63	In higher-intensity and mixed-use areas, require pedestrian-oriented amenities such as small plazas,	**Yes:** The project includes landscaped trails/paths

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
		outdoor seating, public art, and active street frontages, with ground floor retail, where appropriate and justified.	for access between residential, commercial and park areas. Small public parks are also included within the development.
Greenhouse Gases	T-P-41	Integrate the bicycle transportation system into new development and infill redevelopment. Development shall provide short term bicycle parking and long term bicycle storage facilities, such as bicycle racks, stocks, and rental bicycle lockers. Development also shall provide safe and convenient bicycle and pedestrian access to high activity land uses such as schools, parks, shopping, employment, and entertainment centers.	**Yes:** The project includes bicycle paths and bicycle parking. These paths connect various areas of the mixed-use development.
Hazards and Hazardous Materials	S-P-15	Require remediation and cleanup of sites contaminated with hazardous substances.	**Yes:** A Phase I environmental assessment was conducted for the site. The site has no significant impact to or from hazardous materials.
Hydrology and Water Quality	PSCU-P-59	Require new developments to incorporate floodwater detention basins into project designs where consistent with the Stormwater Master Plan and the Groundwater Recharge Plan.	**Yes:** The project includes a stormwater basin that has been designed to accommodate the project. Final design will be reviewed by the City.
Land Use and Planning	LU-P-22	Allow for City Council approval of master plans, following Planning Commission review and recommendation, for sites under a single ownership or unified control, which may include developable land within both multiple development tiers. Allow for pre-zoning of this masterplanned land, subject to execution of a development agreement between the City and the landowner conforming to the requirements of Government Code Section 65864 et seq., with the project allowed to annex and develop while the City is still limiting development approvals to land within the Tier I or Tier II designation.	**Yes:** Under the City of Visalia's General Plan Policy LU-P-22, an approved specific-planned site can be annexed before development is permitted in Tier 2 or Tier 3. Annexations are reviewed within the context of the regulations and polices in the Cortese-Knox-Hertzberg

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
			Local Governments Reorganization Act of 2000 and the Tulare County Local Agency Formation Commission Policy and Procedure Manual regarding development and inventory of existing vacant land designed for urban uses in the City limits. The City of Visalia's General Plan Policy LU-P-22 allows the City Council to approve master-planned developments for sites under single ownership or unified control, which may include developable land within multiple Tiers. A Development Agreement will be prepared, which is a separate document that details the overall development, density, phasing, infrastructure needs and financing, as well as outlines the responsibilities of each party. The Development Agreement and the Master Plan have a consistent vision with Visalia's General Plan and the City's interest in growth through phasing.
Land Use and Planning	LU-P-47*	Ensure that new neighborhoods meet land use mix standards established in Table 2-7 of the General Plan. The ranges indicated—the minimum and maximum levels of development for each type of land use—are intended	**Yes:** The project has been designed with a wide range of uses with

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
		to allow for flexibility in master planning in response to market conditions, infrastructure costs, and site planning policies.	development intensities that have been reviewed by the City.
Land Use and Planning	LU-P-108	Designate land for Public/Institutional uses on the Land Use Diagram, including City Hall and other City buildings, County and other government buildings, schools, colleges and universities, hospitals, police and fire stations, the Municipal Airport, and waste management facilities.	**Yes:** The project includes 13.0 acres of land designated for a new elementary school that could potentially be developed.
Noise	N-P-2	Promote the use of noise attenuation measures to improve the acoustic environment inside residences where existing residential development is located in a noise-impacted environment such as along an arterial street or adjacent to a noise-producing use.	**Yes:** An Acoustical Analysis was conducted for the project which included mitigation measures to address noise impacts to residential and other noise-sensitive land uses. Based on the analysis and mitigation measures, the project will not exceed the City's noise thresholds.
Noise	N-P-3	Establish performance standards for noise reduction for new housing that may be exposed to community noise levels above 65 dB DNL/CNEL, as shown on the Noise Contour Maps, based on the target acceptable noise levels for outdoor activity levels and interior spaces in Tables 8-2 and 8-3. Noise mitigation measures that may be considered to achieve these noise level targets include but are not limited to the following: • Construct façades with substantial weight and insulation; • Use sound-rated windows for primary sleeping and activity areas; • Use sound-rated doors for all exterior entries at primary sleeping and activity areas; • Use minimum setbacks and exterior barriers; • Use acoustic baffling of vents for chimneys, attics and gable ends; • Install a mechanical ventilation system that provides fresh air under closed window conditions.	**Yes:** An Acoustical Analysis was conducted for the project which included mitigation measures to address noise impacts to residential and other noise-sensitive land uses. Based on the analysis and mitigation measures, the project will not exceed the City's noise thresholds.

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
		Alternative acoustical designs that achieve the prescribed noise level standards may be approved, provided that 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.	
Noise	N-P-4	Where new development of industrial, commercial or other noise generating land uses (including roadways, railroads, and airports) may result in noise levels that exceed the noise level exposure criteria established by Tables 8-2 and 8-3, require a noise study to determine impacts, and require developers to mitigate these impacts in conformance with Tables 8-2 and 8-3 as a condition of permit approval through appropriate means. Noise mitigation measures may include but are not limited to: • Screen and control noise sources, such as parking and loading facilities, outdoor activities, and mechanical equipment; • Increase setbacks for noise sources from adjacent dwellings; • Retain fences, walls, and landscaping that serve as noise buffers; • Use soundproofing materials and double-glazed windows; • Use open space, building orientation and design, landscaping and running water to mask sounds; and • Control hours of operation, including deliveries and trash pickup, to minimize noise impacts. *Alternative acoustical designs that achieve the prescribed noise level reduction may be approved, 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 state highways and arterials when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility, with no City funding.*	**Yes:** An Acoustical Analysis was conducted for the project which included mitigation measures to address noise impacts to residential and other noise-sensitive land uses. Based on the analysis and mitigation measures, the project will not exceed the City's noise thresholds.
Noise	N-P-5	Continue to enforce applicable State Noise Insulation Standards (California Administrative Code, Title 24) and Uniform Building Code (UBC) noise requirements.	**Yes:** The project will comply with all applicable regulations and requirements pertaining to noise.

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
Public Services	PSCU-P-2*	Strive to achieve and maintain a citywide standard of at least five acres of neighborhood and community parks per 1,000 residents.	**Yes:** The required parks / recreational acreage would be met through a combination of construction of 17.3 acres of parks / recreational facilities (including trails) and payment of park impact fees to the City of Visalia. The impact fees would support future recreational facilities throughout the City.
Public Services	PSCU-P-3*	Reserve land and develop parks and public open spaces and recreation facilities consistent with designated Parks and Open Space land on the Land Use Diagram.	**Yes:** The project includes 17.3 acres of public parks/trails throughout the project site.
Public Services	PSCU-P-7*	Promote development of small pocket parks or play lots dispersed throughout new neighborhoods and in existing neighborhoods, where needed, on a voluntary basis in coordination with new infill development, consistent with the following planning guidelines: • Size: 0.5 to 2 acres; and • Facilities: the specific features of pocket parks should address the anticipated needs of nearby residents and/or workers. In a residential environment, the needs of small children and seniors should be emphasized. In mixed-use or commercial areas, lunchtime use by office workers and shoppers should be facilitated.	**Yes:** The Project includes approximately 17.3 acres of parks/trails throughout the development. Parks within residential neighborhoods will range from 0.5 to 1 acre in size. The parks and trail facilities are designed to meet the needs of nearby residents and workers by providing a variety of recreational facilities. Each park may include an open grass space, playground, picnic area, barbeque grills, seating, and drinking fountain. Shade trees will be provided and, where possible, drought-tolerant/native species

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
			will be encouraged. Parks will be located and designed to provide social activities within the development.
Public Services	PSCU-P-9*	Continue to implement a Park Acquisition and Development Fee Program updated to be consistent with this General Plan, including the following: • Land and fees received shall support a standard of five acres of neighborhood and community parks per 1,000 residents and provide park and recreation facilities serving the neighborhood quadrant in which the contributing development occurs; • A portion of the fees collected are to be used for community-wide recreation facilities; • Dedicated park land meeting specified criteria for community parks, neighborhood parks and pocket parks may be provided at the City's discretion, in lieu of fees, or earn fee credits (the City will not accept undevelopable, unusable land); and • Fee credits may also be given for storm drainage basins designed and built for dual recreational use, but these credits may be on a less than 1:1 basis depending on the amenities and facilities provided and their availability throughout the year.	**Yes:** The required parks / recreational acreage would be met through a combination of construction of 17.3 acres of parks / recreational facilities (including trails) and payment of park impact fees to the City of Visalia. The impact fees would support future recreational facilities throughout the City.
Public Services	PSCU-P-10*	Adopt and implement parkland dedication requirements for all subdivisions, consistent with the Quimby Act and Policy PSCU-P-2. This requirement will be integrated with the City's Park Acquisition Development Fee Program.	**Yes:** The required parks / recreational acreage would be met through a combination of construction of 17.3 acres of parks / recreational facilities (including trails) and payment of park impact fees to the City of Visalia. The impact fees would support future recreational facilities throughout the City.
Public Services	PSCU-P-14*	Design parks to enhance neighborhood character and minimize negative impacts. • Locate neighborhood parks with local or collector street frontages on at least three sides, and sidewalks	**Yes:** The Project includes approximately 17.3 acres of parks/trails throughout the development. Parks within residential

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
		and crossings designed for safe and easy pedestrian access. • Where a neighborhood park is part of a neighborhood node, it should be designed to promote visual connections and pedestrian movement between the park and adjacent uses such as schools and commercial uses.	neighborhoods will range from 0.5 to 1 acre in size. The parks and trail facilities are designed to meet the needs of nearby residents and workers by providing a variety of recreational facilities. Each park may include an open grass space, playground, picnic area, barbeque grills, seating, and drinking fountain. Shade trees will be provided and, where possible, drought-tolerant/native species will be encouraged. Parks will be located and designed to provide social activities within the development.
Public Services	PSCU-P-15*	Provide lighted facilities for tennis, basketball or other recreational facilities and along pathways in order to extend usable hours.	**Yes:** The park/trail facilities will provide security lighting.
Public Services	PSCU-P-18*	Establish a wayfinding system for parks, bikeways and trails, with consistent, recognizable and pedestrian-scale signage.	**Yes:** The project's recreational facilities will include signage for the parks and trail facilities.
Public Services	PSCU-P-24*	Promote innovative park design that responds to neighborhood needs and user groups.	**Yes:** The Project includes approximately 17.3 acres of parks/trails throughout the development. Parks within residential neighborhoods will range from 0.5 to 1 acre in size. The parks and trail facilities are designed to meet the needs of nearby

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
			residents and workers by providing a variety of recreational facilities. Each park may include an open grass space, playground, picnic area, barbeque grills, seating, and drinking fountain. Shade trees will be provided and, where possible, drought-tolerant/native species will be encouraged. Parks will be located and designed to provide social activities within the development.
Public Services	PSCU-P-25*	Provide shade in parks by using arbors and other landscaping techniques.	**Yes:** Park and trail facilities will include landscaping techniques for shading such as trees.
Public Services	PSCU-P-30*	Incorporate barrier-free design in all new recreation and sports facilities, and renovate existing facilities to remove barriers to handicapped users.	**Yes:** All facilities will be designed for access to the public and will include ADA compliant facilities where required.
Transportation	T-P-12	Require or provide adequate traffic safety measures on all new and existing roadways.	**Yes.** The project roadway system has been designed with traffic calming devices such as speed tables, short roadways, roundabouts and a dedicated pedestrian/bike trail to separate pedestrians from some roadways.
Transportation	T-P-18	Ensure that citywide traffic service levels are maintained, require a traffic study, as a condition of development, of	**Yes.** A traffic impact study was prepared for the

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
		surrounding arterials, collectors, access roads, and regionally significant roadways for any major project that would require a General Plan amendment, and for projects where the proposed use could create traffic congestion because needed improvements identified by this General Plan would not be completed before project occupancy or are not funded under the CIP.	project to determine level of service impacts for General Plan consistency. Mitigation measures have been imposed to the extent feasible to reduce level of service impacts. This is a condition of Project approval.
Transportation	T-P-22	Require all residential subdivisions to be designed to discourage use of local streets as a bypass to congested arterials, and when feasible, require access to residential development to be from collector streets.	**Yes.** The project has been designed so that a bypass through the site is unlikely due to reduced speeds within the site compared to other adjacent surrounding roads, use of roundabouts, and other speed calming devices within the project site.
Transportation	T-P-23	Require that all new developments provide right-of-way, which may be dedicated or purchased, and improvements (including necessary grading, installation of curbs, gutters, sidewalks, parkway/landscape strips, bike and parking lanes) other city street design standards. Design standards will be updated following General Plan adoption.	**Yes.** The project will provide all necessary right-of-way for street design and implementation.
Transportation	T-P-24	Require that proposed developments make necessary off-site improvements if the location and traffic generation of a proposed development will result in congestion on major streets or failure to meet LOS D during peak periods or if it creates safety hazards.	**Yes.** A traffic impact study was prepared for the project to determine level of service impacts for General Plan consistency. As a condition of Project approval, the project has been imposed with mitigation consisting of both construction of on-site and adjacent improvements and/or payment of fees into the City's traffic impact fee

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
			program for off-site improvements.
Transportation	T-P-25	Require that where arterial streets are necessary through residential areas, residential development shall be oriented away (side-on or rear-on) from such streets and be properly buffered so that traffic carrying capacity of the street will be preserved and the residential environment will be protected from the adverse characteristics of the arterial street.	**Yes.** The project has been designed so that residential neighborhoods are properly buffered from arterial streets.
Transportation	T-P-26	Require that future commercial developments or modifications to existing developments be designed with limited points of automobile ingress and egress, including shared access, onto major streets.	**Yes.** The project contains two main commercial areas. Each commercial area has been designed with multiple ingress/egress points to accommodate the sizes of each development. The City will review all final design to ensure the most efficient method of ingress/egress is achieved.
Transportation	T-P-28	Promote traffic safety by requiring that ingress and egress to shopping centers be carefully designed, with minimal use of left-turn movements into and out of these centers.	**Yes.** The project contains two main commercial areas. Each commercial area has been designed with multiple ingress/egress points to accommodate the sizes of each development. The City will review all final design to ensure the most efficient method of ingress/egress is achieved.
Transportation	T-P-29	Require, where possible, that arterials and collectors form four-leg, right-angle intersections. Jogged, offset, and skewed intersections at major streets in near proximity shall be avoided, where possible.	**Yes.** The project does not conflict with this policy.

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
Transportation	T-P-39	Develop bikeways consistent with the Visalia Bikeway Plan and the General Plan's Circulation Element.	**Yes.** The project includes dedicated pedestrian/bicycle paths that will connect to much of the development, including Ridgeview school.
Transportation	T-P-40	Develop a community-wide trail system along selected planning area waterways, consistent with the Waterways and Trails Master Plan and General Plan diagrams	**Yes.** The project includes a trail adjacent to Modoc ditch. The trail will be landscaped.
Transportation	T-P-41	Integrate the bicycle transportation system into new development and infill redevelopment. Development shall provide short term bicycle parking and long-term bicycle storage facilities, such as bicycle racks, stocks, and rental bicycle lockers. Development also shall provide safe and convenient bicycle and pedestrian access to high activity land uses such as schools, parks, shopping, employment, and entertainment centers.	**Yes.** The project includes bicycle paths and bicycle parking. These paths connect various areas of the mixed-use development.
Transportation	T-P-48	Require construction of minimum sidewalk widths and pedestrian "clear zones" consistent with the Complete Streets cross-sections in this General Plan and with the City's Engineering and Street Design Standards for each designated street type.	**Yes.** The project's sidewalks have been designed to comply with this policy.
Transportation	T-P-50	Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility and use universal design concepts.	**Yes.** All public sidewalks will be designed for ADA compliance.
Transportation	T-P-51	Locate sidewalks, pedestrian paths, and appropriate crosswalks to facilitate access to all schools and other areas with significant pedestrian traffic. Whenever feasible, pedestrian paths shall be developed to allow for unobstructed pedestrian flow from within a neighborhood.	**Yes.** The project includes pedestrian/bicycle paths that connect various areas of the mixed-use development, including Ridgeview school. The project also includes sidewalks throughout the residential portion of the development for access throughout the development.

Chapter	Policy No.	Goal/Objective/Policy Text	Consistency Determination
Transportation	T-P-52	Require, where security walls or fences are proposed for residential developments along arterial or collector streets, that pedestrian access be provided between the arterial or collector and the subdivision to allow access to transit vehicles operating on an arterial or collector street.	**Yes.** Security/sound walls will provide access between an arterial or collector.
** denotes policy that is referenced in multiple Chapters/topics.*			

The proposed Project is an appropriate use for the site, and as demonstrated in Table 3.11-2, once annexed into the City, the Project will be consistent with the applicable objectives, goals and policies outlined in the City of Visalia General Plan. Implementation of these policies and measures will ensure that impacts remain ***less than significant.***

Mitigation Measures

None are required.

Cumulative Impacts

Less Than Cumulatively Considerable. The geographic area of this cumulative analysis is the area covered by the City of Visalia General Plan. As discussed above, the Project does not divide an existing community. The site and surrounding areas to the east and west are located in a developing area planned as part of the City of Visalia. It is unlikely that other projects that develop in the vicinity of the Project will cause a community to be divided because those projects would be developed according to the City's General Plan and would be subject to site-specific environmental review.

The Project, in conjunction with cumulative development in the area of the Project, would increase urbanization and result in the loss of open space and agricultural lands. Increased urbanization also increases the potential for land use conflicts, if not properly managed. Potential land use impacts require evaluation on a case-by-case basis because of the interactive effects of a specific development and its immediate environment. Other development in the area may occur, however, those projects would be developed according to the City's General Plan. As described in Table 3.11-2, the Project would be consistent with the goals and policies of the Visalia General Plan. In addition, with approval of all discretionary actions, the Project would be a permitted use that would not conflict with the land use designation or zone classification for the sites. As such,

implementation of the proposed Project would not make a cumulatively considerable contribution to any significant impact to land use and planning.

3.12 Mineral Resources

This section of the DEIR describes impacts on mineral resources associated with proposed Project development. No NOP comment letters were received pertaining to this topic.

Environmental Setting

The most economically significant mineral resources in Tulare County are sand, gravel, and crushed stone, used as sources for aggregate (road materials and other construction). The two major sources of aggregate are alluvial deposits (river beds, and floodplains), and hard rock quarries. Consequently, most Tulare County mines are located along rivers at the base of the Sierra foothills.[1] The proposed Project site is located on relatively flat land that has historically been used for agricultural purposes. The site is approximately 16 miles west of the Sierra foothills and there are no known mineral resources associated with the proposed Project site.

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

[1] Visalia General Plan Update (October 2014). Page 6-17.

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:

- 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 area and as such, no loss of availability to known mineral resources would occur as a result of proposed Project development. There would be ***no impact.***

Mitigation Measures

None are required.

Cumulative Impacts

No Cumulative Impact. The scope for considering cumulative impacts to mineral resources is generally site-specific rather than cumulative in nature because each project site has different mineral-related considerations that would be subject to review. As discussed above, there are no known mineral resources within the proposed Project area and as such, Project development would not cumulatively impact any known mineral resources. There is ***no cumulatively considerable impact***.

3.13 Noise

This section evaluates the potential for noise and groundborne vibration impacts resulting from implementation of the proposed Project. This includes the potential for the proposed Project to result in impacts associated with a substantial temporary and/or permanent increase in ambient noise levels in the vicinity of the Project site; exposure of people in the vicinity of the Project site to excessive noise levels, groundborne vibration, or groundborne noise levels; and whether this exposure is in excess of standards established in the local general plan or noise ordinance. The data utilized for analysis of this section is based, in part, on the *Acoustical Analysis – Carleton Acres Specific Plan* prepared for this Project by WJV Acoustics (Appendix I).

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

Source: California Department of Transportation, Technical Noise Supplement, October 1998.

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:

- L_{eq} – An L_{eq}, or equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} 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.

- L_{max} – The maximum instantaneous noise level experienced during a given period of time.

- L_{min} – The minimum instantaneous noise level experienced during a given period of time.

- L_{dn} – The Day-Night Average Level, is a 24-hour average L_{eq} 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 L_{eq} would result in a measurement of 66.4 dBA L_{dn}.

- CNEL – The Community Noise Equivalent Level is a 24-hour average L_{eq} 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 L_{eq} 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 noisier 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 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.

[1] National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971.

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.

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.

Environmental Setting

Study Area

The proposed Project is located on approximately 507-acres in the northern area of the City of Visalia, California and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north. The site is comprised of two parcels: APN 077-100-088 and APN 077-100-105. APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County while APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses.

The property was observed to be in varying stages of agriculture as recently as summer 2022 with portions of the site under agricultural production and others vacant/disked. The proposed Project site is located in a developing area of the City of Visalia. Currently, Ridgeview Middle School is located adjacent to and west of Akers Street and would abut the proposed Project site. In addition, the City is currently planning a new high school that will be constructed adjacent to and west of Ridgeview Middle School and would be surrounded by the proposed Project to the north, west and south. Existing residential exists to the south and east, industrial development is proposed directly west and agricultural lands exist to the north of the Project site.

There are no public or private airstrips within two miles of the Project site and no railways are located near the Project site. Major roads in the Project area include Akers Street, Shirk Street/Road 92, Riggin Avenue, and Kibler Avenue/Avenue 320.

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
Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.	

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 day[2], 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 day[3], 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 thresholds have been adopted or recommended for commercial, office, and industrial uses.

State of California Regulations

California Government Code

California Government Code Section 65302(f) mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines established by the State Department of Health Services as shown in Table 3.13-4, California Land Use Compatibility Noise Guidelines.

The guidelines rank noise/land use compatibility in terms of "normally acceptable," "conditionally acceptable" and "clearly unacceptable" noise levels for various land use types. Single-family homes are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 70 CNEL. Multiple-family residential uses are "normally acceptable" up to 65 CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries, and churches are "normally acceptable" up to 70 CNEL, as are office buildings and business, commercial, and professional 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 2022.

[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 2022.

Table 3.13-4
California Land Use Compatibility Noise Guidelines

Land Use Category	Community Noise Exposure (dBA CNEL)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low Density, Single-Family, Duplex, Mobile Homes	50 - 60	55 - 70	70 – 75	75 – 85
Residential – Multiple Family	50 - 65	60 - 70	70 – 75	70 – 85
Playgrounds, Neighborhood Parks	50 - 70	NA	67.5 – 75	72.5 – 85

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

The following lists goals and policies from the City General Plan pertaining to noise that are applicable to the proposed Project.

N-P-2 Promote the use of noise attenuation measures to improve the acoustic environment inside residences where existing residential development is located in a noise-impacted environment such as along an arterial street or adjacent to a noise-producing use.

N-P-3 Establish performance standards for noise reduction for new housing that may be exposed to community noise levels above 65 dB DNL/CNEL, as shown on the Noise Contour Maps, based on the target acceptable noise levels for outdoor activity levels and interior spaces in Tables 8-2 and 8-3. Noise mitigation measures that may be considered to achieve these noise level targets include but are not limited to the following:

- Construct façades with substantial weight and insulation;
- Use sound-rated windows for primary sleeping and activity areas;
- Use sound-rated doors for all exterior entries at primary sleeping and activity areas;
- Use minimum setbacks and exterior barriers;
- Use acoustic baffling of vents for chimneys, attics and gable ends;
- Install a mechanical ventilation system that provides fresh air under closed window conditions.

Alternative acoustical designs that achieve the prescribed noise level standards may be approved, provided that 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.

N-P-4 Where new development of industrial, commercial or other noise generating land uses (including roadways, railroads, and airports) may result in noise levels that exceed the noise level exposure criteria established by Tables 8-2 and 8-3, require a noise study to determine impacts, and require developers to mitigate these impacts in conformance with Tables 8-2 and 8-3 as a condition of permit approval through appropriate means. Noise mitigation measures may include but are not limited to:

- Screen and control noise sources, such as parking and loading facilities, outdoor activities, and mechanical equipment;
- Increase setbacks for noise sources from adjacent dwellings;
- Retain fences, walls, and landscaping that serve as noise buffers;
- Use soundproofing materials and double-glazed windows;
- Use open space, building orientation and design, landscaping and running water to mask sounds; and

- Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.

Alternative acoustical designs that achieve the prescribed noise level reduction may be approved, 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 state highways and arterials when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility, with no City funding. N-P-5 Continue to enforce applicable State Noise Insulation Standards (California Administrative Code, Title 24) and Uniform Building Code (UBC) noise requirements.

City of Visalia General Plan Noise Element

The City of Visalia Genera1 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. Table 3.13-5 below provides the General Plan noise level standards for transportation noise sources.

Table 3.13-5
Visalia General Plan Noise Level Standards

CITY OF VISALIA GENERAL PLAN NOISE LEVEL STANDARDS
TRANSPORTATION (NON-AIRCRAFT) NOISE SOURCES

Noise-Sensitive Land Use	Outdoor Activity Areas[1]	Interior Spaces	
	L_{dn}/CNEL, dB	L_{dn}/CNEL, dB	L_{eq} dB[2]
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

1 Outdoor activity areas generally include backyards of single-family residences and outdoor patios, decks or common recreation areas of multi-family developments.

2 The CNEL is used for quantification of aircraft noise exposure as required by CAD Title 21.

3 As determined for a typical worst-case hour during periods of use.

Source: City of Visalia General Plan

The exterior noise level standard of the noise element is 65 dB Ldn for outdoor activity areas of residential uses. Outdoor activity areas generally include backyards of single-family residences and individual patios or decks and common outdoor activity areas of multi-family developments. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation.

The noise element also requires that interior noise levels attributable to exterior noise sources not exceed 45 dB Ldn. The intent of the interior noise level standard is to provide an acceptable noise environment for indoor communication and sleep.

Additionally, the noise element establishes hourly acoustical performance standards for non-transportation (stationary) noise sources. The standards are set in terms of the Leq (hourly equivalent) and Lmax (maximum) noise levels at the property line of any affected sensitive land use. The standards, provided in Table 3.13-6, are made more restrictive during the nighttime hours of 10:00 p.m. to 7:00 a.m.

Table 3.13-6
Visalia Noise Element Non-Transportation Noise Level Standard

NON-TRANSPORTATION NOISE LEVEL STANDARDS, dBA CITY OF VISALIA			
Daytime (7 a.m.-10 p.m.)		Nighttime (10 p.m.-7 a.m.)	
L_{eq}	L_{max}	L_{eq}	L_{max}
50	70	45	65

Source: City of Visalia Noise Element of General Plan

City of Visalia Municipal Code

Section 8.36 of the City's Municipal Code (noise ordinance) applies to noise sources that are not pre-empted from local control by existing state or federal regulations. Commercial activities are not pre-empted noise sources and are therefore subject to the provisions of the noise ordinance.

The noise ordinance addresses the statistical distribution of noise over time and allows for progressively shorter periods of exposure to levels of increasing loudness. Table 3.13-7 summarizes the exterior noise level standards of the ordinance. Note that the ordinance is to be applied at the property line of any affected noise sensitive land use during any one-hour time period of the day, and that the standards are 5 dB more restrictive between the hours of 7:00 p.m. and 6:00 a.m.

Table 3.13-7
Visalia Municipal Code Exterior Noise Level Standards

EXTERIOR NOISE LEVEL STANDARDS, dBA CITY OF VISALIA NOISE ORDINANCE			
Category	**Cumulative # Min/Hr. (L_n)**	**Daytime (6am-7pm)**	**Nighttime (7pm-6am)**
1	30 (L_{50})	50	45
2	15 (L_{25})	55	50
3	5 ($L_{8.3}$)	60	55
4	1 ($L_{1.7}$)	65	60
5	0 (L_{max})	70	65

Note: L_n is an abbreviation for the percentage of time that a certain noise level is exceeded during a specified time period (in this case, one hour). For example, an L_{50} value of 50 dBA may not be exceeded during the hours of 6 am-7pm.

Source: City of Visalia Municipal Code

The City's noise ordinance also establishes interior residential noise level standards that would apply to the Project. The interior noise level standards are established in allowable exceedance limits over differing amounts of time, within residential land uses. Similar to the applicable exterior standards, the interior standards become 5 dB more restrictive during nighttime hours. The applicable interior noise level standards are provided in Table 3.13-8 below.

Table 3.13-8
Visalia Municipal Code Interior Noise Level Standards

INTERIOR NOISE LEVEL STANDARDS, dBA CITY OF VISALIA NOISE ORDINANCE			
Category	**Cumulative # Min/Hr.**	**Daytime (6am-7pm)**	**Nighttime (7pm-6am)**
1	5	45	35
2	1	50	40
3	0	55	45

Source: City of Visalia Municipal Code

The City's noise ordinance also states "In the event the measured ambient noise level without the alleged offensive source in operation exceeds an applicable noise level standard in any category above, the applicable standard or standards shall be adjusted so as to equal the ambient noise level".

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?

CEQA does not define what constitutes a substantial increase in noise levels. Some guidance is provided by the 1992 findings of the Federal Interagency Committee on Noise (FICON), which assessed changes in ambient noise levels resulting from aircraft operations. The FICON recommendations are based upon studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. The rationale for the FICON recommendations is that it is possible to consistently describe the annoyance of people exposed to transportation noise in terms of the DNL (or CNEL). Annoyance is a summary measure of the general adverse reaction of people to noise that results in speech interference, sleep disturbance, or interference with other daily activities.

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?*

Less Than Significant With Mitigation. The data utilized for analysis of this section is based, in part, on the *Acoustical Analysis – Carleton Acres Specific Plan* prepared for this Project by WJV Acoustics (Appendix I). The results of the study is summarized herein.

Background Noise Level Measurements

Existing noise levels in the Project vicinity are dominated by traffic noise along local roadways and noise associated with various agricultural land uses near the Project site. Measurements of existing ambient noise levels in the Project vicinity were conducted on January 5-6, 2022. Long-term (24- hour) ambient noise level measurements were conducted at three (3) locations (sites LT-1, LT-2 and LT-3). Ambient noise levels were measured for a period of 24 continuous hours at each of the three locations. Site LT-1 was located within the northern portion of the Project site, along Avenue 320. Site LT-2 was located within the western portion of the Project site, along Road 92 (Shirk Road). Site LT-3 was located within the southern portion Project site, along W. Riggin Avenue. Due to heavy construction activities in the area, ambient noise measurements were not conducted along the eastern portion of the Project site (N. Akers Street). All three sites were exposed to noise associated with vehicle traffic on roadways as well as agricultural activities. The locations of the ambient noise monitoring sites are provided as Figure 3.13-1.

Figure 3.13-1
Project Vicinity and Ambient Noise Monitoring Sites

Measured hourly energy average noise levels (Leq) at site LT-2 ranged from a low of 43.1 dB between 11:00 p.m. and midnight to a high of 60.0 dBA between 3:00 p.m. and 4:00 p.m. Hourly maximum (Lmax) noise levels at site LT-2 ranged from 65.3 to 83.4 dBA. Residual noise levels at the monitoring site, as defined by the L90 (L90 means the sound level was exceeded 90% of the

time during each hour of the sample period), ranged from 33.5 to 46.2 dBA. The measured Ldn value at site LT-2 was 59.7 dB Ldn.

Measured hourly energy average noise levels (Leq) at site LT-3 ranged from a low of 57.3 dB between 2:00 a.m. and 3:00 a.m. to a high of 68.2 dBA between 4:00 p.m. and 5:00 p.m. Hourly maximum (Lmax) noise levels at site LT-3 ranged from 75.5 to 90.3 dBA. Residual noise levels at the monitoring site, as defined by the L90, ranged from 33.3 to 55.8 dBA. The measured Ldn value at site LT-was 70.1 dB Ldn.

Additionally, short-term (15-minute) ambient noise level measurements were conducted at seven (7) locations (Sites ST-1 through ST-7). Two (2) individual measurements were taken at each of the seven 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 in Figure 3.13-1.

Table 3.13-9 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.

Short-term noise measurements were conducted for 15-minute periods at each of the seven sites. Site ST-1 was located along Akers Street; site ST-2 was located at the corner of Akers Street and Avenue 320; site ST-3 was located at the corner of Avenue 320 and Shirk Road (Road 92); site ST-4 was located at the corner of Shirk Road and Riggin Avenue; site ST-5 was located near existing residential land uses along Shirk Road (south of Riggin Avenue); site ST-6 was located near existing residential land uses south of Riggin Avenue; and site ST-7 was located near the corner of Riggin Avenue and Akers Street, at a church land use. The overall noise measurement data indicate that noise in the Project vicinity is highly influenced by vehicular traffic along adjacent roadways.[4]

[4] *Acoustical Analysis – Carleton Acres Specific Plan* (March 2023) – WJV Acoustics, pages 9-10.

Table 3.13-9
Project Vicinity and Ambient Noise Monitoring Sites

SUMMARY OF SHORT-TERM NOISE MEASUREMENT DATA CARLETON ACRES, VISALIA JANUARY 5 & 6, 2022									
Site	Time	A-Weighted Decibels, dBA							Sources
		L_{eq}	L_{max}	L_2	L_8	L_{25}	L_{50}	L_{90}	
ST-1	8:00 a.m.	66.8	81.4	78.4	71.7	57.4	54.5	52.2	TR, AG, C
ST-1	4:35 p.m.	70.1	83.6	78.5	72.4	56.8	53.9	51.8	TR
ST-2	8:20 a.m.	68.3	87.2	79.3	71.9	61.3	55.1	52.1	TR, AG
ST-2	4:55 p.m.	69.4	88.8	81.4	72.2	63.0	54.8	52.9	TR, AG
ST-3	8:40 p.m.	67.4	81.5	80.2	53.1	62.4	56.0	53.5	TR, AG
ST-3	5:15 p.m.	66.8	77.7	78.9	54.0	59.3	55.5	52.7	TR, AG
ST-4	9:00 a.m.	71.6	88.9	79.7	75.7	70.4	67.8	61.3	TR, B, D
ST-4	5:35 p.m.	72.0	88.4	79.3	74.4	68.3	65.0	61.9	TR, AC
ST-5	9:20 a.m.	67.7	79.2	77.3	73.8	67.1	56.1	52.3	TR, V
ST-5	5:55 p.m.	66.6	76.8	76.6	72.0	65.9	54.9	51.8	TR, V, D
ST-6	9:40 a.m.	67.5	82.3	76.4	73.2	67.2	56.6	47.8	TR, AG
ST-6	6:15 p.m.	67.4	83.8	75.2	73.8	70.4	57.2	50.1	TR
ST-7	10:00 a.m.	64.1	77.3	75.2	69.3	60.7	56.0	53.5	TR, V
ST-7	6:35 p.m.	65.5	82.4	76.4	70.0	62.1	55.9	52.6	TR, V, D
TR: Traffic AC: Aircraft AG: Agricultural Activities C: Construction Activities B: Birds D: Barking Dogs Source: WJV Acoustics, Inc.									

Noise Impacts to Off-Site Sensitive Receptors

Project Traffic Noise Impacts on Existing Noise-Sensitive Land Uses Outside Project Site

The City's exterior noise level standard for residential land uses is 65 dB Ldn. Traffic noise was modeled at seventeen (17) receptor locations. The seventeen modeled receptors are located at roadway setback distances representative of the sensitive receptors (measured from property lines) along each analyzed roadway segment (See Figure 3.13-2).

