RECIRCULATED DRAFT

ENVIRONMENTAL IMPACT REPORT – VOLUME I

FOR THE

MANTECA GENERAL PLAN UPDATE

(SCH: 2020019010)

NOVEMBER 2022

VOLUME I: COVER THROUGH SECTION 3.5
VOLUME II: SECTION 3.6 THROUGH CHAPTER 4.0
VOLUME III: CHAPTER 5.0 THROUGH CHAPTER 7.0
VOLUME IV: APPENDICES

Prepared for:

City of Manteca
Development Services
1215 W. Center Street, Suite 201
Manteca, CA 95337
(209) 456-8000

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 812-7927

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

RECIRCULATED DRAFT
ENVIRONMENTAL IMPACT REPORT – VOLUME I

FOR THE

MANTECA GENERAL PLAN UPDATE
(SCH: 2020019010)

NOVEMBER 2022

VOLUME I: COVER THROUGH SECTION 3.5
VOLUME II: SECTION 3.6 THROUGH CHAPTER 4.0
VOLUME III: CHAPTER 5.0 THROUGH CHAPTER 7.0
VOLUME IV: APPENDICES

Prepared for:

City of Manteca
Development Services
1215 W. Center Street, Suite 201
Manteca, CA 95337
(209) 456-8000

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 812-7927

RECIRCULATED DRAFT EIR

Chapter **Page Number**

Table **Page Number**

Figures

Note: Figures are located at the end of the chapters.

Appendices

PURPOSE

The City of Manteca (City) as lead agency, determined that the Manteca General Plan project (General Plan, General Plan, or project) is a "project" within the definition of the California Environmental Quality Act (CEQA), and requires the preparation of an Environmental Impact Report (EIR). This Recirculated Draft EIR has been prepared to evaluate the environmental impacts associated with implementation of the project. This EIR is designed to fully inform decision-makers in the City, other responsible and trustee agencies, and the general public of the potential environmental consequences of approval and implementation of the General Plan. A detailed description of the proposed project, including the components and characteristics of the project, project objectives, and how the EIR will be used, is provided in Chapter 2.0 (Project Description).

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

This Recirculated Draft EIR addresses environmental impacts associated with the project that are known to the City, raised during the Notice of Preparation (NOP) scoping process, or were raised during preparation of the Draft EIR. This Recirculated Draft EIR addresses the potentially significant impacts associated with aesthetics, agriculture and forest resources, air quality, biological resources, cultural and tribal cultural resources, geology, greenhouse gas emissions and energy, hazards and hazardous materials, hydrology and water quality, land use planning and population/housing, mineral resources, noise, public services and recreation, transportation, utilities and service systems, wildfire, and cumulative impacts.

During the NOP process, 11 comment letters were received from interested agencies and organizations. The comments are summarized in Chapter 1.0 (Introduction), and are also provided in Appendix A. The following are topics of public concern or potential controversy that have become known to the City staff based on public input, known regional issues, and staff observations:

- Impacts of traffic and congestion on local, regional, and state transportation facilities as a result of the General Plan.
- Encouragement of pedestrian-oriented transit and mixed use development.
- Consideration of issues related to housing-focused land use development.
- Effects of noise, vibrations, emissions and safety impacts to sensitive receptors as a result of the General Plan.
- Impacts on regional stormwater, drainage, groundwater, and water quality.

ALTERNATIVES TO THE PROPOSED PROJECT

The CEQA Guidelines require an EIR to describe a reasonable range of alternatives to the project or to the location of the project which would reduce or avoid significant impacts, and which could feasibly accomplish the basic objectives of the proposed project. The alternatives analyzed in this EIR include the following:

- **Alternative A: No Project Alternative**. Under Alternative A, the City would not adopt the General Plan Update. The existing Manteca General Plan would continue to be implemented and no changes to the General Plan, including the Land Use Map, Major Street Master Plan, Proposed Truck Route, goals, policies, or actions would occur. Subsequent projects, such as amending the Municipal Code (including the zoning map) and the City's Design Guidelines, would not occur. The existing General Plan Land Use Map is shown on Figure 5.0-1 in Chapter 5.0.
- **Alternative B: Residential and Balanced Employment Growth**. Alternative B continues to provide for a balance of job-creating and residential development land uses. Alternative B would continue to encourage infill development throughout the City, as well as new growth in greenfield areas that extend the City's existing development pattern. Figure 5.0-2 in Chapter 5.0 shows the Land Use Map for Alternative B. This alternative emphasizes an increase in residential development, including multifamily, uses and a decrease in commercial and employment-generating industrial and professional land use designations to reduce total vehicle miles travelled. This alternative was developed to potentially reduce the severity of significant impacts associated with transportation and circulation and also to reduce the severity of impacts associated with air quality and greenhouse gases.
- **Alternative C: Increased Intensity Residential and Balanced Employment Growth**. Alternative C would revise the General Plan Land Use Map to place more emphasis on identifying specific areas for residential growth, including medium and high-density residential land uses and encouraging the distribution of these uses throughout residential neighborhoods. Alternative C continues to provide for a balance of job-creating and residential development land uses, but would reduce commercial and other employee-generating uses in order to reduce vehicle miles travelled. Alternative C would continue to encourage infill development throughout the City, as well as new growth in greenfield areas that extend the City's existing development pattern. Figure 5.0-3 in Chapter 5.0 shows the Land Use Map for Alternative C. This alternative emphasizes an increase in residential development, with an emphasis on increasing high and medium density residential development within neighborhoods, and a decrease in retail and other jobs to reduce total vehicle miles travelled. This alternative was developed to potentially reduce the severity of significant impacts associated with transportation and circulation and also to reduce the severity of impacts associated with air quality, greenhouse gases, and noise.
- **Alternative D: Previous Proposed Project (March 2021).** Alternative D is identical to the previously-proposed Draft General Plan which is analyze in the Draft EIR for the Manteca General Plan Update (dated March 2021). Alternative D continues to provide for a balance of job-creating and residential development land uses. Alternative D would continue to encourage infill development throughout the City, as well as accommodate new growth in greenfield areas that extend the City's existing development pattern. Alternative D includes the proposed Truck Route from the previously-proposed Draft General Plan. Figure 5.0-4 in Chapter 5.0 shows the Land Use Map for Alternative D. This alternative emphasizes an increase in residential development, including multifamily, and a decrease in commercial and employment-generating industrial and professional land use designations to reduce total vehicle miles travelled. Alternative D would provide for approximately 20 more acres

of residential uses and 102 fewer acres of mixed use development when compared to the Proposed Land Use Map. Additionally, Alternative D would provide for 770 more acres of employment-generating commercial, professional, and industrial uses, when compared to the Proposed Land Use Map.

A comparative analysis of the proposed General Plan and each of the Project alternatives is provided in Table ES-1 below. The table includes a numerical scoring system, which assigns a score of 1 to 5 to each of the alternatives with respect to how each alternative compares to the proposed project in terms of the severity of the environmental topics addressed in this EIR. A score of "3" indicates that the alternative would have the same level of impact when compared to the proposed project. A score of "1" indicates that the alternative would have a better (or reduced) impact when compared to the proposed project. A Score of "2" indicates that the alternative would have a slightly better (or slightly reduced) impact when compared to the proposed project. A score of "4" indicates that the alternative would have a slightly worse (or slightly increased) impact when compared to the proposed project. A score of "5" indicates that the alternative would have a worse (or increased) impact when compared to the proposed project. The project alternative with the lowest total score is considered the environmentally superior alternative.

Overall, Alternative B is the environmentally superior alternative when looked at in terms of all potential environmental impacts. While Alternatives C and D are also superior to the proposed General Plan, Alternative B is slightly superior in several categories, including air quality, greenhouse gases, climate change, and energy, and transportation and circulation impacts resulting in a higher overall score for Alternative B. Alternative D is also slightly superior to the proposed General Plan in several categories, including air quality, greenhouse gases, climate change, and energy, and transportation and circulation, but to a lesser extent than Alternative B. Throughout the preparation of the General Plan Update, the City Council, Planning Commission, and GPAC all expressed a desire and commitment to ensuring that the General Plan not only reflect the community's values and priorities, but also serve as a self-mitigating document and avoid significant environmental impacts to the greatest extent feasible. To that end, the proposed General Plan includes the fully range of feasible mitigation available to reduce potential impacts to the greatest extent possible.

TABLE ES-1: COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT

ENVIRONMENTAL ISSUE	*PROPOSED PROJECT*	*ALTERNATIVE A (NO PROJECT)*	*ALTERNATIVE B*	*ALTERNATIVE C*	*ALTERNATIVE D*
Aesthetics and Visual Resources	3 – Same	1 – Better	2 – Slightly Better	4 – Slightly Worse*	5 – Slightly Worse*
Agricultural and Forest Resources	3 – Same	1 – Better	1 – Better	2 – Slightly Better	4 – Slightly Worse
Air Quality	3 – Same	5 – Worse	1 – Better	3 - Similar	3 – Slightly Worse
Biological Resources	3 – Same	2 – Slightly Better	2 – Slightly Better	4 – Slightly Worse	4 – Slightly Worse
Cultural and Tribal Resources	3 – Same	2 – Slightly Better	2 – Slightly Better*	3 - Similar	4 – Slightly Worse
Geology and Soils	3 – Same	5 – Slightly Worse	2 – Slightly Better	4 – Slightly Worse	4 – Slightly Worse
Greenhouse Gases, Climate Change, and Energy	3 – Same	5 – Worse	2 – Slightly Better	3 – Similar	4 – Slightly Worse
Hazards and Hazardous Materials	3 – Same	5 – Slightly Worse	3 – Similar	3 - Similar	3 - Similar
Hydrology and Water Quality	3 – Same	2 – Slightly Better*	1 – Slightly Better*	4 – Slightly Worse	4 – Slightly Worse
Land Use and Population	3 – Same	5 – Slightly Worse	3 - Similar	3 – Similar	3 – Similar
Mineral Resources	3 – Same	3 – Similar	3 – Similar	3 – Similar	3 – Similar
Noise	3 – Same	1 – Better	4 – Slightly Worse	4 – Slightly Worse	4 – Slightly Worse
Public Services and Recreation	3 – Same	3 – Slightly Better	4– Slightly Worse	4 – Slightly Worse*	4 – Slightly Worse
Transportation and Circulation	3 – Same	5 – Worse	1 – Slightly Better*	2 – Slightly Better*	4 – Slightly Worse
Utilities	3 – Same	3 – Slightly Better	4 – Slightly Worse	4 – Slightly Worse	4 – Slightly Worse
Wildfire	3 – Same	3 – Similar	3 – Similar	3 – Similar	3 – Similar
Irreversible Effects	3 – Same	1 – Better	3 – Similar*	4 – Slightly Worse*	4 – Slightly Worse
SUMMARY	**77**	**53**	**33**	**43**	**45**

**WHERE TWO ALTERNATIVES ARE TIED, THE BETTER OF THE TWO RECEIVED A HIGHER SCORE.*

SUMMARY OF IMPACTS

In accordance with the CEQA Guidelines, this EIR focuses on the project's significant effects on the environment. The CEQA Guidelines defines a significant effect as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project. A less than significant effect is one in which there is no long or short-term significant adverse change in environmental conditions. "Beneficial" effect is not defined in the CEQA Guidelines, but for purposes of this EIR a beneficial effect is one in which an environmental condition is enhanced or improved.