Figure 3.13-2
Modeled Traffic Noise Receptor Locations

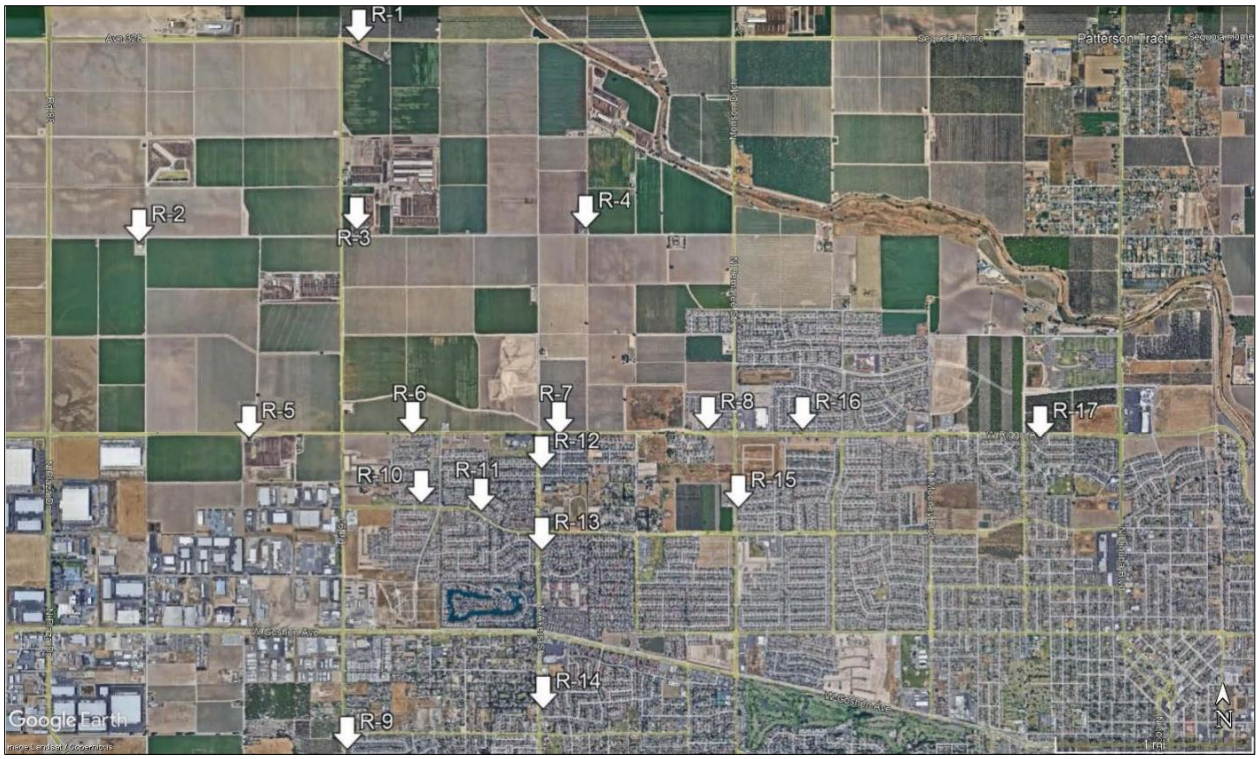


Table 3.13-10 provides future (2042) traffic noise exposure levels at the seventeen analyzed representative receptor locations, and also provides what the Project contribution would be to Cumulative conditions.

Table 3.13-10
Project Contribution to Cumulative Traffic Noise – Cumulative 2042 Conditions

PROJECT CONTRIBUTION TO CUMULATIVE TRAFFIC NOISE, dB, L_{dn} CARLETON ACERS, VISALIA 2042 CUMULATIVE CONDITIONS				
Modeled Receptor	Cumulative Conditions Without Project Contribution	Cumulative Conditions Plus Project	Project Contribution	Significant Impact?
R-1	61	61	0	No
R-2	55	55	0	No
R-3	51	51	0	No
R-4	58	59	+1	No
R-5	61	61	0	No
R-6	62	64	+2	No
R-7	64	65	+1	No
R-8	62	63	+1	No
R-9	62	62	0	No
R-10	58	58	0	No
R-11	60	60	0	No
R-12	58	61	+3	No
R-13	62	62	0	No
R-14	61	62	+1	No
R-15	63	63	0	No
R-16	63	63	0	No
R-17	60	60	0	No

Source: WJV Acoustics, Inc.
Ruettgers and Schuler Civil Engineers

As shown in Table 3.13-10, the Project's contribution to 2042 traffic noise exposure levels at the modeled representative receptor locations would not result in noise levels to exceed the City's noise level standard, nor result in an increase of 3 dB in any sensitive receptor locations where noise levels already exceed the City's noise level standard without the implementation of the Project. Consequently, the Project contribution to future noise levels (at full buildout) would be less than considerable and the Project would have a less than significant impact. [5]

Off-Site Noise Impacts From Operational On-Site Sources

The proposed Project includes up to 35.1 acres of commercial development in two locations within the Project for a total of approximately 205,000 square feet of gross leasable commercial area. The first commercial area consists of up to 28.7 acres of Mixed- Use Commercial at the intersection of Riggin Avenue and Shirk Road. Anticipated uses at this location may include development such as a Costco, gas station, car wash, drug store, retail, restaurants (including

[5] *Acoustical Analysis – Carleton Acres Specific Plan* (March 2023) – WJV Acoustics, page 14.

drive-throughs), and similar uses. The second consists of up to 6.4 acres of Commercial Neighborhood at the northeast corner of the development. Anticipated uses at this location may include development such as retail, services and restaurants.

Mixed Use Commercial (Impacts to Off-Site Receptors)

The Project would include up to 28.7 acres of Mixed-Use Commercial near the southwest corner of the Project site. Anticipated developments within the Mixed-Use Commercial Zone include a Costco retail center, gas station, car wash, drug store, retail and restaurants (including quick serve/drive-through uses).

The noise level standards applicable to these proposed land uses are provided above in Table 3.13-5 (General Plan) and Table 3.13-7 (Municipal Code). The noise standards in both become 5 dB more restrictive during nighttime hours. It should be noted, the City of Visalia General Plan considers nighttime hours to occur between 10:00 pm and 7:00 a.m. while the Municipal Code considers nighttime hours to occur between 7:00 pm and 6:00 am.

The closest existing sensitive receptors (residential land uses) to the proposed Mixed-Use Commercial Zone are single-family residential uses located to the south, along W. Riggin Avenue. The single-family uses along W. Riggin have an existing 6-foot sound wall along the roadway frontage. The sound wall would provide a minimum of 5 dB of noise level reduction from groundlevel noise sources occurring within the Project site.

While the large retail use within the Mixed-Use Commercial Zone is anticipated to be a Costco retail center, the remaining tenants were not known (or anticipated) at the time this analysis was prepared. A wide variety of noise sources can be associated with such commercial retail land uses. The noise levels produced by such sources can also be highly variable and could potentially impact existing off-site and proposed on-site sensitive receptors. Typical examples of stationary noise sources associated with such land uses include:

- HVAC/Mechanical equipment
- Truck deliveries
- Parking lot activities (closing of car doors and trunks, stereos, alarms etc.)
- Drive-Through operations
- Loading Dock Activities
- Car Wash Operations
- Refuse/Cardboard Compactor

As identified in the *Acoustical Analysis* (refer to pages 15 through 18 of the *Acoustical Analysis*, Appendix I), an analysis was conducted for each of the components listed above and each were determined to have a less than significant impact.

Neighborhood Commercial Zone (Impacts to Off-Site Receptors)

The Project would include up to 6.4 acres of Commercial Neighborhood at the northeast corner of the development. Anticipated uses at this location may include development such as retail, services and restaurants. A wide variety of noise sources can be associated with commercial land use designations. The noise levels produced by such sources can also be highly variable and could potentially impact existing off-site sensitive receptors. From the perspective of the City's noise standards, noise sources not associated with transportation sources are considered stationary noise sources. Typical examples of stationary noise sources that may be associated with such uses include:

- Fans and blowers
- HVAC/Mechanical equipment
- Truck deliveries
- Compactors

For the Neighborhood Commercial Zone, noise levels from new stationary noise sources cannot be predicted with any certainty at this time since specific uses have not yet been proposed and the locations of stationary noise sources relative to the locations of noise sensitive uses are not known. The closest existing residential land use to the Neighborhood Commercial Zone is located approximately 1,500 to the east.

Noise levels from new stationary noise sources may be effectively reduced by incorporating noise mitigation measures into the Project design that consider the geographical relationship between the noise sources of concern and potential receptors, the noise-producing characteristics of the sources and the path of transmission between noise sources and sensitive receptors. Options for noise mitigation include the use of building setbacks, the construction of sound walls and the use of noise source equipment enclosures.

When specific uses within the study area are proposed that could result in a noise-related conflict between a commercial or other stationary noise source and existing or proposed noise-sensitive receptor, an acoustical analysis may be required that quantifies project-related noise levels and recommends appropriate mitigation measures to achieve compliance with the City's noise standards. This will be implemented as Mitigation Measure NOI – 1. Refer to the mitigation measures at the end of this section.

Off-Site Noise Impacts From Construction

Construction noise would occur at various locations within and near the Project site through the buildout period. Existing sensitive receptors could be located as close as 100 feet from construction activities. Table 3.13-11 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 Visalia limits hours of construction to occur only between the hours of 6:00 a.m. to 7:00 p.m. Monday through Friday, and 9:00 a.m. to 7:00 p.m. on weekends. Construction noise impacts could result in annoyance or sleep disruption for nearby residents if nighttime operations were to occur or if equipment were not properly muffled or maintained.

Table 3.13-11
Typical Construction Equipment[6]

Type of Equipment	100 Ft.	200 Ft.	300 Ft.
Concrete Saw	84	78	74
Crane	75	69	65
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
Backhoe	80	74	70
Grader	80	74	70

A noise impact could occur if construction activities do not incorporate appropriate best management practices (BMP) in regards to construction-related noise. The Project will be

[6] *Acoustical Analysis – Carleton Acres Specific Plan* (March 2023) – WJV Acoustics, page 20.

required to comply with the City of Visalia's Municipal Code regarding construction noise. Therefore, impacts from construction noise are considered less than significant.

Noise Impacts to On-Site Sensitive Receptors

Project Traffic Noise Impacts to On-Site Receptors

The City of Visalia General Plan Noise Element establishes an exterior noise level standard of 65 dB Ldn for outdoor activity areas of residential uses. Outdoor activity areas generally include backyards of single-family residences and individual patios or decks and common outdoor activity areas of multi-family developments. The noise element also requires that interior noise levels attributable to exterior noise sources not exceed 45 dB Ldn.

The proposed Project includes sensitive receptors (residential land uses) that could be impacted by traffic noise exposure adjacent to arterial roadways. Such arterial roadways include Avenue 320, Shirk Road, Riggin Avenue and Akers Street. WJVA used the FHWA traffic noise model and traffic noise modeling assumptions to determine the distances from the center of the roadways to the 65 dB Ldn noise exposure contours. Table 3.13-12 provides the distances from the center of the arterial roadways adjacent to the Project site to the 65 dB Ldn noise exposure contours and provides the contour distances for 2042 Cumulative conditions as they represent a worst-case assessment of noise exposure at proposed sensitive receptor locations.

Table 3.13-12
Distances to Traffic Noise Contours

Roadway Segment (Description)	Distance (feet)From Roadway Centerline to 65 dB L_{dn} Contour
Avenue 320	40
Shirk Road	61
Riggin Avenue	143
Akers Street	67
Source: WJV Acoustics, Inc.	

A noise impact could occur if the outdoor activity areas of proposed sensitive receptors are located within the cumulative conditions 65 dB Ldn traffic noise contours. If the outdoor activity areas of these residential land uses are located along these roadways within the 65 dB Ldn contour

(as described in Table 3.13-12), an impact would be expected to occur. However, as described below, construction of sound walls will reduce impacts to a less than significant level.

Noise levels from transportation noise sources may be effectively mitigated by incorporating noise mitigation measures into the Project design that consider the geographical relationship between the noise sources of concern and potential receptors, the noise-producing characteristics of the sources and the path of transmission between noise sources and sensitive receptors. Options for noise mitigation include the use of building setbacks and the construction of sound walls.

Typically, the incorporation of sound walls (or a combination of earthen berms and sound walls) are the most effective method of mitigating transportation noise exposure. The effectiveness of a sound wall is determined by the geometric relationship between the noise source, barrier and receiver. Sound walls are most effective when they are located either close to the noise source or the receiver.

The City of Visalia Design and Improvement Standards provide guidelines and standards for the construction of block walls, within the City of Visalia. Standard wall heights permitted by the City of Visalia range between 6-foot to 7-foot in height. Depending on the height and geometric relationship between the roadway and the receiver location, wall of this height range would be typically expected to provide between approximately 5-6 dB of noise attenuation. While specific wall height requirements would generally be determined once final lot layout designs and elevations are known, wall heights of up to 7 feet will be sufficient to mitigate traffic noise within all proposed residential land uses, to below the City's acceptable maximum allowed noise exposure levels. This will be implemented as Mitigation Measure NOI – 2. Refer to the mitigation measures at the end of this section.[7]

Noise Impacts From Operational On-Site Sources

The proposed Project includes up to 35.1 acres of commercial development in two locations within the Project for a total of approximately 205,000 square feet of gross leasable commercial area. The commercial developments will occur in the proposed Mixed Use Commercial Zone and the Neighborhood Commercial Zone. The first commercial area consists of up to 28.7 acres of Mixed- Use Commercial at the intersection of Riggin Avenue and Shirk Road. Anticipated uses at this location may include development such as a Costco, gas station, car wash, drug store,

[7] *Acoustical Analysis – Carleton Acres Specific Plan* (March 2023) – WJV Acoustics, page 23.

retail, restaurants (including drive-throughs), and similar uses. The second consists of up to 6.4 acres of Commercial Neighborhood at the north east corner of the development. Anticipated uses at this location may include development such as retail, services and restaurants.

The noise levels associated with the two commercial developments are discussed in detail herein, in relation to existing sensitive receptors (existing residential land uses). This section discusses the noise levels associated with the commercial developments, as they may impact sensitive receptors (residential land uses) proposed with this Project. The Project proposes medium-density residential land uses to be adjacent to the Mixed-Use Commercial Zone within the southwest portion of the Project site and high-density residential land uses to be adjacent to the Neighborhood Commercial Zone within the northeast portion of the Project site.

Mixed Use Commercial (Impacts to On-Site Receptors)

The Project would include medium-density residential land uses proposed adjacent to the Mixed-Use Commercial Zone. Anticipated developments within the Mixed-Use Commercial Zone include a Costco retail center, gas station, car wash, drug store, retail and restaurants (including quick serve/drive through uses). WJVA calculated the noise levels associated with various noise-producing Project components at the property line of proposed medium-density residential land uses. The noise levels provided below represent the noise levels for each component, taking into account the distance between each noise source and the proposed medium-density residential land uses. The noise levels are as follows:

- HVAC/Mechanical equipment: 42-47 dB
- Truck deliveries: 56-62 dB
- Parking lot activities: 57-62 dB
- Drive-Through operations: 34-36 dB
- Loading Dock Activities: 47-65 dB
- Refuse/Cardboard Compactor: 44 dB

Car Wash

In addition to the above-described noise producing components, the proposed Costco retail center would include a car wash facility. Noise levels associated with the proposed car wash were addressed in a separate car wash-specific analysis. Noise levels associated with car wash operations are provided in a memo prepared by MD Acoustics, dated November 14, 2022. As described in the memo, the modeling assumed a 125' long car wash tunnel with 12' wide by 10' height openings (entrance and exit) for the proposed drive-through car wash facility in the Mixed-Use Commercial Zone. Based on the evaluation, the car wash can achieve compliance with the City's noise standards by implementing an IDC 100 horsepower Predator Blower System running

at 55Hz with a 10' wall with AcoustiBlok lining. This system would achieve an output of 41dBA, which is below the City's threshold and would thus result in a less than significant impact. This is itemized in Mitigation Measure NOI – 3 and will be a condition of Project approval. Refer to the memo for more information. The Car Wash noise study memo is provided as Appendix D to Appendix I.

Therefore, after implementation of Mitigation Measure NOI – 3, impacts to on-site receptors from the Mixed-Use Commercial would be less than significant.

Neighborhood Commercial Zone (Impacts to On-Site Receptors)

The Project would include high-density residential land uses proposed adjacent to the Neighborhood Commercial Zone. A wide variety of noise sources can be associated with commercial land use designations. The noise levels produced by such sources can also be highly variable and could potentially impact proposed on-site sensitive receptors. From the perspective of the City's noise standards, noise sources not associated with transportation sources are considered stationary noise sources. Typical examples of stationary noise sources include:

- Fans and blowers
- HVAC units
- Truck deliveries
- Compactors
- Amplified Drive-through Menu Board Speakers

Noise levels from new stationary noise sources within the Neighborhood Commercial Zone cannot be predicted with any certainty at this time since specific uses have not yet been proposed and the locations of stationary noise sources relative to the locations of new noise sensitive uses are not known. However, under some circumstances, there is a potential for such uses to exceed the City's noise standards for stationary noise sources at the locations of sensitive receptors.

Noise levels from new stationary noise sources may be effectively mitigated by incorporating noise mitigation measures into the Project design that consider the geographical relationship between the noise sources of concern and potential receptors, the noise-producing characteristics of the sources and the path of transmission between noise sources and sensitive receptors. Options for noise mitigation include the use of building setbacks, the construction of sound walls and the use of noise source equipment enclosures.

When specific uses within the study area are proposed (and their locations are defined) that could result in a noise-related conflict between a commercial or other stationary noise source and Project proposed sensitive receptors, an acoustical analysis may be required that quantifies Project-related noise levels and recommends appropriate mitigation measures to achieve compliance with the City's noise standards. This will be implemented as Mitigation Measure NOI – 1. Refer to the mitigation measures at the end of this section.

Noise Impacts From Proposed School Land Uses

Sources of operational noise associated with school land uses could include mechanical equipment (trash compactors, HVAC, etc.), vehicle and bus movements and noise associated with general school activities (children at play). Refer to the full description of school-related noise on pages 25 through 27 of the *Acoustical Analysis* (Appendix I). There is one existing school site (Ridgeview Middle School) as well as two proposed school sites within the overall Project site footprint.

Per City of Visalia Municipal Code section 8.36.070 (Noise Exemptions), noise levels associated with school activities are exempt from City of Visalia noise standards. The municipal code states *"Activities conducted in public parks, public playgrounds and public or private school grounds, including but not limited to school athletic and school entertainment events during normal hours of instruction"* are exempt from City of Visalia noise standards. However, there are potentially significant noise impacts associated with buses and school-related vehicle areas (such as parking lots and loading areas), as described below.

School Bus and Vehicle Movements

Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, type of vehicles, and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60 to 65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice. For slowly moving heavy trucks and buses, it is typical to generate a maximum noise level (Lmax) of approximately 70-75 dB at 50 feet.

The locations of school parking lots and bus access and loading areas in relation to proposed residential land uses were not known at the time of this publication. If bus movements (occurring off public roadways, but on school campus) were to occur within ninety (90) feet of outdoor activity areas of residential land uses (outdoor common use areas and individual patios and

balconies for multi-family homes and backyards of single-family homes), associated noise levels could exceed the City's stationary noise level standards at residential land uses. Therefore, Mitigation Measure NOI – 4 will be implemented to reduce this impact to a less than significant level.

Impact Determination

As described herein, the Project could, without mitigation, result in the generation of a substantial temporary (during construction) or permanent (operational) increase in ambient noise levels in the vicinity of the Project, or exceed standards established in the local general plan or noise ordinance, or applicable standards of other agencies. However, with implementation of mitigation measures NOI – 1 through NOI – 4, impacts are reduced to a ***less than significant***.

Mitigation Measures

NOI - 1: Prior to issuance of building permits for development within the Neighborhood Commercial Zone, the City of Visalia will determine if a detailed acoustical study shall be prepared by a certified professional to document potential impacts to onsite and offsite noise-sensitive land uses (as determined by the City of Visalia's General Plan and Municipal Code thresholds). When specific uses within the Neighborhood Commercial Zone are proposed that could result in a noise-related conflict between a commercial or other stationary noise source and existing or proposed noise-sensitive receptor, an acoustical analysis shall be required by the City of Visalia that quantifies Project-related noise levels and recommends appropriate mitigation measures to achieve compliance with the City's noise standards. Potential impacts in exceedance of the City of Visalia's standards shall require incorporation of mitigation such as increased setbacks, sound walls, equipment enclosures, site design, and enhanced building materials to reduce impacts to levels below the City of Visalia standards. Development that cannot incorporate mitigation to reduce impacts to acceptable City of Visalia standards shall not be approved. Evidence of compliance with this mitigation measure shall be provided to the City of Visalia prior to issuance of building permits.

NOI - 2: For Project components involving new sensitive receptors (residential land uses) within the cumulative 65 dB Ldn noise contours of adjacent roadway segments (Avenue 320, Shirk Road, Riggin Avenue, and Akers Street as identified in Table 3.13-12), the City of Visalia will require construction of block walls to achieve noise

attenuation to below the City's noise thresholds. The City of Visalia Design and Improvement Standards provide guidelines and standards for the construction of block walls, within the City of Visalia. Standard wall heights permitted by the City of Visalia range between 6-foot to 7- foot in height. Depending on the height and geometric relationship between the roadway and the receiver location, walls of this height range would be typically expected to provide between approximately 5-6 dB of noise attenuation. While specific wall height requirements would generally be determined once final lot layout designs and elevations are known, wall heights of up to 7 feet will be sufficient to mitigate traffic noise within all proposed residential land uses, to below the City's acceptable maximum allowed noise exposure levels. Evidence of compliance with this mitigation measure shall be provided to the City of Visalia prior to issuance of building permits.

NOI - 3: For the proposed drive-through car wash facility in the Mixed Use Commercial Zone, the Project shall implement an IDC 100 horsepower Predator Blower System running at 55Hz with a 10' wall with AcoustiBlok lining. Evidence of compliance with this mitigation measure shall be provided to the City of Visalia prior to issuance of occupancy permits.

NOI - 4: Bus movements occurring off public roadways (but on school campus) shall not occur within ninety feet of any residential outdoor activity area. Evidence of compliance with this mitigation measure shall be provided to the City of Visalia prior to issuance of building permits.

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, heavy 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 3.13-13. These levels would not be expected to exceed any significant threshold levels for annoyance or damage, as provided in Appendix I.

Table 3.13-13
Typical Vibration Levels During Construction[8]

	PPV (in/sec)	
Equipment	**@ 100´**	**@ 300´**
Bulldozer (Large)	0.011	0.006
Bulldozer (Small)	0.0004	0.00019
Loaded Truck	0.01	0.005
Jackhammer	0.005	0.002
Vibratory Roller	0.03	0.013
Caisson Drilling	0.01	0.006

After full Project build out, it is not expected that ongoing operational activities will result in any significant 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 uses. 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?*

Less Than Significant. The Project is not located within two miles of a public airport or private airstrip. The nearest airport is the Visalia Municipal Airport located approximately 2.5 miles southwest of the Project site. The Project site is not within any airport land use plans and the Project would not expose people residing or working in the Project area to excessive airport-related noise levels. Therefore, there is a ***less than significant impact.***

Mitigation Measures

None are required.

[8] *Acoustical Analysis – Carleton Acres Specific Plan* (March 2023) – WJV Acoustics, page 23.

Cumulative Impacts

Less Than Cumulatively Considerable. Construction of the individual development projects allowed under the land use designations of the City of Visalia's and County of Tulare's General Plans may result in the generation of site-specific noise increases from stationary noise sources, and may contribute incrementally to noise from mobile sources. Due to the localized nature of noise impacts, cumulative impacts would be largely limited to areas within the general vicinity of the Project, which is generally considered 1,000 feet. As shown in Section 3.13-1, the Project will result in less than significant impacts pertaining to increases in ambient noise levels (with implementation of Mitigation Measures NOI – 1 through NOI – 4) at both the project and cumulative level.

The proposed Project's temporary construction activities, in combination with the construction of other reasonably foreseeable projects in the area, could result in increased short-term construction noise levels in the Project area (depending upon the specific timing of the construction of those other projects and proximity to the Project site). Construction activities associated with other projects in proximity to the Project site could occur at the same time as the proposed Project. However, other projects would also be required to adhere to all City noise-related construction regulations, which would reduce and minimize cumulative construction noise level, and cumulative impacts would be less than significant level.

Cumulative construction may also result in the exposure of people to or the generation of excessive groundborne vibration. The same receptors as identified for construction noise would be the closest to be impacted by the Project with respect to construction related vibration as well. Due to these distances, and the rapid attenuation of groundborne vibration, the Project and any nearby other project would not be in close enough proximity to the sensitive receptors such that any sensitive receptor would be exposed to substantial groundborne vibration levels, since there are no significant vibration-producing construction activities (such as pile driving). Therefore, cumulative impact in terms of groundborne vibration would be less than significant.

As indicated herein, the Project will not result in significant permanent (operational) increases in noise or vibration levels. In addition, while temporary construction noise does not constitute a significant impact either at the project-level or cumulative level, construction noise mitigation is included to ensure impacts are less than significant. Therefore, with implementation of NOI-1 through NOI-4, the proposed Project's incremental contribution to cumulative noise impacts would be ***less than cumulatively considerable***.

3.14 Population and Housing

This section of the DEIR evaluates the potential environmental effects related to population and housing associated with implementation of the proposed Project. No comments pertaining to population and housing were received during the NOP public review period.

Environmental Setting

Proposed Project

The proposed Project lies adjacent to the northern area of the City of Visalia within the eastern portion of Tulare County. The site is comprised of two parcels: APN 077-100-105 consists of approximately 29.3 acres and is within the City limits of Visalia, with the zoning as R-M-3 (Multi-Family Residential). APN 077-100-088 and APN 077-100-105. APN 077-100-088 consists of approximately 478 acres and is within an unincorporated area of Tulare County, with the zoning as AE-40 (Exclusive Agriculture-40 acres minimum). However, both parcels are within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia. The Project site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses.

The proposal features several different types of housing for a total of up to 3,262 residential units at buildout which is broken down as follows:

- Low Density Residential: Up to 1,592 units
- Medium Density Residential: 758 units
- High Density Residential: 912 units

It should be noted that the number of proposed units for low density residential portion of the development is currently proposed to include a maximum of 1,592 units, which may be lower depending on final configuration of the lots. In addition, the 13.0 acres currently shown in Figure 2-5 for a new elementary school could potentially be converted to low density residential. Therefore, for purposes of providing the maximum number of potential residential units, a total of 65 units was added to the total for both phases (13.0 acres X 5.0 units per acre = 65 units), for a maximum development potential of 1,592 low density residential units.

The proposed Project site is located in a developing area of the City of Visalia. Currently, Ridgeview Middle School is located adjacent to and west of Akers Street and would abut the proposed Project site. In addition, the City is currently planning a new high school that will be constructed adjacent to and west of Ridgeview Middle School and would be surrounded by the

proposed Project to the north, west and south. Land uses of adjacent parcels surrounding the Project site are dairy farm/agriculture to the north and west, agriculture land use to the east, and residential/church/water storage tank to the south.

Population

The population of City of Visalia, which is also the most populous city in Tulare County, was 142,978 in 2021.[1]

Housing Units

According to the City's Housing Element, the City of Visalia had a total of 47,986 housing units (as of 2019) of which 37,996 are single-family units, 8,386 are multi-family units, and 1,604 are mobile homes.[2] More recent housing information is provided by the California Department of Finance, which identified approximately 49,513 housing units in the City as of 2022.[3]

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 platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business.[4]

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[1] https://www.census.gov/quickfacts/visaliacitycalifornia. Accessed March 2022.

[2] Housing Element, City of Visalia, page 22. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=34534. Accessed August 2022.

[3] Dept. of Finance 2022 Population and Housing Estimates https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/. Accessed Jan. 2023.

[4] U.S. Department of Housing and Urban Development, Mission, http://portal.hud.gov/hudportal/HUD?src=/about/mission. Accessed October 2021.

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).

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.

Local Regulations

Tulare County

Tulare County General Plan

The Tulare County General Plan, in its section entitled Component B - Prosperity, addresses the agricultural, land use, economic, and housing resources of the County. The General Plan uses communities and hamlets to accommodate new County growth while encouraging a majority of growth to occur within incorporated cities. Component B - Prosperity is a long-range framework for public and private investment that will result in an agriculturally-rich and economically-viable County.

[5] California Department of Housing and Community Development, Mission, http://www.hcd.ca.gov/mission.html. Accessed October 2021.

City of Visalia

General Plan

Urban Boundaries and Growth Management Policies:

LU-P-20 Wherein the City will allow annexation and development of residential, commercial, and industrial land to occur within the "Tier I" Urban Development Boundary (UDB) at any time, consistent with the City's Land Use Diagram.

LU-P-22 Allow for City Council approval of master plans, following Planning Commission review and recommendation, for sites under a single ownership or unified control, which may include developable land within both multiple development tiers. Allow for pre-zoning of this master-planned land, subject to execution of a development agreement between the City and the land owner conforming to the requirements of Government Code Section 65864 et seq., with the project allowed to annex and develop while the City is still limiting development approvals to land within the Tier I or Tier II designation.

Residential Neighborhoods:

LU-P-47 Wherein the City will ensure that new neighborhoods meet land use mix standards established in Table 2-7 of the General Plan. The ranges indicated—the minimum and maximum levels of development for each type of land use are intended to allow for flexibility in master planning in response to market conditions, infrastructure costs, and site planning policies.

LU-P-50 Wherein the City will provide development standards to ensure that a mix of detached and attached single-family and multi-family housing types can be compatible in a single development.

LU-P-52 Wherein the City will facilitate high-quality building and site design for multi-family developments by updating development standards in the zoning ordinance and providing clear rules for development review and approval and by creating and adopting design guidelines to be used in the development review and approval process.

LU-P-53 Wherein the City will integrate multi-family development with commercial, office, and public uses in neighborhood nodes, Downtown, and with Commercial Mixed Use areas in East Downtown, along the Mooney corridor and elsewhere.

LU-P-55 Wherein the City will update the Zoning Ordinance to reflect the Low-Density Residential designation on the Land Use Diagram for development at 2 to 10 dwelling units per gross acre, facilitating new planned neighborhoods and infill development in established areas.

LU-P-56 Wherein the City will update the Zoning Ordinance to reflect the Medium Density Residential designation on the Land Use Diagram for development at 10 to 15 dwelling units per gross acre.

LU-P-57 Wherein the City will update the Zoning Ordinance to reflect the High-Density Residential designation on the Land Use Diagram for development at 15 to 35 dwelling units per gross acre, accommodating townhouses, two- and four-plexes, and multistory condominium and apartment buildings.

Housing Element

The purpose of City of Visalia's Housing Element is to identify the community's housing needs, to state the community's goals and objectives with regard to housing production, rehabilitation, and conservation to meet those needs, and to define the policies and programs that the community will implement to achieve the stated goals and objectives. Per the Housing Element, TCAG allocated a total need of 10,021 units to Visalia for the 2014-2023 planning period. The allocation is equivalent to a yearly need of approximately 1,028 housing units for the 9.75-year time period.[6]

As mentioned in Policy LU-P-22, a Development Agreement will be prepared, which is a separate document that details the overall development, density, phasing, infrastructure needs and financing, as well as outlines the responsibilities of each party. The Development Agreement and the Specific Plan have a consistent vision with Visalia's General Plan and the City's interest in growth through phasing.

[6] Housing Element, City of Visalia. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=34534. Accessed April 2022.

Thresholds of Significance

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

- *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 or displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Less Than Significant Impact. Project implementation will have a direct, growth inducing impact on the area's population and housing stock by facilitating the development of up to 3,262 new households within the City of Visalia. According to the Census Bureau, the average household size in the City of Visalia between 2016-2020 was 3.04 persons per household[7]. Therefore, the Project's population estimate (at full buildout) is estimated to be 9,917 persons (3,262 housing units X 3.04 persons per household = 9,917 persons).

The Project is proposed to be built out in two phases as identified in Table 2-1 (in Chapter Two – Project Description). Although the exact timing of construction and buildout will be determined by market conditions, the Project Applicant and the City, it is anticipated that the Project would be built out over an approximately 15-year period with approximately 100 low-density residential units per year on average with the remaining buildout to be determined by demand. The Project is proposed to be generally built out in two phases as follows:

Phase 1

Phase 1 includes all of APN 077-100-105 (29.3 acres) and a portion of APN 077-100-088 (150 acres). For APN 077-100-105, the site is within the Tier 1 boundary and is currently designated by the

[7] U.S. Census Bureau: https://www.census.gov/quickfacts/fact/table/visaliacitycalifornia,fresnocitycalifornia/MAN450212 (accessed June 2022).

City's General Plan for High Density Residential. The Project intends to retain this land use designation and to develop the site as follows:

- 29.3 acres of High Density Residential (440 units)

For APN 077-100-088, Phase 1 development only includes the southern portion of the parcel (approximately 150 acres) and is included in the Tier 2 boundary. This portion is proposed to be developed with a variety of uses as follows:

- 9.7 acres of High Density Residential (146 units)
- 9.1 acres of Medium Density Residential (91 units)
- 100.9 acres of Low Density Residential (up to 505 units)
- 28.7 acres of Commercial Mix Use

For APN: 077-100-088, the Low Density Residential portion will be built first.

Phase 2

Phase 2 includes the northern 329 acres of APN 077-100-088 that is within the Tier 3 boundary. This portion is proposed to be developed with a variety of uses as follows:

- 21.7 acres of High Density Residential (326 units)
- 66.7 acres of Medium Density Residential (667 units)
- 204.5 acres of Low Density Residential (up to 1,022 units)
- 6.4 acres of Commercial Neighborhood
- 17.3 acres of Basin
- 13.0 acres of Public/Institutional

The timing of development and installation of infrastructure for Phase 1 and Phase 2 will be identified in a Development Agreement. It is anticipated that the Project would begin development in 2023.

Population

For purposes of evaluating the environmental impact of population growth in Visalia 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, as the City has prepared infrastructure Master Plans based on buildout of the City's General Plan.

The United States Census Bureau estimates the January 2021 population of the City to be 142,978.[8] According to the City's General Plan EIR: "As the Metropolitan Planning Organization (MPO), the Tulare County Association of Governments (TCAG), develops population and employment projections for Tulare County and each jurisdiction in the county for use in the development of the countywide Regional Transportation Plan and housing projections, per State law. The demographic projections developed by TCAG in 2009 indicated that Visalia would grow by about 2.6 percent annually between 2010 and 2030 to reach a population of 210,000 in 2030. During the same span of time, TCAG projected that the number of households will grow at about the same pace as population. The number of jobs was projected to increase by about 1.7 percent annually between 2010 and 2030, reaching a total of approximately 91,424 in 2030. While these projections served as a guideline for developing the proposed General Plan land use map and buildout scenario, the actual buildout numbers in the proposed Plan vary somewhat from these original projections, based on City policy decisions and other factors."[9]

Based on the above information provided by TCAG, Visalia has an average growth rate of 2.6 percent with a projected population of about 210,000 persons by the Year 2030. As discussed previously, the City averages 3.04 persons per household, which could result in an increase of approximately 9,917 people at full Project buildout. The City's current (2021) population of 142,978 residents would be increased by approximately 6.9% to 152,895 from the Project. Table 3.14-1 shows the City's existing population, the increase in population from the proposed Project, and the City's General Plan projected population in Year 2030, assuming full buildout of the General Plan. The last column shows the additional population that could be accommodated under the City's General Plan even with full buildout of the proposed Project.

[8] U.S. Census Bureau: https://www.census.gov/quickfacts/visaliacitycalifornia. Accessed August 2022.

[9] Visalia General Plan EIR, 3.1 – Land Use, page 3.1-5.

Table 3.14-1: Population Estimates

Existing Population (2021)	Proposed Project Population	Existing Plus Project Population	General Plan 2030 Projected Population	Additional Population That Could Be Accommodated Under the 2030 General Plan
142,978	9,917	152,895	210,000	57,105

As identified in Table 3.14-1, the Project would not induce population growth beyond what could be accommodated under the City's General Plan.

Housing Units

According to the City's most recently adopted Housing Element (2020 – 2023), the City of Visalia had a total of 47,986 housing units (as of 2019) of which 37,996 are single-family units, 8,386 are multi-family units, and 1,604 are mobile homes.[10] More recent housing information is provided by the California Department of Finance, which identified approximately 49,513 housing units in the City as of Year 2022. Housing needs in Visalia are determined by the California Department of Housing and Community Development (HCD) who developed a Regional Housing Needs Allocation (RHNA) for the City. According to the City's Housing Element, Visalia had an allocated need of 10,021 units for the 2014-2023 planning period.[11] The allocation is equivalent to a yearly need of approximately 1,028 housing units over the 9.5-year period. From years 2014 through 2018, there were 2,835 units that were developed, leaving 7,186 units within the total remaining RHNA allocation for the City.[12]

The proposed Project would develop up to 3,262 residential units at full buildout. Table 3.14-2 shows the number of units in the City (per CA Department of Finance - Year 2022), the number of units proposed by the Project, and the potential number of future units based on buildout of

[10] Housing Element, City of Visalia, page 22. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=34534. Accessed August 2022.

[11] Ibid, page 56.

[12] Ibid, page 28.

the City's General Plan. The last column shows the additional number of housing units that could be accommodated under the City's General Plan even with full buildout of the proposed Project.

Table 3.14-2: Residential Units

Existing Units (2022)	Proposed Project Number of Units	Existing Plus Project Number of Units	Potential Number of Units in the City at Full Buildout of the General Plan*	Additional Housing Units That Could Be Accommodated Under the 2030 General Plan
49,513	3,262	52,775	69,079*	16,304

** This figure is based on the City's projected 2030 population of 210,000 divided by 3.04 (the City's average household size per unit), which equals approximately 69,079 units.*

Based on the City's General Plan projections, the City could accommodate the proposed Project while still leaving capacity for approximately 16,304 units that could be developed in other areas of the City. In addition, the Project would aid the City in meeting its RHNA allocation, which as of 2019 showed that the City needs approximately 7,186 units to meet the allocation for various low income housing categories. The Project contains a mixture of detached single-family homes and multi-family units which will assist the City in meeting some of its Housing Element goals and requirements.

Determination

As shown in the tables above, the anticipated population and housing unit increase associated with the proposed Project is within the growth projections of the City's 2030 General Plan and the City's Housing Element.

While other future residential developments are also likely to occur in the City, it is anticipated that the City can accommodate the Project and other residential developments in the City. The General Plan anticipated a population of up to 210,000 people with up to 69,079 residential units by 2030. Given the City's current population (142,978 persons) and housing stock (49,513 units), the City could accommodate the proposed Project plus an additional 57,105 persons and 16,304 housing units according to the City's General Plan.

Based on the City's General Plan, infrastructure master planning documents, and the City's Housing Element, 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.

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. The Project site is currently undeveloped and contains no housing or structures. Thus, the proposed Project would not displace existing housing or people. There is ***no impact***.

Mitigation Measures:

None are required.

Cumulative Impacts

Less Than Cumulatively Considerable. The proposed project would result in population growth in an area currently designated for agricultural uses. Growth will also occur in other areas of the City and unincorporated communities in Tulare County in areas surrounding the City. However, as noted above, it is anticipated that the City can accommodate the Project and other residential developments in the City. The General Plan anticipated a population of up to 210,000 people with up to 69,079 residential units by 2030. Given the City's current population (142,978 persons) and housing stock (47,986 units), the City could accommodate the proposed Project plus an additional 57,105 persons and 16,304 housing units according to the City's General Plan.

The Project in conjunction with the current and reasonably foreseeable projects would lead to what is anticipated population growth. It should also be noted that while the proposed Project and other projects would result in an increase in new housing, related population growth, and associated environmental impacts discussed throughout this EIR, they would also help meet a documented need for housing supply in the region, thus beneficially affecting the region's continued demand for housing The City of Visalia, Tulare County, and other incorporated and unincorporated jurisdictions are required by State law to use the General Plan process, the CEQA process, as well as other planning processes, such as utility master plans, to plan for and control

future growth. Since the proposed Project will not result in an increase in population and housing units above what was planned for in the City's General Plan, there would not be a cumulative impact associated with unplanned growth adversely affecting population and housing. As a result, the proposed project would ***not contribute to a significant cumulative impact***.

Mitigation Measures

None are required.

3.15 Public Services

This section of the DEIR identifies potential impacts associated with the City's police and fire protection services, school facilities, and other public facilities. No NOP comment letters were received pertaining to this topic.

Environmental Setting

Fire Protection

Fire protection services in the vicinity of the Project site are provided by the Visalia Fire Department (VFD). According to the VFD's 2021 Annual Report, VFD staffing includes a Fire Chief, three Shift Battalion Chiefs, 21 Fire Captains, 21 Fire Engineers, 27 Firefighter Paramedics, an Administrative Battalion Chief, a Fire Marshal, three Fire Inspectors and various supportive staff.[1] All apparatus are staffed with a paramedic at all times. Personnel are trained in fire suppression and certified as Emergency Medical Responders, and there is a team trained in handling hazardous materials incidents. The Department operates six stations to serve all parts of the City, and has four fire engines and a 105-foot aerial truck, each staffed with at least three personnel. Stations are located in each section of the City, as well as Downtown adjacent to the police headquarters. An additional station at the airport is not staffed. Fire Department Administration is located in Visalia Emergency Communications Center at 420 N Burke Street. The nearest fire station to the Project site is Station No. 55, located approximately 0.5 miles to the south, at 6921 W Ferguson Avenue.

Police Services

Law enforcement services in Visalia are provided by the Visalia Police Department (VPD). According to the VPD's 2020 Annual Report[2], there are more than 250 members of the VPD. Classifications of these employees range from sworn police personnel, community service officers, parking enforcement officers, communications operators, records specialists, administrative support personnel, crime lab technicians, property and evidence technicians, and civilian investigators. Police headquarters is at 303 South Johnson Street in downtown Visalia.

[1] Visalia Fire Department 2021 Annual Report
https://www.visalia.city/documents/Fire/Annual/VFD%202021%20Annual%20Report.pdf , page 12.

[2] Visalia Police Department 2020 Annual Report
https://www.visalia.city/documents/Police/Annual%20Reports/2020%20Annual%20-%20FINAL%20(reducted%20size).pdf, page 5.

The District I substation, serving northern Visalia (and the proposed Project area), is located at 204 Northwest 3rd Avenue, approximately 3.5 miles southeast of the Project site.

Schools

Visalia Unified School District (VUSD) provides public education from Kindergarten through 12th Grade in the City of Visalia and nearby rural areas. The District includes 26 elementary schools, five middle schools, four comprehensive high schools, a continuation high school, an adult school, a charter independent study school, a K-8 charter home school, and a charter technical early college high school. [3]

Currently, VUSD owns eight undeveloped parcels where five new elementary schools, two new middle schools and a new high school are planned. Ridgeview Middle School is located adjacent to and west of Akers Street and would abut the proposed Project site. In addition, VUSD is currently planning a new high school that will be constructed adjacent to and west of Ridgeview Middle School and would be surrounded by the proposed Project to the north, west and south. Other proposed uses include approximately 13.0 acres for a potential site for a future elementary school. However, the land for the future elementary school could potentially be converted to low density residential as described in Chapter Two – Project Description.

Parks

There are no public parks on or adjacent to the Project site. The nearest park to the Project site is the Soroptimist Neighborhood park, located approximately one mile southeast. The proposed Project includes approximately 17.3 acres of parks/trails/recreational facilities (3.5 acres in Phase 1 and 13.8 acres in Phase 2). Refer to Figure 2-7 (in Chapter Two – Project Description) for the general location of the proposed recreational facilities, including parks. Parks within residential neighborhoods will range from 0.5 to 1 acre in size. Parks may be within a neighborhood or be located along the Modoc Greenway. Each park may include an open grass space, play area, picnic area, barbeque grills, seating, and drinking fountain. Shade trees will be provided and, where possible, drought-tolerant/native species will be encouraged. Parks will be located and designed to provide social activities within the development. In addition, the network of trails proposed by the Project will provide convenient walking and biking options for residents to connect throughout Carleton Acres.

[3] Visalia Unified School District – *About VUSD,* https://www.vusd.org/domain/9. Accessed Dec. 2022.

Libraries

There are no public libraries in the vicinity of the Project site. The nearest public library is the Tulare County Library, located approximately 3.5 miles southeast of the Project site.

Regulatory Setting

Federal Regulations

There are no federal regulations pertaining to public services that apply to the proposed Project.

State of California 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.

Government and Education Codes (Funding for Schools)

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 school facilities. Payment of fees authorized by the statute is deemed "full and complete mitigation."

Local Regulations

City of Visalia General Plan

Fire Hazard Policies:

S-P-29 Ensure availability of adequate water supplies to meet public health and safety needs, and for resource protection, by maintaining the following order of priority for water use:

- Potable water supply, fire protection, and domestic use
- Resource protection and preservation
- Industrial, irrigation and commercial uses
- Water-oriented or water-enhanced recreation
- Air conditioning

Safety Services and Emergency Response Policies:

S-P-32 Continue to make available fire alarm systems, as referred to in this Element, to be tied directly and automatically to the Visalia City Fire Chief's alarm-receiving center.

S-P-37 Continue to work with weather forecasting and public safety agencies to provide warning and protective information to residents, travelers, and visitors about severe valley fog conditions.

S-P-38 Continue to rely on the Tulare County Office of Emergency Services to maintain inventories of available resources to be used during disasters.

S-P-39 Continue to upgrade preparedness strategies and techniques in all departments so as to be prepared when disaster, either natural or man-made, occurs.

Schools and Community Facilities Policies:

PSCU-P-34 Coordinate land use and development with school location and site design, working with the Visalia Unified School District and other districts to ensure that adequate facilities are available and integrated with neighborhoods.

PSCU-P-35 Work with Visalia Unified School District and the Tulare County Office of Education to establish School District boundaries that are coterminous with the City's Urban Growth Boundary.

PSCU-P-38 Continue to encourage school multi-purpose facilities and open space for community uses to maximize their utilization.

Parks and Recreation Policies:

PSCU-P-2 Strive to achieve and maintain a citywide standard of at least five acres of neighborhood and community parks per 1,000 residents.

PSCU-P-3 Reserve land and develop parks and public open spaces and recreation facilities consistent with designated Parks and Open Space land on the Land Use Diagram.

PSCU-P-5 Create new community parks in the Northwest, Southwest, and Southeast quadrants, consistent with the Parks and Open Space diagram and the following planning guidelines:

- Size: 5-12 acres or more; and
- Facilities to be provided: large children's play area, reserved picnic facilities, open play fields, community building, bicycle parking, and off-street parking. They also may include tennis courts, outdoor concert areas or other special facilities based on neighborhood needs and community input.

PSCU-P-6 Create a high-quality, accessible neighborhood park system based on the needs of the surrounding community, the Parks and Open Space diagram and the following planning guidelines:

- Size: 2 to 5 acres; and
- Facilities to be provided: open lawn area, small picnic area, paths, bicycle parking, play equipment for children, backstop, multi-use courts, drinking fountain, landscaping.

PSCU-P-7 Promote development of small pocket parks or play lots dispersed throughout new neighborhoods and in existing neighborhoods, where needed, on a voluntary basis in coordination with new infill development, consistent with the following planning guidelines:

- Size: 0.5 to 2 acres; and
- Facilities: the specific features of pocket parks should address the anticipated needs of nearby residents and/or workers. In a residential environment, the needs of small children and seniors should be emphasized. In mixed-use or commercial areas, lunchtime use by office workers and shoppers should be facilitated.

PSCU-P-8 Establish design review criteria for allowing pocket parks (parks less than 2 acres) and linear parks to be counted toward meeting the neighborhood and community park-land standard of this General Plan.

PSCU-P-9 Continue to implement a Park Acquisition and Development Fee Program updated to be consistent with this General Plan, including the following:

- Land and fees received shall support a standard of five acres of neighborhood and community parks per 1,000 residents and provide park and recreation facilities serving the neighborhood quadrant in which the contributing development occurs;
- A portion of the fees collected are to be used for community-wide recreation facilities;
- Dedicated park land meeting specified criteria for community parks, neighborhood parks and pocket parks may be provided at the City's discretion, in lieu of fees, or earn fee credits (the City will not accept undevelopable, unusable land); and

- Fee credits may also be given for storm drainage basins designed and built for dual recreational use, but these credits may be on a less than 1:1 basis depending on the amenities and facilities provided and their availability throughout the year.

PSCU-P-10 Adopt and implement parkland dedication requirements for all subdivisions, consistent with the Quimby Act and Policy PSCU-P-2. This requirement will be integrated with the City's Park Acquisition Development Fee Program.

PSCU-P-14 Design parks to enhance neighborhood character and minimize negative impacts.

- Locate neighborhood parks with local or collector street frontages on at least three sides, and sidewalks and crossings designed for safe and easy pedestrian access.

- Where a neighborhood park is part of a neighborhood node, it should be designed to promote visual connections and pedestrian movement between the park and adjacent uses such as schools and commercial uses.

PSCU-P-15 Provide lighted facilities for tennis, basketball or other recreational facilities and along pathways in order to extend usable hours.

PSCU-P-18 Establish a wayfinding system for parks, bikeways and trails, with consistent, recognizable and pedestrian-scale signage.

PSCU-P-20 Promote private-sector and joint public-private development of commercial recreation facilities for league softball, indoor swimming, and golf, and other recreation uses that are available to the public for a fee or on a limited basis.

PSCU-P-22 Require private open space and recreational facilities in large-scale multi-family residential developments to meet a portion of resident recreation, except in Downtown and East Downtown.

PSCU-P-24 Promote innovative park design that responds to neighborhood needs and user groups.

PSCU-P-25 Provide shade in parks by using arbors and other landscaping techniques.

PSCU-P-28 Investigate opportunities to locate emergency services substations (police, fire, etc.) adjacent to park sites.

PSCU-P-30 Incorporate barrier-free design in all new recreation and sports facilities, and renovate existing facilities to remove barriers to handicapped users.

PSCU-P-31 Continue to work with the Visalia Parks and Recreation Foundation and other foundations and grant sources to provide funding for conservation, open space, parks and recreation.

Thresholds of Significance

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

- 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 3.15-1: *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. Implementation of the proposed Project would include up to 3,262 residential units, 35.1 acres of commercial and 17.3 acres of park/trail facilities on the site. If approved and annexed into the City, the City would provide public services to the Project. Impacts to public services are largely determined by the potential new population from the Project that would require access to these services. According to the Census Bureau, the average household size in the City of Visalia between 2016-2020 was 3.04 persons per household[4]. Therefore, the Project's population estimate (at full buildout) is estimated to be 9,917 persons (3,262 housing units X 3.04 persons per household = 9,917 persons). The City's Year 2021 population of 142,978 residents would be increased by approximately 6.9% to 152,895 from the Project. Table 3.15-1 shows the City's existing population, the increase in population from the proposed Project, and the City's General Plan projected population in Year 2030, assuming full buildout of the General Plan.

[4] U.S. Census Bureau: https://www.census.gov/quickfacts/fact/table/visaliacitycalifornia,fresnocitycalifornia/MAN450212 (accessed June 2022).

Table 3.15-1: Population Estimates

Existing Population (2021)	Proposed Project Population	Existing Plus Project Population	General Plan 2030 Projected Population
142,978	9,917	152,895	210,000

Potential impacts to public services are discussed individually by topic below.

Fire Protection

Fire protection services would be required to serve the proposed Project. As previously described, the City of Visalia provides firefighting response services through the VFD. The nearest fire station to the Project site is Station No. 55, located approximately 0.5 miles to the south, at 6921 W Ferguson Avenue.

The City's General Plan identified a service ratio for the VFD as 0.48 responders per 1,000 residents served by the City's Planning Area boundary. The National Fire Protection Association (NFPA) standard is one responder per 1,000 residents served[5]. According to the VFD's 2021 Annual Report, the Department maintains an overall average response time of 6 minutes and 22 seconds.[6]

In order to maintain existing levels of fire protection, the VFD will need to increase its resources to serve the Project. Based on the City's ratio of 0.48 responders per 1,000 residents, the proposed Project would require an additional 4.7 firefighters at full buildout (9,917 residents / 1,000 = 9.917 X 0.48 = 4.76). According to the VFD's 2021 Annual Report, VFD staffing includes a Fire Chief, three Shift Battalion Chiefs, 21 Fire Captains, 21 Fire Engineers, 27 Firefighter Paramedics, an Administrative Battalion Chief, a Fire Marshal, three Fire Inspectors and various supportive staff.[7] This represents approximately 77 fire fighting personnel (along with additional support

[5] Visalia General Plan EIR, 3.9 – Public Services, Facilities and Utilities, https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30499 , page 3.9-41.

[6] Visalia Fire Department 2021 Annual Report https://www.visalia.city/documents/Fire/Annual/VFD%202021%20Annual%20Report.pdf , page 39.

[7] Visalia Fire Department 2021 Annual Report https://www.visalia.city/documents/Fire/Annual/VFD%202021%20Annual%20Report.pdf , page 12.

staff). Based on the City's 2021 population (142,978), the City is below the target of one firefighter per 1,000 residents. Thus the Project will require additional staffing to accommodate the Project.

The Project Site Plan will be reviewed by the VFD and the City of Visalia to ensure that the Project meets or exceeds local and state standards for fire-related components such as adequate emergency access, location of fire hydrants, adequate defensible space around the site, use of fire-retardant materials, etc. In addition, the proposed Project will be required to pay fire service impact fees from new development based on projected impacts from the development. This fee will be determined by the City prior to issuance of building permits. Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the Project, would fund capital and labor costs associated with fire protection services. The impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications. Thus, with payment of impact fees, the impact to fire services is less than significant.

The proposed Project does not trigger the need for a new fire station or expansion of existing facilities at this time. It is anticipated that the existing Fire Station No. 55, located approximately 0.5 miles to the south, can maintain the VFD's current response times and can adequately serve the Project. Any future development of a fire station will require environmental review when it is proposed, and the environmental review will determine if there will be an adverse physical impact associated with its construction pursuant to CEQA. A new fire station is not proposed at this time, and the proposed Project would not directly result in the need for the construction of new fire facilities; thus, the Project will have a less than significant impact relative to construction of new fire protection facilities.

Police Protection

Police protection services would be required to serve the proposed Project. As previously described, the VPD provides police services for the City. The District I substation, serving northern Visalia (and the proposed Project area), is located at 204 Northwest 3rd Avenue, approximately 3.5 miles southeast of the Project site.

The City's General Plan identified a service ratio for the VPD as 1.7 officers (sworn, reserve, and civilian) per 1,000 residents served by the City's Planning Area boundary.[8] In order to maintain

[8] Visalia General Plan EIR, 3.9 – Public Services, Facilities and Utilities, https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30499 , page 3.9-41.

adequate levels of service, the VPD will need to consider the typical nature and type of calls for service; crime prevention and safety; appropriate measures for determining adequate levels of service; and the requirements for additional facilities and staffing. Based on the City's ratio of 1.7 officers per 1,000 residents, the proposed Project would require an additional 16.6 officers at full buildout (9,917 residents / 1,000 = 9.786 X 1.7 = 16.8).

The Project Site Plan will be reviewed by the VPD and the City of Visalia to ensure that the Project meets or exceeds local and state standards for police-related services. In addition, the proposed Project will be required to pay police service impact fees from new development based on projected impacts from the development. This fee will be determined by the City prior to issuance of building permits. Payment of the applicable impact fees by the Project applicant, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the Project, would fund capital and labor costs associated with police protection services. The impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications. Thus, with payment of impact fees, the impact to police services is less than significant.

The proposed Project does not trigger the need for a new police station or expansion of existing facilities at this time. It is anticipated that the existing District I Substation at 204 Northwest 3rd Avenue, approximately 3.5 miles southeast of the Project site, can maintain the VPD's current response times and can adequately serve the Project. Any future development of a police station will require environmental review when it is proposed, and the environmental review will determine if there will be an adverse physical impact associated with its construction pursuant to CEQA. A new police station is not proposed at this time, and the proposed Project would not directly result in the need for the construction of new police facilities; thus, the Project will have a less than significant impact relative to construction of new police protection facilities.

Schools

The proposed Project will include up to 3,262 dwelling units at full buildout for a population increase of approximately 9,917 people. VUSD provided the number of students generated by type of residential (single or multi family) and by grade level (e.g. TK-6, 7-8, and 9-12) as shown in Table 3.15-2.

Table 3.15-2: Student Generation Rates

Grade	Student Yield Rates		
	Single Family Student Yield Rate	*Multi Family Student Yield Rate*	*Combined Student Yield Rate*
TK-6	0.303	0.275	0.298
7-8	0.091	0.082	0.089
9-12	0.187	0.169	0184

The proposed Project features several different types of housing for a total of up to 3,262 residential units at buildout which is broken down as follows:

- Single Family Residential: Up to 2,350 units
- Multi Family Residential: 912 units

Based on the ratios identified in Table 3.15-2, the Project would generate approximately 1,847 students. See Table 3.15-3 for the breakdown of the number of students.

Table 3.15-3: Proposed Project's Anticipated Number of New Students

Grade	Household Type			
	*Single Family (2,350 units)**	*Number of Students*	*Multi Family (912 units)**	*Number of Students*
TK-6	0.303	713	0.275	251
7-8	0.091	214	0.082	75
9-12	0.187	440	0.169	154
SF Student Subtotal:		**1,367**	**MF Student Subtotal:**	**480**
			Total Projected New Students:	**1,847**

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 school facilities. Payment of fees authorized by the statute is deemed "full and complete mitigation."

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 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. The Project will be required to pay its the school impact fee as a condition of approval. The impact fee amount will be the amount established by the School District and the State Allocation Board in place at the time of submittal of building permit applications. Thus, with payment of impact fees, the impact to schools and school facilities is less than significant.

Parks

Policy PSCU-P-2 of the City's General Plan states that the City of Visalia will strive to achieve and maintain a citywide standard of at least five acres of neighborhood and community parks per 1,000 residents. According to the Census Bureau, the average household size in the City of Visalia between 2016-2020 was 3.04 persons per household[9]. Therefore, using the more recent information, the Project's population estimate (at full buildout) is estimated to be 9,917 persons (3,262 housing units X 3.04 persons per household = 9,917 persons).

The proposed Project could have a total population of 9,917 persons at build-out which would equate to a need for a minimum of 49.6 acres of parkland based on the City's standard of five acres per 1,000 residents (9,917 divided by 1,000 and multiplied by 5.0).

The creation of new parks / recreational facilities within the City is done both at the individual project level (where park facilities are constructed as part of a project) and at the City-wide level (where impact fees fund the development of larger community parks). According to the City's General Plan, the City would require approximately 430 acres of new parkland City-wide to accommodate buildout of the City's General Plan (estimated total population of about 210,000 at buildout). The City's General Plan provides approximately 625 acres of new/future park land. Of

[9] U.S. Census Bureau: https://www.census.gov/quickfacts/fact/table/visaliacitycalifornia,fresnocitycalifornia/MAN450212 (accessed June 2022).

this future park land, 430 acres would be new usable City parks, or 5.0 acres per 1,000 residents.[10] The City currently is in the planning stages of a new east side "large city park" allocating 148 acres for recreational use as well as other park projects. In the Project area, the City of Visalia currently owns approximately 20 acres of land at the northwest corner of Akers Street and Riggin Avenue (adjacent to the Project). The 20 acres is planned for future parks/recreational use.

As previously indicated in Section 3.14 – Population and Housing, the proposed Project is within the population growth assumptions of the City's General Plan. Thus, the Project will not result in growth that would require additional park land beyond what was identified in the City's General Plan.

The Project will install approximately 17.3 acres of parks/recreational facilities within the Project site. The Project will also be subject to payment of impact fees to support buildout of park land as identified in the City's General Plan. The impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications. Thus, with payment of impact fees, the impact to parks is less than significant. Refer to Section 3.16 – Recreation for more information.

Other Public Facilities

Development of the Project will increase the demand for other public services such as libraries, governmental services, emergency services and health services. However, the increase in demand will not in and of itself require construction of additional facilities. As described in Section 3.14 – Population and Housing, the anticipated population and housing unit increase associated with the proposed Project is within the growth projections of the City's General Plan. Based on the City's General Plan and infrastructure master planning documents, it is determined that the proposed Project will not induce unplanned population growth beyond that which can be accommodated by these other public services.

Therefore, with payment of impact fees, the proposed Project will have a ***less than significant impact*** on public services.

Mitigation Measures

None are required.

[10] Visalia General Plan – Chapter 5 Parks, Schools, Community Facilities and Utilities, page 5-2.

Cumulative Impacts

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to public services is generally area-specific rather than cumulative in nature because each project site has different considerations that would be subject to review. The service area for the City of Visalia services is considered the cumulative analysis area. Cumulative growth that would occur over the life of the Visalia General Plan / EIR will result in increased demand for public services. As the demand for public services increases, there will likely be a need to increase staffing and equipment in order to maintain acceptable performance standards. Cumulative impacts to public services are primarily related to other development projects that could occur during the same time frame as those considered for this Project and within the same vicinity as this Project. Because the Project will be required to construct and/or pay fair share fees for public services and does not result in significant long-term impacts to public services, the Project's incremental contribution to cumulative impacts to public services would be ***less than cumulatively considerable***.

3.16 Recreation

This section of the DEIR identifies potential impacts associated with the proposed Project on the City's recreational facilities and services. NOP comment letters were received pertaining to this topic.

Environmental Setting

The Parks, Schools, Community Facilities and Utilities Element of the City's General Plan serves as a guide for park planning and development documents prepared by the Department of Parks and Recreation and the Parks and Recreation Commission. Currently, Visalia has 23 neighborhood parks, ranging in size from 1.9-acre Crestwood Park to 17-acre Sunset Park, as well as numerous pocket parks under two acres. Visalia's current inventory of parks and recreation facilities is listed in Table 5-1 of the General Plan.[1] Four community parks provide a fuller range of community amenities or are co-located with community centers and range from approximately 9 to 14 acres. Three larger facilities, Plaza Park, Mooney Grove Park, and Riverway Sports Park, are located at the periphery. The St. Johns Riverway forms much of the northern edge of the City. Altogether, there are approximately 640 acres of park land within the City. The buildout of the General Plan Land Use Diagram would result in approximately 85,000 new residents in Visalia, with a total population of about 210,000. To meet the General Plan parks standard, this additional population would require an additional 430 acres of parkland. The General Plan provides approximately 625 acres of new park land.

The nearest park to the Project site is the Soroptimist Neighborhood park, located approximately one mile southeast. The proposed Project's components also include approximately 17.3 acres of parks/trails/recreational facilities (3.5 acres in Phase 1 and 13.8 acres in Phase 2). Refer to Figure 2-7 (in Chapter Two – Project Description) for the general location of the proposed recreational facilities, including parks. Parks within residential neighborhoods will range from 0.5 to 1 acre in size. Parks may be within a neighborhood or be located along the Modoc Greenway. Each park may include an open grass space, play area, picnic area, barbeque grills, seating, and drinking fountain. Shade trees will be provided and, where possible, drought-tolerant/native species will be encouraged. Parks will be located and designed to provide social activities within the development.

[1] Ch. 5 Parks, Schools, Community Facilities, and Utilities. City of Visalia Adopted General Plan. https://www.visalia.city/civicax/filebank/blobdload.aspx?BlobID=30477. Page 5-3. Accessed April 2022.

Project Site

The proposed Project is located on approximately 507-acres in the northern area of the City of Visalia, California and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses. The elevation of the Project area ranges between 303 ft. and 315 ft. amsl. Currently this region can be characterized as a dry open valley bottom now utilized for agriculture.

Regulatory Setting

State of California Regulations

Quimby Act

The Quimby Act (California Government Code Section 66477) states that "the legislative body of a city or county may, by ordinance, require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative or parcel map." Requirements of the Quimby Act apply only to the acquisition of new parkland and do not apply to the physical development of new park facilities or associated operations and maintenance costs. The Quimby Act seeks to preserve open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreation facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development.

Local Regulations

City of Visalia General Plan

Parks and Recreation Policies:

PSCU-P-2 The City will strive to achieve and maintain a citywide standard of at least five acres of neighborhood and community parks per 1,000 residents.

PSCU-P-3 The City will reserve land and develop parks and public open spaces and recreation facilities consistent with designated Parks and Open Space land on the Land Use Diagram.

PSCU-P-5 The City will create new community parks in the Northwest, Southwest, and Southeast quadrants, consistent with the Parks and Open Space diagram and the following planning guidelines:

- Size: 5-12 acres or more; and
- Facilities to be provided: large children's play area, reserved picnic facilities, open play fields, community building, bicycle parking, and off-street parking. They also may include tennis courts, outdoor concert areas or other special facilities based on neighborhood needs and community input.

PSCU-P-6 The City will create a high-quality, accessible neighborhood park system based on the needs of the surrounding community, the Parks and Open Space diagram and the following planning guidelines:

- Size: 2 to 5 acres; and
- Facilities to be provided: open lawn area, small picnic area, paths, bicycle parking, play equipment for children, backstop, multi-use courts, drinking fountain, landscaping.

PSCU-P-7 The City will promote development of small pocket parks or play lots dispersed throughout new neighborhoods and in existing neighborhoods, where needed, on a voluntary basis in coordination with new infill development, consistent with the following planning guidelines:

- Size: 0.5 to 2 acres; and
- Facilities: the specific features of pocket parks should address the anticipated needs of nearby residents and/or workers. In a residential environment, the needs of small children and seniors should be emphasized. In mixed-use or commercial areas, lunchtime use by office workers and shoppers should be facilitated.

PSCU-P-8 The City will establish design review criteria for allowing pocket parks (parks less than 2 acres) and linear parks to be counted toward meeting the neighborhood and community park-land standard of this General Plan.

PSCU-P-9 The City will continue to implement a Park Acquisition and Development Fee Program updated to be consistent with this General Plan, including the following:

- Land and fees received shall support a standard of five acres of neighborhood and community parks per 1,000 residents and provide park and recreation facilities serving the neighborhood quadrant in which the contributing development occurs;
- A portion of the fees collected are to be used for community-wide recreation facilities;
- Dedicated park land meeting specified criteria for community parks, neighborhood parks and pocket parks may be provided at the City's discretion, in lieu of fees, or earn fee credits (the City will not accept undevelopable, unusable land); and
- Fee credits may also be given for storm drainage basins designed and built for dual recreational use, but these credits may be on a less than 1:1 basis depending on the amenities and facilities provided and their availability throughout the year.

PSCU-P-10 The City will adopt and implement parkland dedication requirements for all subdivisions, consistent with the Quimby Act and Policy PSCU-P-2. This requirement will be integrated with the City's Park Acquisition Development Fee Program.

PSCU-P-14 The City will design parks to enhance neighborhood character and minimize negative impacts.

- Locate neighborhood parks with local or collector street frontages on at least three sides, and sidewalks and crossings designed for safe and easy pedestrian access.
- Where a neighborhood park is part of a neighborhood node, it should be designed to promote visual connections and pedestrian movement between the park and adjacent uses such as schools and commercial uses.

PSCU-P-15 The City will provide lighted facilities for tennis, basketball or other recreational facilities and along pathways in order to extend usable hours.

PSCU-P-18 The City will establish a wayfinding system for parks, bikeways and trails, with consistent, recognizable and pedestrian-scale signage.

PSCU-P-20 The City will promote private-sector and joint public-private development of commercial recreation facilities for league softball, indoor swimming, and golf, and other recreation uses that are available to the public for a fee or on a limited basis.

PSCU-P-22 The City will require private open space and recreational facilities in large-scale multi-family residential developments to meet a portion of resident recreation, except in Downtown and East Downtown.

PSCU-P-24 The City will promote innovative park design that responds to neighborhood needs and user groups.

PSCU-P-25 The City will provide shade in parks by using arbors and other landscaping techniques.

PSCU-P-28 The City will investigate opportunities to locate emergency services substations (police, fire, etc.) adjacent to park sites.

PSCU-P-30 The City will incorporate barrier-free design in all new recreation and sports facilities, and renovate existing facilities to remove barriers to handicapped users.

PSCU-P-31 The City will continue to work with the Visalia Parks and Recreation Foundation and other foundations and grant sources to provide funding for conservation, open space, parks and recreation.

City of Visalia Municipal Code

Chapter 12.36 - Park and Recreation Development Fees

All housing units constructed in the city must pay a park acquisition and development fee to the City for the construction of park and recreation facilities in accordance with the conservation, open space and recreation element of the City's General Plan.

Chapter 17.16 – Multi-Family Residential Zones

A minimum of 5% site area shall be dedicated to open, common, usable space and/or recreational facilities for use by tenants. Calculated space shall not include enclosed meeting or community rooms.

Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Guidelines Appendix G.

- 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 exiting 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. Policy PSCU-P-2 of the City's General Plan states that the City of Visalia will strive to achieve and maintain a citywide standard of at least five acres of neighborhood and community parks per 1,000 residents. According to the Census Bureau, the average household size in the City of Visalia between 2016-2020 was 3.04 persons per household[2]. Therefore, using the more recent information, the Project's population estimate (at full buildout) is estimated to be 9,917 persons (3,262 housing units X 3.04 persons per household = 9,917 persons).

The proposed Project could have a total population of 9,917 persons at build-out which would equate to a need for a minimum of 49.6 acres of parkland based on the City's standard of five acres per 1,000 residents (9,917 divided by 1,000 and multiplied by 5.0).

The creation of new parks / recreational facilities within the City is done both at the individual project level (where park facilities are constructed as part of a project) and at the City-wide level (where impact fees fund the development of larger community parks). According to the City's

[2] U.S. Census Bureau: https://www.census.gov/quickfacts/fact/table/visaliacitycalifornia,fresnocitycalifornia/MAN450212 (accessed June 2022).

General Plan, the City would require approximately 430 acres of new parkland City-wide to accommodate buildout of the City's General Plan (estimated total population of about 210,000 at buildout). The City's General Plan provides approximately 625 acres of new/future park land. Of this future park land, 430 acres would be new usuable City parks, or 5.0 acres per 1,000 residents.[3] The City currently is in the planning stages of a new east side "large city park" allocating 148 acres for recreational use as well as other park projects. In the Project area, the City of Visalia currently owns approximately 20 acres of land at the northwest corner of Akers Street and Riggin Avenue (adjacent to the Project). The 20 acres is planned for future parks/recreational use.