The environmental impacts of the proposed project, the impact level of significance prior to mitigation, and the impact level of significance through implementation of General Plan Policies and Actions are summarized in Table ES-2.

TABLE ES-2: PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
AESTHETICS AND VISUAL RESOURCES			
Impact 3.1-1: General Plan implementation would not have a substantial adverse effect on a scenic vista	LS	*None Required*	LS
Impact 3.1-2: General Plan implementation would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway	LS	*None Required*	LS
Impact 3.1-3: General Plan implementation would not, in a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings, or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality	LS	*None Required*	LS
Impact 3.1-4: General Plan implementation would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area	LS	*None Required*	LS
AGRICULTURAL AND FOREST RESOURCES			
Impact 3.2-1: General Plan implementation would result in the conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, to non-agricultural use	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	SU
Impact 3.2-2: General Plan Implementation would conflict with existing zoning for agricultural use, or a Williamson Act Contract	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	SU
Impact 3.2-3: General Plan implementation would not result in the loss of forest land or conversion of forest land to non-forest use	NI	*None Required*	NI

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Impact 3.2-4: General Plan implementation would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use	LS	*None Required*	LS
AIR QUALITY			
Impact 3.3-1: General Plan implementation would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	SU
Impact 3.3-2: General Plan implementation would expose sensitive receptors to substantial pollutant concentrations	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	SU
Impact 3.3-3: General Plan implementation would not result in other emissions (such as those leading to odors adversely affecting a substantial number of people)	LS	*None Required*	LS
BIOLOGICAL RESOURCES			
Impact 3.4-1: General Plan implementation would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	LS	*None Required*	LS
Impact 3.4-2: General Plan implementation would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California	LS	*None Required*	LS

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Department of Fish and Wildlife or U.S. Fish and Wildlife Service			
Impact 3.4-3: General Plan implementation would not 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	LS	*None Required*	LS
Impact 3.4-4: General Plan implementation would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites	LS	*None Required*	LS
Impact 3.4-5: The General Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance	LS	*None Required*	LS
Impact 3.4-6: General Plan implementation would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan	LS	*None Required*	LS
CULTURAL AND TRIBAL RESOURCES			
Impact 3.5-1: General Plan implementation would not cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to Section 15064.5	LS	*None Required*	LS
Impact 3.5-2: General Plan implementation would not lead to the disturbance of any human remains	LS	*None Required*	LS
Impact 3.5-3: General Plan implementation would not cause a substantial adverse change in	LS	*None Required*	LS

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
the significance of a tribal cultural resource, defined in Public Resources Code Section 21074, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency			
GEOLOGY AND SOILS			
Impact 3.6-1: General Plan implementation would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, or landslides	LS	*None Required*	LS
Impact 3.6-2: General Plan implementation would not result in substantial soil erosion or the loss of topsoil	LS	*None Required*	LS
Impact 3.6-3: General Plan implementation would not result in development 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	LS	*None Required*	LS
Impact 3.6-4: General Plan implementation would not result in development 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	LS	*None Required*	LS
Impact 3.6-5: General Plan implementation does not have the potential to have soils incapable of adequately supporting the use of septic tanks or	LS	*None Required*	LS

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
alternative waste water disposal systems where sewers are not available for the disposal of waste water			
Impact 3.6-6: General Plan implementation would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	LS	*None Required*	LS
GREENHOUSE GASES, CLIMATE CHANGE AND ENERGY			
Impact 3.7-1: General Plan implementation would not generate GHG emissions that could have a significant impact on the environment	LS	*None Required*	LS
Impact 3.7-2: General Plan implementation would not conflict with adopted plans, policies, or regulations adopted for the purpose of reducing greenhouse gas emissions	LS	*None Required*	LS
Impact 3.7-3: General Plan implementation would not result in a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency	LS	*None Required*	LS
HAZARDS AND HAZARDOUS MATERIALS			
Impact 3.8-1: General Plan implementation would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment	LS	*None Required*	LS
Impact 3.8-2: General Plan implementation would not emit hazardous emissions or handle	LS	*None Required*	LS

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school			
Impact 3.8-3: General Plan implementation would not have projects located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5	LS	*None Required*	LS
Impact 3.8-4: The General Plan would not result in a safety hazard for people residing or working within an area covered by an airport land use plan, or two miles of a public airport or public use airport	LS	*None Required*	LS
Impact 3.8-5: General Plan implementation would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	LS	*None Required*	LS
Impact 3.8-6: General Plan implementation would not expose people or structures to a significant risk of loss, injury or death involving wildland fires	LS	*None Required*	LS
HYDROLOGY AND WATER QUALITY			
Impact 3.9-1: General Plan implementation would not violate water quality standards or waste discharge requirements or otherwise substantially degrade water quality or obstruct implementation of a water quality control plan	LS	*None Required*	LS
Impact 3.9-2: General Plan implementation would not result in the depletion of groundwater supplies or interfere substantially with groundwater recharge or conflict with a groundwater management plan	LS	*None Required*	LS

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Impact 3.9-3: General Plan implementation would not alter the existing drainage pattern in a manner which would result in substantial erosion, siltation, flooding, impeded flows, or polluted runoff	LS	*None Required*	LS
Impact 3.9-4: General Plan implementation would not release pollutants due to project inundation by flood hazard, tsunami, or seiche	LS	*None Required*	LS
LAND USE, POPULATION AND HOUSING			
Impact 3.10-1: General Plan implementation would not physically divide an established community	LS	*None Required*	LS
Impact 3.10-2: General Plan implementation would not 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	LS	*None Required*	LS
Impact 3.10-3: General Plan implementation would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)	LS	*None Required*	LS
Impact 3.10-4: General Plan implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere	LS	*None Required*	LS
MINERAL RESOURCES			
Impact 3.11-1: General Plan implementation would not 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	LS	*None Required*	LS

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Impact 3.11-2: General Plan implementation would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan	LS	*None Required*	LS
NOISE			
Impact 3.12-1: General Plan implementation may result in exposure to significant traffic noise sources	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	SU
Impact 3.12-2: General Plan implementation may result in exposure to excessive railroad noise sources	LS	*None Required*	LS
Impact 3.12-3: Implementation of the General Plan could result in the generation of excessive stationary noise sources	LS	*None Required*	LS
Impact 3.12-4: General Plan implementation may result in an increase in construction noise sources	LS	*None Required*	LS
Impact 3.12-5: General Plan implementation may result in construction vibration	LS	*None Required*	LS
Impact 3.12-6: General Plan implementation may result in exposure to groundborne vibration	LS	*None Required*	LS
PUBLIC SERVICES AND RECREATION			
Impact 3.13-1: General Plan implementation would not result in adverse physical impacts on the environment associated with the need for new governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts	LS	*None Required*	LS
Impact 3.13-2: General Plan implementation would not result in adverse physical impacts associated with the deterioration of existing	LS	*None Required*	LS

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
parks and recreation facilities or the construction of new parks and recreation facilities			
TRANSPORTATION AND CIRCULATION			
Impact 3.14-1: General Plan implementation may result in VMT per dwelling unit and VMT per employee increases that are greater than 85 percent of Baseline conditions	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	SU
Impact 3.14-2: General Plan implementation may conflict with a program, plan, policy or ordinance addressing the circulation system, including transit, bicycle, and pedestrian facilities	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	SU
Impact 3.14-3: General Plan implementation may increase hazards due to a design feature, incompatible uses, or inadequate emergency access	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	SU
UTILITIES AND SERVICE SYSTEMS			
Impact 3.15-1: General Plan implementation would result in sufficient water supplies available to serve the City and reasonably foreseeable future development during normal, dry, and multiple dry years	LS	*None Required*	LS
Impact 3.15-2: General Plan implementation would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects	LS	*None Required*	LS
Impact 3.15-3: General Plan implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve	LS	*None Required*	LS

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
the project's projected demand in addition to the provider's existing commitments			
Impact 3.15-4: General Plan implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects	LS	*None Required*	LS
Impact 3.15-5: General Plan implementation would not require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects	LS	*None Required*	LS
Impact 3.15-6: General Plan implementation would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, would not generate solid waste in excess of State or local standards or otherwise impair the attainment of solid waste reduction goals, and would not exceed of the capacity of local infrastructure	LS	*None Required*	LS
WILDFIRES			
Impact 3.16-1: General Plan implementation would not have a significant impact related to wildfire risks associated with lands in or near State Responsibility Areas or lands classified as very high fire hazard severity zones	NI	*None Required*	NI
OTHER CEQA-REQUIRED TOPICS			
Impact 4.1: Cumulative degradation of the existing visual character of the region	LCC	*None Required*	LCC
Impact 4.2: Cumulative impact to agricultural lands and resources	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	CC and SU

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *SU – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Impact 4.3: Impact 4.3: Cumulative impact on the region's air quality	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	CC and SU
Impact 4.4: Cumulative loss of biological resources, including habitats and special status species	LCC	*None Required*	LCC
Impact 4.5: Cumulative impacts on known and undiscovered cultural resources	LCC	*None Required*	LCC
Impact 4.6: Cumulative impacts related to geology and soils	LCC	*None Required*	LCC
Impact 4.7: Cumulative impacts related to greenhouse gases, climate change, and energy	LCC	*None Required*	LCC
Impact 4.8: Cumulative impacts related to hazardous materials and human health risks	LCC	*None Required*	LCC
Impact 4.9: Cumulative impacts related to hydrology and water quality	LCC	*None Required*	LCC
Impact 4.10: Cumulative impacts related to local land use, population, and housing	LCC	*None Required*	LCC
Impact 4.11: Cumulative impacts related to mineral resources	LCC	*None Required*	LCC
Impact 4.12: Cumulative impacts related to noise	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	CC and SU
Impact 4.13: Cumulative impacts to public services and recreation	LCC	*None Required*	LCC
Impact 4.14: Cumulative impacts on the transportation network	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	CC and SU
Impact 4.15: Cumulative impacts related to utilities	LCC	*None Required*	LCC
Impact 4.16: Cumulative impact related to wildfire	LCC	*None Required*	LCC
Impact 4.17: Irreversible and adverse effects	PS	*Minimized to the greatest extent feasible through General Plan Policies and Actions. No feasible mitigation is available.*	SU

CC – cumulatively considerable

LCC – less than cumulatively considerable

LS – less than significant

PS – potentially significant

SU – significant and unavoidable

This page left intentionally blank

This section summarizes the purpose of the Recirculated Draft Environmental Impact Report for the Manteca General Plan (General Plan, General Plan Update, or proposed project). The following discussion addresses the environmental procedures that are to be followed according to State law; the intended uses of the Recirculated Draft EIR; the contents of the Recirculated Draft EIR; the procedures for submittal of public and agency comments on the Recirculated Draft EIR; and the requirements for responding to comments on the original Draft EIR and the Recirculated Draft EIR. This section concludes with background information and context describing the General Plan Update and some of the supporting documents prepared as part of the Update process.