As previously indicated in Section 3.14 – Population and Housing, the proposed Project is within the population growth assumptions of the City's General Plan. Thus, the Project will not result in growth that would require additional park land beyond what was identified in the City's General Plan.

The Project will provide approximately 17.3 acres for a variety of public recreational facilities, including trails and parks within the development that will be accessible by the public. Approximately 3.5 acres will be constructed as part of Phase 1 and 13.8 acres will be constructed in Phase 2. A Landscaping and Lighting Act Assessment District (LLAD) shall be formed, prior to recordation of one or more final maps. The purpose is for the maintenance of the landscaping, fences and/or walls along the public street frontages and open space areas of the subdivision. The LLAD shall include the operational and maintenance cost for the street lights within the subdivision and along streets abutting the subdivision. The LLAD shall include the provisions for the City to collect payment from the subdivider to cover the estimated cost to operate and maintain the improvements of the LLAD prior to assessments occurring on the property tax roll.

Refer to Figure 2-7 (in Chapter Two – Project Description) for the general location of the proposed recreational facilities, which are described as follows:

Modoc Greenway: Modoc Ditch is an existing site feature along the northern portion of Akers and runs east/west through the center of the site. A trail will be installed along the existing Modoc Ditch. The trail will be located north of Shannon Parkway and the existing Modoc Ditch. Modoc Greenway will be installed along Akers Street (north of Ridgeview School), immediately west of the roadway and the existing Modoc Ditch. The Greenway will include a Class 1 bike trail with landscaping on either side and tree clusters will provide shade for the users. The Modoc

[3] Visalia General Plan – Chapter 5 Parks, Schools, Community Facilities and Utilities, page 5-2.

Greenway will connect to the nearby basin trail. The trail will provide a route for residents to access school sites, the commercial areas, and neighborhoods throughout Carleton Acres.

Trails: The network of trails proposed by the Project will provide convenient walking and biking options for residents to connect throughout Carleton Acres. Modoc Greenway is the main east/west and north/south trail facility within the development and will serve as a connection point for other smaller trails. As described above, Modoc Greenway will be a Class 1 bike trail with landscaping on either side. Other trails throughout Carleton Acres will be 22' wide (6' walking & 6' bike lane with 5' landscaping on each side). These trails are as follows:

- Trail to connect the proposed high school to the future elementary school site (north & south) within the development.
- Trail to connect the future elementary school to Modoc Greenway to the east.
- Trail along Roeben to connect the proposed high school to the medium and high density residential along Riggin and to the commercial center at the northeast corner of Riggin and Shirk.
- Around the basin, a trail will connect Modoc Greenway to the high-density development in the northwest corner of the site.

Parks: Parks within residential neighborhoods will range from 0.5 to 1 acre in size. Parks may be within a neighborhood or be located along the Modoc Greenway. Each park may include an open grass space, play area, picnic area, barbeque grills, seating, and drinking fountain. Shade trees will be provided and, where possible, drought-tolerant/native species will be encouraged. Parks will be located and designed to provide social activities within the development.

Determination

The environmental impacts associated with construction and operation of the proposed future parks and recreational facilities included in the Project are included within the environmental evaluation within this EIR. 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 the proposed parks and recreational facilities, since these components are part of the overall proposed Project.

As discussed herein, the total park and recreational space requirements at full build out of the Project would total at least 49.6 acres for approximately 9,917 residents. This ratio satisfies the

City's requirement of 5.0 acres per 1,000 residents. The required parks / recreational acreage would be met through a combination of construction of 17.3 acres of parks / recreational facilities (including trails) and payment of park impact fees to the City of Visalia. The impact fees would support future recreational facilities throughout the City that are consistent with the City's planned recreational projects and therefore would not result in environmental impacts from construction. These future planned projects will assist the City in meeting its requirement of 5.0 acres of park/recreational space per 1,000 residents. The impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications. Therefore, with payment of impact fees and construction of 17.3 acres park/recreational facilities on site, 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. Therefore, the impacts to recreation are ***less than significant.***

Mitigation Measures:

None are required.

Cumulative Impacts

Less Than Cumulatively Considerable. 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. As described above, proposed Project implementation would not result in an increased demand for recreational facilities, the deterioration of existing facilities, or the construction or expansion of recreational facilities. The proposed Project's incremental contribution to cumulative recreation impacts would be ***less than cumulatively considerable***.

3.17 Transportation/Traffic

This section of the DEIR identifies potential impacts of the proposed Project pertaining to transportation and traffic in and around the Project vicinity. The California Department of Transportation (Caltrans) provided a comment letter on the Project NOP (see Appendix A). The letter provided relevant information about Caltrans activities in the area and provided various recommendations for preparation of the traffic analysis for the Project. The analysis presented in this EIR section is based, in part, on the Traffic Study prepared for the Project by Ruettgers & Schuler Civil Engineers, Inc. which is included as Appendix J.

Environmental Setting

The proposed Project is located in the northern area of the City of Visalia in the northwestern portion of Tulare County. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. The site is in a developing area of the City, and has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses, such as the proposed Project. The Project Applicant is proposing a Specific Plan to develop approximately 507-acres of land into a mixed-use development. The Project will feature a variety of uses including single-family residential, multi-family housing, commercial, educational, and parks/trails facilities. The proposed Project components are described in detail in Chapter 2. Project Description. The Project site is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north.

Area Roadways

Arterials

W. Riggin Avenue, N. Shirk Road (Road 92), N. Akers Street (Road 100), and Avenue 320 are classified as arterial roads in the City's Circulation Element with a right-of-way of 110 feet.

Collectors

Shannon Parkway and N. Roeben Street are designated as collectors and serve to connect arterial and local roadways within the Project Area.

Local Streets

The remaining streets within the Project Area, including Sedona Avenue, are classified as local.

Airports

The nearest public airport is the Visalia Municipal Airport, approximately three miles southwest of the Project site.

Public Transportation Services

The City of Visalia has a variety of public transportation options including fixed route service and demand-responsive systems as well as local and regional systems. Visalia's Transit Division operates numerous mass transportation services, allowing residents to travel conveniently from neighborhoods to major shopping centers, local schools, medical offices, and work sites.

Local Systems

Visalia Transit (VT) provides a local fixed route system for Visalia residents and visitors alike. VT operates several fixed routes that serve city residents with some routes serving the outlying cities and communities. VT operates fixed route service 7 days a week with operational hours Monday through Friday between 6:00 a.m. and 9:30 p.m., 9:00 a.m. and 6:30 p.m. on Saturdays, and between 8:00 a.m. and 6:30 p.m. on Sundays.

Visalia Transit provides Dial-A-Ride curb-to-curb paratransit service on a shared-ride, demand-response basis to locations within the city limits of Visalia, Goshen, Farmersville and to/from Exeter. The Loop Route provides a fun, easy, and safe way for all school-aged kids to access community and recreation centers in Visalia.

Tulare County Area Transit

Tulare County Area Transit (TCaT) provides reliable and convenient public transit service between cities as well as intra-city transit service for many small communities throughout Tulare County. Fixed route services are offered Monday through Saturday, demand-response Dial-A-Ride services are offered Monday through Friday.

Non-Motorized Transportation

Bikeways and Trails

The City of Visalia Bikeway Plan was adopted in February 2011 and is intended to guide bikeway policies, programs, and facility improvements to improve safety, comfort and convenience for all bicyclists in the City of Visalia. The City later adopted the City of Visalia Active Transportation Plan in March 2017, which included an update to the previously adopted 2011 Visalia Bikeway Plan together with adding plans and policies for pedestrians and new bikeways. Figure 3-8 of the Active Transportation Plan shows the bikeway system. The Bikeway Plan encourages the use of walking and bicycling and recognizes three classes of bikeways:

- Bike Path (Class I Bikeway, including paseos and public greenways). Provides a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians with cross flows by motorists minimized.

- Bike Lane (Class II Bikeway). Provides a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through-travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted.

- Bike Route (Class III Bikeway). Provides right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.

While the City has yet to fully implement the network presented in the Bikeway Plan, several Class I, II and III facilities exist and are included in the standard cross-section specifications for the various street classifications.

Pedestrian Circulation

The pedestrian circulation system in Visalia is mainly comprised of sidewalks. Currently, the street environment is mostly auto-oriented with wide roadways and discontinuous sidewalks. Besides standard sidewalks that have been developed in residential and non-residential areas, several multi-use (bike/pedestrian) trails are found throughout the city, including the St. John's Parkway, Mill Creek, Goshen Avenue, and others. Visalia Unified School District and the City of Visalia are also actively involved in pursuing federal and state Safe Routes to School (SR2S) grant programs that promote adequate pedestrian facilities in neighborhoods near schools. In addition, the City of Visalia is committed to complying with Americas with Disabilities Act (ADA) standards with new development and bringing non-standard ADA facilities into compliance.

Regulatory Setting

Federal Regulations

Several federal regulations govern transportation issues. They include:

- Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.
- 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

State of California Regulations

California Department of Transportation

The California State Department of Transportation (Caltrans) has jurisdiction over state highways and sets maximum load limits for trucks and safety requirements for oversized vehicles that operate on California highways. The City of Visalia and Tulare County are under the jurisdiction of Caltrans District 6. The following Caltrans regulations apply to the potential transportation impacts of the Project:

- California Vehicle Code, Division 15, Chapters 1 through 5 (Size, Weight, and Load). Includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways.
- California Street and Highway Code, Sections 660-711, 670-695. Requires permits from Caltrans for any roadway encroachment during truck transportation and delivery, includes regulations for the care and protection of state and county highways and provisions for the issuance of written permits, and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.

Senate Bill 743

Senate Bill (SB) 743 was approved by then Governor Brown on September 27, 2013. SB 743 created a path to revise the definition of transportation impacts according to California Environmental Quality Act (CEQA). The revised CEQA Guidelines requiring a vehicle miles traveled (VMT) analysis became effective December 28, 2018; however, agencies had until July 1, 2020 to finalize their local guidelines on VMT analysis. The intent of SB 743 is to align CEQA transportation study methodology with and promote the statewide goals and policies of reducing VMT and greenhouse gases (GHG). Three objectives of SB 743 related to development are to reduce GHG, diversify land uses, and focus on creating a multimodal environment.

Local Regulations

City of Visalia General Plan

The Circulation Element of the 2030 General Plan is intended to provide guidance and specific actions to ensure the continued safe and efficient operation of Visalia's circulation system.

Level of Service Standards:

T-P-10 Manage local residential streets to limit average daily vehicle volumes to 1,500 or less and maintain average vehicle speeds between 15 and 25 miles per hour.

T-P-12 Require or provide adequate traffic safety measures on all new and existing roadways.

Traffic Studies and Mitigation Measures:

T-P-18 Ensure that citywide traffic service levels are maintained, require a traffic study, as a condition of development, of surrounding arterials, collectors, access roads, and regionally significant roadways for any major project that would require a General Plan amendment, and for projects where the proposed use could create traffic congestion because needed improvements identified by this General Plan would not be completed before project occupancy or are not funded under the CIP.

Planned Improvement Policies:

T-P-22 Require all residential subdivisions to be designed to discourage use of local streets as a bypass to congested arterials, and when feasible, require access to residential development to be from collector streets.

T-P-23 Require that all new developments provide right-of-way, which may be dedicated or purchased, and improvements (including necessary grading, installation of curbs, gutters, sidewalks, parkway/landscape strips, bike and parking lanes) other city street design standards. Design standards will be updated following General Plan adoption.

T-P-24 Require that proposed developments make necessary off-site improvements if the location and traffic generation of a proposed development will result in congestion on major streets or failure to meet LOS D during peak periods or if it creates safety hazards.

T-P-25 Require that where arterial streets are necessary through residential areas, residential development shall be oriented away (side-on or rear-on) from such streets and be properly buffered so that traffic carrying capacity of the street will be preserved and the residential environment will be protected from the adverse characteristics of the arterial street.

T-P-26 Require that future commercial developments or modifications to existing developments be designed with limited points of automobile ingress and egress, including shared access, onto major streets.

T-P-28 Promote traffic safety by requiring that ingress and egress to shopping centers be carefully designed, with minimal use of left-turn movements into and out of these centers.

T-P-29 Require, where possible, that arterials and collectors form four-leg, right-angle intersections. Jogged, offset, and skewed intersections at major streets in near proximity shall be avoided, where possible.

Bicycle Transportation and Trails System Policies:

T-P-39 Develop bikeways consistent with the Visalia Bikeway Plan and the General Plan's Circulation Element.

T-P-40 Develop a community-wide trail system along selected planning area waterways, consistent with the Waterways and Trails Master Plan and General Plan diagrams.

T-P-41 Integrate the bicycle transportation system into new development and infill redevelopment. Development shall provide short term bicycle parking and long-term bicycle storage facilities, such as bicycle racks, stocks, and rental bicycle lockers. Development also shall provide safe and convenient bicycle and pedestrian access to high activity land uses such as schools, parks, shopping, employment, and entertainment centers.

T-P-48 Require construction of minimum sidewalk widths and pedestrian "clear zones" consistent with the Complete Streets cross-sections in this General Plan and with the City's Engineering and Street Design Standards for each designated street type.

T-P-50 Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility and use universal design concepts.

T-P-51 Locate sidewalks, pedestrian paths, and appropriate crosswalks to facilitate access to all schools and other areas with significant pedestrian traffic. Whenever feasible, pedestrian paths shall be developed to allow for unobstructed pedestrian flow from within a neighborhood.

T-P-52 Require, where security walls or fences are proposed for residential developments along arterial or collector streets, that pedestrian access be provided between the arterial or collector and the subdivision to allow access to transit vehicles operating on an arterial or collector street.

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
- 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

Impacts and Mitigation Measures

Ruettgers & Schuler Civil Engineers, Inc. (R&S) prepared a Traffic Study (see Appendix J) analyzing potential impacts the proposed Project would have on the existing roadway and transportation system. The study methodology is consistent with the Procedures for Traffic Impact Analysis (TIA), City of Visalia, updated March 2021 (TIA Procedures), and the City of Visalia VMT Thresholds and Implementation Guidelines, adopted March 15, 2021 (VMT Guidelines).

The Traffic Study provides an analysis of the surrounding roadway system and the effects of the proposed 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 J.

Intersection Analysis

Level of Service Analysis Methodology

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. It describes the operating conditions for signalized and unsignalized intersections. It should be noted that LOS is no longer a requirement to be studied under CEQA. Instead, a project's transportation impacts are evaluated through an analysis of vehicle miles traveled (VMT) pursuant to Senate Bill 743. Data pertaining to LOS is being provided for evaluation and informational purposes by the City of Visalia. However, the Project's VMT analysis is provided in Impact 3.17-2.

While LOS is no longer the criteria of significance for traffic impacts in the state of California, the City of Visalia is continuing to review traffic LOS as the means in which it plans for roadway improvements in support of its General Plan. LOS analysis is still appropriate and necessary to determine consistency with General Plan policies as they relate to LOS. More specifically, 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.

The *Highway Capacity Manual* (HCM) is the standard reference published by the Transportation Research Board and contains the specific criteria and methods to be used in assessing LOS. Synchro software was used to determine LOS in this evaluation. Details regarding these calculations are included in Appendix J.

Criteria of Significance. The City of Visalia and County of Tulare have an operational level of service goal of LOS D or better.

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.

Analysis Locations

The project is expected to generate more than 1,500 peak hour trips. Therefore, in accordance with TIA Procedures, a Category V traffic impact analysis is required. The minimum study area for a Category V analysis includes all signalized intersections and major unsignalized intersections within three miles of the project. The scope of the study was developed in association with staff at the City of Visalia, County of Tulare and Caltrans, and includes the 82 intersections (48 existing and 34 future) listed below. Study intersection location, number and jurisdiction are shown in Figures 5a and 5b of Appendix J.

Study Intersections:

1. Plaza Dr (Rd 80) & Ave 328
2. Shirk St (Rd 92) & Ave 328
3. Demaree St (Rd 108) & Ave 328
4. Rd 112 & Ave 328
5. Plaza Dr (Rd 80) & Kibler Ave (Ave 320)
6. Kelsey St & Kibler Ave (Ave 320)
7. Rd 88 & Kibler Ave (Ave 320)
8. Rd 92-Shirk St & Kibler Ave (Ave 320)
9. Denton St & Kibler Ave (Ave 320)
10. Roeben St & Kibler Ave (Ave 320)
11. N/S roadway & Kibler Ave (Ave 320)
12. Akers St (Rd 100) & Kibler Ave (Ave 320)
13. Demaree St (Rd 108) & Kibler Ave (Ave 320)
14. Shirk St (Rd 92) & Pratt Rd

15. Denton St & Pratt Rd
16. Roeben St & Pratt Rd
17. N/S roadway & Pratt Rd
18. Akers St (Rd 100) & Pratt Rd
19. Demaree St (Rd 108) & Pratt Rd
20. Shirk St (Rd 92) & Shannon Pkwy
21. Denton St & Shannon Pkwy
22. Roeben St & Shannon Pkwy
23. N/S roadway & Shannon Pkwy
24. Akers St (Rd 100) & Shannon Pkwy
25. Demaree St (Rd 108) & Shannon Pkwy
26. Shirk St (Rd 92) & Sedona Ave
27. Denton St & Sedona Ave
28. Roeben St & Sedona Ave
29. N/S roadway & Sedona Ave
30. Akers St (Rd 100) & Sedona Ave
31. Road 67 & Betty Dr
32. Robinson Rd & Betty Dr
33. Road 72 & Riggin Ave
34. American St (Rd 76) & Riggin Ave
35. Plaza Dr (Rd 80) & Riggin Ave
36. Kelsey St & Riggin Ave
37. Clancy St & Riggin Ave
38. Shirk St (Rd 92) & Riggin Ave
39. Denton St & Riggin Ave
40. Roeben St & Riggin Ave
41. N/S roadway & Riggin Ave
42. Akers St (Rd 100) & Riggin Ave
43. Linwood St & Riggin Ave
44. Demaree St (Rd 108) & Riggin Ave
45. Dinuba Blvd (Rd 124) & Riggin Ave
46. Shirk St (Rd 92) & Ferguson Ave
47. Roeben St & Ferguson Ave
48. Akers St (Rd 100) & Ferguson Ave
49. Linwood St & Ferguson Ave
50. Demaree St (Rd 108) & Ferguson Ave

51. Plaza Dr (Rd 80) & Goshen Ave
52. Shirk St (Rd 92) & Goshen Ave
53. Akers St (Rd 100) & Goshen Ave
54. Demaree St (Rd 108) & Goshen Ave
55. Plaza Dr (Rd 80) & Hurley Ave
56. Shirk St (Rd 92) & Hurley Ave
57. Akers St (Rd 100) & Hurley Ave
58. Shirk St (Rd 92) & SR 198 Westbound Ramps
59. Akers St (Rd 100) & Mineral King Ave/SR 198 Westbound On-Ramp
60. Demaree St (Rd 108) & Mineral King Ave
61. Shirk St (Rd 92) & SR 198 Eastbound Ramps
62. Akers St (Rd 100) & Noble Ave/SR 198 Eastbound Off-Ramp
63. Demaree St (Rd 108) & Noble Ave
64. Roeben St & South Elementary School Driveway
65. Commercial Driveway & Kibler Ave (Ave 320)
66. Shirk St & South Commercial Driveway
67. East Commercial Driveway & Riggin Ave
68. Roeben St & North High School Staff/Visitor Driveway
69. Roeben St & High School Parent Drop-Off Driveway
70. Roeben St & South High School Staff/Visitor Driveway
71. West High School Student Parking Driveway & Sedona Ave
72. Central High School Student Parking Driveway & Sedona Ave
73. East High School Student Parking Driveway & Sedona Ave
74. High School Staff Parking Driveway & Shannon Pkwy
75. State Route 99 Southbound Off-Ramp & Betty Dr
76. State Route 99 Northbound Ramps & Betty Dr
77. Country Center St & Houston Ave
78. West Commercial Driveway & Riggin Ave
79. Shirk St & North Commercial Driveway
80. Akers St (Rd 100) & Commercial Driveway
81. Roeben St & North Elementary School Driveway
82. Elementary School Driveway & Pratt Rd

Analysis Time Periods

Traffic impact analyses conducted for the Traffic Study include intersection level of service, traffic signal warrant, queue length and vehicle miles traveled. Corresponding analysis time periods are

presented in Table 3.17-1. Peak hours were determined based on a review of count data obtained for the Traffic Study.

Table 3.17-1
Analysis Time Periods

Traffic Impact Analysis	Daily	Peak Hour Adjacent Street Traffic		
		Weekday		Saturday[3]
		AM[1]	PM[2]	
Intersection Level of Service		X	X	X
Traffic Signal Warrant		X	X	
Queue Length		X	X	X
Vehicle Miles Traveled	X			

[1] Between 7:30 and 8:30 AM
[2] Between 4:00 and 5:00 PM
[3] Between 10:30 and 11:30 AM

Traffic Phasing

As shown in Figure A1.1 of Appendix J, traffic phasing is based on an approximate 5, 10, 15, and 20 year build out of the development as follows:

- Phase I: 5 Year (approx.) with 20% residential max buildout and 28.7 acres of commercial
- Phase II: 10 Year (approx.) with 40% residential max buildout and 6.4 acres of commercial
- Phase III (50%): 15 Year (approx.) with 70% of residential max buildout
- Phase III: 20 Year (approx.) with 100% of residential built

Analysis Scenarios

In accordance with Category V requirements, analyses involving intersection level of service, traffic signal warrant and queue length were performed for each of the scenarios listed below.

- 2022 Traffic (Existing)
- 2023 Traffic

- 2023 Traffic + Project Traffic (Phase I)
- 2023 Traffic + Project Traffic (Phase I) + Mitigation
- 2028 Traffic
- 2028 Traffic + Project Traffic (Phases I and II)
- 2028 Traffic + Project Traffic (Phases I and II) + Mitigation
- 2033 Traffic
- 2033 Traffic + Project Traffic (Phases I, II and 50 percent buildout of III)
- 2033 Traffic + Project Traffic (Phases I, II and 50 percent buildout of III) + Mitigation
- 2038 Traffic
- 2038 Traffic + Project Traffic (Phases I, II and III)
- 2038 Traffic + Project Traffic (Phases I, II and III) + Mitigation
- 2043 Traffic
- 2043 Traffic + Project Traffic (Phases I, II and III)
- 2043 Traffic + Project Traffic (Phases I, II and III) + Mitigation
- 2046 Traffic (TCAG model horizon year)
- 2046 Traffic (TCAG model horizon year) + Project Traffic (Phases I, II and III)
- 2046 Traffic (TCAG model horizon year) + Project Traffic (Phases I, II and III) + Mitigation

These traffic impact analysis scenarios were developed based on the following assumptions:

- Opening year (full build) for Phase I would occur in 2023. Timing of roadway improvements will depend on market conditions and may extend into the 5-year planning horizon for Phase I.
- The 5-year planning horizon for Phase I and opening year (full build) for Phase II would occur in 2028.
- The 10-year planning horizon for Phase I, 5-year planning horizon for Phase II, and 50 percent buildout of Phase III would occur in 2033.
- The 10-year planning horizon for Phase II and opening year (full build) for Phase III would occur in 2038.
- The 20-year planning horizon for Phase I and 5-year planning horizon for Phase III would occur in 2043.

Project Site Circulation and Access

The overall layout of the proposed Project is block form, with shortened roadway lengths and cul-de-sacs in order to provide limited thru-traffic and to create a walkable urban environment. The site has been designed with 13 points of ingress and egress (See Figure 3.17-1). Additional access points will be provided for the commercial uses that are proposed to occur at the southwest corner of the site and for the high-density residential development at the northwest corner of the site. The following is a summary of roadway improvements that will be required:

Arterials

W. Riggin Avenue, N. Shirk Road (Road 92), N. Akers Street (Road 100), and Avenue 320 are classified as arterial roads in the City's Circulation Element with a right-of-way of 110 feet. The arterials in the Project Area will include two through-lanes of traffic in each direction, as well as a left-turn channelization when needed. The City also requires designated right-turn lanes for arterial to arterial intersections. When applicable, road right-of-way may be required for improvements at intersections to allow for right turn movements. Four arterials border the proposed Project with two existing lanes. When the Project is fully developed, Riggin will have four lanes and N. Shirk Road, N. Akers Street and Avenue 320 will remain two lanes each. As development progresses, N. Shirk Road would require four lanes (partial segment will remain two lanes) and W. Riggin Avenue and N. Akers Street may be widened to four lanes as ultimate right-of-way dedications continue to progress. Widening of W. Riggin Avenue, N. Shirk Road and N. Akers Street will be necessary with right-of-way dedications.

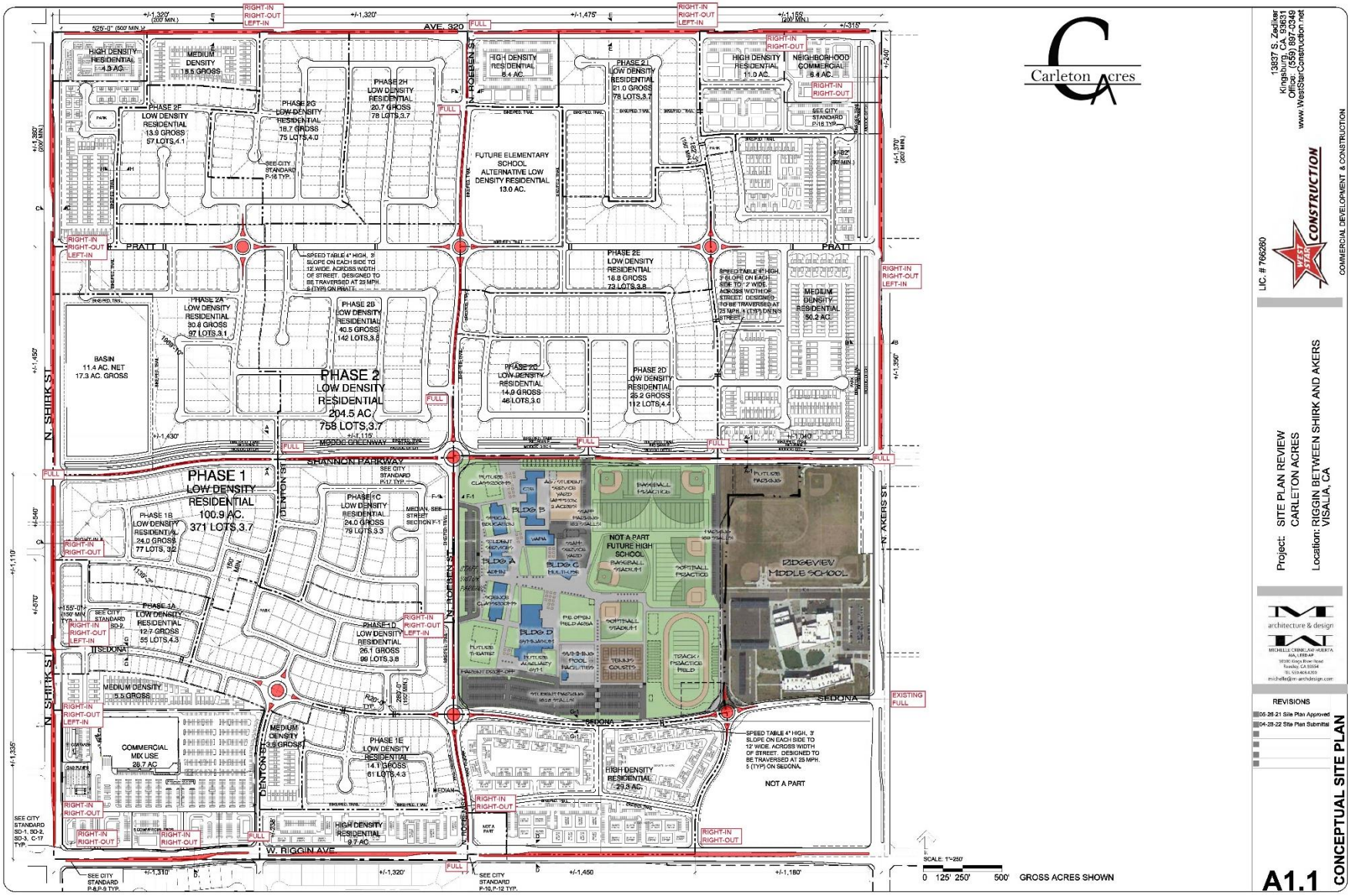
Collectors

Shannon Parkway and N. Roeben Street are designated as collectors and serve to connect arterial and local roadways within the Project Area. Shannon Parkway and N. Roeben Street will feature two lanes of traffic (single lane in each direction) within an 84-foot right-of-way.

Local Streets

The remaining streets within the Project Area, including Sedona Avenue, are classified as local and will be developed to residential street standards. Most local streets within the Project Area will have a right of way width of 60 feet. A combination of speed tables and roundabouts will be used as traffic calming devices.

Figure 3.17-1
Site Access Map



The Project will be responsible for construction of internal roadways as well as for potential improvements to surrounding roadways to accommodate the Project. The Project also includes improvements and landscaping along the frontage roads and within the site itself.

As part of the Project, proposed infrastructure improvements pertaining to Transportation/Traffic are identified below, by phase.

Phase 1

1. Installation of improvements along Shirk frontage to Phase 2. Including: 6′ tall block wall, 7′ wide side sidewalk, 5′ wide planter, curb/gutter, 6′ wide bike lane, 4′ buffer, and (2) 12′ travel lanes, 18′ wide median, and 12′ travel lane
2. Installation of improvements along Riggin from Shirk to where improvements already in place near Akers. Including, 7′ wide side sidewalk, 5′ wide planter, curb/gutter, 6′ wide bike lane, 4′, (2) 12′ travel lanes and 18′ wide median
3. Installation of improvements along Sedona at existing roundabout to Shirk. Including: 5′ wide sidewalk, 5′ wide planter, curb/gutter, 8′ wide parking, (2) 12′ wide travel lanes, 8′ wide parking, curb/gutter, 5′ wide planter, 5′ wide sidewalk.
4. Installation of improvements along Shannon Parkway from Roeben to Shirk. Including: 6′ tall block wall, 9′ landscape, 6′ wide sidewalk, 10′ wide planter, curb/gutter, , 5′ bike lane, 5′ buffer, 12′ wide travel lane, 15′ wide median and 12′ wide travel lane.
5. Installation of improvements along Roeben from Prescott to Shannon Parkway. Including: 6′ tall block wall, 5′ wide planter, 6′ wide sidewalk, 6′ wide bike trail, 5′ wide planter, curb/gutter, 8′ wide parking, 12′ wide travel lane, 11′ wide median, and 12′ wide travel lane.

Phase 2

1. Installation of improvements along Roeben from Shannon Parkway to Ave. 320. Including: 6′ tall block wall, 5′ wide planter, 6′ wide sidewalk, 5′ wide planter, curb/gutter, 8′ wide parking, 5′ wide bike lane, 12′ wide travel lane, 11′ wide median, 12′ wide travel lane, curb/gutter, 5′ wide planter, 6′ wide bike trail, 6′ wide sidewalk, 5′ wide planter and 6′ tall block wall.
2. Installation of improvements along Shirk to Ave. 320. Including: 6′ tall block wall, 8′ landscape, 7′ wide side sidewalk, 5′ wide planter, curb/gutter, 6′ wide bike lane, 4′ buffer, (2) 12′ travel lanes (18′ wide median) and 12′ travel lane

3. Installation of improvements along Shannon Parkway from Roeben to Akers. Including: 12′ wide travel lane, 15′ wide median, 12′ wide travel lane, 8′ wide parking, 5′ wide planter, 6′ wide sidewalk, 10′ wide ditch access & decomposed granite walking path, existing 19′ wide Modoc Ditch, 12' wide ditch & police access, 18' wide bioswale, 12' wide class 1 bike trail, and 6' wide planter.
4. Installation of improvements along Akers to Ave. 320. Including: 6′ wide planter, 12' wide class 1 bike trail, 18' wide bioswale, +/-12′ wide ditch & police access, existing 32′ wide Modoc Ditch, +/-10′ wide ditch access & walking path, 7' wide sidewalk, 5′ wide planter, curb/gutter, 6′ wide bike lane, (2) 12′ travel lanes (18′ wide median), and 12′ travel lane.
5. Installation of improvements on Ave. 320 from Akers to Shirk. Including: 6′ tall block wall, 8′ landscape, 7′ wide side sidewalk, 5′ wide planter, curb/gutter, 6′ wide bike lane, 4′ buffer, (2) 12′ travel lanes (18′ wide median), and 12′ travel lane.
6. Complete the installation of improvements along Shannon Parkway from Roeben to Shirk. Including: 8' wide parking, curb/gutter, 5' wide planter, 6′ sidewalk, 10' wide ditch access & decomposed granite walking path, existing 19' wide Modoc Ditch, 12' wide ditch & police access, 18' wide bioswale, 12' wide class 1 bike trail, and 6' wide landscaping.

The network of trails proposed by the Project will provide convenient walking and biking options for residents to connect throughout Carleton Acres. Modoc Greenway is the main east/west and north/south trail facility within the development and will serve as a connection point for other smaller trails. As described above, Modoc Greenway will be a Class 1 bike trail with landscaping on either side. Other trails throughout Carleton Acres will be 22′ wide (6′ walking & 6′ bike lane with 5′ landscaping on each side). These trails are as follows:

- Trail to connect the proposed high school to the future elementary school site (north & south) within the development.
- Trail to connect the future elementary school to Modoc Greenway to the east.
- Trail along Roeben to connect the proposed high school to the medium and high density residential along Riggin and to the commercial center at the northeast corner of Riggin and Shirk.
- Around the basin, a trail will connect Modoc Greenway to the high-density development in the northwest corner of the site.

Impacts and Mitigation Measures

Impact 3.17-1: *Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Significant and Unavoidable Impact. The proposed Project includes the construction and operation of a 507-acre mixed-use Project, which could result in potentially significant increases in traffic in and around the Project area. Based on the previously described methodology, the following information describes the Project's transportation impacts and mitigation measures.

While LOS is no longer the criteria of significance for traffic impacts in the state of California, the City of Visalia is continuing to review traffic LOS as the means in which it plans for roadway improvements in support of its General Plan. LOS analysis is still appropriate and necessary to determine consistency with General Plan policies as they relate to LOS. More specifically, 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.

Traffic Volumes

Existing

Weekday peak hour turning movement counts were obtained for the existing study intersections in May 2021, June 2021 and July 2022 (see Appendix C of Appendix J for count data and lane geometrics). These counts were adjusted (+15 percent) to account for traffic volume reductions on public roadways in response to the coronavirus pandemic. The adjustment was developed based on a review of historical (pre-pandemic) count data obtained from multiple sources. The resultant existing (2022) weekday peak hour volumes are shown in Figures 32 and 33 of Appendix J.

Saturday peak hour turning movement counts were obtained in September 2022 (see Appendix C of Appendix J for count data and lane geometrics). It was determined that the application of a pre-pandemic adjustment factor is not needed since the count data collected is recent and traffic volumes on public roadways have steadily increased since the State of California lifted most

COVID-19 restrictions in June 2021. Existing (2022) Saturday peak hour volumes are shown in Figure 34 of Appendix J.