1.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that all state and local government agencies consider the environmental consequences of programs and projects over which they have discretionary authority before taking action on those projects or programs. Where there is substantial evidence that a project may have a significant effect on the environment, the agency shall prepare an environmental impact report (EIR) (CEQA Guidelines, Section 15164[a]). An EIR is an informational document that will inform public agency decision makers and the general public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

CEQA requires that a draft EIR be prepared and circulated for public review. Following the close of the public review period, the lead agency prepares a final EIR, which includes the comments received during the review period (either verbatim or in summary), and responses to the significant environmental issues raised in those comments. Prior to taking action on a proposed project, the lead agency must certify the EIR and make certain findings.

A lead agency is required to recirculate a draft EIR, prior to certification, when "significant new information" is added to the EIR after the public review period begins (CEQA Guidelines Section 15088.5). New information is deemed significant if it reveals the following:

- A new significant environmental impact resulting from either the project itself or a new proposed mitigation measure;
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
- A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project proponent declines to adopt it; or
- The Draft EIR was so fundamentally inadequate and conclusory that it precluded meaningful public review and comment.

In addition, a lead agency may choose to recirculate an EIR if additional studies or analysis is conducted for a project before a specific action is taken by local decision makers to approve a project. Recirculation may be limited to those chapters or portions of the EIR that have been modified (CEQA Guidelines Section 15088.5(c).)

1.2 PROJECT BACKGROUND AND REASONS FOR EIR RECIRCULATION

Notice of Preparation

The City of Manteca circulated a Notice of Preparation (NOP) of an EIR for the proposed project on January 6, 2020 to trustee and responsible agencies, the State Clearinghouse, and the public. A scoping meeting was held on January 27, 2020 at the City of Manteca City Hall. No public or agency comments on the NOP related to the EIR analysis were presented or submitted during the scoping meeting. However, during the 30-day public review period for the NOP, which ended on February 5, 2020, eleven written comment letters were received on the NOP. A summary of the NOP comments is provided later in this chapter. The NOP and all comments received on the NOP are presented in Appendix A. Concerns raised in response to the NOP were considered during preparation of the Draft EIR.

Draft EIR

The City circulated a Draft EIR to the State Clearinghouse, trustee and responsible agencies, and the public on March 22, 2021. A Notice of Completion (NOC) was filed, and a 45-day public review period was provided between March 22, 2021 and May 6, 2021 to receive public and agency comments on the adequacy of the environmental analysis contained in the Draft EIR. On May 7, 2021, at the end of the original 45-day public review period, the City of Manteca opted to extend the public review period for both the Draft EIR and the Public Review Draft of the Manteca General Plan Update. The City extended the public review and comment period on the Draft EIR to June 14, 2021, thereby providing a total of 83 days for public review and comment on the Draft EIR. During the extended public review period, the City conducted three public workshops to receive community input on the General Plan Update. Workshops were held on May 11, 2021, May 27, 2021, and June 2, 2021.

The Draft EIR contains a description of the project, description of the environmental setting, identification and analysis of project impacts, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The 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.

REASONS FOR EIR RECIRCULATION

The City received over 200 oral and written comments on the Draft General Plan and Draft EIR. In response to the comments, the City Council directed that the General Plan Draft EIR be revised to address removal of the truck route, land use modifications, and the inclusion of an additional alternative. The proposed project addressed in the Revised Draft EIR and the Revised Draft General Plan which has been modified to reduce the potential for conflicts between intensive uses and potentially sensitive uses, to remove the truck route, and to refine policies and implementation measures.

In accordance with State CEQA Guidelines, Section 15088.5, the City is recirculating this entire revised Draft EIR, with associated appendices, to provide the public and agencies with ample

opportunity to review and comment on the updated analysis and new project information. Procedures for commenting on this revised analysis are detailed below.

1.3 SUMMARY OF CHANGES

All sections of the original Draft EIR have been revised and are included in this Recirculated Draft EIR. Given the extent of the revisions made to the original Draft EIR, the City has elected to recirculate the entire document in order to provide the public and interested agencies with ample opportunity to review the updated and expanded analysis, including additional technical data related to circulation and vehicle miles travelled (VMT), toxic air contaminants modeling, traffic and truck noise modeling, and expanded and clarified discussions regarding how proposed General Plan policies and actions may minimize the potential for environmental impacts to occur.

The City has also developed a new project alternative (Alternative D), which is described in greater detail in Chapter 5.0 of this Recirculated Draft EIR. Alternative D is identical to the previously-proposed Draft General Plan which is analyze in the Draft EIR for the Manteca General Plan Update (dated March 2021). Alternative D is included to ensure transparency in the General Plan Update process by providing for a comparison between the previously proposed Draft General Plan that was circulated for public review and analyzed in the May 2021 Draft EIR and the Revised Draft General Plan, as described in Chapter 2.0, Project Description.

This Recirculated Draft EIR resulted in numerous changes to the significance determination of impacts compared to the conclusions contained in the original Draft EIR. The following list identifies the impact determinations that have changed, as noted in the parentheses following each impact statement. The abbreviations in the parentheses are as follows:

NI= No Impact

LTS= Less than significant

PS= Potentially Significant

SU= Significant and Unavoidable

LCC= Less than cumulatively considerable

CC= Cumulatively considerable

- Impact 3.1-1: General Plan implementation would not have a substantial adverse effect on a scenic vista (PS to LTS)

- Impact 3.1-4: General Plan implementation would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (PS to LTS)

- Impact 3.3-1: General Plan implementation would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants (LTS to SU)

- Impact 3.3-3: General Plan implementation would not result in other emissions (such as those leading to odors adversely affecting a substantial number of people) (PS to LTS)

- Impact 3.4-1: General Plan implementation would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (PS to LTS)

- Impact 3.4-2: General Plan implementation would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (PS to LTS)

- Impact 3.4-3: General Plan implementation would not 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 (PS to LTS)

- Impact 3.4-4: General Plan implementation would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (PS to LTS)

- Impact 3.4-6: General Plan implementation would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan (PS to LTS)

- Impact 3.5-1: General Plan implementation would not cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to Section 15064.5 (PS to LTS)

- Impact 3.5-2: General Plan implementation would not lead to the disturbance of any human remains (PS to LTS)

- Impact 3.5-3: General Plan implementation would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency (PS to LTS)

- Impact 3.6-2: General Plan implementation would not result in substantial soil erosion or the loss of topsoil (PS to LTS)

- Impact 3.6-3: General Plan implementation would not result in development 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 (PS to LTS)

- Impact 3.6-4: General Plan implementation would not result in development 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 (PS to LTS)
- Impact 3.6-6: General Plan implementation would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (PS to LTS)
- Impact 3.8-1: General Plan implementation would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (PS to LTS)
- Impact 3.8-2: General Plan implementation would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (PS to LTS)
- Impact 3.8-4: The General Plan is not located within an airport land use plan, two miles of a public airport or public use airport, and would not result in a safety hazard for people residing or working in the project area (PS to LTS)
- Impact 3.9-1: General Plan implementation would not violate water quality standards or waste discharge requirements or otherwise substantially degrade water quality or obstruct implementation of a water quality control plan (PS to LTS)
- Impact 3.9-2: General Plan implementation would not result in the depletion of groundwater supplies or interfere substantially with groundwater recharge or conflict with a groundwater management plan (PS to LTS)
- Impact 3.9-3: General Plan implementation would not alter the existing drainage pattern in a manner which would result in substantial erosion, siltation, flooding, impeded flows, or polluted runoff (PS to LTS)
- Impact 3.10-1: General Plan implementation would not physically divide an established community (PS to LTS)
- Impact 3.10-2: General Plan implementation would not 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 (PS to LTS)
- Impact 3.10-4: General Plan implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere (PS to LTS)

- Impact 3.13-1: General Plan implementation would not result in adverse physical impacts on the environment associated with the need for new governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts (PS to LTS)

- Impact 3.14-2: General Plan implementation may conflict with a program, plan, policy or ordinance addressing the circulation system, including transit, bicycle, and pedestrian facilities (PS to SU)

- Impact 3.14-3: General Plan implementation may increase hazards due to a design feature, incompatible uses, or inadequate emergency access (PS to SU)

- Impact 3.15-1: General Plan implementation would result in sufficient water supplies available to serve the City and reasonably foreseeable future development during normal, dry, and multiple dry years (PS to LTS)

- Impact 3.15-3: General Plan implementation would not have the potential to result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (PS to LTS)

- Impact 3.15-4: General Plan implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects (PS to LTS)

- Impact 3.15-5: General Plan implementation would not require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects (PS to LTS)

- Impact 3.15-6: General Plan implementation would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, would not generate solid waste in excess of State or local standards or otherwise impair the attainment of solid waste reduction goals, and would not exceed of the capacity of local infrastructure (PS to LTS)

- Impact 3.16-1: General Plan implementation would not have a significant impact related to wildfire risks associated with lands in or near State Responsibility Areas or lands classified as very high fire hazard severity zones (PS to NI)

- Impact 4.1: Cumulative degradation of the existing visual character of the region (PS to LCC)

- Impact 4.3: Cumulative impact on the region's air quality (LCC to CC and SU)

- Impact 4.4: Cumulative loss of biological resources, including habitats and special status species (PS to LCC)

- Impact 4.5: Cumulative impacts on known and undiscovered cultural resources (PS to LCC)

- Impact 4.6: Cumulative impacts related to geology and soils (PS to LCC)
- Impact 4.7: Cumulative impacts related to greenhouse gases, climate change, and energy (PS to LCC)
- Impact 4.8: Cumulative impacts related to hazardous materials and human health risks (PS to LCC)
- Impact 4.9: Cumulative impacts related to hydrology and water quality (PS to LCC)
- Impact 4.10: Cumulative impacts related to local land use, population, and housing (PS to LCC)
- Impact 4.13: Cumulative impacts to public services and recreation (PS to LCC)
- Impact 4.15: Cumulative impacts related to utilities (PS to LCC)
- Impact 4.16: Cumulative impact related to wildfire (PS to LCC)

1.4 COMMENTS ON THE RECIRCULATED DRAFT EIR

In accordance with Section 15088.5(f)(1) of the CEQA Guidelines, *"When an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period. The lead agency shall advise reviewers, either in the text of the revised EIR or by an attachment to the revised EIR, that although part of the administrative record, the previous comments do not require a written response in the final EIR, and that new comments must be submitted for the revised EIR. The lead agency need only respond to those comments submitted in response to the recirculated revised EIR."*

The Manteca General Plan Draft EIR was originally circulated for an 83-day public review and comment period between March 22, 2021 and June 14, 2021. The City of Manteca, acting as the lead agency for the project, formally requires that reviewers of the Recirculated Draft EIR **submit new comments on the Recirculated Draft EIR included herein**. The Final EIR, which will be prepared after the public review period for the Recirculated Draft EIR, will include responses to comments received only on this Recirculated Draft EIR. While comments submitted on the original Draft EIR shall be part of the project's administrative record, per CEQA Guidelines Section 15088.5(f)(1), **the City will not respond to comments received on the original Draft EIR during the earlier circulation period.**

1.5 PURPOSE OF THE EIR

The City of Manteca, as lead agency, determined that the Manteca General Plan Update is a "project" within the meaning of CEQA. CEQA requires the preparation of an EIR 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 Recirculated Draft EIR has been prepared according to CEQA requirements to evaluate the potential environmental impacts associated with the implementation of the Manteca General Plan. A copy of the Public Draft General Plan and the Alternative D Draft General Plan are located on the Manteca General Plan Update website, at manteca.generalplan.org. The Recirculated Draft EIR also discusses alternatives to the General Plan, and identifies General Plan policies and actions that, when implemented, will offset, minimize, or otherwise avoid potentially significant environmental impacts. This Recirculated 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 Manteca.

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 significant environmental impacts of proposed development.

1.6 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 Program EIR pursuant to CEQA Guidelines Section 15168. Section 15168 states:

"A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

1) Geographically;
2) As logical parts in the chain of contemplated actions;
3) In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or
4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways."

The program-level analysis considers the broad environmental effects of the proposed project. This EIR will be used to evaluate subsequent projects and activities under the proposed project. This EIR is intended to provide the information and environmental analysis necessary to assist public agency decision-makers in considering approval of the proposed project, but not to the level of detail to consider approval of subsequent development projects that may occur after adoption of the General Plan.

Additional environmental review under CEQA may be required for subsequent projects and would be generally based on the subsequent project's consistency with the General Plan and the analysis in this EIR, as required under CEQA. It may be determined that some future projects or infrastructure improvements may be exempt from environmental review. When individual subsequent projects or activities under the General Plan are proposed, the lead agency that would approve and/or implement the individual project will examine the projects or activities to determine whether their effects were adequately analyzed in this program EIR (CEQA Guidelines Section 15168). If the projects or activities would have no effects beyond those disclosed in this EIR, no further CEQA compliance would be required.

1.7 INTENDED USES OF THE EIR

The City of Manteca, 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 adoption of the Manteca General Plan and subsequent implementation of projects consistent with the General Plan. 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 General Plan. Subsequent actions that may be associated with the General Plan are identified in Chapter 2.0, Project Description. This EIR may also be used by other agencies within San Joaquin County.

1.8 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). While no Responsible Agencies or Trustee Agencies are responsible for approvals associated with adoption of the Manteca General Plan, implementation of future projects within Manteca may require permits and approvals from such agencies, which may include the following:

- California Department of Fish and Wildlife (CDFW);
- California Department of Transportation (Caltrans);
- Regional (Central Valley) Water Quality Control Board (RWQCB);
- U.S. Army Corps of Engineers (ACOE);
- U.S. Fish and Wildlife Service (USFWS);
- San Joaquin County Local Agency Formation Commission (LAFCO);
- San Joaquin Valley Air Pollution Control District (SJVAPCD); and

- San Joaquin Airport Land Use Commission (ALUC).

1.9 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 Manteca circulated a Notice of Preparation (NOP) of an EIR for the proposed project on January 6, 2020 to trustee and responsible agencies, the State Clearinghouse, and the public. A scoping meeting was held on January 27, 2020 at the City of Manteca City Hall. No public or agency comments on the NOP related to the EIR analysis were presented or submitted during the scoping meeting. However, during the 30-day public review period for the NOP, which ended on February 5, 2020, eleven written comment letters were received on the NOP. A summary of the NOP comments is provided later in this chapter. The NOP and all comments received on the NOP are presented in Appendix A. Concerns raised in response to the NOP were considered during preparation of the Draft EIR.

DRAFT EIR

The City circulated a Draft EIR to the State Clearinghouse, trustee and responsible agencies, and the public on March 22, 2021. A Notice of Completion (NOC) was filed, and a 45-day public review period was provided between March 22, 2021 and May 6, 2021 to receive public and agency comments on the adequacy of the environmental analysis contained in the Draft EIR. On May 7, 2021, at the end of the original 45-day public review period, the City of Manteca opted to extend the public review period for both the Draft EIR and the Public Review Draft of the Manteca General Plan Update. The City extended the public review and comment period on the Draft EIR to June 14, 2021, thereby providing a total of 83 days for public review and comment on the Draft EIR. During the extended public review period, the City conducted three public workshops to receive community input on the General Plan Update. Workshops were held on May 11, 2021, May 27, 2021, and June 2, 2021.

The Draft EIR contains a description of the project, description of the environmental setting, identification and analysis of project impacts, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The 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.

PUBLIC NOTICE/PUBLIC REVIEW

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

J.D. Hightower, Deputy Director of Development Services Planning
City of Manteca
1215 W. Center Street, Suite 201
Manteca, CA 95337
jhightower@ci.manteca.ca.us

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to both oral and written comments received during the public review period for the Recirculated Draft EIR. As noted previously in this chapter, consistent with the requirements established under CEQA Guidelines Section 15088.5(f)(1), the City of Manteca, acting as the lead agency for the project, formally requires that reviewers of the Recirculated Draft EIR **submit new comments on the Recirculated Draft EIR included herein**. The Final EIR, which will be prepared after the public review period for the Recirculated Draft EIR, will include responses to comments received only on this Recirculated Draft EIR. While comments submitted on the original Draft EIR shall be part of the project's administrative record, per CEQA Guidelines Section 15088.5(f)(1), **the City will not respond to comments received on the original Draft EIR during the earlier circulation period.**

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City of Manteca City Council 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 deny the project. It the EIR determines that the project would result in significant adverse impacts to the environment that cannot be mitigated to less than significant levels, the City Council would be required to adopt a statement of overriding considerations as well as written findings in accordance with State CEQA Guidelines Sections 15091 and 15093. If additional mitigation measures are required (beyond the General Plan policies and actions that minimize potentially significant impacts, as identified throughout this EIR), 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 MMRP would be designed to ensure that these measures are carried out during project implementation, in a manner that is consistent with the EIR.

1.10 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 for any significant impacts, alternatives, significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts.

The EIR prepared reviews environmental and planning documentation developed for the project, environmental and planning documentation prepared for recent projects located within the city of Manteca, and responses to the Notice of Preparation (NOP).

This Recirculated 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 Recirculated 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 section:

- Aesthetics
- Agricultural and Forest Resources
- Air Quality

- Biological Resources
- Cultural and Tribal Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions, Climate Change, and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning and Population/Housing
- Mineral Resources
- Noise
- Public Services and Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

CHAPTER 4.0 - OTHER CEQA-REQUIRED TOPICS

Chapter 4.0 evaluates and describes the following CEQA required topics: impacts considered less-than-significant, significant and irreversible impacts, growth-inducing effects, cumulative impacts, and significant and unavoidable environmental effects.

CHAPTER 5.0 - ALTERNATIVES

Chapter 5.0 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 6.0 - REPORT PREPARERS

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

CHAPTER 7.0 – REFERENCES

Chapter 7.0 lists references cited and utilized in the preparation of the Recirculated Draft EIR.

APPENDICES

This section includes all notices and other procedural documents pertinent to the Draft EIR, as well as technical material prepared to support the analysis.

1.11 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City received eleven comment letters on the NOP. Copies of these letters are provided in Appendix A of this Recirculated Draft EIR and the comments are summarized in the Executive Summary chapter. The City received the following comment letters.

- California Department of Transportation (January 27, 2020)
- Curtis Powers (February 3, 2020)
- Martin Harris (February 3, 2020)
- Centeral Valley Water Quality Control Board (January 16, 2020)
- Steven Herum (January 29, 2020)
- Judith Marek & Joann Edward, Zottarelli Ranch (January 22, 2020)
- Marian Rawlins (February 4, 2020)
- Mary Meninga (January 27, 2020)
- Native American Heritage Commission (January 7, 2020)
- Northstar Engineering Group, Inc. (February 2, 2020)
- Pacific Gas and Electric Company (January 23, 2020)

1.12 GENERAL PLAN UPDATE BACKGROUND AND CONTEXT

In 2016, Manteca began a multi-year process to update the City's General Plan. State law requires every city and county in California to prepare and maintain a planning document called a general plan. A general plan is a "constitution" or "blueprint" for the future physical development of a county or city. As part of the Manteca General Plan Update process, a General Plan Existing Conditions Report was prepared to establish a baseline of existing conditions in the City. Additionally, an Opportunities and Constraints Report and a Land Use alternatives Report were prepared to identify the challenges facing the community, to provide an opportunity for citizens and policymakers to come together in a process of developing a common vision for the future, and to identify a range of options available to the City as the General Plan Land Use Map was modified and updated.

The updated Manteca General Plan includes a framework of goals, policies, and actions that will guide the community toward its common vision. The General Plan is supported with a variety of maps, including a Land Use Map and Circulation Diagram.

MANTECA GENERAL PLAN UPDATE

General Plan

The Manteca General Plan (General Plan, General Plan Update, or proposed project) is the overarching policy document that guides land use, housing, transportation, open space, public safety, community services, and other policy decisions throughout Manteca. The General Plan includes the elements and topics mandated by State law, to the extent that they are relevant locally, including: Air Quality, Circulation, Conservation, Environmental Justice, Housing, Land Use, Noise, Open Space, and Safety. The City may also address other topics of interest; this General Plan includes elements related to Public Facilities (including infrastructure), Economic Development, and Health and Wellness. The General Plan sets out the goals, policies, and actions in each of these areas, serves as a policy guide for how the City will make key planning decisions in the future, and guides how the City will interact with San Joaquin County, surrounding cities, and other local, regional, State, and Federal agencies.