Future

Average annual growth rates ranging between 0.5 and 10.7 percent were applied to the 2022 peak hour volumes to estimate future peak hour volumes for the years 2023, 2028, 2033, 2038 and 2043. These growth rates were estimated based on a review of regional travel demand model data from Tulare County Association of Governments.

Peak hour volumes for pending developments were added to peak hour projections beginning in the year 2028 (see next section). These volumes were estimated based on information provided by the City of Visalia regarding land use, size and location of each pending development (see Appendix D of Appendix J for map and list of developments).

In addition, peak hour volumes for a planned industrial park (northwest corner of Shirk Street and Riggin Avenue) were added to cumulative peak hour volumes (growth rate projections plus pending development traffic) beginning in the year 2028 (see next section). Similarly, peak hour volumes for a future high school (southeast corner of Roeben Street and Shannon Parkway) were added to cumulative peak hour volumes beginning in the year 2033 (see next section).

Peak hour volumes for the years 2023, 2028, 2033, 2038 and 2043, both with and without project traffic, are shown in Figures 35 through 79 of Appendix J. The same for the year 2046 (TCAG horizon year) is shown in Figures 80 through 88 of Appendix J. The 2046 volumes include peak hour traffic for pending and planned development (see next section).

Project Trip Generation

Project trip generation and design hour volumes for Phase I, Phases I and II, Phases I, II and III (50 percent buildout), and Phases I, II, and III, are shown in Tables 3.17-2, 3.17-3, 3.17-4 and 3.17-5, respectively. It was determined that weekday peak hours occur between 7:30 and 8:30 AM, and between 4:00 and 5:00 PM. The peak hour for Saturday was found to occur between 10:30 AM and 11:30 AM.

With the exception of the Costco land use, daily and peak hour volumes were estimated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (2021). Trip rates, equations and peak hour directional splits for ITE Land Use Codes 210, 220, 520 and 821 were used to estimate project trips for adjacent street traffic based on information provided by the project applicant. A pass-by rate of 15 percent was applied to the ITE 821 (retail) land use to

account for project trips that are made as intermediate stops between trip origin and primary destination. Pass-by trips are drawn from traffic passing the site, and therefore, do not add trips to the adjacent street system.

Trip rates, directional splits and pass-by reduction for the Costco land use were obtained from a Kittelson & Associates trip generation memorandum, dated June 23, 2022 (see Appendix B of Appendix Jfor the memorandum). The building size was provided by the Project Applicant.

Table 3.17-2
Project Trip Generation: Phase I

Land Use			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips			Saturday Daily Trips		Saturday Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips	ADT Rate	ADT	Rate	In % Split/ Trips	Out % Split/ Trips
210	Single-Family detached Housing	388 Dwelling Units	eq	3,513	eq	26% 67	74% 189	eq	63% 224	37% 132	eq	3,577	eq	54% 185	46% 158
220	Multifamily Housing (Low Rise)	264 Dwelling Units	eq	1,768	eq	24% 25	76% 80	eq	62% 90	38% 55	4.55	1,201	0.41	54% 58	46% 50
821	Shopping Plaza	28 1000 sq ft GLA	eq	3,568	3.53	62% 61	38% 38	eq	48% 160	52% 173	eq	5,483	eq	51% 172	49% 166
-	Costco	160.523 1000 sq ft GFA	99.38	15,952	2.59	56% 231	44% 184		47% 631	53% 715	112.53	18,064	11.15	49% 878	51% 912
SUBTOTAL				24,800		384	491		1,105	1,075		28,325		1,293	1,286
Adjustments															
Pass-by	Shopping Plaza	15%		535		9	6		24	26		823		26	25
Pass-by	Costco Weekday	20.4%		3,261		47	38		129	146		-		-	-
Pass-by	Costco Saturday	20.1%		-		-	-		-	-		3,631		176	183
TOTAL				21,004		328	447		952	903		23,871		1,091	1,078

Table 3.17-3
Project Trip Generation: Phases I & II

Land Use			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips		Saturday Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips	ADT Rate	ADT	Rate	In % Split/ Trips	Out % Split/ Trips
210	Single-Family detached Housing	627 Dwelling Units	eq	5,463	eq	26% 103	74% 293	eq	63% 352	37% 206	eq	5,697	eq	54% 296	46% 253
220	Multifamily Housing (Low Rise)	677 Dwelling Units	eq	4,415	eq	24% 56	76% 177	eq	62% 198	38% 121	4.55	3,080	0.41	54% 150	46% 128
821	Shopping Plaza	28 1000 sq ft GLA	eq	3,568	3.53	62% 61	38% 38	eq	48% 160	52% 173	eq	5,483	eq	51% 172	49% 166
-	Costco	160.523 1000 sq ft GFA	99.38	15,952	2.59	56% 231	44% 184		47% 631	53% 715	112.53	18,064	112.53	49% 878	51% 912
SUBTOTAL				29,397		451	692		1,341	1,215		32,325		1,496	1,459
Adjustments															
Pass-by	Shopping Plaza	15%		535		9	6		24	26		823		26	25
Pass-by	Costco Weekday	20.4%		3,261		47	38		129	146		-		-	-
Pass-by	Costco Saturday	20.1%		-		-	-		-	-		3,631		176	183
TOTAL				25,602		395	648		1,188	1,043		27,871		1,294	1,163

Table 3.17-4
Project Trip Generation: Phases I, II & (50%) III

Land Use			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips		Saturday Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips	ADT Rate	ADT	Rate	In % Split/ Trips	Out % Split/ Trips
210	Single-Family detached Housing	1146 Dwelling Units	eq	9,514	eq	26% 178	74% 507	eq	63% 620	37% 364	eq	10,226	eq	54% 537	46% 458
220	Multifamily Housing (Low Rise)	1136 Dwelling Units	eq	7,357	eq	24% 90	76% 285	eq	62% 317	38% 195	4.55	5,169	0.41	54% 252	46% 214
821	Shopping Plaza	28 1000 sq ft GLA	eq	3,568	3.53	62% 61	38% 38	eq	48% 160	52% 173	eq	5,483	eq	51% 172	49% 166
-	Costco	160.523 1000 sq ft GFA	99.38	15,952	2.59	56% 231	44% 184		47% 631	53% 715	112.53	18,064	112.53	49% 878	51% 912
SUBTOTAL				36,391		560	1,014		1,728	1,447		38,942		1,839	1,750
Adjustments															
Pass-by	Shopping Plaza	15%		535		9	6		24	26		823		26	25
Pass-by	Costco Weekday	20.4%		3,261		47	38		129	146		-		-	-
Pass-by	Costco Saturday	20.1%		-		-	-		-	-		3,631		176	183
TOTAL				32,595		504	970		1,575	1,275		34,489		1,637	1,454

Table 3.17-5
Project Trip Generation: Phases I, II & III

Land Use			Daily Trips		AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips		Saturday Peak Hour Trips		
ITE Code	Development Type	Variable	ADT RATE	ADT	Rate	In % Split/ Trips	Out % Split/ Trips	Rate	In % Split/ Trips	Out % Split/ Trips	ADT Rate	ADT	Rate	In % Split/ Trips	Out % Split/ Trips
210	Single-Family detached Housing	1462 Dwelling Units	eq	11,903	eq	26% 222	74% 633	eq	63% 779	37% 458	eq	12,951	eq	54% 684	46% 583
220	Multifamily Housing (Low Rise)	1670 Dwelling Units	eq	10,780	eq	24% 130	76% 411	eq	62% 456	38% 280	4.55	7,599	0.41	54% 370	46% 315
520	Elementary School	750 Students	2.27	1,703	0.74	54% 300	46% 255	0.16	46% 55	54% 65	-	-	-	- -	- -
821	Shopping Plaza	46.5 1000 sq ft GLA	eq	4,991	3.53	62% 102	38% 62	eq	48% 228	52% 247	eq	6,814	eq	51% 244	49% 234
-	Costco	160.523 1000 sq ft GFA	99.38	15,952	2.59	56% 231	44% 184		47% 631	53% 715	112.53	18,064	112.53	49% 878	51% 912
SUBTOTAL				45,329		985	1,545		2,149	1,765		45,428		2,176	2,044
Adjustments															
Pass-by	Shopping Plaza	15%		749		15	9		34	37		1,022		37	35
Pass-by	Costco Weekday	20.4%		3,261		47	38		129	146		-		-	-
Pass-by	Costco Saturday	20.1%		-		-	-		-	-		3,631		176	183
TOTAL				41,319		923	1,498		1,986	1,582		40,775		1,963	1,826

Trip Distribution and Assignment

Project trip distribution and assignment were developed based on site location, travel patterns anticipated for each of the proposed land uses, and a select zone analysis performed by the Tulare County Association of Governments (TCAG). Separate distributions and assignments were prepared for each project land use type and then combined for analysis purposes.

Internal Trips

Mixed-use projects typically generate trips that neither enter nor leave the project site, and therefore, have no impact on adjacent street traffic. Results of the select zone analysis were used to estimate an internal trip capture rate of 3.0 percent.

The assignment of project peak hour trips to intersections within the project boundary is shown in Figures 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29 and 31 of Appendix J.

External Trips

The distribution of project peak hour trips outside of the project boundary is shown in Table 3.17-6 and represents the movement of traffic accessing the project site by direction. Directional trip distribution percentages for roadway segments in the study area are presented in Figure 7 of Appendix J.

External project peak hour trips were assigned to the study intersections as shown in Figures 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28 and 30 of Appendix J.

Table 3.17-6
Project Trip Distribution

Direction	Percent
North	5
East	45
South	40
West	10

Project Impacts

As previously described, the City of Visalia and County of Tulare have an operational level of service goal of LOS D or better.

A capacity analysis of the study intersections was conducted using Synchro software from Trafficware (see Appendix E of Appendix J for Synchro output). This software utilizes the capacity analysis methodology in the Transportation Research Board's *Highway Capacity Manual 2010* (HCM 2010). All roundabouts were analyzed as single-lane intersections and all "+Project" scenarios include two westbound lanes on Riggin Avenue between Shirk Street and Denton Street. In addition, project intersections located along an adjacent arterial were analyzed with a right-turn deceleration lane since all such intersections meet one or more of the City of Visalia's deceleration lane criteria.

The following tables provide a list of intersections that are expected to fall to LOS E or F (**E** and **F** designations shown in **bold**). The tables exclude intersections and scenarios where LOS will remain within established City or County thresholds. Traffic phasing shown in the tables is based

on an approximate 5, 10, 15, and 20 year build out of the development. The tables are broken down as follows:

- Weekday AM Peak Hour Intersection LOS Results are shown in Tables 3.17-7 and 3.17-7a.
- Weekday PM Peak Hour Intersection LOS Results are shown in Tables 3.17-8, 3.17-8a and 3.17-8b.
- Saturday Peak Hour Intersection LOS Results are shown in Tables 3.17-9 and 3.17-9a.

Table 3.17-7
Weekday AM Peak Hour Intersection LOS Results (Years are approximate)

#	Intersection	Control Type	2022	2023	2023+ Project Phase I	2023+ Project Phase I w/Improve.	2028	2028+ Project Phase II	2028+ Project Phase II w/Improve.	2033	2033+ Project Phase II & (50%) III	2033+ Project Phase II & (50%) III w/ Improve.	2038	2038+ Project Phase II	2038+ Project Phase III w/Improve.	2043	2043+ Project Phase III	2043+ Phase IV w/Improve.	2046	2046+ Project Phase III	2046+ Project Phase III w/Improve.
3	Rd 108 & Ave 328	AWSC	B	C	C	-	C	C	-	C	C	-	C	C	-	E	E	D	F	F	D
4	Rd 112 & Ave 328	SB	B	C	C	-	D	D	-	D	D	-	C	C	-	D	D	-	F	F	D
12	Akers St & Ave 320	NB	A	B	B	-	B	C	-	D	D	-	B	B	-	B	C	-	D	F	C
25	Demaree St & Shannon Pkwy	WB	B	B	B	-	C	C	-	D	D	-	B	B	-	D	D	-	D	E	D
31	Nutmeg Rd & Riggin Ave	Signal	D	D	D	-	D	D	-	D	D	-	F	F	-	F	F	-	F	F	D
33	Road 72 & Riggin Ave	NB	C	C	C	-	C	C	-	D	D	-	E	E	C	F	F	C	F	F	C
38	Rd 92/Shirk Ave & Riggin Ave	AWSC	B	C	E	-	E	E	-	E	E	-	F	F	-	F	F	-	F	F	-
		Signal	-	-	-	C	-	-	B	-	-	B	-	-	C	-	-	B	-	-	D
40	Roeben St & Riggin Ave	NB	-	-	-	-	D	F	-	F	F	-	F	F	-	F	F	-	F	F	-
		SB	-	-	-	-	-	F	-	-	F	-	-	F	-	F	F	-	F	F	-
		Signal	-	-	-	-	-	-	B	-	-	D	-	-	D	-	-	D	-	-	D
42	Akers St & Riggin Ave	Signal	D	D	D	-	D	D	D	E	F	D	D	D	-	D	D	D	E	F	D
43	Linwood St & Riggin Ave	NB	B	C	C	-	D	F	-	F	F	-	C	C	-	D	F	-	F	F	-
		Signal	-	-	-	-	-	-	C	-	-	C	-	-	-	-	-	C	-	-	C
44	Demaree St & Riggin Ave	Signal	C	C	C	-	D	D	-	E	E	D	C	C	-	D	D	-	E	E	D
46	Shirk Ave & Ferguson Rd	AWSC	B	B	B	-	B	C	-	C	E	-	B	B	-	B	C	-	C	E	-
		Signal	-	-	-	-	-	-	B	-	-	C	-	-	-	-	-	-	-	-	C

Table 3.17-7a
Weekday AM Peak Hour Intersection LOS Results (Contd.)

#	Intersection	Control Type	2022	2023	2023+ Project Phase I	2023+ Project Phase I w/Improve.	2028	2028+ Project Phase II	2028+ Project Phase II w/Improve.	2033	2033+ Project Phase II & (50%) III	2033+ Project Phase II & (50%) III w/ Improve.	2038	2038+ Project Phase II	2038+ Project Phase III w/Improve.	2043	2043+ Project Phase III	2043+ Phase IV w/Improve.	2046	2046+ Project Phase III	2046+ Project Phase III w/Improve.
47	Roeben St & Ferguson Rd	NB	C	C	C	-	E	E	-	F	F	-	C	C	-	E	E	-	F	F	-
		SB	C	C	C	-	D	D	-	F	F	-	C	C	-	D	D	-	F	F	-
		Signal	-	-	-	-	-	-	C	-	-	C	-	-	-	-	-	C	-	-	C
48	Akers St & Ferguson Rd	Signal	D	E	E	E	F	F	E	F	F	F	E	E	E	F	F	E	F	F	F
49	Linwood St & Ferguson Rd	AWSC	B	B	B	-	C	C	-	E	E	-	B	B	-	C	C	-	E	E	-
		Signal	-	-	-	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	C
52	Shirk Ave & Goshen Ave	Signal	D	E	E	E	E	E	E	F	F	D	E	E	E	E	E	E	F	F	D
54	Demaree St & Goshen Ave	Signal	C	D	D	-	D	D	-	F	F	-	D	D	-	D	D	-	F	F	-
56	Shirk Ave & Hurley Ave	Signal	A	A	A	-	B	B	-	F	F	D	A	A	-	B	B	-	F	F	D
58	Shirk Ave & SR 198 WB Ramps	AWSC	D	F	F	-	F	F	-	F	F	-	F	F	-	F	F	-	F	F	-
		Signal	-	-	-	C	-	-	C	-	-	D	-	-	C	-	-	C	-	-	D
60	Demaree St & Mineral King Ave	Signal	C	C	C	-	C	C	-	C	C	-	C	C	-	C	C	-	E	E	-
61	Shirk Ave & SR 198 EB Ramps	AWSC	B	C	C	-	D	D	-	E	F	-	C	C	-	D	D	-	E	F	-
		Signal	-	-	-	C	-	-	C	-	-	C	-	-	C	-	-	C	-	-	C

Table 3.17-8
Weekday PM Peak Hour Intersection LOS Results (Years are approximate)

#	Intersection	Control Type	2022	2023	2023+ Project Phase I	2023+ Project Phase I w/Improve.	2028	2028+ Project Phase II	2028+ Project Phase II w/Improve.	2033	2033+ Project Phase II & (50%) III	2033+ Project Phase II & (50%) III w/ Improve.	2038	2038+ Project Phase II	2038+ Project Phase III w/Improve.	2043	2043+ Project Phase III	2043+ Phase IV w/Improve.	2046	2046+ Project Phase III	2046+ Project Phase III w/Improve.
3	Rd 108 & Ave 328	AWSC	B	B	B	-	C	C	-	D	E	D	E	F	D	F	F	D	F	F	D
4	Rd 112 & Ave 328	SB	B	B	B	-	C	C	-	C	D	-	F	F	D	F	F	D	F	F	D
12	Akers St & Ave 320	NB	A	B	B	-	B	B	-	B	C	-	C	F	C	F	F	D	F	F	D
13	Demaree St & Ave 320/Kibler	EB	B	B	B	-	C	C	-	C	C	-	C	E	C	D	F	D	E	F	D
31	Nutmeg Rd & Riggin Ave	Signal	D	D	D	-	D	D	-	D	D	-	E	F	-	F	F	-	F	F	F
32	Robinson Rd & Riggin Ave	Signal	D	D	D	-	D	D	-	D	D	-	D	D	-	F	F	-	F	F	D
33	Road 72 & Riggin Ave	NB	C	C	D	-	D	D	-	E	F	C	F	F	-	F	F	C	F	F	C
37	Clancy St & Riggin Ave	NB	A	B	B	-	B	C	-	C	C	-	C	C	-	C	C	-	C	C	-
		SB	A	C	D	-	C	E	-	F	F	-	E	F	-	F	F	-	F	F	-
		Signal	-	-	-	-	-	-	A	-	-	B	-	-	-	-	-	A	-	-	B
38	Rd 92/Shirk Ave & Riggin Ave	AWSC	C	E	F	-	E	F	-	F	F	-	F	F	-	F	F	-	F	F	-
		Signal	-	-	-	D	-	-	D	-	-	D	-	-	D	-	-	D	-	-	D
39	Denton St & Riggin Ave	NB	A	A	A	-	A	A	-	A	A	-	A	A	-	A	A	-	A	A	-
		SB	-	-	D	-	-	F	-	-	F	-	-	F	-	-	F	-	-	F	-
		Signal	-	-	-	-	-	-	B	-	-	B	-	-	B	-	-	B	-	-	B
40	Roeben St & Riggin Ave	NB	-	-	-	-	F	F	-	F	F	-	F	F	-	F	F	-	F	F	-
		SB	-	-	-	-	-	F	-	-	F	-	-	F	-	F	F	-	F	F	-

Table 3.17-8a
Weekday PM Peak Hour Intersection LOS Results (Contd.)

#	Intersection	Control Type	2022	2023	2023+ Project Phase I	2023+ Project Phase I w/Improve.	2028	2028+ Project Phase II	2028+ Project Phase II w/Improve.	2033	2033+ Project Phase II & (50%) III	2033+ Project Phase II & (50%) III w/ Improve.	2038	2038+ Project Phase II	2038+ Project Phase III w/Improve.	2043	2043+ Project Phase III	2043+ Phase IV w/Improve.	2046	2046+ Project Phase III	2046+ Project Phase III w/Improve.
		Signal	-	-	-	-	-	-	C	-	-	C	-	-	C	-	-	C	-	-	C
42	Akers St & Riggin Ave	Signal	D	D	D	-	D	F	C	F	F	D	F	F	C	F	F	C	F	F	D
43	Linwood St & Riggin Ave	NB	C	D	F	-	F	F	-	F	F	-	F	F	-	F	F	-	F	F	-
		Signal	-	-	-	B	-	-	B	-	-	D	-	-	D	-	-	D	-	-	D
44	Demaree St & Riggin Ave	Signal	C	D	D	-	D	D	-	D	D	-	E	E	-	F	F	-	F	F	D
45	Demaree St & Riggin Ave	Signal	C	D	D	-	D	D	-	D	D	-	E	E	-	F	F	-	F	F	D
46	Shirk Ave & Ferguson Rd	AWSC	B	B	E	-	B	E	-	C	F	-	D	F	-	F	F	-	F	F	-
		Signal	-	-	-	B	-	-	B	-	-	D	-	-	B	-	-	D	-	-	D
47	Roeben St & Ferguson Rd	NB	C	C	C	-	C	C	-	C	C	-	C	C	-	E	E	-	F	F	-
		SB	C	C	C	-	C	C	-	C	C	-	C	C	-	D	E	-	F	F	-
		Signal	-	-	-	-	-	-	-	-	-	-	-	-	B	-	-	D	-	-	D
48	Akers St & Ferguson Rd	Signal	C	D	D	-	D	D	-	D	D	-	F	F	D	F	F	F	F	F	F
49	Linwood St & Ferguson Rd	AWSC	B	B	B	-	B	B	-	B	B	-	E	E	-	E	E	-	F	F	-
		Signal	-	-	-	-	-	-	-	-	-	-	-	-	B	-	-	C	-	-	C
52	Shirk Ave & Goshen Ave	Signal	D	D	D	-	D	D	-	D	D	-	E	E	C	F	F	D	F	F	D
54	Demaree St & Goshen Ave	Signal	D	D	D	-	E	E	D	E	E	D	F	F	D	F	F	D	F	F	F
56	Shirk Ave & Hurley Ave	Signal	A	A	A	-	B	B	-	B	B	-	C	E	C	F	F	C	F	F	C

Table 3.17-8b
Weekday PM Peak Hour Intersection LOS Results (Contd.)

#	Intersection	Control Type	2022	2023	2023+ Project Phase I	2023+ Project Phase I w/Improve.	2028	2028+ Project Phase II	2028+ Project Phase II w/Improve.	2033	2033+ Project Phase II & (50%) III	2033+ Project Phase II & (50%) III w/ Improve.	2038	2038+ Project Phase II	2038+ Project Phase III w/Improve.	2043	2043+ Project Phase III	2043+ Phase IV w/Improve.	2046	2046+ Project Phase III	2046+ Project Phase III w/Improve.
58	Shirk Ave & SR 198 WB Ramps	AWSC	E	E	E	-	E	F	-	F	F	-	F	F	-	F	F	-	F	F	-
		Signal	-	-	-	C	-	-	C	-	-	D	-	-	C	-	-	C	-	-	D
60	Demaree St & Mineral King Ave	Signal	C	C	C	-	C	C	-	C	C	-	D	D	-	E	F	E	F	F	F
61	Shirk Ave & SR 198 EB Ramps	AWSC	C	D	E	-	E	E	-	F	F	-	F	F	-	F	F	-	F	F	-
		Signal	-	-	-	C	-	-	D	-	-	D	-	-	C	-	-	D	-	-	D

Table 3.17-9
Saturday Peak Hour Intersection LOS Results (Years are approximate)

#	Intersection	Control Type	2022	2023	2023+ Project Phase I	2023+ Project Phase I w/Improve.	2028	2028+ Project Phase II	2028+ Project Phase II w/Improve.	2033	2033+ Project Phase II & (50%) III	2033+ Project Phase II & (50%) III w/ Improve.	2038	2038+ Project Phase II	2038+ Project Phase III w/Improve.	2043	2043+ Project Phase III	2043+ Phase IV w/Improve.	2046	2046+ Project Phase III	2046+ Project Phase III w/Improve.
3	Rd 108 & Ave 328	AWSC	B	C	C	-	C	C	-	C	C	-	E	E	C	E	E	D	F	F	D
4	Rd 112 & Ave 328	SB	B	C	C	-	D	D	-	D	D	-	C	C	-	F	F	D	F	F	D
31	Nutmeg Rd & Riggin Ave	Signal	D	D	D	-	D	D	-	D	D	-	E	E	D	F	F	D	F	F	D
33	Road 72 & Riggin Ave	NB	C	C	C	-	C	C	-	D	D	-	D	D	-	F	F	C	F	F	C
38	Rd 92/Shirk Ave & Riggin Ave	AWSC	B	C	F	-	C	F	-	E	F	-	E	F	-	F	F	-	F	F	-
		Signal	-	-	-	D	-	-	D	-	-	D	-	-	D	-	-	D	-	-	D
40	Roeben St & Riggin Ave	NB	-	-	-	-	D	F	-	F	F	-	F	F	-	F	F	-	F	F	-
		SB	-	-	-	-	-	F	-	-	F	-	-	F	-	-	F	-	-	F	-
		Signal	-	-	-	-	-	-	B	-	-	D	-	-	D	-	-	D	-	-	D
42	Akers St & Riggin Ave	Signal	D	D	D	-	D	D	D	E	F	D	D	D	-	D	D	D	E	F	D
43	Linwood St & Riggin Ave	NB	B	C	C	-	D	F	-	F	F	-	C	C	-	D	F	-	F	F	-
		Signal	-	-	-	-	-	-	C	-	-	C	-	-	-	-	-	C	-	-	C
44	Demaree St & Riggin Ave	Signal	C	C	C	-	D	D	-	E	E	D	C	C	-	D	D	-	E	E	D
46	Shirk Ave & Ferguson Rd	AWSC	B	B	B	-	B	C	-	C	E	-	B	B	-	B	C	-	C	E	-
		Signal	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	C
47	Roeben St & Ferguson Rd	NB	C	C	C	-	E	E	-	F	F	-	C	C	-	E	E	-	F	F	-
		SB	C	C	C	-	D	D	-	F	F	-	C	C	-	D	D	-	F	F	-

Table 3.17-9a
Saturday Peak Hour Intersection LOS Results (Contd.)

#	Intersection	Control Type	2022	2023	2023+ Project Phase I	2023+ Project Phase I w/Improve.	2028	2028+ Project Phase II	2028+ Project Phase II w/Improve.	2033	2033+ Project Phase II & (50%) III	2033+ Project Phase II & (50%) III w/ Improve.	2038	2038+ Project Phase II	2038+ Project Phase III w/Improve.	2043	2043+ Project Phase III	2043+ Phase IV w/Improve.	2046	2046+ Project Phase III	2046+ Project Phase III w/Improve.
		Signal	-	-	-	-	-	-	C	-	-	C	-	-	-	-	-	C	-	-	C
48	Akers St & Ferguson Rd	Signal	D	D	D	-	E	E	D	F	F	D	F	F	D	F	F	D	F	F	F
49	Linwood St & Ferguson Rd	AWSC	B	B	B	-	C	C	-	E	E	-	B	B	-	C	C	-	E	E	-
		Signal	-	-	-	-	-	-	-	-	-	C	-	-	-	-	-	-	-	-	C
52	Shirk Ave & Goshen Ave	Signal	D	E	E	E	E	E	E	F	F	D	F	F	D	F	F	D	F	F	D
54	Demaree St & Goshen Ave	Signal	C	D	D	-	D	D	-	F	F	-	D	D	-	D	D	-	F	F	-
56	Shirk Ave & Hurley Ave	Signal	A	A	A	-	B	B	-	B	B	-	A	A	-	B	B	-	F	F	D
58	Shirk Ave & SR 198 WB Ramps	AWSC	D	D	D	-	F	F	-	F	F	-	F	F	-	F	F	-	F	F	-
		Signal	-	-	-	-	-	-	C	-	-	D	-	-	C	-	-	C	-	-	D
60	Demaree St & Mineral King Ave	Signal	C	C	C	-	C	C	-	F	F	-	C	C	-	C	C	-	F	F	-
61	Shirk Ave & SR 198 EB Ramps	AWSC	B	C	C	-	D	D	-	E	F	-	C	C	-	D	D	-	F	F	-
		Signal	-	-	-	C	-	-	C	-	-	C	-	-	C	-	-	C	-	-	C

All study intersections are expected to operate with minimal delay (at or above LOS D) during peak hours through the year 2046, both with and without project traffic, or can be mitigated to operate at an acceptable LOS, except for the following intersections:

- Rd 67/Betty Dr (#31)
- Dinuba Blvd/Riggin Ave (#45)
- Akers St/Ferguson Ave (#48)
- Demaree St/Goshen Ave (#54)
- Demaree St/Mineral King Ave (#60)

Refer to the subsection titled: "Required Improvements and Mitigation Measures" herein for a description of the intersection improvements that are needed in order to maintain or improve the operational level of service of the street system in the vicinity of the Project.

Traffic Signal Warrant Analysis

A traffic signal warrant analysis was conducted in accordance with the guidelines contained in the 2014 *California Manual on Uniform Traffic Control Devices* (2014 CA MUTCD). As per the Traffic Study Procedures, eight-hour vehicular volume signal warrant conditions were applied to all existing unsignalized arterial/arterial, arterial/collector and collector/collector intersections within the study area. The signal warrant analysis also included the project intersection of Shirk Street/Sedona Avenue (#26) using traffic volume estimates based on movements at adjacent intersections.

Eight-hour signal warrant analysis results are presented in Table 3.17-10 (see Appendix F of Appendix J for Synchro output). The table is broken down by affected intersection and phase/year.

Table 3.17-10
Traffic Signal Warrants: Weekday 8-Hour Vehicular Volume (Years are approximate)

#	Intersection	2022	2023	2023+ Project Phase I	2028	2028+ Project Phase II	2033	2033+ Project Phase II&III(0.5)	2038	2038+ Project Phase III	2043	2043+ Project Phase III	2046	2046+ Project Phase III
2	Rd 92 & Ave 328	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
3	Rd 108 & Ave 328	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4	Rd 112 & Ave 328	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
8	Ave 320 & Shirk Rd	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
12	Ave 320 & Akers St	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
13	Ave 320 & Demaree St	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19	Pratt Rd & Demaree St	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
25	Shannon Pkwy & Demaree St	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
26	Rd 92 & Sedona	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
37	Clancy St & Riggin Ave	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES
38	Shirk Rd & Riggin Ave	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
39	Denton St & Riggin Ave	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
40	Riggin Ave & Roeben St	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
41	N-S Roadway & Riggen Ave	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES
43	Riggin Ave & Linwood St	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
46	Shirk Rd & Ferguson Ave	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
47	Ferguson Ave & Roeben St	NO	NO	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES
49	Linwood St & Ferguson Ave	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES
58	SR 198 WB Off-Ramp & Shirk Rd	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
61	SR 198 EB Off-Ramp & Shirk Rd	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

As shown in Table 3.17-10, eight-hour vehicular volume signal warrant conditions were met for the following intersections.

- Clancy St/Riggin Ave (#37)
- Shirk St/Riggin Ave (#38)
- Denton St/Riggin Ave (#39)
- Roeben St/Riggin Ave (#40)
- N/S Roadway/Riggin Ave (#41)
- Linwood St/Riggin Ave (43)
- Shirk St/Ferguson Ave (#46)
- Roeben St/Ferguson Ave (#47)
- Linwood St/Ferguson Ave (#49)
- Shirk St/State Route 198 WB Ramps (#58)
- Shirk St/State Route 198 EB Ramps (#61)

In addition, a peak hour signal warrant analysis was conducted for the seven existing unsignalized County intersections within the study area. As shown in Tables 6b and 6c of Appendix J, no County intersections warrant signals under any phase of development or under cumulative conditions.

Refer to the subsection titled: "Required Improvements and Mitigation Measures" herein for a description of the traffic signal improvements that are needed in order to maintain or improve the operational level of service of the street system in the vicinity of the Project.

Queue Length Analysis

Existing and future peak hour volumes, both with and without project traffic, were used to analyze queue lengths for all turn lanes under stop or signal control within the study area. The queue length analysis was conducted in accordance with the City's TIA procedures. A total of eight (8) intersections were determined to need additional turn lane storage. A summary of queue storage length improvements that would be required under various scenarios is provided in Table 3.17-11. If additional que lengths are not required for an intersection, they are not mentioned in this summary table. The analysis results are shown in full in Tables 7a, 7b and 7c of Appendix J.

Table 3.17-11
Summary of Queue Length Improvement Requirements

	Intersection #	Intersection	Turn Movement	Storage Length Improvements
Weekday PM Peak Hour	38	Shirk Ave/Rd 92 & Riggin Ave	NBR	250 ft.
	42	Akers St & Riggin Ave	EBR	600 ft.
	42	Akers St & Riggin Ave	WBR	400 ft.
	42	Akers St & Riggin Ave	NBL	600 ft.
	50	Demaree St & Ferguson Rd	SBL	150 ft.
	52	Shirk Ave & Goshen Ave	NBL	250 ft.
	52	Shirk Ave & Goshen Ave	SBL	400 ft.
	53	Akers & Goshen Ave.	EBL	250 ft.
	53	Akers & Goshen Ave.	EBR	200 ft.
Weekday AM Peak Hour	42	Akers St & Riggin Ave	EBR	500 ft.
	42	Akers St & Riggin Ave	SBL	350 ft.
	44	Demaree St & Riggin Ave	EBR	450 ft.
	45	Dinuba Blvd & Riggin Ave	EBR	450 ft.
	50	Demaree St & Ferguson Rd	SBL	150 ft.
	53	Akers St & Goshen Ave	WBR	250 ft.
	56	Shirk Ave & Hurley Ave	WBR	450 ft.

Saturday Peak Hour	38	Shirk Ave/Rd 92 & Riggin Ave	NBR	250 ft.
	42	Akers St & Riggin Ave	EBR	600 ft.
	42	Akers St & Riggin Ave	WBR	400 ft.
	42	Akers St & Riggin Ave	NBL	600 ft.
	50	Demaree St & Ferguson Rd	SBL	150 ft.
	52	Shirk Ave & Goshen Ave	NBL	250 ft.
	52	Shirk Ave & Goshen Ave	SBL	400 ft.
	53	Akers St & Goshen Ave	EBL	250 ft.
	53	Akers St. & Goshen Ave	EBR	200 ft.

Refer to the subsection titled: "Required Improvements and Mitigation Measures" herein for a description of the que length improvements that are needed in order to maintain or improve the operational level of service of the street system in the vicinity of the Project.

Roadway Analysis

A capacity analysis was conducted to determine whether the addition of Phase I project traffic, the majority of which is generated by the commercial anchor at the northeast corner of Shirk Street/Riggin Avenue (#38), would necessitate improving Riggin Avenue between Shirk Street and Akers Street. Analysis results are provided in Tables 3.17-12 (Roadway LOS Weekday PM Peak Hour), 3.17-13 (Roadway LOS Weekday AM Peak Hour) and 3.17-14 (Roadway LOS Saturday Peak Hour).