The General Plan contains the goals and policies that will guide future decisions within the City. It also identifies implementation programs, in the form of actions, that will ensure the goals and policies in the General Plan are carried out. As part of the Manteca General Plan Update, the City and the consultant team prepared several support documents that serve as the building blocks for the General Plan and analyze the environmental impacts associated with implementing the General Plan.

The following paragraphs summarize the key component documents that are the building blocks of the Manteca General Plan.

Existing Conditions Report

The Existing Conditions Report takes a "snapshot" of Manteca's current (2017) trends and conditions. It provides a detailed description of a wide range of topics within the City, such as demographic and economic conditions, land use, public facilities, and environmental resources. The Existing Conditions Report provides decision-makers, the public, and local agencies with context for making policy decisions. The Existing Conditions Report also provides the environmental setting and description contained within this Draft Environmental Impact Report (EIR).

Vision and Guiding Principles Summary

Based on public input from the community visioning process, priorities identified by the General Plan Advisory Committee, and direction from City staff, this report establishes the vision statement to guide the General Plan Update and identifies key issues and opportunities to be addressed in the General Plan Update. The Vision and Guiding Principles Summary provides the General Plan Advisory Committee, the Planning Commission, and the City Council with tools and information for the development of the General Plan Policy Document and associated Land Use and Circulation maps.

Land Use Alternatives Report

The Land Use Alternatives Report provides the City with a resource tool to examine different possible approaches to accommodate future development, provide opportunities for economic growth, maintain fiscal sustainability, and identify lands for conservation of resources and open space. The report is accompanied by a detailed fiscal analysis that addresses long-range fiscal impacts in terms of the cost to provide services to projected land uses and growth versus the revenues generated under each alternative.

Environmental Impact Report

An EIR responds to the requirements of the California Environmental Quality Act (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 General Plan Update process in order to understand the potential environmental implications associated with implementing the General Plan. This EIR was prepared concurrently with the General Plan policy document in order to facilitate the development of a General Plan that is largely self-mitigating. In other words, as environmental impacts associated with the new General Plan, including the Land Use Map, were identified; policies and actions were

incorporated into the General Plan policy document in order to reduce or avoid potential environmental impacts.

2.1 BACKGROUND AND OVERVIEW

STATE GENERAL PLAN LAW

California Government Code Section 65300 et seq. requires all counties and cities to prepare and maintain a general plan for the long-term growth, development, and management of the land within the jurisdiction's planning boundaries. The general plan acts as a "constitution" for development and is the jurisdiction's lead legal document in relation to growth, development, and resource management issues. Development regulations (e.g., zoning and subdivision standards) are required by law to be consistent with the general plan.

General plans must address a broad range of topics, including, at a minimum, the following mandatory elements: land use, circulation, housing, conservation, open space, noise, and safety. General plans must also address the topics of environmental justice and climate change and resiliency planning, either as separate elements or as part of other required elements. At the discretion of each jurisdiction, the general plan may combine these elements and may add optional elements relevant to the physical features of the jurisdiction.

The California Government Code also requires that a general plan be comprehensive, internally consistent, and plan for the long term. The general plan should be clearly written, easy to administer, and available to all those concerned with the community's development.

State planning and zoning law (California Government Code Section 65000 et seq.) establishes that zoning ordinances are required to be consistent with the general plan and any applicable specific plans, area plans, master plans, and other related planning documents. When amendments to the general plan are made, corresponding changes in the zoning ordinance may be required within a reasonable time to ensure consistency between the revised land use designations in the general plan (if any) and the permitted uses or development standards of the zoning ordinance (Gov. Code Section 65860, subd. [c]).

GENERAL PLAN UPDATE PROCESS

The City of Manteca's current General Plan was last comprehensively updated in 2003 to guide the City's physical development. Since that time, the City's current General Plan has been periodically amended, including updates to the Circulation Element in 2011, updates to the Safety Element to address Senate Bill (SB) 5 (i.e., 200-year flood protection) in 2016, and adoption of the updated Housing Element in 2016. Land uses in the City of Manteca have been developed based on the Land Use Map, goals, and policies established by the City's General Plan.

In April of 2016, the City issued a request for proposals (RFP) inviting bids from qualified consulting firms to assist the City in the preparation of a comprehensive update to the General Plan. The process to update the Manteca General Plan began in August 2016 and is scheduled to be completed with the adoption of the updated Manteca General Plan by the City Council in Spring 2021. The Manteca General Plan Update (General Plan Update or proposed General Plan) was

developed with extensive community input and reflects the community's vision for Manteca. A summary of the community outreach and public participation process is provided below.

Visioning Workshops

In March and April 2017, the City hosted three Visioning Workshops to help kick-off the General Plan Update process. The workshops provided an opportunity for the public to offer their thoughts on what they value about their community and the City, and which important issues should be addressed in updating the General Plan. The feedback provided by the community at the three visioning workshops and by the General Plan Advisory Committee (GPAC) provides the City with a broad overarching vision for the development of the General Plan Update, and identifies key community values and priorities that should be carefully addressed in the General Plan

The first Visioning Workshop was held on Thursday, March 23, 2017 at the Manteca Transit Center. The intent of the first Workshop was to begin a dialogue with the community regarding its priorities for the next 20 years. Following a brief presentation on the General Plan Update, the consultant team facilitated two activities to help conduct this conversation. The first activity was to identify assets, vision ideals, and challenges facing Manteca, and the second activity was to identify opportunity areas that warranted additional land use and/or policy direction.

The second Visioning Workshop was held on Thursday, April 6, 2017 at the Manteca Transit Center. The focus of the second Workshop was to identify the guiding principles that should influence the General Plan Update. The presentation included an overview of General Plan Update process, a summary of the input received during the first visioning workshop, and an overview of land use "placemaking" concepts, including activities to identify three themes and a vision statement to guide the General Plan Update. The attendees also participated in an interactive placemaking mapping activity to identify key destinations and community gathering places in the City and to identify areas where new community gathering areas or focal points are needed.

The third and final Visioning Workshop was held on April 20, 2017 at the Manteca Transit Center. The focus of the last Workshop was on transportation and circulation concepts and issues facing Manteca. The discussion focused on better understanding the community's issues and concerns related to transportation and identifying the top two or three transportation improvements that should be the top priorities for the General Plan Update.

The topics explored in each Workshop along with summaries of the input provided by the community are provided in the Vision and Guiding Principles Summary Report, which is available for review online at: www.manteca.generalplan.org.

Online Survey

The City of Manteca staff and consultant team developed an online survey to gather additional information from the public related to the approach to addressing the community's vision and land use preferences. The online survey was available through the General Plan Update website and was developed to build on the information obtained through the Visioning and Advisory Committee processes. The survey responses provide insight into the demographics and opinions of

Manteca community members concerning goals and topics related to the update of the City's General Plan.

General Plan Advisory Committee

The 15-member GPAC, which consisted of local business owners, stakeholders in the development community, residents, and the community at-large, collaborated with City staff and the General Plan Update consultant team throughout the development of the General Plan. The GPAC met 14 times between August 2017 and March 2019 to identify key issues and challenges that Manteca will face over the next 20 to 30 years, and develop the comprehensive set of goals, policies, and implementation measures contained in the General Plan Update. Each GPAC meeting was open to the public, and numerous members of the public and other local interested agencies attended the meetings and provided detailed input to the GPAC. All meeting materials are available on the project website at manteca.generalplan.org.

City Council and Planning Commission Briefings

The City Council received one briefing, the Planning Commission received two briefings, and the City Council and Planning Commission received a joint briefing from City staff and the Consultant team to review input from the Visioning Workshops, receive information relevant to the specific topics addressed at the GPAC meetings, and provide specific direction and guidance to staff and the consultant team regarding how goals should be achieved, how to address current issues, and land use preferences which are analyzed in this Environmental Impact Report (EIR).

Community Open House and StoryMap Survey on GPAC Preferred Land Use Map

The community was invited to one open house on the GPAC Preferred Land Use Map (GPAC Map), which was held on March 14, 2019 at the Manteca Transit Center. At the open house, the City provided a brief presentation to introduce the community to the key goals of the GPAC Map. Following the presentation, the City hosted tables focusing on key topics/components of the General Plan Update (such as land use, community design, transportation, and public facilities) and shared key goals, policies, and actions included in the General Plan to address these topics. Community members were able to ask questions of City Staff and the Consultant team and learn more about the future of Manteca.

Concurrent with the Community Open House, an interactive StoryMap Survey was made available to the community to identify the community's preferences and obtain feedback on the GPAC Map. The StoryMap Survey provided an overview of the GPAC Map, with a focused discussion of the types of growth that would be accommodated by the GPAC Map in specific areas identified for land use changes throughout the City and Planning Area. The input received through the Open House and the StoryMap Survey provided the Planning Commission and City Council with information regarding the community's preferences for each area envisioned for change under the GPAC Map.

Scoping Meeting

The City of Manteca circulated a Notice of Preparation (NOP) of an EIR for the proposed General Plan Update on January 6, 2020 to trustee and responsible agencies, the State Clearinghouse, and the public. A scoping meeting was held at the Manteca City Hall Council Chambers on January 27, 2020 to provide an opportunity for agency representatives and the public to assist the City in determining the scope and content of the EIR.

Draft General Plan and Draft EIR Public Review

On May 7, 2021, the City released the Draft General Plan and Draft EIR for public review. The City provided multiple opportunities for community engagement, including a series of workshops with the City Council and Planning commission, community workshops, and outreach to stakeholders.

CITY COUNCIL AND PLANNING COMMISSION JOINT WORKSHOPS

In April and May 2021, two joint workshops were held with the City Council and Planning Commission to present the Draft General Plan and Draft EIR, to provide an opportunity for public comment, and to receive preliminary feedback from the City Council and Planning Commission on the draft documents. The City Council directed staff and the consultant team to host a series of community workshops to increase opportunities for public input.

ENVIRONMENTAL JUSTICE STAKEHOLDERS MEETING

In April 2021, the City held a virtual meeting to present the Public Review Draft General Plan's approach to addressing environmental justice to service providers and organizations that serve disadvantaged communities and to receive comments on the Draft General Plan.

COMMUNITY WORKSHOPS

In May and June 2021, the city hosted two workshops to present the Draft General Plan and Draft Environmental Impact Report to the community. The workshops included an overview of the components of the Draft General Plan, including the Land Use Map and Major Streets Circulation, and the Draft EIR, including alternatives to the proposed project.

The City received over 200 oral and written comments on the Draft General Plan and Draft EIR. In response to the comments, the City Council directed that the General Plan Draft EIR be revised to address removal of the truck route, land use modifications, and the inclusion of an additional alternative. The proposed project addressed in this Revised Draft EIR is the Revised Draft General Plan which has been modified to reduce the potential for conflicts between intensive uses and potentially sensitive uses, to remove the truck route, and to refine policies and implementation measures.

Revised Draft General Plan

The Revised Draft General Plan has been modified based on direction from the decision-makers and comments received on the May 2021 Draft General Plan and Draft EIR. The Revised Draft General Plan, which is the proposed project described in this section, includes the following modifications:

1. Goals, policies, and programs are updated to strengthen equitable access to transportation, including active transportation systems, parks and recreation facilities, healthy foods, and community amenities and to ensure all community members have an opportunity to participate in the decision-making process.
2. Goals, policies, and programs are updated to further support climate adaptation and resiliency.
3. Goals, policies, and programs are updated to promote active transportation and reduction in vehicle miles traveled (VMT).
4. Goals, policies, and programs are updated to design development to address personal safety and security.
5. Goals, policies, and programs are updated to further support reductions in greenhouse gas emissions (GHGs), to improve air quality, and to reduce exposure to toxic air contaminants.
6. The Villa Ticino policy area reverts to the approved land use plan, rather future Industrial growth.
7. West of Airport Way, Commercial and Business Industrial Park uses are added between Lathrop Road and the UPRR railroad tracks, reducing the Industrial designation along Airport Way, and Commercial and Business Professional uses are added south of Yosemite Avenue, reducing mixed uses, including the potential for residential, in that area along Airport Way.
8. North of the City limits, between Highway 99 and Airport Way, a mix of Medium Density Residential, High Density Residential, and Parks has been included in the area envisioned for residential development south of Lovelace Road and the future Roth Road extension, increasing the variety of housing types planned for this area and access to parks and recreation facilities).
9. The Commercial designation is applied to the area southwest of the Union Road and Highway 120 interchange, reducing the potential for high density residential uses in this area.
10. The area west of the intersection of Moffat Boulevard and Industrial Park Drive is designated Commercial Mixed Use, to provide opportunities for walkable, transit-oriented uses that support a variety of housing types, community-oriented services and commercial uses, and employment opportunities.
11. The Commercial Mixed Use designation is applied to the area southwest of the Main Street and Highway 120 interchange, increasing the potential for a variety of housing types and mix of residential and non-residential uses in this area.
12. A policy area is applied to the area around the Lovelace Transfer Station, creating a node of Industrial, Business Industrial Park, Public/Quasi-Public Uses, Medium Density Residential, and High Density Residential uses and also removing the potential for residential uses within 500 feet of the Lovelace Transfer Station, providing for a transition of Business Industrial Park uses to residential uses south of Lovelace Road between Airport Way and Union Road.
13. The Park designation is applied along the future Roth Road extension east of Union Road to buffer residential uses from Industrial and higher intensity uses to the north.

14. The Urban Reserve overlay is applied to the Oakwood Lake area in the southwest portion of the Planning Area outside of the City limits, reducing the potential for growth in this area.
15. The Urban Reserve overlay is removed from the area north of Roth Road/Roth Road extension and west of Highway 99, increasing the potential for industrial and employment-generating growth in this area.
16. The Urban Reserve overlay is applied to the area east of Highway 99 generally north of Verigan Road, reducing future industrial and employment-generating growth in this area.
17. The Planning Area is reduced, eliminating lands north of Roth Road and west of Airport Way.

The Revised Draft General Plan also increases allowed densities, encouraging a greater variety of housing types, as follows:

- 20.1 to 30 units per acre allowed in the High Density Residential and Mixed Use Commercial designations and increased densities in the Downtown designation,
- 8.1 to 19 units per acre in the Medium Density Residential designation, and
- 20.1 to 30 units per acre allowed in the Commercial designation when it is demonstrated that the use would not have an adverse fiscal impact on the City.

Public Outreach

For all public workshops and meetings, the City of Manteca conducted extensive outreach, using a wide variety of methods and tools, to inform and encourage the community to participate in the General Plan Update process. The following is a list of methods and tools used to inform the public of meetings, workshops, and the status of the General Plan Update work efforts.

- General Plan Website: The City maintains a website (manteca.generalplan.org) devoted to informing the public about, and encouraging participation in, the General Plan Update process. The website includes all public notices, all workshop materials, presentations given to the GPAC and City Council, background materials, draft policy documents, and draft versions of the General Plan Land Use Map.
- E-mail distribution list: This list was developed and maintained over time, and included approximately local and regional agencies, organizations, stakeholders, and individuals.
- Social Media: The City regularly posted meeting notices and project updates to its social media platforms, including NextDoor and Facebook.
- Flyers: Flyers were posted at City Hall and at key locations throughout the community advertising the Visioning Workshops and online survey.

2.2 PROJECT LOCATION

REGIONAL SETTING

The City of Manteca, incorporated May 28, 1918, is located in the “heartland” of California’s Great Central Valley, with historical roots as an important agricultural center. Due to excellent soil, great climate, and access to clean water, the City of Manteca was predominantly an agricultural area of

much of the early 20th century; however, the community has transformed from an agricultural base to an urbanized base. The economic growth in south San Joaquin County has been powered by the area's advanced transportation infrastructure.

The City of Manteca is located in the southern portion of San Joaquin County, approximately 10 miles south of Stockton and approximately 14 miles northwest of the City of Modesto. The City is accessed by Highway 99 from the north and south and State Route (SR) 120 from the east and west. The City is bordered by the City of Lathrop to the west and unincorporated San Joaquin County to the north, south, and east. The project's location is shown in Figure 2.0-1. The General Plan boundary (Planning Area) is shown in Figure 2.0-2.

ENVIRONMENTAL IMPACT REPORT STUDY AREA

There are three key boundary lines addressed by the General Plan, which make up the study area for the General Plan EIR. These include the City Limits, the Sphere of Influence (SOI), and the Planning Area, as shown on Figure 2.0-2 and described below.

City Limits: Includes the area within the City's corporate boundary, over which the City exercises land use authority and provides public services.

Sphere of Influence (SOI): The planning boundary outside of the City Limits that designates the probable future physical boundary and service area of the City, as adopted by the Local Agency Formation Commission (LAFCO).

Planning Area: For the purposes of the General Plan, the Planning Area is the geographic area for which the General Plan provides a framework for long-term plans for growth, resource conservation, and continued agricultural activity. State law requires the General Plan to include all territory within Manteca's incorporated area as well as "any land outside its boundaries which in the planning agency's judgment bears relation to its planning" (California Government Code Section 65300). The Planning Area for the Manteca General Plan includes the entire area within the City Limits and the City's SOI.

2.3 PROJECT OBJECTIVES

The Manteca General Plan is intended to reflect the desires and vision of Manteca's residents, businesses, the GPAC, Planning Commission, City Council, and other decision-makers for the future development and operation of Manteca.

Pursuant to Section 15124(b) of the CEQA Guidelines, an EIR project description must include a statement of objectives sought by the proposed project. These objectives assist the Lead Agency in developing a reasonable range of alternatives to evaluate in the EIR and aid decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project and may discuss project benefits. The following objectives are identified for the proposed update to the General Plan:

1. Reflect the current goals and vision expressed by city residents, businesses, decision-makers, and other stakeholders;
2. Address issues and concerns identified by city residents, businesses, decision-makers, and other stakeholders;
3. Provide for logical, orderly growth from the city's compact, historic center extending to well-delineated residential neighborhoods, employment centers, and community amenities;
4. Maintain Manteca's family-oriented community character with gathering places, activities, and parks/recreation opportunities for all ages located in attractive, sustainable, and safe neighborhoods and throughout the community;
5. Preserve access to the area's agricultural and natural characteristics, including green space, farmland, and orchards;
6. Revitalize and enhance the Downtown;
7. Provide and encourage high-quality housing options and a variety of housing types for all income levels;
8. Provide and promote high-paying, local employment opportunities and retain and attract high-quality businesses and industry so that residents can live, shop, and work in Manteca;
9. Maintain strong fiscal sustainability that ensure efficient and adequate public services and amenities and supports improved multimodal transportation opportunities, and, through promoting land uses that increase local revenues and ensuring development pays its fair-share;
10. Provide a basis for City decision-makers, City departments, other public agencies, and private developers to design projects that enhance the character of the community and achieve the City's desired growth, safety, and conservation objectives; and
11. Address requirements of State law, including addressing environmental justice, safety, climate adaptation and resilience, and transportation, including complete streets and VMT.

2.4 DESCRIPTION OF PROPOSED GENERAL PLAN PROJECT

The City of Manteca is preparing a comprehensive update to its existing General Plan, which was prepared in 2003 (with partial updates to the Circulation Element in 2011, updates to the Safety Element to address SB 5 [i.e., 200-year flood protection] in 2016). The Housing Element was adopted in 2016 and is not anticipated to be significantly revised by the General Plan Update. The General Plan Update is expected to be complete in Summer 2022 and will guide the City's development and conservation of its resources. The Plan is intended to be an expression of the community's vision for the City and Planning Area and constitutes the policy and regulatory framework by which future development projects will be reviewed and public improvements will be implemented. The City will implement the Plan by requiring development, infrastructure improvements, and other projects to be consistent with its policies and by implementing the actions included in the Plan. The key components of the General Plan will include broad goals for the future of Manteca, and specific policies and actions that will help implement the stated goals.

State law requires the City to adopt a comprehensive, long-term general plan for the physical development of its planning area. The Plan must include land use, circulation, housing, conservation, open space, noise, and safety elements, as specified in Government Code Section 65302, to the extent that the issues identified by State law exist in the City's planning area. Additional elements that relate to the physical development of the City may also be addressed in the Plan. The degree of specificity and level of detail of the discussion of each Plan element need only reflect local conditions and circumstances. The Plan has been prepared to address the requirements of State law and the relevant items addressed in Government Code Section 65300 et seq.

This EIR analyzes potential impacts to the environment associated with implementation and buildout of the proposed General Plan, which includes future development projects, infrastructure improvements, and the implementation of policies and actions included in the proposed General Plan. These proposed General Plan components are described in greater detail below.

GUIDING PRINCIPLES

The following Guiding Principles for the General Plan Update were identified by the community through the Visioning process:

- Provide for logical, orderly growth from the City's compact, historic center extending to well-delineated residential neighborhoods, employment centers, and community amenities;
- Maintain a family-oriented community with gathering places, activities, and parks/recreation opportunities for all ages located in attractive, sustainable neighborhoods and throughout the community;
- Preserve access to the area's agricultural and natural characteristics, including green space, farmland, and orchards;
- Revitalize and enhance the downtown;
- Provide and encourage housing and places for all income levels; and
- Provide and promote high-paying, local employment opportunities and attract high-quality businesses and industry.