Table 3.17-12
Roadway LOS Weekday AM Peak Hour Results (Years are approximate)

Street	2022 Two-Way LOS		2023 Two-Way LOS		2023+Project Two-Way LOS		2023+Project(Mit) Two-Way LOS		2028 Two-Way LOS		2028+Project Two-Way LOS		2028+Project(Mit) Two-Way LOS	
	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS
Riggin Ave: Shirk St to Denton Ave	941	C	963	C	1589	E	1589	C	1085	C	1739	E	1739	C
Riggin Ave: Denton Ave to Roeben St	962	C	998	C	1624	E	1624	C	1186	C	2009	E	2009	C
Riggin Ave: Roeben St to Akers St	1053	C	1092	C	1864	E	1864	C	1315	C	2155	E	2155	C

Table 3.17-13
Roadway LOS Weekday PM Peak Hour Results (Years are approximate)

Street	2022 Two-Way LOS		2023 Two-Way LOS		2023+Project Two-Way LOS		2023+Project(Mit) Two-Way LOS		2028 Two-Way LOS		2028+Project Two-Way LOS		2028+Project(Mit) Two-Way LOS	
	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS
Riggin Ave: Shirk St to Denton Ave	243	C	250	C	464	C	464	C	290	C	522	C	522	C
Riggin Ave: Denton Ave to Roeben St	239	C	249	C	512	C	512	C	300	C	590	C	590	C
Riggin Ave: Roeben St to Akers St	613	C	640	C	881	C	881	C	795	C	1087	C	1087	C

Table 3.17-14
Roadway LOS Saturday Peak Hour Results (Years are approximate)

Street	2022 Two-Way LOS		2023 Two-Way LOS		2023+Project Two-Way LOS		2023+Project(Mit) Two-Way LOS		2028 Two-Way LOS		2028+Project Two-Way LOS		2028+Project(Mit) Two-Way LOS	
	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS	VOL	LOS
Riggin Ave: Shirk St to Denton Ave	917	C	939	C	1549	E	1549	C	1058	C	1696	E	1696	C
Riggin Ave: Denton Ave to Roeben St	938	C	973	C	1583	E	1583	C	1156	C	1959	E	1959	C
Riggin Ave: Roeben St to Akers St	1027	C	1065	C	1817	E	1817	C	1282	C	2101	E	2101	C

The analysis indicates that the addition of Project traffic in year 2023 (full build of Phase I) would necessitate widening Riggin Avenue from two lanes (1 eastbound, 1 westbound) to four lanes (2 eastbound, 2 westbound) between Shirk Street and Akers Street.

Required Improvements and Mitigation Measures

Based on the results of the Traffic Study and the analysis herein, the following are descriptions of intersection improvements that are needed in order to maintain or improve the operational level of service of the street system in the vicinity of the Project. The years shown are approximate and are based on an approximate 5, 10, 15, and 20 year phased build out of the development.

Intersection #3: Demaree St (Rd 108) & Ave 328 (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2033 and consists of adding a northbound right-turn lane.
- Further mitigation is recommended in the year 2043 and consists of adding a westbound left-turn lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.
- Signal warrant criteria were not met in any of the traffic analysis scenarios.

Intersection #4: Rd 112 & Ave 328 (unsignalized)

- Mitigation is recommended in the year 2038 and consists of adding a southbound right-turn lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.
- Signal warrant criteria were not met in any of the traffic analysis scenarios.

Intersection #12: Akers St (Rd 100) & Kibler Ave (Ave 320) (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2038.
- Improvements consist of providing all-way stop control.
- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.
- Signal warrant criteria were not met in any of the traffic analysis scenarios.

Intersection #13: Demaree St (Rd 108) & Kibler Ave (Ave 320) (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2038.
- Improvements consist of providing all-way stop control.
- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.
- Signal warrant criteria were not met in any of the traffic analysis scenarios.

Intersection #25: Demaree St (Rd 108) & Shannon Pkwy (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2046.
- Improvements consist of providing all-way stop control.
- Signal warrant criteria were not met in any of the traffic analysis scenarios.

Intersection #31: Rd 67 & Betty Dr (signalized)

- Mitigation is recommended in the year 2038.
- Improvements consist of adding an eastbound right-turn lane.
- Full mitigation would require the addition of an eastbound through lane which, in turn, would require widening the bridge structure to the east. Therefore, full mitigation is not feasible.

Intersection #32: Robinson Rd & Betty Dr (signalized)

- Mitigation is recommended in the year 2043.
- Improvements consist of adding an eastbound right-turn lane.
- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #33: Rd 72 & Riggin Ave (unsignalized)

- Mitigation is recommended in the year 2033.

- Improvements include (1) changing the shared northbound left-turn and right-turn lane to a northbound left-turn lane and (2) adding a northbound right-turn lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #37: Rd 88 & Riggin Ave (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2028.
- Improvements consist of adding signals. Signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2033.
- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #38: Shirk St (Rd 92) & Riggin Ave (unsignalized)

- Mitigation is recommended in the year 2023 and consists of adding signals. Signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2023.
- Further mitigation is recommended in the year 2043 and consists of adding an eastbound through lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #39: Denton St & Riggin Ave (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2028.
- Improvements consist of adding signals. Signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2023.
- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #40: Roeben St & Riggin Ave (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2028 and consists of adding signals. With the exception of the year 2028, signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2033.
- Further mitigation is recommended in the year 2043 and consists of (1) adding an eastbound through lane and (2) adding a westbound through lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #42: Akers St (Rd 100) & Riggin Ave (signalized)

- Mitigation is recommended with the addition of project traffic in the year 2028 and consists of (1) adding an eastbound through lane and (2) adding a westbound through lane.
- Further mitigation is recommended in the year 2038 and consists of changing the eastbound right-turn lane to a shared eastbound through and right-turn lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #43: Linwood St & Riggin Ave (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2023 and consists of adding signals. With the exception of the year 2028, signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2023 (with project traffic).
- Further mitigation is recommended in the year 2033 and consists of (1) adding an eastbound through lane and (2) adding a westbound through lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #44: Demaree St (Rd 108) & Riggin Ave (signalized)

- Mitigation is recommended in the year 2033.
- Improvements include (1) adding an eastbound left-turn lane, (2) changing the eastbound rightturn to a shared eastbound through and right-turn lane, and (3) changing the westbound right-turn lane to a shared westbound through and right-turn lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #45: Dinuba Blvd (Rd 124) & Riggin Ave (signalized)

- Intersection begins to operate below an acceptable level of service in the year 2043.
- Intersection is fully expanded to the City standard. Mitigation is not feasible.

Intersection #46: Shirk St (92) & Ferguson Ave (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2023.
- Improvements consist of adding signals. With the exception of the year 2028, signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2023 (with project traffic).

- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #47: Roeben St & Ferguson Ave (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2028.
- Improvements consist of adding signals. With the exception of the year 2028, signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2023 (with project traffic).
- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #48: Akers St (Rd 100) & Ferguson Ave (signalized)

- Mitigation is recommended in the year 2023.
- Improvements include (1) changing the northbound right-turn to a shared northbound through and right-turn lane, (2) changing the southbound right-turn lane to a shared southbound through and right-turn lane, (3) adding a shared eastbound through and right-turn lane, and (4) adding a shared westbound through and right-turn lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2038. Intersection is fully expanded to the City standard. Further mitigation beyond 2038 is not feasible.

Intersection #49: Linwood St & Ferguson Ave (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2043.
- Improvements consist of adding signals. Signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2038.
- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #52: Shirk St (Rd 92) & Goshen Ave (signalized)

- Mitigation is recommended in the year 2023.
- Improvements consist of adding a southbound through lane.
- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #54: Demaree St (Rd 108) & Goshen Ave (signalized)

- Mitigation is recommended in the year 2028.
- Improvements consist of changing the northbound right-turn lane to a shared northbound through and right-turn lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2043. Intersection is fully expanded to the City standard. Further mitigation beyond 2043 is not feasible.

Intersection #56: Shirk St (Rd 92) & Hurley Ave (signalized)

- Mitigation is recommended in the year 2033.
- Improvements consist of (1) adding a northbound through lane and (2) adding a southbound through lane.
- Mitigation will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #58: Shirk St (Rd 92) & SR 198 Westbound Ramps (unsignalized)

- Mitigation is recommended in the year 2023 and consists of adding signals. Signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2022.
- Further mitigation is recommended in the year 2043 and consists of (1) adding a northbound through lane and (2) adding a southbound through lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

Intersection #60: Demaree St (Rd 108) & Mineral King Ave (signalized)

- Intersection begins to operate below an acceptable level of service in the year 2043.
- Intersection is fully expanded to the City standard. Mitigation is infeasible.

Intersection #61: Shirk St (Rd 92) & SR 198 Eastbound Ramps (unsignalized)

- Mitigation is recommended with the addition of project traffic in the year 2023 and consists of adding signals. Signal warrant criteria were met in all traffic analysis scenarios beginning in the year 2022.
- Further mitigation is recommended in the year 2043 and consists of adding a southbound left turn lane.
- Mitigation improvements will maintain an acceptable level of service through the year 2046, both with and without the addition of project traffic.

The required intersection improvements are summarized in Table 3.17-15 and required roadway improvements are summarized in Table 3.17-16. The improvements shown in these tables must also integrate the required storage length improvements as shown in Table 3.17-11.

Table 3.17-15
Required Intersection Improvements (Years are approximate)

#	Intersection	2023	2028	2033	2038	2043	2046	Total by 2046
3	Rd 108 & Ave 328			Add NBR		Add WBL		Add NBR, WBL
4	Rd 112 & Ave 328				Add SBR			Add SBR
12	Akers St & Ave 320				AWSC			AWSC
13	Demaree St & Ave 320/Kibler Ave				AWSC			AWSC
25	Demaree St & Shannon Pkwy						AWSC	AWSC
31	Nutmeg Rd & Riggin Ave				Add EBR			Add EBR
32	Robinson Rd & Riggin Ave					Add EBR		Add EBR
33	Rd 72 & Riggin Ave			Change NBLR to NBL, NBR				Change NBLR to NBL, NBR
37	Clancy St & Riggin Ave		Add Signal					Add Signal
38	Rd 92/Shirk St & Riggin Ave	Add Signal				Add EBT		Add Signal Add EBT
39	Denton St & Riggin Ave		Add Signal					Add Signal
40	Roeben St & Riggin Ave		Add Signal			Add EBT, WBT		Add Signal Add EBT, WBT
42	Akers St & Riggin Ave		Add EBT, WBT		Change EBR to EBTR			Add EBT, WBT Change EBR to EBTR
43	Linwood St & Riggin Ave	Add Signal		Add EBT, WBT				Add Signal Add EBT, WBT
44	Demaree St & Riggin Ave			Add EBL Change EBR to EBTR Change WBR to WBTR				Add EBL Change EBR to EBTR Change WBR to WBTR
46	Shirk St & Ferguson Ave	Add Signal						Add Signal
47	Roeben St & Ferguson Ave		Add Signal					Add Signal
48	Akers St & Ferguson Ave	Change NBR to NBTR Change SBR to SBTR Add EBTR, WBTR						Change NBR to NBTR Change SBR to SBTR Add EBTR, WBTR
49	Linwood St & Ferguson Ave					Add Signal		Add Signal
52	Shirk St & Goshen Ave	Add SBT						Add SBT
54	Demaree St & Goshen Ave		Change NBR to NBTR					Change NBR to NBTR
56	Shirk St & Hurley Ave			Add NBT, SBT				Add NBT, SBT
58	Shirk St & SR 198 WB Ramps	Add Signal				Add NBT, SBT		Add Signal Add NBT, SBT
61	Shirk St & SR 198 EB Ramps		Add Signal			Add SBL		Add Signal Add SBL

Table 3.17-16
Required Roadway Improvements (Year is approximate)

Roadway Segment	2023
Riggin Ave: Shirk St to Akers St	Two-Lane Widening

All study intersections are expected to operate with minimal delay (at or above LOS D) during peak hours through the year 2046, both with and without project traffic, or can be mitigated to operate at an acceptable LOS, expect for the following intersections:

- Rd 67/Betty Dr (#31)
- Dinuba Blvd/Riggin Ave (#45)
- Akers St/Ferguson Ave (#48)
- Demaree St/Goshen Ave (#54)
- Demaree St/Mineral King Ave (#60)

Therefore, even with implementation of all feasible mitigation measures, the Project will result in ***significant and unavoidable impacts***.

Mitigation Measures

TRA-1 Prior to issuance of building permits, the Project shall pay into the City of Visalia's Transportation Impact Fee (TIF) program. The TIF amount will be calculated based on the City's adopted fee schedule in place at the time of the application of building permits. This will be itemized and enforced through conditions of approval or a development agreement, at the discretion of the City.

TRA-2 Prior to the issuance of building permits, the Project will be responsible for paying its pro-rata fair share cost percentages and/or constructing the recommended on-site improvements and site-adjacent improvements identified in Tables 3.17-11, 3.17-15 and 3.17-16, 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.

Impact 3.17-2: *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Less Than Significant Impact. An analysis of project VMT (vehicle miles traveled) was conducted in accordance with the *City of Visalia VMT Thresholds and Implementation Guidelines*, adopted March 15, 2021 (VMT Guidelines). The analysis involved comparing an estimate of VMT attributable to the Project to a baseline VMT and assessing whether project VMT would result in a significant transportation impact under CEQA.

According to the VMT Guidelines, a mixed-use land development may be analyzed in its entirety or based on the project's predominant land use type. The former approach was taken for the purposes of this study. The City has established a significance threshold of 84 percent of the existing (2022) regional (Tulare County) VMT per service population (population + employment) for mixed-use projects analyzed in their entirety. Projects exceeding the threshold would be expected to result in a significant transportation impact and mitigation would be required.

The detailed analysis was conducted using the TCAG Model in accordance with the VMT Guidelines. The model runs for the analysis were developed and generated by TCAG staff and account for internal trip capture, as described in the "Trip Distribution and Assignment" section of the Traffic Study (see Appendix H of Appendix J for model output). The VMT analysis results are presented in Table 3.17-17.

Table 3.17-17
VMT Analysis

	VMT per Service Population			
Base Year	Region[1] Tulare Co	Threshold[2] Visalia	Project[1]	Significant Impact
2022	28.2	23.7	18.5	NO

[1] Source: TCAG Model
[2] Significance threshold equivalent to 84 percent of existing regional VMT per *City of Visalia VMT Thresholds and Implementation Guidelines* , adopted March 15, 2021

Since the Project's VMT per service population (18.5) is less than the significance threshold (23.7), the Project is not expected to result in a significant transportation impact under CEQA, and therefore, no mitigation is required.

Based on the City's guidelines and thresholds, the Project would have a ***less than significant impact***.

Mitigation Measures:

None are required.

Impact 3.17-3: *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)?*

Less Than Significant Impact. As previously noted, the overall layout of the proposed Project is block form, with shortened roadway lengths and cul-de-sacs in order provide limited thru-traffic and to create a walkable urban environment. The site has been designed with 13 points of ingress and egress (See Figure 3.17-1). Additional access points will be provided for the commercial uses that are proposed to occur at the southwest corner of the site and for the high-density residential development at the northwest corner of the site. All proposed internal roadways will be constructed to meet local and State standards and requirements. No sharp roadway curves currently exist in the proposed Project area, nor would such curves be created by the proposed 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, mini-circles at some intersections and relatively short blocks of housing. There are no agricultural uses (such as farm equipment) associated with the Project. Any impacts would be ***less than significant.***

Mitigation Measures

None are required.

Impact 3.17-4: *Would the project result in inadequate emergency access?*

Less Than Significant Impact With Mitigation. Project construction activities could result in potential vehicular access issues due to potential temporary road detours and/or closures to accommodate Project construction. A construction-traffic management plan (Plan) will be required prior to construction of the proposed Project, as identified in Mitigation Measure TRA – 3. The Plan would delineate all road closure provisions to maintain access to adjacent properties at all times, prior notices, adequate sign-postings, detours, provisions for pedestrian and bicycle transportation and permitted hours of construction activity. Proper detours and warning signs would be established along the project perimeter to ensure public safety. The Plan shall be devised so that construction would not interfere with emergency response or evacuation plans. With implementation of the Plan, less than significant impacts are anticipated. Therefore, no significant impacts to vehicular and emergency access would occur during construction activities.

Once constructed, the proposed Project includes multiple access roads allowing adequate egress and ingress to the residential and commercial developments in the event of an emergency.

Additionally, as part of the proposed Project, internal access roadways would be constructed to City standards. The City has reviewed the site layout and determined that the Project provides adequate emergency access. Therefore, there is a ***less than significant impact.***

Mitigation Measures

TRA-3 Prior to the issuance of construction or building permits, the Project developer shall:

1. Prepare and submit a Construction Traffic Control Plan to City of Visaliafor approval. Implement the approved Construction Traffic Control Plan during construction. The Construction Traffic Control Plan shall be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and shall include, but not be limited to, the following issues:

    a. Timing of deliveries of heavy equipment and building materials;

    b. Directing construction traffic with a flag person;

    c. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic;

    d. Ensuring access for emergency vehicles to the project site;

    e. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;

    f. Maintaining access to adjacent property; and,

    g. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hour, distributing construction traffic flow across alternative routes to access the project sites, and avoiding residential neighborhoods to the maximum extent feasible.

After implementation of Mitigation Measure TRA - 3 the Project's impacts would be reduced to a ***less than significant*** level**.**

Cumulative Impacts

The potential for cumulative transportation impacts exists where there are multiple projects proposed in an area that have overlapping operational phases that could affect similar resources. Projects with overlapping schedules for operations could result in a substantial contribution to increased traffic levels throughout the surrounding roadway network. The Project, when considered with nearby, reasonably foreseeable planned projects, would result in a cumulatively considerable and unavoidable impact as described below.

Impact 3.17-1: Cumulatively Considerable and Unavoidable. The City of Visalia is continuing to review traffic LOS as the means in which it plans for roadway improvements in support of its General Plan. LOS analysis is appropriate and necessary to determine consistency with General Plan policies as they relate to LOS. As discussed previously, all study intersections are expected to operate with minimal delay (at or above LOS D) during peak hours through the year 2046, both with and without project traffic, or can be mitigated to operate at an acceptable LOS, expect for the following intersections:

- Rd 67/Betty Dr (#31)
- Dinuba Blvd/Riggin Ave (#45)
- Akers St/Ferguson Ave (#48)
- Demaree St/Goshen Ave (#54)
- Demaree St/Mineral King Ave (#60)

Therefore, the proposed Project will conflict with the City's adopted General Plan and Circulation Element. After implementation of all feasible mitigation (TRA – 1 and TRA – 2), the impact remains ***cumulatively considerable and unavoidable***.

Impact 3.17-2: Less Than Cumulatively Considerable. VMT is generally evaluated on a project by project basis (rather than in a cumulative manner) because each individual project is evaluated relative to its proximity to other land uses when calculating VMT. Construction of the individual development projects allowed under the land use designations of the City General Plan may result in the generation of traffic increases and may contribute incrementally to Citywide VMTs. However, Project VMTs remain below the City's threshold. Implementation of the proposed Project would not make a cumulatively considerable contribution to any significant impact to vehicle miles traveled.

Impact 3.17-3: Less Than Cumulatively Considerable. As previously discussed, the Project does not include any hazardous geometric design features or incompatible uses. Other potential projects that could occur in the area would be subject to review by the City or County to determine potential geometric hazards on a project by project basis. As such, implementation of

the proposed Project would not make a cumulatively considerable contribution to any significant impact to hazardous layout/road design.

Impact 3.17-4: Less Than Cumulatively Considerable. The City will require the developer/construction contractor to develop a construction traffic management plan that will ensure emergency vehicle access during construction. As discussed previously, once constructed, the proposed Project includes multiple access roads allowing adequate egress and ingress to the residential development in the event of an emergency. Additionally, as part of the proposed Project, internal access roadways would be constructed to City standards. The City has reviewed the site layout and determined that the Project provides adequate emergency access. In addition, a construction traffic management plan will be devised so that construction would not interfere with emergency response or evacuation plans. Other projects in the area may be constructed simultaneously. However, those projects would also be subject to a construction traffic management plan and site plan review to ensure that adequate emergency vehicle access is maintained. Therefore, implementation of the proposed Project would not make a cumulatively considerable contribution to any significant impact to inadequate emergency access.

3.18 Tribal Cultural Resources

This section of the DEIR evaluates the potential impacts to Tribal Cultural Resources (TCRs) associated with Project implementation. A Cultural Resources Survey was prepared for the Project (see Appendix E). In addition, the City of Visalia notified applicable Tribes to request consultation on the Project, pursuant to Assembly Bill 52 and Senate Bill 18.

Environmental Setting

Natural Environment

The proposed Project is located on approximately 507-acres in the northern area of the City of Visalia, California and is generally bound by W. Riggin Avenue to the south, N. Akers Street to the east, N. Shirk Road to the west and Avenue 320 (W. Kibler Avenue) to the north. The entire site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses.

The elevation of the Project area ranges between 303 ft. and 315 ft. amsl. Currently this region can be characterized as a dry open valley bottom now utilized for agriculture. Prior to reclamation and channelization, the region would have been a low-lying, water-rich area characterized by streams, sloughs, marshes, and swamps. Occasionally inundated by floodwaters, in many years portions of this region would have been swampy during the winter rainy season and marsh land during other parts of the year. Historical and recent land-use has changed the vegetation that was once present within and near the Project area. The immediate Project location historically most likely fell within the Valley Grassland community, however, with Riparian Woodlands present along streams and freshwater marshes common in the area.[1]

Ethnography and Ethnohistory

Penutian-speaking Yokuts tribal groups occupied the southern San Joaquin Valley region and much of the nearby Sierra Nevada. Ethnographic information about the Yokuts was collected primarily by Powers (1971, 1976 [originally 1877]), Kroeber (1925), Gayton (1930, 1948), Driver (1937), Latta (1977), and Harrington (n.d.). For a variety of historical reasons, existing research

[1] Carleton Acres Phase I Survey (Dec. 2021), page 5 (Appendix E).

information emphasizes the central Yokuts tribes who occupied both the valley and particularly the foothills of the Sierra. The northernmost tribes suffered from the influx of Euro-Americans during the Gold Rush and their populations were in substantial decline by the time ethnographic studies began in the early twentieth century. In contrast, the southernmost tribes were partially removed by the Spanish to missions and eventually absorbed into multi-tribal communities on the Sebastian Indian Reservation (on Tejon Ranch), and later the Tule River Reservation and Santa Rosa Rancheria to the north. The result is an unfortunate scarcity of ethnographic detail on southern Valley tribes, especially in relation to the rich information collected from the central foothills tribes where native speakers of the Yokuts dialects are still found. Regardless, the general details of indigenous life-ways were similar across the broad expanse of Yokuts territory, particularly in terms of environmentally influenced subsistence and adaptation and with regard to religion and belief, which were similar everywhere.

This scarcity of specific detail is particularly apparent in terms of southern valley tribal group distribution. Kroeber (1925), Gayton (1948) and Latta (1977) place the Project area in Telamni locations instead concentrated to the east, in the foothills, or west, closer to the Tulare Lake shore. The Yokuts settlement pattern was largely consistent, regardless of specific tribe involved. Winter villages were typically located along lakeshores and major stream courses (as these existed circa AD 1800), with dispersal phase family camps located at elevated spots on the valley floor and near gathering areas in the foothills.

Most Yokuts groups, again regardless of specific tribal affiliation, were organized as a recognized and distinct tribelet; a circumstance that almost certainly pertained to the tribal groups noted above. Tribelets were land-owning groups organized around a central village and linked by shared territory and descent from a common ancestor. The population of most tribelets ranged from about 150 to 500 peoples (Kroeber 1925).

Each tribelet was headed by a chief who was assisted by a variety of assistants, the most important of whom was the *winatum*, a herald or messenger and assistant chief. A shaman also served as religious officer. While shamans did not have any direct political authority, as Gayton (1930) has illustrated, they maintained substantial influence within their tribelet. Shamanism is a religious system common to most Native American tribes. It involves a direct and personal relationship between the individual and the supernatural world enacted by entering a trance or hallucinatory state (usually based on the ingestion of psychotropic plants, such as jimsonweed or more typically native tobacco). Shamans were considered individuals with an unusual degree of supernatural power, serving as healers or curers, diviners, and controllers of natural phenomena (such as rain or thunder). Shamans also produced the rock art of this region, depicting the visions they

experienced in vision quests believed to represent their spirit helpers and events in the supernatural realm (Whitley 1992, 2000).

The centrality of shamanism to the religious and spiritual life of the Yokuts was demonstrated by the role of shamans in the yearly ceremonial round. The ritual round, performed the same each year, started in the spring with the jimsonweed ceremony, followed by rattlesnake dance and (where appropriate) first salmon ceremony. After returning from seed camps, fall rituals began in the late summer with the mourning ceremony, followed by first seed and acorn rites and then bear dance (Gayton 1930:379). In each case, shamans served as ceremonial officials responsible for specific dances involving a display of their supernatural powers (Kroeber 1925).

Subsistence practices varied from tribelet to tribelet based on the environment of residence. Throughout Native California, and Yokuts territory in general, the acorn was a primary dietary component, along with a variety of gathered seeds. Valley tribes augmented this resource with lacustrine and riverine foods, especially fish and wildfowl. As with many Native California tribes, the settlement and subsistence rounds included the winter aggregation into a few large villages, where stored resources (like acorns) served as staples, followed by dispersal into smaller camps, often occupied by extended families, where seasonally available resources would be gathered and consumed.

Although population estimates vary and population size was greatly affected by the introduction of Euro-American diseases and social disruption, the Yokuts were one of the largest, most successful groups in Native California. Cook (1978) estimates that the Yokuts region contained 27 percent of the aboriginal population in the state at the time of contact; other estimates are even higher. Many Yokuts people continue to reside in the southern San Joaquin Valley today, including at the nearby Santa Rosa Rancheria.[2]

[2] Carleton Acres Phase I Survey (Dec. 2021), pages 5-7 (Appendix E).

Regulatory Setting

State of California Regulations

Assembly Bill (AB) 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:

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.

According to AB 52, it is the responsibility of the tribes to formally request of a lead agency that they be notified of projects in the lead agency's jurisdiction so that they may request consultation related to TCRs. The City of Visalia conducted their required tribal outreach related to the proposed Project in August 2021.

Native American Heritage Commission

PRC Section 5097.91 established the NAHC, the duties of which include inventorying places of religious or social significance to Native Americans and identifying known graves and cemeteries of Native Americans on private lands. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

Senate Bill 18

SB 18 (Statutes of 2004, Chapter 905), which went into effect January 1, 2005, requires local governments (city and county) to consult with Native American tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The intent is to "provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places" (Governor's Office of Planning and Research, 2005).

The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level, land use designations are made by a local government. The consultation requirements of SB 18 apply to general plan or specific plan processes proposed on or after March 1, 2005.

According to the Tribal Consultation Guidelines: Supplement to General Plan Guidelines (Governor's Office of Planning and Research, 2005), the following are the contact and notification responsibilities of local governments:

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the NAHC) of the opportunity to conduct consultations for the purpose of preserving, or

mitigating impacts to, cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code Section 65352.3).

- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period (Government Code Section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.
- Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code Section 65092).

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.

As previously described, to evaluate the project's potential effects on tribal cultural resources a Sacred Lands File (SLF) search was conducted by the NAHC, and SB 18 and AB 52 notification letters were sent to Native American groups and individuals indicated by the NAHC to solicit information regarding the presence of tribal cultural resources. Impacts to tribal cultural resources may include direct impacts resulting from ground-disturbing activities or indirect visual impacts associated with the construction of above ground structures within the view shed of an identified tribal cultural resource.

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 with Mitigation. The City of Visalia requested a Sacred Lands File (SLF) search from the Native American Heritage Commission (NAHC), which was received on August 5, 2021. The search was negative for sacred sites and tribal cultural resources[3]. The City sent outreach letters to the tribes provided by the NAHC on August 5, 2021. Outreach letters were sent to the following tribes:

- Big Sandy Rancheria of Western Mono Indians
- Kern Valley Indian Community
- Santa Rosa Rancheria Tachi Yokut Tribe

[3] Carleton Acres Phase I Survey (Dec. 2021), page 14 (Appendix E).

- Tule River Indian Tribe
- Wuksache Indian Tribe / Eshom Valley Band

According to SB 18, the tribes had 90 days from the receipt of the letter to request consultation with the City of Visalia. Of the tribes that were notified in August 2021, the City received one response from the Santa Rosa Indian Community of the Santa Rosa Rancheria, who requested that a Tribal representative be present for all ground disturbance related to the Project. As such, mitigation measure TRI – 1 has been included to accommodate this request.

As previously discussed in Chapter 3.5 – Cultural Resources, the subject site is not known to contain any tribal cultural resources (TCRs). As further noted in that chapter, with respect to archaeological resources and human remains that may be present in areas where there would be some ground disturbance, mitigation measures set forth in the section would be implemented to ensure that should resources be encountered, they would be protected from damage. Therefore, while no TCRs are expected to be affected by the proposed Project, the mitigation measures set forth in Chapter 3.5 - Cultural Resources as well as within this section, would further ensure that any resources encountered would not be adversely affected.

Although construction and operation would occur on previously disturbed land, unknown historical resources may be discovered during ground-disturbing activities. In order to account for unanticipated discoveries and the potential to impact previously undocumented or unknown resources, the following mitigation measures are recommended. With the implementation of Mitigation Measures TRI-1 through TRI-4, impacts under this criterion would be less than significant with mitigation.

Based on the above, the proposed Project is not expected to result in a substantial adverse change in the significance of TCRs, and this impact is considered ***less than significant with mitigation.***

Mitigation Measures

TRI-1: Prior to any ground disturbance, a surface inspection of the site shall be conducted by a Tribal Monitor. The Tribal Cultural Staff shall monitor the site during grading activities. The Tribal Staff shall provide pre-project-related information to supervisory personnel and any excavation contractor, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. Prior to any ground disturbance, the applicant shall offer the Santa Rosa Indian Community of the Santa Rosa Rancheria the

opportunity to provide a Native American Monitor during ground-disturbing activities. Tribal participation would be dependent upon the availability and interest of the tribe.

TRI-2: In the event that historical or archaeological cultural resources are discovered during project-related activities or decommissioning, operations shall stop within 100 feet of the find, and a qualified archeologist shall determine whether the resource requires further study. The qualified archaeologist shall determine the measures that shall be implemented to protect the discovered resources including, but not limited to, excavation of the finds and evaluation of he finds and evaluation of the finds in accordance with § 15064.5 of the CEQA Guidelines. Measures may include avoidance, preservation in-place, recordation, additional archaeological resting, and data recovery, among other options. Any previously undiscovered resources found during project-related activities within the project area shall be recorded on appropriate CA Department of Parks and Recreation forms and evaluated for significance. No further ground disturbance shall occur in the immediate vicinity of the discovery until approved by the qualified archaeologist.

The Lead Agency, along with other relevant or tribal officials, shall be contacted upon the discovery of cultural resources to begin coordination on the disposition of the find(s). Treatment of any significant cultural resources shall be undertaken with the approval of the Lead Agency.

TRI-3: Upon coordination with the Lead Agency, any archaeological artifacts recovered shall be donated to an appropriate tribal custodian or a qualified scientific institution where they would be afforded applicable cultural resources laws and guidelines.

TRI-4: If human remains are discovered during project-related activities or operational activities, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission, in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987) shall be followed. Section 7050.5(c) shall guide the potential Native American

involvement, in the event of discovery of human remains, at the direction of the County Coroner.

Cumulative Impacts

Less Than Cumulatively Considerable. The scope for considering cumulative impacts to tribal cultural resources are the geographic areas in Tulare County as well as the areas designated by the Native American Heritage Commission as having potential to impact TCRs as a result of the Project. As discussed above, the proposed Project area is not known to contain any TRCs; however, mitigation is included to reduce any potential impacts to Tribal Resources. Implementation of the proposed Project, with mitigation, would not make a cumulatively considerable contribution to any significant impact to tribal cultural resources.

3.19 Utilities and Service Systems

This section of the DEIR identifies potential impacts of the proposed Project pertaining to water supply and infrastructure, wastewater service, solid waste and other utility services. To assist in evaluation of this environmental impact, an SB 610 Water Supply Analysis (Appendix H) was prepared.

Environmental Setting

Project Site

As described in Section 2.1, the Project site is located in the northern part of the City of Visalia in Tulare County, in a developing part of the City. The Project site is currently developed with agriculture, with canals and ag-wells present. The immediate area is primarily agriculture with residential to the south, and the Ridgeview Middle School to the southeast. The Project site is underlain with Akers-Akers and Grangeville sandy loam soil[1]. The Visalia area is basically flat, lying at an elevation of approximately 330 feet above sea level. Tulare County is located on the Central Valley floor, in the San Joaquin valley.

The entire Project site is within the Urban Growth Boundary (UGB) and Sphere of Influence (SOI) of the City of Visalia and the site has historically been used for agricultural purposes. However, the site has been designated by the City's General Plan for residential, commercial, public/institutional and park/recreation uses. The Visalia District of California Water Service Company (Cal Water) is an urban water supplier that provides the main source of water supply for the City of Visalia and surrounding communities. Upon annexation, the site will be added to the Cal Water Visalia District service area. The Project will also require connection to the City's wastewater treatment (sewer) system and will require other utilities such as electrical and solid waste. Each utility is discussed individually herein.

Local Groundwater Basin

The Kaweah Basin provides the main source of water supply for the City of Visalia and surrounding communities. The Kaweah Delta Water Conservation District (KDWCD) manages the Basin. KDWCD and other irrigation districts and companies have historically managed groundwater through the conjunctive use of surface water. KDWCD regularly provides

[1] Web Soil Survey, U.S. Department of Agriculture. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed July 2022.

programs that benefit local agricultural customers by making available additional surface water supplies for irrigation. These programs effectively reduce the withdrawals of groundwater resulting in indirect (in-lieu) recharge of the aquifer. Groundwater is normally used by agriculture as an alternate source when surface supplies are not available and is the sole source in areas within KDWCD jurisdiction that do not have access to surface water.

Existing Water Infrastructure

KDWCD operates about 40 dedicated water management basins with a total area of approximately 2,100 acres for the multiple purposes of flood control and groundwater replenishment. The basins have the capacity to recharge approximately 983 acre-feet per day under optimal conditions. Visalia District operates the Public Water Systems (PWS) listed in Table 3.19-1. Public Water Systems are the systems that provide drinking water for human consumption and these systems are regulated by the State Water Resources Control Board (Board), Division of Drinking Water.

Table 3.19-1
Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2020	Volume of Water Supplied 2020 (AF)
5410016	Visalia	45,325	30,034
5400935	Mullen	42	21
5410041	Tulco	183	97
	Total	**45,550**	**30,152**

Existing Wastewater Infrastructure

The City of Visalia owns and operates a Water Conservation Facility (WCF), located west of Highway 99 and south of Highway 198. In 2010, the Facility operated at an average daily flow of 13 million gallons per day. The WCF was upgraded with membrane bioreactor technology which allows for treatment and disinfection for up to 22.0 million gallons per day[2].

[2] https://www.visalia.city/depts/public_works/wastewater/default.asp. Accessed Dec. 2022.

The City recently upgraded its wastewater treatment facilities to treat all the effluent to a tertiary level. Most of the water is traded with the Tulare Irrigation District to which they provide water up stream that is recharged into the city's aquifer. The remaining water is being used currently at the Valley Oaks golf course, and under design to be converted at Plaza Park. By 2040 the volume of water reused under these programs could reach over 27,000 AFY.

The Project will require connection to the City's sewer/wastewater system and will be responsible for construction of connection points to the City's existing sewer/wastewater infrastructure.

Solid Waste

The City of Visalia provides refuse collection for residential customers and many commercial customers, and contracts with Sunset Waste Systems to provide recyclable material processing. Various private haulers provide refuse, recycling, and green waste to the remainder of the commercial accounts, construction sites and other cleanup jobs.[3]

Regionally, the Tulare County Resource Management Agency manages solid waste disposal in accordance with the Tulare County Integrated Waste Management Plan. Programs include household hazardous waste disposal, electronics recycling, tire recovery, yard waste recycling, metal recycling and appliance recovery programs. The county landfills approximately 300,000 tons of waste per year, which is equivalent to about 5 pounds per person per day or one ton per county resident per year. The County operates three disposal sites: the Visalia Disposal Site, northwest of Visalia; the Woodville Disposal Site, southeast of Tulare; and the Teapot Dome Disposal Site, southwest of Porterville.