GENERAL PLAN ELEMENTS

The Proposed General Plan will include a comprehensive set of goals, policies, and actions (implementation measures), as well as a revised Land Use Map (see Figure 2.0-3). The State requires that the General Plan contain seven mandatory elements: Land Use, Circulation, Housing, Open Space, Noise, Safety, and Conservation, as well as address issues related to climate adaptation and resiliency planning, environmental justice, air quality, community design, growth management, and public facilities and services, either as separate Elements or as components of the required Element framework. The Plan includes all of the State-mandated elements, including Land Use (addresses Environmental Justice), Circulation, Resource Conservation (combines Open Space, Conservation, and Air Quality topics), and Safety (also addresses Climate Adaptation and Noise) as well as optional elements, including Growth Management, Community Design, Economic

Development, and Community Facilities and Services. As previously noted, the Housing Element was adopted in 2016 and is not anticipated to be significantly revised by the General Plan Update.

The **Land Use Element** ensures that Manteca has sufficient capacity to support a diverse mix of land uses essential to the community's ability to thrive and be sustainable over time. The goals, policies, and measures in this element address the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, education, public buildings and grounds, waste disposal, and open space, including agriculture, natural resources, recreation, scenic areas, and greenways. The Land Use Element includes the Land Use Map, which identifies land use designations for each parcel in the City Limits and Planning Area (Figure 2.0-3). It also identifies high-level community design objectives for the City of Manteca, including the relationship between the public and private realm, streetscapes, best site planning practices, and placemaking strategies and establishes the City's framework for addressing environmental justice in the General Plan. This Element establishes the following goals and include policies and implementation measures to address each goal:

- LU-1: Maintain a land use plan that provides a mix and distribution of uses that meet the identified needs of the community;
- LU-2 Promote infill development and provide for orderly, well-planned, and balanced growth that does not exceed the City's available infrastructure capacity and resources and is consistent with the General Plan;
- LU-3: Establish and maintain residential neighborhoods that meet the housing needs of all residents and are safe and attractive places to live with convenient access to services, recreation, schools, and employment;
- LU-4: Provide for a broad range of commercial uses that serve the needs of Manteca's residents and the region-at-large, provide dynamic and attractive focal points and gathering areas, and increase Manteca's sales tax base;
- LU-5: Increase employment opportunities across all sectors of the economy to enhance Manteca's reputation as an employment center in southern San Joaquin County and to improve upon Manteca's jobs-to-housing ratio;
- LU-6: Increase the presence of mixed-use development to revitalize Downtown and aging commercial centers and create vibrant centers in new growth areas;
- LU-7: Provide adequate land for development of public and quasi-public uses, including parks, schools, and community facilities, to support existing and new development and the community's needs;
- LU-8: Provide for creativity and desired growth in strategic areas, while providing flexibility to address change, refinement of the anticipated uses, and integration with future development projects;
- LU-9: Create an environmentally just city with an equitable distribution of public facilities and services, a safe and healthy environment, including access to healthy foods, recreation and activity, and public services, and opportunities for public input for all community members;
- LU-10: Maintain a high quality natural environment and recreational opportunities in and around Manteca; and

- LU-11: Preserve Manteca's agricultural heritage by protecting and maintaining significant areas of agricultural lands around the city.

The **Growth Management Element** provides a framework for pacing growth in the context of ensuring a high-quality life for the community's residents and on-going provision of community services and infrastructure that meet the community's existing needs as well as increasing capacity necessary to accommodate growth. This element provides for an annual report of planned growth and development and associated service levels, serving to inform decision-makers and the community regarding the implementation of the City's growth management program and to provide an opportunity for community input. This Element establishes the following goal and include policies and implementation measures to address the goal:

- GM-1: Maintain appropriate growth management measures that ensure a high quality of life, appropriate levels of service, and address anticipated development patterns and timing of public services, facilities, and infrastructure to serve new growth.

The **Circulation Element** correlates closely with the Land Use Element and identifies the general locations and extent of existing and proposed major thoroughfares, transportation routes, terminals, military airports and ports, and other public utilities and facilities necessary to support a multi-modal transportation system. This element provides the framework for decisions concerning the City's multi-modal transportation system, which includes automobile, truck, transit, bicycle, and pedestrian modes of travel and reflects SB 743 and CEQA. Planned roadway improvements are reflected on Figure C-1, Major Streets Master Plan. This Element establishes the following goals and include policies and implementation measures to address each goal:

- C-1: Provide for a complete multimodal circulation system designed for the safe, balanced movement of all users, including children, persons with disabilities, seniors, and underserved populations, and goods and services to destinations inside and outside of Manteca while minimizing vehicle miles traveled (VMT) public costs to build and maintain the system;
- C-2: Provide a safe, high-quality, climate-resilient transportation system that addresses all modes of travel and includes attractive streetscapes with native and drought-tolerant landscaping, street trees, planted berms, and landscaped medians;
- C-3: Establish reasonable vehicle parking requirements (minimum and maximum rates for uses) that limit parking encroachment while minimizing the amount of land consumed by parking lots;
- C-4: Provide a safe, secure, comfortable, and convenient pedestrian and bicycle system that connects riders of all ages and abilities to schools, including safe routes to schools, retail, employment centers, public facilities, and parks;
- C-5: Maintain a coordinated, efficient bus service that provides an effective alternative to automobile use, serves members of the community that cannot drive, and includes regional transit connections that link Manteca to other destinations;
- C-6: Accommodate truck and freight movements by participating in the development and implementation of an efficient regional goods and freight movement network and

encouraging the development of freight and warehousing centers near existing rail lines and spurs that balances the need to support job creation with the need to protect people from noise, emissions, and other impacts created by goods and freight movement (rail and trucks); and

- C-7: Reduce vehicle miles traveled associated with trips within, to, and from the City while expanding access and mobility options for residents, employees, and visitors.

The **Community Design Element** addresses the quality and character of Manteca's urban form, comprising, the built environment, open spaces, and the natural landscaping. This Element establishes the following goals and include policies and implementation measures to address each goal:

- CD-1: Strengthen Manteca's identity and sense of place by reinforcing the community's distinctive, high-quality urban form, natural landscape, and character;
- CD-2: Ensure project designs reinforce a sense of place, reflect human scale and orientation, and are cohesive and sensitive to the surrounding built environment and/or natural landscape;
- CD-3: Enhance gateways, key corridors, and wayfinding for an improved sense of arrival and orientation for residents and visitors throughout Manteca;
- CD-4: Maintain and enhance the character and distinct identities of Manteca's residential neighborhoods, districts, and centers;
- CD-5: Enhance the corridors, pathways, and edges that form physical boundaries and provide transitions and connections that reduce barriers throughout the community;
- CD-6: Provide appropriate transitions between land uses to avoid conflicts and perpetuate the community's harmonious character;
- CD-7: Maintain and enhance Manteca's commitment to sustainable design by minimizing negative environmental impacts and utilizing resources efficiently; and
- CD-8: Preserve and enhance the character of the city's rural areas and agricultural heritage;
- CD-9: Celebrate public art and expand the significant role that the arts play in Manteca's quality of life;
- CD-10: Promote active transportation and reduction in vehicle miles traveled (VMT) through project and site design; and
- CD-11: Improve the design of developments to reduce threats to personal safety and security.

The **Economic Development Element** addresses providing appropriate and adequate sites and programs to support existing businesses as well as to encourage diverse economic growth, efforts to ensure that the City's labor force is skilled and provided a broad range of employment opportunities, ensuring that the City's housing and quality of life are of a caliber to attract employers, ensure that infrastructure is in place or planned to support a successful commercial and industrial base, including telecommunications and emerging technologies, and providing a sustainable fiscal base for the City. This element provides a framework to guide and support

Manteca's fiscal and economic development. This Element establishes the following goals and include policies and implementation measures to address each goal:

- EF-1: Provide a diversified, stable, and sustainable revenue base adequate to maintain and improve essential and desired City services;
- EF-2: Provide adequate commercial, office, and industrial-designated land in appropriate locations to meet the community's employment, shopping, and service needs, ensure Manteca's market competitiveness within the region, and minimize land use conflicts;
- ED-3: Encourage the retention and expansion of the city's existing businesses and the attraction of new businesses that are compatible with the city's economic development objectives, workforce, and character;
- EF-4: Encourage a broad range of employment opportunities and expand educational and training opportunities to support residents finding gainful, well-paid employment within the community;
- EF-5: Promote and support the development of affordable and market rate housing that matches with the needs of the present and future Manteca work force;
- EF-6: Position Manteca to attract a high-quality labor force and employers that are seeking top talent through the provision of a safe, attractive, enjoyable, and close-knit community; and
- EF-7: Assure that adequate public and private infrastructure is available to support new and the expansion of existing businesses.

The **Community Facilities and Services Element** includes goals, policies, and actions that seek to ensure that community facilities and services are provided, maintained, and expanded, so that Manteca can continue to grow and thrive. This element addresses General Service, Police, Fire, Parks and Recreation, Education, Domestic Water, Sewer, Major Drainage, Telecommunications, Electricity and Natural Gas, and Solid Waste. This Element establishes the following goals and includes policies and implementation measures to address each goal:

- CF-1: Provide innovative, affordable, and high quality community services and facilities to all residents, businesses, and visitors in Manteca;
- CF-2: Prioritize a safe community through the provision of high quality police services and crime prevention measures;
- CF-3: Ensure the provision of high quality and responsive fire protection services;
- CF-4: Maintain a diverse and comprehensive system of parks, trails, recreation facilities, and recreation programs that meets the needs of all segments of the community and supports economic development and residential growth in the city;
- CF-5: Coordinate with the school districts to provide superior educational opportunities, adequate school sites to serve existing and planned growth, and to ensure and prioritize sufficient land inventory to accommodate educational facilities needs of Manteca residents;
- CF-6: Provide an adequate, reliable, and safe water supply, storage, and distribution system to meet the needs of existing and projected development;

- CF-7: Maintain an adequate sewage collection, treatment, and disposal system to meet the needs of existing and projected development;
- CF-8: Provide an adequate level of service in the City's drainage system to accommodate runoff from existing and projected development and to prevent property damage due to flooding;
- CF-9: Ensure state-of-the-art technology and telecommunications services for households, businesses, and the community is available throughout the city;
- CF-10: Ensure adequate, reliable electric and natural gas service is available to all users; and
- CF-11: Increase recycling service while maintaining adequate solid waste service for all users.