Electrical and Natural Gas

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

[3] Sec. 5.3 Public Utilities, Ch. 5: Parks, Schools, Community Facilities, and Utilities. City of Visalia General Plan. Pg 5-34.

demands. Southern California Edison provides electric service to City of Visalia residents. The electrical facilities network includes both overhead and underground lines, with new development required to install underground service lines.

Energy Usage

Energy usage is typically quantified using the British Thermal Unit (BTU). Total energy consumption in California was 6,923 trillion BTU in 2020 (the most recent year for which this specific data is available), which equates to an average of 198 million BTU per capita.[4] Of California's total energy usage, the breakdown by sector is approximately 34 percent transportation, 24 percent industrial, 20 percent commercial, and 22 percent residential.[5] 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 total electricity consumption, including Residential and Non-Residential, attributable to Tulare County from 2011 to 2020 is shown in Table 3.19-2. As indicated, energy consumption in Tulare County varied approximately 19.3% over the 10 years.

[4] U.S. Energy Information Administration, California State Profile and Energy Estimates. https://www.eia.gov/state/print.php?sid=CA. Accessed July 2022.

[5] Ibid.

Table 3.19-2
Total Electricity Consumption in Tulare County 2011 – 2020[6]

Year	Electricity Consumption (in millions of Kilowatt Hours)
2011	3,747
2012	4,164
2013	4,317
2014	4,493
2015	4,478
2016	4,364
2017	4,242
2018	4,438
2019	4,249
2020	4,643

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 service is primarily provided by the Southern California Gas Company. The total natural gas consumption, including Residential and Non-Residential, attributable to Tulare County from 2010 to 2020 is provided in Table 3.19-3. Natural gas consumption in Tulare County did not vary significantly over the 10-year span.

[6] California Energy Commission. Energy Reports. Electricity Consumption by County. https://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed July 2022.

Table 3.19-3
Natural Gas Consumption in Tulare County 2010 – 2020[7]

Year	Natural Gas Consumption (in millions of Therms)
2011	160
2012	158
2013	158
2014	151
2015	150
2016	152
2017	151
2018	158
2019	155
2020	160

Telecommunications

Three major communication companies provide communications services in Visalia: AT&T, Sprint & Verizon. Comcast is the primary provider of internet and cable television.[8]

Regulatory Setting

Federal Agencies and Regulations

Clean Water Act (CWA)

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

[7] California Energy Commission. Energy Reports. Gas Consumption by County. http://www.ecdms.energy.ca.gov/gasbycounty.aspx Accessed July 2022.

[8] Sec. 5.3 Public Utilities, Ch. 5: Parks, Schools, Community Facilities, and Utilities. City of Visalia General Plan. Pg 5-34. Accessed April 2023.

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.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the United States. This SDWA focuses on all waters either designed or potentially designed for drinking water use, whether from surface water or groundwater sources. The SDWA and subsequent amendments authorized the EPA to establish health-based standards, or maximum contaminant levels (MCLs), for drinking water to protect public health against both natural and anthropogenic contaminants. All owners or operators of public water systems are required to comply with these primary (health-related) standards. State governments, which can be approved to implement these primary standards for the EPA, also encourage attainment of secondary (nuisance-related) standards. At the federal level, the EPA administers the SDWA and establishes MCLs for bacteriological, organic, inorganic, and radiological constituents (United States Code Title 42, and Code of Federal Regulations Title 40). At the State level, California has adopted its own SDWA, which incorporates the federal SDWA standards with some other requirements specific only to California (California Health and Safety Code, Section 116350 et seq.).

The 1996 Federal SDWA amendments established source water assessment programs pertaining to untreated water from rivers, lakes, streams, and groundwater aquifers used for drinking water supply. According to these amendments, the EPA must consider a detailed risk and cost assessment, as well as best available peer-reviewed science, when developing standards for drinking water. These programs are the foundation of protecting drinking water resources from contamination and avoiding costly treatment to remove pollutants. In California, the Drinking Water Source Assessment and Protection (DWSAP) Program fulfills these federal mandates. The California State Water Resources Control Board: Division of Drinking Water (SWRCB-DDW) is the primary agency for developing and implementing the DWSAP Program and is responsible for performing the assessments of existing groundwater sources.

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.

Central Valley Project Improvement Act

The Reclamation Projects Authorization and Adjustment Act of 1992 (Public Law 102-575) includes Title 34, the Central Valley Project Improvement Act (CVPIA). The CVPIA amended the previous authorizations of the California CVP to include fish and wildlife protection, restoration, and mitigation as project purposes having equal priority with irrigation and domestic uses and fish and wildlife enhancement as a project purpose equal to power generation. The CVPIA identifies specific measures to meet the CVPIA's multiple purposes.

State of California Regulations

California Green Building Standards Code

Construction- and demolition-generated (C&D) waste is heavy, inert material. This material creates significant problems when disposed of in landfills. Since C&D debris is heavier than paper and plastic, it is more difficult for counties and cities to reduce the tonnage of disposed waste. For this reason, C&D waste debris has been specifically targeted by the State of California for diversion from the waste stream.

The California Green Building Standards Code (Standards Code) will apply to the construction related activities of this Project. The purpose of the Standards Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings using building concepts that have a positive environmental impact and encouraging sustainable construction practices. Provisions of the Standards Code shall apply to the design and construction of building structures subject to State regulation.

California Department of Resources Recycling and Recovery (CalRecycle)

CalRecycle is the State agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of the California Environmental Protection Agency. CalRecycle develops regulations to control and manage waste, for which enforcement authority is typically delegated to the local government. The Board works jointly with local government to implement regulations and fund programs.

Assembly Bill 939 and Senate Bill 1016

The California Integrated Waste Management Act of 1989, or Assembly Bill (AB) 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of all solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation

measures to assist in reducing these impacts to less-than-significant levels. With the passage of Senate Bill (SB) 1016 (the Per Capita Disposal Measurement System) in 2006, only per capita disposal rates are measured to determine if a jurisdiction's efforts are meeting the intent of AB 939.

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 activities which may adversely affect the quality of waters of the State to attain the highest water quality which is reasonable, considering a full range of demands and values. The act authorizes the SWRCB 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. Much of the implementation of the SWRCB's responsibilities is delegated to nine Regional Water Quality Control Boards (RWQCBs). The proposed Project site is located within the jurisdiction of the Central Valley RWQCB.

California Water Code (CWA)

The Federal CWA establishes certain guidelines for the states to follow in developing programs for the control of surface water pollution and for planning the development and use of water resources. Under certain circumstances, the CWA allows the federal Environmental Protection Agency (EPA) to withdraw the primary responsibility for these programs 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 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 must conform with the policies set forth in the Porter-Cologne Act and

established by the State water policy adopted by the SWRCB. 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.

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 that a lead agency obtain a water supply assessment from an applicable public water system for certain projects subject to the California Environmental Quality Act, which are defined 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. Refer to Impact Section 3.9-2 herein for the discussion pertaining to the Water Supply Assessment that was prepared for the Project.

Regional Water Quality Board

The Central Valley RWQCB administers the NPDES storm water-permitting program in the Central Valley region, including Visalia. 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 must include specifications for Best Management Practices (BMPs) that will be implemented during proposed 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 SWRCB and the Central Valley RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established 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 describes measures to prevent or control runoff degradation after construction is complete, and identifies a plan to inspect and maintain these facilities or project elements.

Waste Discharge Requirements

The Central Valley RWQCB typically requires a Waste Discharge Requirements (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 must be filed with the Central Valley RWQCB in order to obtain a WDR. 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.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the state fall under the jurisdiction of the appropriate Regional Water Quality and Control Board (RWQCB). Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification or waiver under CWA Section 401.

Assembly Bill 1881

AB 1881 expanded previous legislation related to landscape water use efficiency. AB 1881, the Water Conservation in Landscaping Act of 2006, enacted landscape efficiency recommendations of the California Urban Water Conservation Council (CUWCC) for improving the efficiency of water use in new and existing urban irrigated landscapes in California. AB 1881 required the DWR to update the existing Model Local Water Efficient Landscape Ordinance and local agencies to adopt the updated model ordinance or an equivalent. The law also requires the California Energy Commission to adopt performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Assembly Bill 2882

AB was passed in 2008 and encourages public water agencies throughout California to adopt conservation rate structures that reward consumers who conserve water. AB 2882 clarifies the allocation-based rate structures and establishes standards that protect consumers by ensuring a lower base rate for those who conserve water.

Sustainable Groundwater Management Act

In 2014, California enacted the Sustainable Groundwater Management Act (SGMA) (Water Code §10720 et seq.). SGMA requires that groundwater basins designated by the state Department of Water Resources (DWR) as high priority and/or critically overdrafted must be managed under a Groundwater Sustainability Plan (GSP) that avoids "undesirable results" as defined in the Act within 20 years from January 31, 2020. The GSP must be developed by a Groundwater Sustainability Agency (GSA) approved by the DWR. The WWD service area boundary largely overlaps with DWR-designated San Joaquin Valley groundwater subbasin 5.22-9, which is commonly called the "Westside Subbasin." The DWR has designated the Westside Subbasin as

high priority and critically overdrafted, and SGMA requires that a GSP be adopted by an approved GSA for the subbasin by January 31, 2020.

Senate Bills 610 (Chapter 643, Statutes of 2001) and 221 (Chapter 642, Statues of 2001)

SB 610 and SB 221 are companion measures that seek to promote more collaborative planning among local water suppliers and cities and counties. They require that water supply assessments occur early in the land use planning process for all large-scale development projects. If groundwater is the supply source, the required assessments must include detailed analyses of historic, current, and projected groundwater pumping and an evaluation of the sufficiency of the groundwater basin to sustain a new project's demands. They also require an identification of existing water entitlements, rights, and contracts and a quantification of the prior year's water deliveries. In addition, the supply and demand analysis must address water supplies during single and multiple dry years presented in five-year increments for a 20-year projection. Under SB 221, approval by a city or county's legislative body of a subdivision of more than 500 homes requires an affirmative written verification of a sufficient water supply.

California Drought Regulations

Beginning in January 2014, Governor Jerry Brown issued three Executive Orders (EOs), B-26-14, B-28-14, and B-29-15, regarding water supply, water demand, and water use within the State during severe drought conditions. EO B-29-15, issued April 1, 2015, sets limitations not only for existing land uses and water supply systems, but also for new construction. Some of these restrictions include:

- The Water Board shall prohibit irrigation with potable water of ornamental turf on public street medians.
- The Water Board shall prohibit irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or microspray systems.
- The California Energy Commission shall adopt emergency regulations establishing standards that improve the efficiency of water appliances, including toilets, urinals, and faucets available for sale and installation in new and existing buildings.

In addition, EO B-29-15 requires that DWR update the State Model Water Efficient Landscape Ordinance through expedited regulation by the end of 2015. This ordinance will increase water efficiency standards for new and existing landscapes through more efficient irrigation systems, greywater usage, onsite storm water capture, and by limiting the portion of landscapes that can be covered in turf (EO B-29-15, Increase Enforcement Against Water Waste, Action #11, 2015).

On November 13, 2015, Governor Brown issued EO B-36-15, which upheld the previous EOs, and directs the SWRCB to extend of urban water use restrictions through October 31, 2016 based on

drought conditions known through January 2016. The SWRCB issued emergency regulations on February 2, 2016, in compliance with EO B-36-15. These emergency regulations maintain the current tiers of required water reductions; however, additional adjustments in response to stakeholders; equity concerns were included in the emergency regulations.

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.

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.

Local Regulations

City of Visalia General Plan

The following lists policies and implementing actions from the City of Visalia General Plan pertaining to utilities that are applicable to the proposed Project.

POLICIES

PSCU-O-14 Provide for long-range community water needs by adopting best management practices for water use, conservation, groundwater recharge and wastewater and stormwater management.

PSCU-O-15 Preserve groundwater resources.

PSCU-O-16 Ensure that adequate wastewater collection, treatment, recycling and disposal facilities are provided in a timely fashion to serve existing and future needs.

PSCU-P-44 Continue to improve and expand the City's Water Conservation Program, consistent with the Urban Water Management Plan as appropriate, including an active public outreach component and an online presence. The program should provide information and links to additional resources on water-efficient plumbing fixtures and planting and irrigation methods, and the development of safe and effective gray water systems. It should also maintain an up-to-date list of incentive programs.

PSCU-P-45 Continue the City's active role in regional and local water management planning, building on partnerships with Kaweah Delta Water Conservation District and participation in the Integrated Regional Water Management Planning (IRWM) in implementing the Urban Water Management Plan and the Groundwater Management Plan. Continue to develop and implement projects that address groundwater overdraft mitigation, and support additional groundwater recharge, using funds generated from the Water Resources Management and Groundwater Overdraft Mitigation Fee Ordinance and other sources. Projects may include but are not limited to:

- Acquisition of surface water rights and surface water supplies;
- Development of groundwater recharge programs and facilities;
- Reconfiguration of stormwater facilities designed to retain as much stormwater as possible within and near the City;
- Enhancement of cooperative programs with local water management agencies and companies; and

- Development of more extensive recycled water delivery systems in support of the Urban Water Management Plan.

PSCU-P-46 Adopt and implement a Water Efficient Landscaping Ordinance for new and/or refurbished development that exceeds mandated sizes, and ensure that all new City parks, streetscapes, and landscaped areas conform to the Ordinance's requirements. The Ordinance should include provisions to optimize outdoor water use by:

- Promoting appropriate use of plants and landscaping;
- Establishing limitations on use of turf including size of turf areas and use of cool-season turf such as Fescue grasses, with exceptions for specified uses (e.g., recreation playing fields, golf courses, and parks);
- Establishing water budgets and penalties for exceeding them;
- Requiring automatic irrigation systems and schedules, including controllers that incorporate weather-based or other self-adjusting technology;
- Promoting the use of recycled water; and
- Minimizing overspray and runoff.

PSCU-P-53 Continue to develop and expand the City's water recycling capacity to produce water suitable for landscape and crop irrigation and trade with agricultural water users in exchange for water for groundwater recharge. Promote the development of a purple-pipe recycled water distribution system.

PSCU-P-56 Update the Water Conservation Plant Master Plan, Sewer System Master Plan, and any other specific Master Plans related to infrastructure development to ensure that existing levels of service can be maintained for proposed land uses and development densities.

PSCU-P-57 Coordinate urban growth management planning with public and private utilities. Develop and carry out an infrastructure and public services assessment during annexation reviews to determine infrastructure needs, feasibility, timing, and financing.

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?
- Comply with federal, state and local management and reduction statutes and regulations related to solid waste?

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. Implementation of the proposed Project would include up to 3,262 residential units, 35.1 acres of commercial and 13.8 acres of park/trail facilities on the site. The Project will require that utilities be extended to serve the proposed development, including water, wastewater, stormwater, electric power, natural gas and telecommunications facilities.

Wastewater / Sewer

As discussed herein, once annexed into the City, the Project site would be located within the service area of the City of Visalia WCF. Since the WCF is considered a publicly owned treatment facility, operational discharge flows treated at the WCF would be required to comply with applicable water discharge requirements issued by the Regional Water Quality Control Board (RWQCB). Compliance with conditions or permit requirements established by the City as well as water discharge requirements outlined by the RWQCB would ensure that wastewater discharges

coming from the proposed Project site and treated by the WCF system would not exceed applicable Central RWQCB wastewater treatment requirements. The Project is within the population growth projections (and associated wastewater capacity availability) identified in the City's existing infrastructure planning documents and is subject to payment of impact fees. No new off-site sewer infrastructure construction is required, as the Project will tie into existing sewer infrastructure and no expansion of the existing WWTP is necessary to accommodate the Project. The impact is determined to be less than significant. See also Response 3.19-3, below, which describes the Project's wastewater demands/characteristics and the City's capacity to handle those demands/characteristics.

Stormwater

As discussed in Section 3.10 - Hydrology and Water Quality, the proposed Project would result in new impervious areas associated with site improvements and would therefore require new storm water drainage facilities. The proposed Project would install storm water drainage facilities (e.g. storm drainage mechanisms, storm water pipes, and a detention basin) that would be in compliance with the City of Visalia Development Standards. No new off-site stormwater infrastructure construction is required. See Section 3.10-3 for further discussion regarding storm water facilities.

Water Supply

As discussed in Section 3.10 - Hydrology and Water Quality, the Project will add demand for water to the City of Visalia (Cal Water) water system. The Project is expected to demand less water than the demand estimated by the Visalia UWMP. Based on the Project's SB 610 Water Supply Assessment (Appendix H), the City has sufficient water to serve the Project. However, the Project is subject to water use reduction methods and will be subject to water service impact fees. No new off-site water supply infrastructure construction is required, as the Project will tie into existing water supply infrastructure. See Section 3.19-2 for further discussion regarding water supply.

Electricity and Natural Gas

The Project will be required to access public utilities for electric power andnatural gas. Electrical utility poles currently located along some road frontages of the Project site will require relocation. The Project Applicant is working with Southern California Edison (SCE) on pole relocations. The Project will require connection to these existing electrical utilities and to Southern California Gas Company natural gas facilities. No new or additional off-site electrical or natural gas infrastructure construction is anticipated to be required.

Solid Waste

The Project will require solid waste disposal services. As identified in the City of Visalia's Municipal Service Review (MSR), the Tulare County Solid Waste Division indicated that the Visalia Landfill has sufficient capacity to accommodate solid waste disposal demands through year 2040[9]. Since the proposed Project would be within the growth projections assumed by the City's MSR, General Plan and other infrastructure planning documents, and because the Tulare County Solid Waste Division has indicated it has existing and future capacity, the Project would not result in a significant impact.

The proposed Project would be required to comply with applicable State and local regulations, including regulations pertaining to disposal of recyclable materials. With adequate landfill capacity at existing landfills and compliance with regulations, a less than significant impact would occur. No new off-site solid waste infrastructure construction is required. Refer to Response 3.19-4 for more information pertaining to solid waste.

Telecommunications

The Project will require connection to communications networks (e.g. AT&T, Verizon, Sprint), television and internet (e.g. Comcast/Xfinity). The proposed Project is within the service area of these providers and it is expected that they can serve the proposed Project. No new off-site telecommunications infrastructure construction is required.

Impact Determination

Thus, as described above, the proposed Project's impacts associated with acquisition of, and/or expansion of utilities would be less than significant.

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?*

[9] Visalia Municipal Services Review, page 64. https://lafco.co.tulare.ca.us/msr/city-of-visalia-msr-update/. Accessed Dec. 2022.

Less Than Significant. The proposed Project would add demand for potable water to the Visalia District of the California Water Service Company (Cal Water) water system, which is reliant on groundwater to serve its customers. The information herein is based, in part, on the SB 610 Water Supply Assessment that was prepared for the Project (Appendix H).

As discussed in Section 3.10-2 - Hydrology and Water Quality (and summarized in this section), the Visalia District UWMP estimated the residential water demand within the Project service area to be 30,732 AFY by 2045. The residential water demand in the service area with Carleton Acres was calculated to be 30,531 AFY by 2045. The UWMP estimated a commercial demand of 7,364 AFY in 2045. With the Project, the estimated commercial water demand is 7,384. Combined, the Project is expected to demand less water than the demand estimated by the Visalia UWMP. Because the service area water demand forecasted by the Visalia District UWMP is higher than the estimated water demand with the Carleton Acres Project, it can be assumed that available water supplies will be able to meet the projected demand resulting from the Carleton Acres Project[10]. This included an evaluation of normal, dry and multiple dry year scenarios. The impact is determined to be ***less than significant.***

Mitigation Measures:

None are required.

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. The City of Visalia owns and operates a Water Conservation Facility (WCF), located west of Highway 99 and south of Highway 198. In 2010, the Facility operated at an average daily flow of 13 million gallons per day. In 2017, the WCF was upgraded with a membrane bioreactor system and ultra-violet (UV) disinfection technology which allows for treatment and disinfection for up to 22.0 million gallons per day[11]. The City's sewer system consists of gravity sewers, pumping stations, and force mains to collect wastewater from residential, commercial, and industrial customers. The collected wastewater is discharged to

[10] Carleton Acres Water Supply Assessment, 4Creeks Engineering (Oct. 2022), page 18.

[11] https://www.visalia.city/depts/public_works/wastewater/default.asp. Accessed Dec. 2022.

trunk sewers and interceptors and conveyed to the WCP, which is not within the Visalia District boundaries.

Existing City of Visalia Wastewater (Sewer) Demands

The City's UWMP provided estimates of the volume of wastewater collected by the WCF from the Visalia District customers in Year 2020. According to the UWMP, the WCF received approximately 14,635 AF of wastewater that was collected from the City of Visalia service area in Year 2020.[12] This estimate was calculated by annualizing 90 percent of January water use from the Visalia Water District service area for that year. This equates to approximately 13.1 million gallons per day of wastewater generation. Based on the City's existing capacity to process up to 22.0 million gallons per day, there is additional capacity to handle approximately 8.9 million gallons per day of additional wastewater.

Project Wastewater (Sewer) Demands

As identified herein and in the SB 610 Water Supply Assessment, the Project would require approximately 1,506 AFY of water. To determine the Project's wastewater generation, it is assumed that 90 percent of the water used by the Project would be treated at the WCF (utilizing the same calculation as shown in the UWMP to determine Year 2020 wastewater flows in the City). This would equate to approximately 1,355 AFY or 1.2 million gallons per day of wastewater.

Wastewater Characteristics

The City's WCF treats municipal wastewater generated throughout the City to meet treatment standards and discharge requirements established by the RWQCB. These requirements are outlined in the City's Waste Discharge Requirements (WDR) order No. R5-2006-0091. The wastewater routed to the WCF includes all residential, commercial and industrial wastewater generated within the City service area.

The Project would generate wastewater with similar characteristics to discharge produced by other uses in the City, including similar in content to the residential and commercial land uses in the immediate area (typical residential wastewater from toilets, sinks, showers, etc.). Wastewater generated by the Project would be collected and treated at the City's WWTF. Because of the nature of the Project's wastewater, and the fact that the WCF is currently in compliance with their Waste

[12] Visalia Urban Water Management Plan (June 2021), pages 61-62.

Discharge Requirements, the Project will not cause the City to exceed any wastewater treatment requirements from the RWQCB.

Project Comparison to City-wide Future Estimated Wastewater Production

The City's existing WCP has capacity to process up to 22.0 MGD of wastewater. According to the City's UWMP, the WCP processed approximately 13.1 MGD in Year 2020, leaving approximately 8.9 MGD of additional capacity. The proposed Project would conservatively add approximately 1.2 MGD of wastewater, or approximately 13.5% of the existing available capacity. Refer to Table 3.19-4 for the breakdown of WCP capacity compared to estimated Project wastewater generation.

Table 3.19-4: WCP Wastewater Capacity and Project Wastewater Generation

WCP Capacity (MGD)	Year 2020 Wastewater Generation per day (MGD)	Additional WCP Wastewater Capacity Without Carleton Acres (MGD)	Project Wastewater Generation (MGD)	Additional WCP Wastewater Capacity With Carleton Acres (MGD)
22.0	13.1	8.9	1.2	7.7

Based on the WCP's existing capacity of 22.0 MGD, the WCP can adequately serve the proposed Project in addition to other growth/development in the City.

In addition, and as identified in Section 3.14 – Population and Housing, the proposed Project's anticipated number of additional residents (9,786) is within the expected range of growth that was planned for and can be accommodated by the City. The City's infrastructure planning documents (such as the Sewer Master Plan) rely, in part, on the growth projections contained in the City's General Plan.

The City's current (2021) population of 142,978 residents would be increased by approximately 6.8% to 152,764 from the Project. Table 3.19-5 shows the City's existing population, the increase in population from the proposed Project, and the City's General Plan projected population in Year 2030, assuming full buildout of the General Plan. The last column shows the additional population that could be accommodated under the City's General Plan even with full buildout of the proposed Project.

Table 3.19-5: Population Estimates

Existing Population (2021)	Proposed Project Population	Existing Plus Project Population	General Plan 2030 Projected Population	Additional Population That Could Be Accommodated Under the 2030 General Plan
142,978	9,786	152,764	210,000	57,236

As identified in Table 3.19-5, the Project would not induce population growth beyond what could be accommodated under the City's General Plan. Based on this information, it is reasonable to assume that the Project is within the population growth projections (and associated wastewater capacity availability) identified in the City's infrastructure planning documents.

Although the City's WCF has adequate capacity to serve the Project, the Project would be required to pay wastewater (sewer) impact fees prior to the issuance of a building permit, thereby offsetting the costs associated with acceptance of the Project wastewater. The impact fee amount will be the amount established in the City's adopted impact fee program in place at the time of submittal of building permit applications. Thus, the impact is less than significant.

Mitigation Measures:

None are required.

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. The City of Visalia provides refuse collection for residential customers and many commercial customers, and contracts with Sunset Waste Systems to provide recyclable material processing. Various private haulers provide refuse, recycling, and green waste to the remainder of the commercial accounts, construction sites and other cleanup jobs.[13]

Regionally, the Tulare County Resource Management Agency manages solid waste disposal in accordance with the Tulare County Integrated Waste Management Plan. The County operates

[13] Sec. 5.3 Public Utilities, Ch. 5: Parks, Schools, Community Facilities, and Utilities. City of Visalia General Plan. Pg 5-34.

three disposal sites: the Visalia Disposal Site, northwest of Visalia; the Woodville Disposal Site, southeast of Tulare; and the Teapot Dome Disposal Site, southwest of Porterville.

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 local 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 and would not require any demolition.

Site preparation (vegetation removal and grading activities) and construction activities would generate construction debris, including wood, paper, glass, plastic, metals, cardboard, and green wastes. Most of the solid waste generated by the construction phase of the proposed Project would be recycled in accordance with AB 939. Construction activities could also generate hazardous waste products. The wastes generated would result in an incremental and intermittent increase in solid waste disposal at local landfills. However, with compliance with federal, State, and local statutes or regulations, a less than significant impact would occur.

Project Operation

Solid waste collection service is provided by the City, while disposal services are provided through Tulare County via area landfills. The City provides split containers for residential trash and recycling, and green waste containers for residential green waste and compostable materials. The City also actively encourages commercial recycling and provides refuse, green waste and recycling bins or boxes to the commercial accounts it services.

According to the City's MSR, California's per resident disposal rate (using SB 1016's measurement system) was 4.5 pounds per person per day (PPD) in 2010[14]. The City of Visalia's estimate for Year 2009 was 3.1 PPD which is below the SB 1016 requirement. Using the estimate of 3.1 PPD of solid waste,[15] the Project would produce approximately 30,336 pounds of solid waste per day (3.1 pounds X 9,786 persons = 30,336 pounds). Utilizing Tulare County's overall estimate of 5 PPD (inclusive of all industrial, commercial and residential waste from all areas of

[14] Visalia Municipal Services Review, page 63. https://lafco.co.tulare.ca.us/msr/city-of-visalia-msr-update/. Accessed Dec. 2022.

[15] Visalia General Plan EIR, 3.9 – Public Services_Utilities, page 3.9-65.

the County), the Project would produce approximately 48,930 pounds of solid waste per day (5 pounds X 9,786 persons = 48,930 pounds). Because the Project would result in similar urban development to other areas of the City (single-family and multi-family housing, commercial, and recreational facilities), it is likely that the Project would produce waste at a similar rate to the City of Visalia's lower rate of 3.1 PPD.

Pursuant to the City's MSR, the Visalia Landfill is planned to expand based upon increased demand. Phase 1 expansion has already been implemented. With the nine phased expansions, the total capacity of the Visalia Landfill is estimated at 16,521,501 cubic yards. The Tulare County Solid Waste Division indicated that the Visalia Landfill has sufficient capacity to accommodate solid waste disposal demands through year 2040[16]. Since the proposed Project would be within the growth projections assumed by the City's MSR, General Plan and other infrastructure planning documents, and because the Tulare County Solid Waste Division has indicated it has existing and future capacity, the Project would not result in a significant impact. In addition, the proposed Project would be required to comply with applicable State and local regulations, including regulations pertaining to disposal of recyclable materials. With adequate landfill capacity at existing landfills and compliance with regulations, a less than significant impact would occur.

Mitigation Measures: None are required.

Impact 3.16-5: *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 proposed Project would be required to comply with all federal, State, and local statutes and regulations related to the handling and disposal of solid waste and impacts would be less than significant.

Mitigation Measures: None are required.

Cumulative Impacts

Electrical and Natural Gas

[16] Visalia Municipal Services Review, page 64. https://lafco.co.tulare.ca.us/msr/city-of-visalia-msr-update/. Accessed Dec. 2022.

Less Than Cumulatively Considerable. The Project will be required to access public utilities for electric power and natural gas. Electrical utility poles currently located along some road frontages of the Project site will require relocation. The Project Applicant is working with Southern California Edison (SCE) on pole relocations. The Project will require connection to these existing electrical utilities and to Southern California Gas Company natural gas facilities. No new off-site electrical or natural gas infrastructure construction is anticipated to be required and there are less than significant impacts at the Project level. Therefore, cumulative impacts related to electrical and natural gas facilities would be less than significant.

Water Supply

Cumulatively Significant and Unavoidable. As noted in Section 3.9 Hydrology and Water Quality, the City of Visalia (through Cal Water) is part of the Mid-Kaweah Groundwater Sustainability Agency (MKGSA). The proposed Project, if approved, would become under the jurisdiction and purview of Cal Water which is subject to MKGSA's Groundwater Sustainability Plan. The City of Visalia utilizes groundwater as its sole source of potable water. As identified herein and in the SB 610 Water Supply Assessment, the City anticipates being able to provide adequate potable water to the City through the year 2042. However, development of the Project in combination with future projects within the Basin would increase the amount of overdraft in the Basin, which is already in a state of overdraft. Therefore, even with compliance with the GSP and implementation of water-reduction measures required by Cal Water, the Project would result in cumulatively considerable and unavoidable significant impacts to groundwater supplies in the Basin.

Wastewater

Less Than Cumulatively Considerable. The geographical area for considering cumulative impacts associated with wastewater (sewer) is the geographic area covered by the City's WCF. 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. The Project would be required to pay sewer impact fees prior to the issuance of a building permit. Other projects in the vicinity would be required to offset substantial increases in wastewater per City impact fees. Therefore, cumulative impacts related to wastewater would be less than significant.

Solid Waste

Less Than Cumulatively Considerable. The geographical area for considering cumulative impacts associated with solid waste is the geographic area covered by the Tulare County Solid Waste Division. The proposed Project would generate a minimal amount of waste during construction and is not expected to significantly impact Tulare County landfills. However, generation of waste from cumulative projects, including other residential, commercial and industrial developments could result in a cumulative impact. As described herein, there is adequate existing and future (planned) capacity at existing Tulare County landfills. As such, the cumulative impacts are less than significant for solid waste.

3.20 Wildfire

This section of the DEIR addresses the potential for the proposed Project to exacerbate wildfire risks. Additionally, the potential impacts related to exposure to wildfire, including smoke and subsequent flooding and runoff, are assessed in this section. No NOP comment letters were received pertaining to this topic.

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 and adjacent to the City of Visalia 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. The proposed Project site has historically been used for irrigated agricultural uses and currently has small areas of crops on the site. The remainder of the site has been cleared/disked.

[1] U.S. Forest Service. Fire Management Study Unit. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsm9_028958.pdf. Accessed Sept. 2021.

- **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 City of Visalia is 10.26 inches.[2] Generally, in an average or typical year, most precipitation is received from October through April. May through September are the driest parts of the year and coincide with what has traditionally been considered the fire season in California. However, increasingly persistent drought and climatic changes in California have resulted in drier winters and fires during the autumn, winter, and spring months are becoming more common. Prevailing winds in the Project area 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

[2] Western Regional Climate Center. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?cavisa+sca (accessed Sept. 2021).
[3] California Air Resources Board, Aerometric Data Division. California Surface Wild Climatology. 1984. https://ww3.arb.ca.gov/research/apr/reports/l013.pdf. Accessed Sept. 2021.

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 the City of Visalia is designated as a Fire Hazard Severity Zone. Additionally, the nearest SRA mapped land is on the foothills east of the City of Exeter (designated as a Moderate Fire Hazard Severity Zone), approximately 14 miles to the southeast of the site at its nearest point.[4]

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

[4] California State Geoportal. California Fire Hazard Severity Zone Viewer. https://egis.fire.ca.gov/FHSZ/ Accessed Sept. 2021.

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.[5]

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 went into effect January 1, 2020. The code update is fully integrated and based on the 2018 International Fire Code.

Local Regulations

Visalia and Tulare County Fire Departments

The Visalia Fire Department (VFD) provides fire and life safety services for residents located within the city limits while the Tulare County Fire Department provides additional services for unincorporated areas within the City's Planning Area. VFD provides paramedic engine companies, a truck company and a Battalion Chief daily, from five fire station locations. All apparatus are staffed with a paramedic at all times. The City of Visalia requires all new development and subdivisions to meet or exceed Uniform Fire Code provisions, and the City's Fire Department reviews development applications during the plan check process.

[5] 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 Sept. 2021.

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: *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan, expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary of ongoing impacts to the environment, or 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, if the project were located in or near state responsibility areas or lands classified as very high fire hazard severity zones?*

Less Than Significant. The proposed Project site is approximately 14 miles northwest of the nearest State Responsibility Area (foothill area east of the City of Exeter) and over 23 miles west of the nearest LRA Very High Fire Hazard Severity Zone (foothill area east of the community of Three Rivers). The relatively flat Project site lies on the Valley floor and is surrounded by active

agriculture/dairy to the north, east and west, in various stages of production. Areas immediately south of the Project consist of urban/residential developments. Ridgeview Middle School is located just to the east of the proposed Project. There are no forested areas, extensive grasslands, or heavily wooded areas on or near the Project site.

No roadway design features associated with this proposed Project would result in an impairment of an adopted emergency response or evacuation plan. The City has reviewed the site layout and determined that the Project provides adequate emergency access.

Impacts associated with Project development would be ***less than significant*** related to wildfires given the distance the proposed Project from the State Responsibility Area and the State's Very High Fire Hazards Severity Zone and the intervening land uses between them.

Mitigation Measures

None are required.

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 14 miles southeast. The proposed Project lies on the Valley floor and is surrounded by active agriculture, in various stages of production, and urban development, which precludes likelihood of wildfires within the vicinity. Implementation of the proposed Project would not make a cumulatively considerable contribution to any significant impact to wildfires.

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.

The proposed Project has the potential to have significant adverse effects on:

- Agriculture & Forestry Resources - Loss of Farmland (project and cumulative level)
- Air Quality (project and cumulative level)

- Hydrology & Water Quality – Water Supply (cumulative level only)
- Transportation – Conflict with General Plan/Circulation Element (project and cumulative level)
- Utilities & Service Systems – Water Supply (cumulative level only)

Even with the mitigation measures described in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, of this EIR, impacts in these issue areas would be significant and unavoidable. Therefore, per the State CEQA Guidelines, this section discusses alternatives that are capable of avoiding or substantially lessening effects on these resources. The significant and unavoidable impacts of the proposed project are discussed below.

4.2 Project Objectives

In accordance with CEQA Guidelines Section 15124(b), the following are the City of Visalia's Project objectives:

- To provide a mixed-use development at pricing appropriate for the market, in a growing area of the City of Visalia that satisfies the City of Visalia's policies, regulations and expectations as defined in the City's General Plan, Zoning Ordinance and other applicable plans, documents, and programs adopted by the City.
- To provide a variety of housing opportunities with a range of densities, styles, sizes and values that will be designed to satisfy existing and future demand for quality housing in the area.
- To provide a residential development that assists the City in meeting its General Plan and Housing Element requirements and objectives.
- To provide conveniently-located commercial development to serve north Visalia residents and the Carleton Acres development in a growing area of the City of Visalia.
- To provide a sense of community and walkability within the development through the use of street patterns, parks/open space areas, landscaping and other project amenities.

4.3 Alternatives Considered in this EIR

- No Project
- Alternate Locations
- Reduced (50%) Project

4.4 Analysis Format

In accordance with CEQA Guidelines Section 15126.6(d), each alternative is evaluated in sufficient detail to determine whether the overall environmental impacts would be less, similar, or greater than the corresponding impacts of the project. Furthermore, each alternative is evaluated to determine whether the project objectives identified in Chapter 2 - Project Description, of this Draft EIR would be mostly attained by the alternative. The Project's impacts that form the basis of comparison in the alternatives analysis are those impacts which represent a conservative assessment of project impacts. The evaluation of each of the alternatives follows the process described below:

a) The net environmental impacts of the alternative after implementation of reasonable mitigation measures are determined for each environmental issue area analyzed in this EIR.
b) Post-mitigation significant and less than significant environmental impacts of the alternative and the project are compared for each environmental issue area as follows:
    - Less: Where the impact of the alternative after feasible mitigation would be clearly less adverse than the impact of the project, the comparative impact is said to be "less."
    - Greater: Where the impact of the alternative after feasible mitigation would be clearly more adverse than the impact of the project, the comparative impact is said to be "greater."
    - Similar: Where the impacts of the alternative after feasible mitigation and the project would be roughly equivalent, the comparative impact is said to be "similar."
c) The comparative analysis of the impacts is followed by a general discussion of whether the underlying purpose for the project, as well as the project's basic objectives would be substantially attained by the alternative.

4.5 Project Alternatives Impact Analysis

No Project Alternative

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 the proposed Carleton Acres Specific Plan Project. Under this alternative, the site remains in agricultural production and no new urban development would occur on the site.

Description

This alternative would avoid both the adverse and beneficial effects of the Project. This alternative would avoid ground disturbance and construction-related impacts associated with construction of the proposed Project. No new development would occur on the site. The No Project Alternative would avoid the generation of any environmental impacts beyond existing conditions.

Environmental Considerations

Continuation of the site in agricultural production 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. Impacts from the No Project Alternative, as compared to the Project, are summarized as follows:

- **Aesthetics** – With no development, the site would remain primarily as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Agriculture and Forestry Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project. This Alternative would also eliminate the significant and unavoidable impacts (project and cumulative) associated with this topic from the proposed Project.
- **Air Quality** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project. This Alternative would also eliminate the significant and unavoidable impacts (project and cumulative) associated with this topic from the proposed Project.
- **Biological Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.

- **Cultural Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Energy** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Geology/Soils** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Greenhouse Gas Emissions** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Hazards & Hazardous Materials** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Hydrology & Water Quality** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project. This Alternative would also eliminate the significant and unavoidable impacts (cumulative only) associated with this topic from the proposed Project.
- **Land Use / Planning** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Mineral Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Noise** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Population & Housing** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Public Services** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Recreation** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Transportation** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project. This Alternative would also eliminate the significant and unavoidable impacts (project level and cumulative level) associated with this topic from the proposed Project.
- **Tribal Cultural Resources** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.
- **Utilities & Service Systems** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.

This Alternative would also eliminate the significant and unavoidable impacts (cumulative only) associated with water supply from the proposed Project.

- **Wildfire** - With no development, the site would remain as farmland and no new impacts would occur. Therefore, impacts are less than the proposed Project.

Refer to Table 4-1 for a comparison of each environmental topic for the No Project Alternative versus the proposed Project.

Project Objectives

The No-Project Alternative by definition would not meet any of the objectives of the proposed Project that were outlined in Section 4.2, herein.

Alternate Locations Alternative

The environmental considerations associated with an alternative site would be highly dependent on several variables, including physical site conditions, surrounding land use, site access, and suitability of the local roadway network. Physical site conditions include land, air, water, minerals, flora, fauna, noise, or objectives of historic or aesthetic significance, and would affect the nature and degree of direct impacts, needed environmental control systems, mitigation, and permitting requirements. Surrounding land use and the presence of sensitive receptors would influence neighborhood compatibility issues such as air pollutant emissions and health risk, odor, noise, and traffic. Site access and ability of the local roadway network to accommodate increased traffic without excessive and costly off-site mitigation would be an important project feasibility issue.

The constraint on alternative site selection is the lessening or elimination of significant project impacts. The viability of the proposed project is dependent on ability to effectively develop a mixed use project in the Visalia area. To maintain most of the project objectives, any potentially feasible alternative site needs to be of adequate size and in a location that is accessible and serviceable (utilities) by the City of Visalia.

Description

There are relatively few sites within the City of Visalia that provide adequately sized lands suitable for the proposed Project. The criteria for selection included whether or not the alternate site would substantially reduce environmental impacts, availability of land, adequately sized parcels, efficiency of access, and acceptable land use designations/zoning. There are areas of

agricultural land of similar size located both south and west of the proposed Project. These areas could conceivably support the proposed Project and are depicted in the Figure A-1 (Location of Alternative Sites in Relation to Proposed Project Site), A-2 (Alternative Site #1: Approximately 495 Acres) and A-3 (Alternative Site #2: Approximately 502 Acres). The areas are partially outside the City limits but have similar zoning and land use designations as the proposed Project site. In addition, these areas would allow for contiguous growth adjacent to existing urban development in the City. Alternative Site #1 (Approximately 495 acres) is located immediately east of the proposed Project and would be generally bound by Avenue 320 to the north, (¼ mile east of) Demaree Street to the east, Modoc Ditch to the south, and Akers Street to the west. Alternative Site #2 would be generally bound by State Highway 198 to the north, Valley Oak Golf Course to the west, Walnut Avenue to the south, and Shirk Road to the east.

Figure A-1
Location of Alternative Sites in Relation to Proposed Project Site

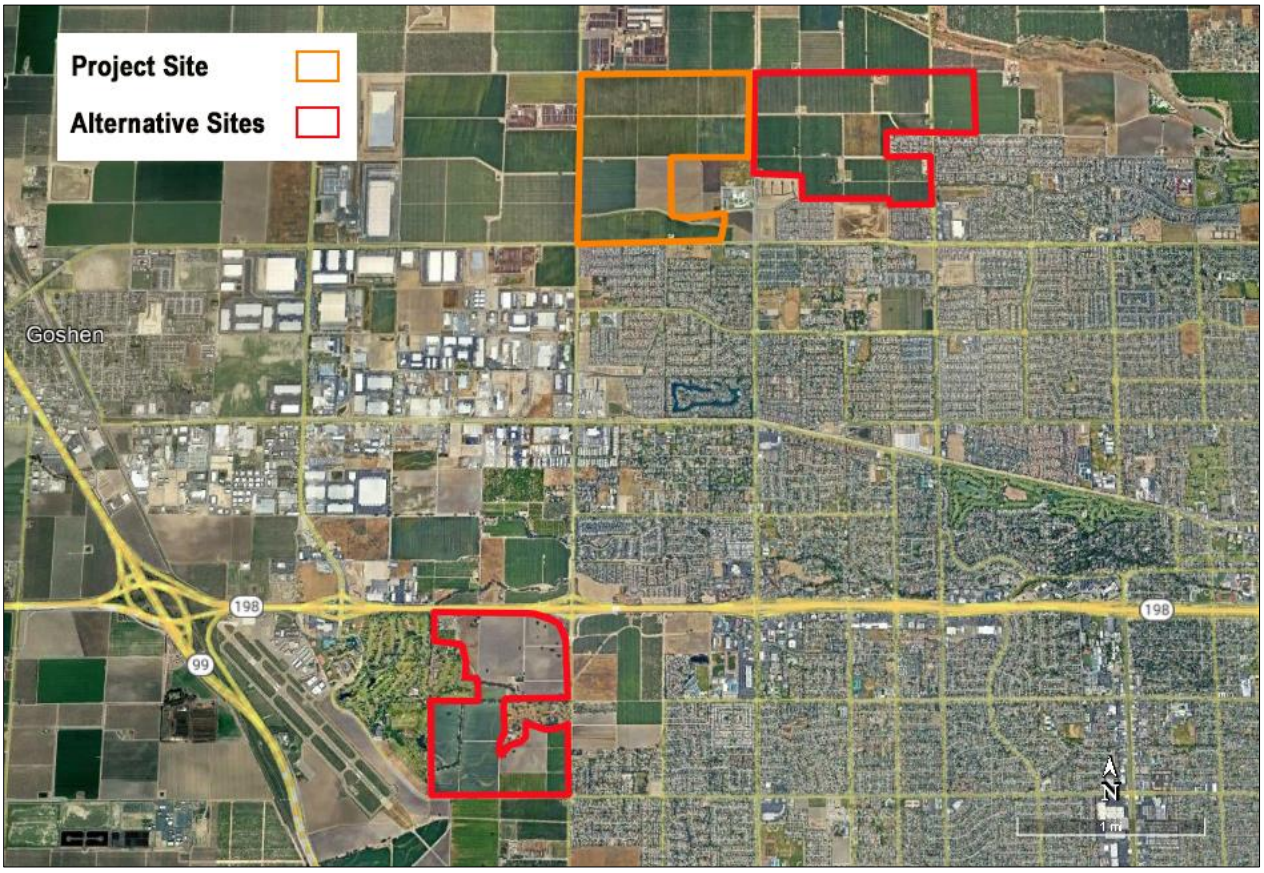


Figure A-2
Alternative Location #1: Approximately 495 Acres

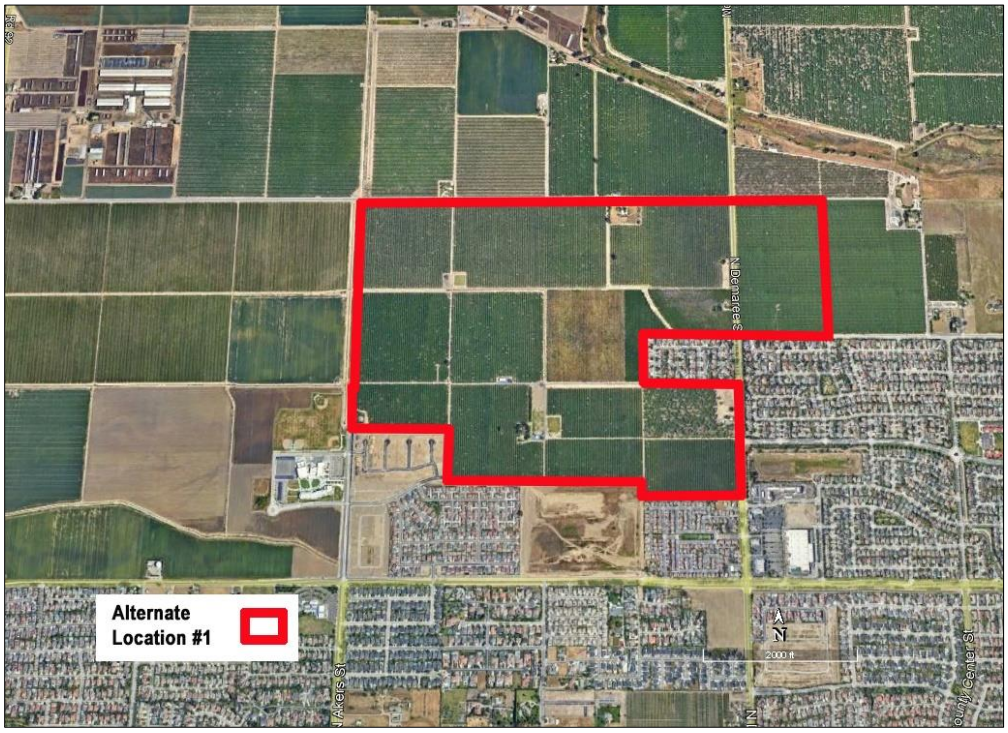
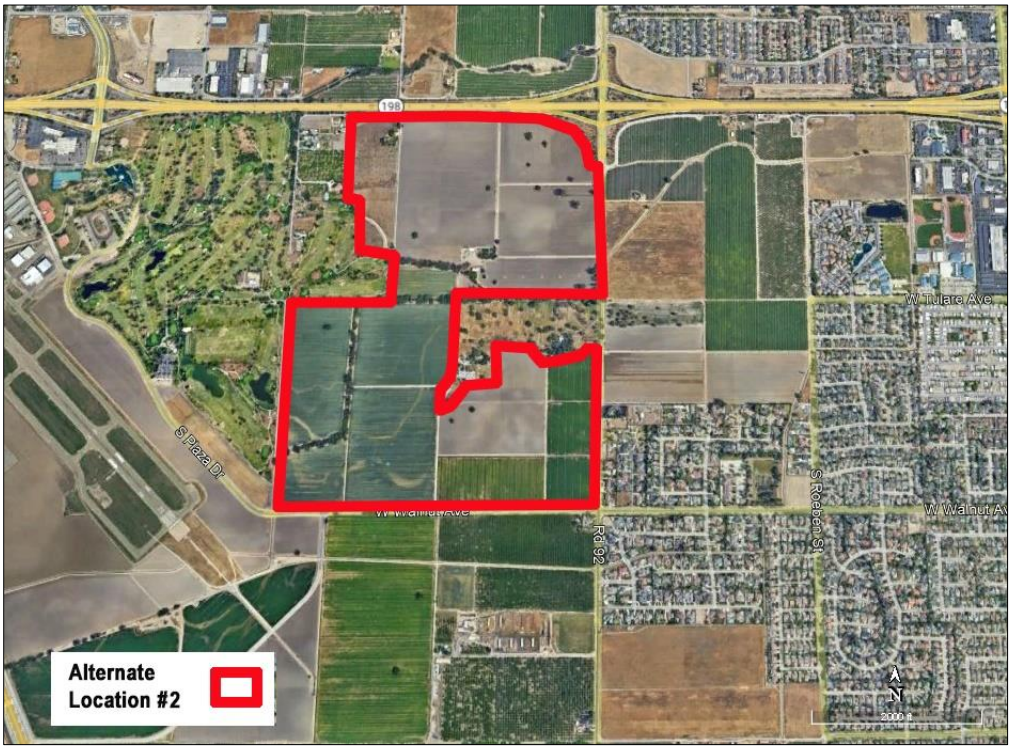


Figure A-3
Alternative Location #2: Approximately 502 Acres



Perhaps the greatest obstacle in selecting an alternative site for the proposed Project is that the Project Applicant does not already own land at these locations and/or does not have control of land at these locations. However, for purposes of environmental evaluation, a description of potential environmental impacts is provided below.

Environmental Considerations

Development of an alternate site could theoretically meet most of the Project objectives presented earlier in this chapter. However, construction and operation at an alternate site would result in environmental impacts that are likely equal to or in some cases could be greater than the proposed project. The majority, if not all, of project impacts are likely to occur at an alternate site.

Either of the alternative sites would require environmental review once the Applicant has prepared sufficient project description information. The time requirements for these activities would reduce the ability of the Applicant to accommodate projected residential demand in a timely manner compared to the proposed Project. This alternative would be the most complex, costly, and time-consuming alternative to implement. Various engineering and technical studies would then be completed to define the project and its components. Environmental review and obtaining entitlements would follow prior to construction activities. The sites identified herein appear to have conditions that are not as favorable as the proposed Project site, such as less acreage and lack of control over the land.

Impacts from the Alternate Locations Alternative, as compared to the Project, are summarized as follows:

- **Aesthetics** – With development of a similar project on an alternate site, aesthetic impacts would occur through the conversion of farmland to urban uses, introduction of light/glare, and construction of residential units and commercial establishments on vacant land. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.
- **Agriculture and Forestry Resources** - With development of a similar project on an alternate site, agricultural impacts would occur through the conversion of farmland to urban uses. Therefore, impacts are similar to the proposed Project. This Alternative would not eliminate the significant and unavoidable impacts (project and cumulative) associated with this topic from the proposed Project.
- **Air Quality** - With development of a similar project on an alternate site, air quality impacts would occur from construction activities (construction vehicles and equipment, dust and other emissions) and from operational activities (vehicle trip emissions and other

emissions from the development). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project (significant and unavoidable).

- **Biological Resources** - With development of a similar project on an alternate site, biological impacts could occur from development of a previously agricultural site to urban uses. Therefore, impacts are similar to the proposed Project.
- **Cultural Resources** - With development of a similar project on an alternate site, cultural resource impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.
- **Energy** - With development of a similar project on an alternate site, energy impacts would occur from construction activities (electricity, fuel) and operational activities (electricity, natural gas, fuel). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.
- **Geology/Soils** - With development of a similar project on an alternate site, impacts to geology and soils would occur from construction activities (grading and land disturbing activities) and operational activities (the Alternative project would be subject to geotechnical evaluation). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.
- **Greenhouse Gas Emissions** - With development of a similar project on an alternate site, greenhouse gas emission impacts would occur from construction activities (construction equipment emissions and vehicle emissions) and operational activities (vehicle emissions). Since this Alternative would be of similar size and scale to the Project, and is approximately the same distance as the Project to urbanized areas of Visalia, impacts are determined to be similar to the proposed Project.
- **Hazards & Hazardous Materials** - With development of a similar project on an alternate site, hazardous impacts would occur from construction activities (use and storage of hazardous substances) and operational activities (use and storage of hazardous substances). A database search of the DTSC Envirostor[1] and the State Water Resources Control Board's Geotracker[2] was conducted for the Alternate sites. The searches indicated that no known hazardous waste sites existing on the Alternative sites. Since this

[1] California Department of Toxic Substances Control. Envirostor Database. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=visalia+ca. Accessed March 2023.

[2] California Water Resource Control Board. GeoTracker Database. https://geotracker.waterboards.ca.gov/map/. Accessed March 2023.

Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.

- **Hydrology & Water Quality** - With development of a similar project on an alternate site, hydrology and water quality impacts would occur from construction activities (water for dust control, requirement for preparation of a SWPPP, drainage control) and operational activities (water demand associated with the development, drainage control). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project. This Alternative would not eliminate the significant and unavoidable impacts (project and cumulative level) associated with this topic from the proposed Project.
- **Land Use / Planning** - With development of a similar project on an alternate site, land use and planning impacts would occur from development of existing agricultural lands to urban uses. The Alternative would not divide an established community. Since this Alternative would be of similar size and scale to the Project (and contains similar pre-zoning and land use designations), impacts are determined to be similar to the proposed Project.
- **Mineral Resources** - With development of a similar project on an alternate site, mineral resource impacts could occur from construction activities (grading and ground-disturbing activities) and operational activities (conversion of land to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.
- **Noise** - With development of a similar project on an alternate site, noise impacts would occur from construction activities (construction equipment and vehicles) and operational activities (vehicles, air conditioners, televisions, radios, lawn mowers, etc.). The Alternative locations are similarly proximate to existing urban uses (as compared to the proposed Project). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.
- **Population & Housing** - With development of a similar project on an alternate site, population and housing impacts would occur from development of these sites. Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.
- **Public Services** - With development of a similar project on an alternate site, public service impacts would occur from development of these sites (need for police, fire, schools and other public facilities). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.

- **Recreation** - With development of a similar project on an alternate site, recreation impacts would occur from development of these sites (the City requires 5 acres of parkland per 1,000 residents). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.
- **Transportation** - With development of a similar project on an alternate site, transportation impacts would occur from construction (vehicles and equipment, which would require a Traffic Control Plan) and operation (vehicles associated with the residential and commercial development). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project. This Alternative would not eliminate the significant and unavoidable impacts (level of service impacts at the project and cumulative level) associated with this topic from the proposed Project.
- **Tribal Cultural Resources** - With development of a similar project on an alternate site, tribal cultural resource impacts could occur from development of these sites (conversion of agricultural lands to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.
- **Utilities & Service Systems** - With development of a similar project on an alternate site, utility and service system impacts would occur from construction activities (water for dust control, solid waste disposal) and operational activities (water demand associated with the development, wastewater disposal, solid waste disposal). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project. This Alternative would not eliminate the significant and unavoidable impacts (cumulative only for water supply) associated with this topic from the proposed Project.
- **Wildfire** - With development of a similar project on an alternate site, wildfire impacts could occur from development of these sites (conversion of agricultural lands to urban uses). Since this Alternative would be of similar size and scale to the Project, impacts are determined to be similar to the proposed Project.

Refer to Table 4-1 for a comparison of each environmental topic for the Alternate Locations Alternative versus the proposed Project.

Project Objectives

The Alternative Sites Alternative would meet most of the Project Objectives outlines in Section 4.2 herein. However, this Alternative would not be as feasible as compared to the proposed Project. The Alternative sites have different land owners who have not expressed a desire to develop a master planned community on their properties, thus those sites would likely not be

developed in a unified manner or at a rate of development that would produce housing and commercial development as quickly as the proposed Project. Thus, this Alternative would result in slower development of housing units (than the proposed Project) that would assist the City in meeting its General Plan and Housing Element requirements and objectives, and would not be fully consistent with this objective.

Reduced (50%) Project Alternative

A reduction of 50% in the Project's size and scope is a reasonable amount to illustrate what impact such an alternative would have on the significant effects of the proposed Project.

Description

This alternative would reduce the Project components by 50% as follows:

- Reduction in acreage from 507 to 253.5
- Reduction in residential units from 3,262 to 1,631
- Reduction in commercial acreage from 35.1 to 17.5
- Reduction in parks/recreational acreage from 17.3 to 8.7
- Corresponding reductions in infrastructure, etc.

The Project would remain a mixed-use development with a variety of housing types, with the 50% reduction.

Environmental Considerations

Most of the environmental issues associated with this alternative would be less or similar to those of the proposed Project. Impacts from the Reduced (50%) Alternative, as compared to the Project, are summarized as follows:

- **Aesthetics** – With development of the 50% of the site, aesthetic impacts would occur through the conversion of farmland to urban uses, introduction of light/glare, and construction of residential units on non-urbanized land. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the proposed Project.
- **Agriculture and Forestry Resources** - With development of 50% of the site, agricultural impacts would occur through the conversion of farmland to urban uses. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the proposed Project. However, this Alternative would not

eliminate the significant and unavoidable impacts (project and cumulative) associated with this topic from the proposed Project.

- **Air Quality** - With development of 50% of the site, air quality impacts would occur from construction activities (construction vehicles and equipment, dust and other emissions) and from operational activities (vehicle trip emissions and other emissions from the development). According to the Project's Air Quality / Greenhouse Gas / Energy Study prepared for the Project, the proposed Project will have annual air pollutant emission rates that are greater than the applicable San Joaquin Valley Air Pollution Control District thresholds of significance. Due to the reduction in residential units and commercial facilities (and corresponding reduction in vehicle trips), this alternative would have lower annual emission rates than the proposed project for the following criteria pollutants: CO, NOx, VOC, SOx, PM10 and PM2.5. Air pollutant emission rates associated with this alternative are thus lower than the proposed project due to the reduced number of residential units and commercial acreage (and associated reduction in vehicle trips).
- **Biological Resources** - With development of the Project site with 50% of the site, biological impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the proposed Project.
- **Cultural Resources** - With development of 50% of the site, cultural resource impacts could occur from development of a previously agricultural site to urban uses. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the proposed Project.
- **Energy** - With development of 50% of the site, energy impacts would occur from construction activities (electricity, fuel) and operational activities (electricity, natural gas, fuel). However, since this Alternative would have 50% less residential and commercial components as compared to the proposed Project, energy impacts would be less than the proposed Project.
- **Geology/Soils** - With development of 50% of the site, impacts to geology and soils would occur from construction activities (grading and land disturbing activities) and operational activities (the Alternative project would be subject to geotechnical evaluation). Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the proposed Project.
- **Greenhouse Gas Emissions** - With development of 50% of the site,greenhouse gas emission impacts would occur from construction activities (construction equipment emissions and vehicle emissions) and operational activities (vehicle emissions). However, since this Alternative would have 50% less residential and commercial components as

compared to the proposed Project, greenhouse gas emissions would be less than the proposed Project.

- **Hazards & Hazardous Materials** - With development of 50% of the site, hazardous impacts would occur from construction activities (use and storage of hazardous substances) and operational activities (use and storage of hazardous substances). Since this Alternative would have less residential and commercial facilities as compared to the Project, impacts are determined to be less than the proposed Project.
- **Hydrology & Water Quality** - With development of 50% of the site, hydrology and water quality impacts would occur from construction activities (water for dust control, requirement for preparation of a SWPPP, drainage control) and operational activities (water demand associated with the development, drainage control). However, since this Alternative would have 50% less residential units and commercial acreage as compared to the proposed Project, hydrology and water quality impacts would be less than the proposed Project. This Alternative would not eliminate the significant and unavoidable impacts (cumulative only) associated with water supply from the proposed Project.
- **Land Use / Planning** - With development of 50% of the site, land use and planning impacts would occur from development of existing agricultural lands to urban uses. The Alternative would not divide an established community. Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the proposed Project.
- **Mineral Resources** - With development of 50% of the site, mineral resource impacts could occur from construction activities (grading and ground-disturbing activities) and operational activities (conversion of land to urban uses). Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the proposed Project.
- **Noise** - With development of 50% of the site, noise impacts would occur from construction activities (construction equipment and vehicles) and operational activities (commercial activities, vehicles, air conditioners, televisions, radios, lawn mowers, etc.). However, since this Alternative would have 50% less residential and commercial components as compared to the proposed Project, noise impacts would be less than the proposed Project.
- **Population & Housing** - With development of 50% of the site, population and housing impacts would occur from development of these sites. However, since this Alternative would have 50% less residential units as compared to the proposed Project, population and housing impacts would be less than the proposed Project.

- **Public Services** - With development of 50% of the site, public service impacts would occur from development of these sites (need for police, fire, schools and other public facilities). However, since this Alternative would have 50% less residential units as compared to the proposed Project, public service impacts would be less than the proposed Project.
- **Recreation** - With development of 50% of the site, recreation impacts would occur from development of the site (the City requires 5 acres of parkland per 1,000 residents). However, since this Alternative would have 50% less residential units as compared to the proposed Project, recreation impacts would be less than the proposed Project.
- **Transportation** - With development of 50% of the site, transportation impacts would occur from construction (vehicles and equipment, which would require a Traffic Control Plan) and operation (vehicles associated with the residential and commercial developments). However, since this Alternative would have 50% less residential and commercial components as compared to the proposed Project, transportation impacts would be less than the proposed Project. This Alternative would not eliminate the significant and unavoidable impacts associated with Level of Service impacts from the proposed Project (at the project and cumulative level). Some Level of Service impacts would be significant and unavoidable with or without the proposed Project).
- **Tribal Cultural Resources** - With development of 50% of the site, tribal cultural resource impacts could occur from development of these sites (conversion of agricultural lands to urban uses). Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the proposed Project.
- **Utilities & Service Systems** - With development of 50% of the site, utility and service system impacts would occur from construction activities (water for dust control, solid waste disposal) and operational activities (water demand associated with the development, wastewater disposal, solid waste disposal). However, since this Alternative would have 50% less residential and commercial components as compared to the proposed Project, utility and service system impacts would be less than the proposed Project. This Alternative would not eliminate the significant and unavoidable impacts (cumulative only for water supply) associated with this topic from the proposed Project.
- **Wildfire** - With development of 50% of the site, wildfire impacts could occur from development of these sites (conversion of agricultural lands to urban uses). Since this Alternative would occur on less acreage as compared to the Project, impacts are determined to be less than the proposed Project.

Refer to Table 4-1 for a comparison of each environmental topic for the Reduced (50%) Project Alternative versus the proposed Project.

Project Objectives

The Reduced (50%) Alternative would meet some of the Project Objectives outlines in Section 4.2 herein. However, this Alternative would not be fully consistent with the objective to provide residential development that assists the City in meetings its Housing Element requirements (the City currently has a deficit in meeting its Regional Housing Needs Allocation goals). A 50% reduction in units would result in a larger Regional Housing Needs Allocation deficit than the proposed Project.

4.6 Summary of Potential Impacts of Alternatives

Table 4-1 provides a summary and side-by-side comparison of the proposed project with the impacts of each of the alternatives analyzed. Please note that under "No Project", "Alternate Sites" and "Reduced (50%) Project" columns in Table 4-1, the references to "less, similar, or greater," refer to the impact of the alternative compared to the proposed project, and the impacts "no impact, less than significant, or significant and unavoidable," in the parentheses refer to the significant impact of the specific alternative.

Table 4-1
Alternatives Potential Impact Analysis

Environmental Issues	Proposed Project	No Project	Alternate Locations	Reduced (50%) Project
Aesthetics	Less than Signifcant	Less	Similar	Less
Agriculture / Forest Resources	Significant and unavoidable (project and cumulative)	Less	Similar	Less / Still Significant and Unavoidable
Air Quality	Significant and unavoidable (project and cumulative)	Less	Similar	Less / Still Significant and Unavoidable
Biological Resources	Less than Signifcant	Less	Similar	Less

Environmental Issues	Proposed Project	No Project	Alternate Locations	Reduced (50%) Project
Cultural Resources	Less than Signifcant	Less	Similar	Less
Geology and Soils	Less than Signifcant	Less	Similar	Less
Greenhouse Gas Emissions	Less than Signifcant	Less	Similar	Less
Hazards and Hazardous Materials	Less than Signifcant	Less	Similar	Less
Hydrology and Water Quality	Significant and unavoidable – water supply (project and cumulative level)	Less	Similar	Less / Still Significant and Unavoidable
Land Use / Planning	Less than Signifcant	Less	Similar	Less
Noise	Less than Signifcant	Less	Similar	Less
Population / Housing	Less than Signifcant	Less	Similar	Less
Public Services	Less than Signifcant	Less	Similar	Less
Recreation	Less than Signifcant	Less	Similar	Less
Transportation and Traffic	Significant and unavoidable – level of service (project and cumulative)	Less	Similar	Less / Still Significant and Unavoidable
Tribal Cultural Resources	Less than Signifcant	Less	Similar	Less
Utilities and Service Systems	Significant and unavoidable – water supply (project and cumulative level)	Less	Similar	Less / Still Significant and Unavoidable

Environmental Issues	Proposed Project	No Project	Alternate Locations	Reduced (50%) Project
Cumulative Impacts	**Significant and unavoidable for Agriculture, Air Quality, Hydrology, Transportation, and Utilities**	**Less**	**Similar**	**Less / Still Cumulatively Considerable**
Impact Reduction		Yes	No	Yes

Environmentally Superior Alternative

As presented in the comparative analysis above, and as shown in Table 4-1, there are a number of factors in selecting the environmentally superior alternative. An EIR must identify the environmentally superior alternative to the project. The No Project Alternative would be environmentally superior to the Project on the basis of its minimization or avoidance of physical environmental impacts. However, CEQA Guidelines Section 15126.6(e)(2) states:

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

Because the No Project Alternative cannot be the Environmentally Superior Alternative under CEQA, the Reduced (50%) Project Alternative would be the Environmentally Superior alternative because it would result in less adverse physical impacts to the environment with regard to air, water, noise, public services, population/housing, utilities and traffic. However, the Reduced (50%) Project Alternative does not eliminate the proposed Project's significant and unavoidable impacts associated with Agriculture - Loss of Farmland (project and cumulative); Air Quality (project and cumulative); Hydrology – Water Supply (cumulative only); Transportation - Conflict with Plan/Program (project and cumulative); and Utilities & Service Systems – Water Supply (cumulative only). Furthermore, the Reduced (50%) Project Altenative does not meet all of the Project objectives, particularly with regard to quantity and diversity of housing.

Summary and Determination

Only the No Project and Reduced (50%) Project Alternatives could potentially result in fewer impacts than the proposed Project's impacts. These Alternatives however, would not fully meet the objectives of the proposed Project. After this full, substantial, and deliberate analysis, the proposed Project remains the preferred alternative.

Chapter 5

OTHER CEQA CONSIDERATIONS

CEQA CONSIDERATIONS

5.1 Growth-Inducing Impacts

CEQA Sections 15126 (d) and 15126.2(e) require 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 (e.g. construction of residential or commercial facilities) or indirectly (e.g. construction of oversized public utilities) result in physical impacts on the environment if the Project's construction or operation induces economic or population growth in the surrounding area, including an analysis of the infrastructure and planning changes necessary to accommodate any induced growth.

The proposed Project involves the establishment of a mixed-use development that is being proposed in response to the demand for housing and commercial facilities in the area. The Project is consistent with the City of Visalia's General Plan and Zoning Ordinance and will connect to all existing City utility services. The anticipated population and housing unit increase associated with the proposed Project are within the growth projections of the City's General Plan. The proposed Project would create a relatively minor amount of new employment opportunities during construction and for the proposed commercial facilities associated with the Project. As of February 2023, Tulare County (Visalia-Porterville Metropolitan Statistical Area) had an unemployment rate of 10.6 percent[1] and it is anticipated that those new employment opportunities associated with the Project could likely be filled by the existing employment base. There are no other indirect aspects of the Project (such as creation of oversized public utility lines, etc.) that would induce further growth in the area. The proposed Project would not result in significant growth-inducing impacts.

Conclusion: The project would have ***less-than-significant*** growth-inducing impacts.

5.2 Irreversible Environmental Changes

Section 15126(c) 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(d) identifies irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents.

Irreversible changes associated with the project include the use of nonrenewable resources during construction, including concrete, plastic, and petroleum products and renewable resources such

[1] https://labormarketinfo.edd.ca.gov/file/lfmonth/visa$pds.pdf . Accessed April 2023.

as timber. To the extent nonrenewable uses are used during construction, the Project is being created to meet existing demand for housing and services in the City, which would lead to the consumption of these resources elsewhere if the Project were not built. Therefore, the Project would not result in a new impact to nonrenewable resources. During the operational phase of the proposed Project, energy would be used for lighting, heating, cooling, and other requirements and petroleum products would be used by vehicles associated with the residents of the proposed development and the commercial facilities. The use of these resources would not be substantial, would not be inefficiently used, and would not constitute a significant effect. Refer to Section 3.6 – Energy for more information pertaining to the proposed Project's energy use.

In the future, the site could be rezoned or redeveloped for a different use also allowed in the existing General Plan or Zoning Ordinance designations, in which case, at the end of the useful life of the Project, the use could change. Therefore, the Project would not commit future generations to a significant change in land use. This is in contrast to a large industrial use, where reuse for non-industrial uses likely would require extensive remediation, making such reuse difficult, or large infrastructure projects that are rarely moved or dismantled once constructed.

The proposed Project would not result in irreversible damage resulting from environmental accidents. The Project consists of a mixed-use residential and commercial development. 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 and commercial hazardous materials such as cleaners, paint, petroleum products, etc. Handling and use of hazardous materials and the disposal of the resulting hazardous wastes would be required to follow the applicable laws and regulations, as described in Section 3.9-1 – Hazards & Hazardous Materials herein. As such, irreversible environmental accidents are unlikely.

Conclusion: The project would have ***less-than-significant*** irreversible environmental changes.

APPENDICES