The **Resource Conservation Element** establishes Manteca's approach to the conservation and enhancement of Manteca's natural resources: water, land/soils, open space, and ecosystem, approach to addressing air quality, energy conservation, and climate adaptation, conservation of agricultural and mineral resources, and preservation of the City's cultural and historic heritage. This Element establishes the following goals and includes policies and implementation measures to address each goal:

- RC-1: Conserve and enhance water resources in local waterways, wetlands, and aquatic habitat, protecting water quality and minimizing the consumption of water through use of careful and empirically-backed planning;
- RC-2: Manage and enhance groundwater as a valuable and limited shared resource on a sustainable yield basis that can provide water purveyors and individual users with reliable, high quality groundwater to serve existing and planned land uses during prolonged drought periods;
- RC-3: Preserve and maintain Manteca's soils to avoid the pollution of surface waters, decreased air quality, and erosion;
- RC-4: Improve climate resiliency through reducing greenhouse gas emissions through sustainable energy, transportation, land use, and local government actions that maximize energy efficiency and reduce energy usage and greenhouse gas emissions;
- RC-5: Protect the health and welfare of city residents and visitors by promoting development and planning practices that are compatible with federal, state, and local air quality standards and regulations and implement regional efforts to improve air quality;
- RC-6: Provide and preserve a network of diverse, safe, and accessible open spaces;
- RC-7: Encourage the continuation of agricultural uses and discourage the premature conversion of agricultural land to nonagricultural uses;
- RC-8: Protect sensitive native vegetation and wildlife communities and habitat in Manteca;
- RC-9: Manage Manteca's mineral resources while preserving development and conservation options for the future;
- RC-10: Preserve and enhance Manteca's archaeological and historic resources for their aesthetic, educational and cultural values; and respect Manteca's Native American heritage; and

- RC-11: Protect the health of the Bay Delta.

The **Safety Element** addresses emergency preparedness and critical facilities, geologic and seismic hazards, flood hazards, hazardous materials, and noise. The goals, policies, and implementation measures in this element are designed to protect and enhance the public health and safety of Manteca residents, property, and environment. This Element establishes the following goals and includes policies and implementation measures to address each goal:

- S-1: Ensure that City emergency procedures, critical facilities, and energy systems are adequate in the event of potential natural or man-made disasters;
- S-2: Prevent loss of lives, injury, and property damage due to geological hazards and seismic activity and prevent disruption of essential services in the event of an earthquake;
- S-3: Protect life and property from flood events through providing a planning framework for flood protection and risk management consistent with Federal and State law and pursuing flood control solutions that minimize environmental impacts;
- S-4: Protect the health, safety, natural resources, and property of the community through regulation of use, storage, transport, and disposal of hazardous materials;
- S-5: Build community resilience, support community-led adaptation, and strengthen collaboration and resources to reduce public health and safety risks to life, property, the economy, and the environment from climate hazards; and
- S-6: Protect the quality of life by protecting the community from harmful and excessive noise.

The Implementation Element addresses the administration and implementation of the General Plan, including and Implementation Plan that prioritizes and tracks the actions identified in the General Plan. This Element establishes the following goal and include policies and implementation measures to address this goal:

- I-1: To provide for the ongoing administration and implementation of the General Plan.

GOALS, POLICIES, AND ACTIONS

Each element of the Manteca General Plan contains an introduction, several goals and related policies, and a description of related plans, programs and legislation. The goals and policies provide guidance to the City on how to direct change, manage growth, and manage resources over the 20- to 30-year life of the General Plan. In order to ensure that the goals and policies in the General Plan are effectively implemented, a series of actions, or implementation measures, have been developed. The following provides a description of each and explains the relationship of each:

- A **goal** the broadest statement of community values. It is a generalized ideal which provides a sense of direction for action and statement of the desired future conditions.
- A **policy** is a specific statement that guides decision-making as the City works to achieve its goals. Once adopted, policies represent statements of City regulations. The General Plan's policies set out the standards that will be used by City staff, the Planning Commission, and

the City Council in their review of land development projects, resource protection activities, infrastructure improvements, and other City actions. Policies are on-going and require no specific action on behalf of the City.

- An **action** is an implementation measure, procedure, technique, or specific program to be undertaken by the City to help achieve a specified goal or implement an adopted policy. The City must take additional steps to implement each action in the General Plan. An action is something that can and will be completed.

GENERAL PLAN LAND USE MAP

The proposed General Plan Land Use Map identifies land use designations for each parcel within the City Limits, SOI, and Planning Area. The proposed General Plan Land Use Map is attached as Figure 2.0-3.

GENERAL PLAN LAND USE DESIGNATIONS

The Land Use Element of the proposed General Plan defines various land use designations by their allowable uses, minimum parcel sizes, and maximum development densities. The following describes the proposed land use designations for the General Plan. Table 2.0-1 shows the total acreage for each land use designation shown on the proposed Land Use Map.

Residential Land Use Designations

Very Low Density Residential (VLDR); 0-2 dwelling units per acre (du/ac) – The VLDR land use designation provides for the development of provides for residences on larger lots and small, quasi-agricultural activities, including raising and boarding livestock. Clustering is encouraged to allow continuation of agricultural uses or to provide common amenities for the development.

Uses such as schools, churches, compatible public institutional and utilities facilities, and greenways are allowed in the VLDR land use designation.

Low Density Residential (LDR); 2.1-8 du/ac - The LDR land use designation provides for a mix of single-family housing, including small lots, clustered lots, attached homes, and conventional large lot detached residences at a maximum of eight dwelling units per net acre of land. The density range allows substantial flexibility in selecting dwelling unit types and parcel configurations to suit particular site conditions and housing needs.

Uses such as schools, churches, compatible public institutional and utilities facilities, and greenways are allowed in the LDR land use designation.

Medium Density Residential (MDR); 8.1-20 du/ac - The MDR land use designation provides for smaller single family homes in more imaginative lotting arrangements, duplex and triplex development, smaller scale multifamily developments, including cottage homes, garden apartments, townhouses, and cluster housing, and mobile home parks. The density range will accommodate small-lot single family homes that will typically be smaller in size and more affordable to residents.

Uses such as schools, churches, compatible public institutional and utilities facilities, and greenways are allowed in the MDR land use designation.

High Density Residential (HDR); 20.1-30 du/ac – The HDR land use designation provides for multi-family townhome, condominium, and apartment style housing and mobile home parks. The multi-family dwelling sites are typically located with direct access to arterial streets. The sites have access to the pedestrian and bikeway network along the street corridor and are located along the conceptual route of a public transportation shuttle route. Sites should be located near a neighborhood park, a neighborhood commercial center, or jobs centers and should provide pedestrian and bicycle connections to these amenities and services.

Uses such as schools, churches, compatible public institutional and utilities facilities, and greenways are allowed in the HDR land use designation.

Mixed-Use Land Use Designations

Commercial Mixed-Use (CMU); Residential: 20.1 to 30 du/ac; 50 percent site coverage; Non-Residential: 1.0 Maximum Floor-Area-Ratio (FAR) – The CMU land use designation provides for high density residential, employment centers, retail commercial, and professional offices. A mix of compatible uses is encouraged to provide neighborhood-serving sales, services, and activities, as well as employment opportunities, including offices. Developments shall include community-serving amenities and connections that distinguish them from conventional multifamily, neighborhood commercial, or office development, with the intent that a recreational area and neighborhood serving uses will provide a local gathering place for recreation and socializing much as does a small town square. Mixed uses may be integrated vertically or horizontally and shall be linked together through common walkways, plazas and parking areas, as well as linkages to the adjoining bicycle and pedestrian system. Where required, open space, detention facilities, and parks, will be designed as an amenity within the site.

Public facilities, such as a post office, library, fire station, or satellite government office, shall be included where feasible. Developments shall have a shared parking program with the objective of reducing the parking required for each individual use. Uses such as schools, churches, compatible public institutional and utilities facilities, and greenways are allowed in the CMU land use designation.

Downtown (DW); Standards to be determined by the Downtown Specific Plan or Zoning Code Update – The DW land use designation provides for the mixture of retail and service commercial, office, and/or multiple-family residential uses that are intended to preserve and enhance the historic and pedestrian-scale character of the Downtown. Preferred residential uses include condominiums and townhomes and high quality second and third floor apartment uses. Short-term rentals are not allowed in this designation, unless developed as part of a hotel. Multi-family residential uses are required to be permanent dwellings with each unit having separate restrooms, kitchens, and thermostats. The designation also provides for public/quasi-public uses, parks and urban open spaces, and similar and compatible uses.

Uses such as schools, churches, compatible public institutional and utilities facilities, and greenways are allowed in the DW land use designation.

Commercial, Professional, and Industrial Land Use Designations

Business Industrial Park (BIP); 1.0 Maximum FAR; 50 percent lot coverage – The BIP land use designation provides for sites for large uses in an office park environment that would include multi-tenant buildings. Business parks of this nature are well suited for research and development facilities and also provide an attractive business environment for unrelated businesses. Allowed uses in the BIP land use designation includes administrative, offices, research and development, light industrial, including manufacturing and assembly, and commercial storage. Warehouse, storage, and distribution that support the industrial uses shall not comprise more than 20 percent of a business industrial park. Service commercial and retail activities provided for the convenience of the employees shall not comprise more than 10 percent of a business industrial park.

Business Professional (BP); 1.5 Maximum FAR; 50 percent lot coverage – The BP land use designation provides for professional and administrative offices, medical and dental clinics, laboratories, financial institutions, public and quasi-public uses, and similar and compatible uses. The designation is specifically intended for the frontage along SR 120, and along other major roads and in the Central Business District to provide an attractive, landscaped setting for one, two, and three-story office buildings

Commercial (C); Residential: 20.1 to 30 du/ac; 2.0 or 0.6 Maximum FAR; 50 percent lot coverage – The C land use designation provides for neighborhood, community, and regional-serving retail and service uses; offices; restaurants; service stations; highway-oriented and visitor commercial and lodging; auto-serving and heavy commercial uses; wholesale; warehousing; public and quasi-public uses; commercial recreation and public gathering facilities, such as amphitheaters or public gardens; and similar and compatible uses. Uses that are incompatible with residential uses due to noise, vibration, or other characteristics are not permitted in locations that may impact existing or future residential development.

Industrial (I); 0.7 Maximum FAR; 60 percent lot coverage – The I designation provides for manufacturing, processing, assembling, research, wholesale, and storage uses, trucking terminals, railroad and freight stations, industrial parks, warehouses, distribution centers, light manufacturing, public and quasi-public uses and similar and compatible uses. Uses that are incompatible with residential uses due to noise, vibration, or other characteristics are not permitted in locations that may impact existing or future residential development.

Agricultural Industrial (AI); 0.4 Maximum FAR; 50 percent lot coverage – The AI designation provides limited industrial uses directly related to agriculture and compatible uses, such as wineries, food packaging and processing, storage of food and beverages processed on-site, agricultural education, agricultural research and development (irrigation, production yield, pest resistance, etc.), and agricultural extension services.

Public Land Use Designations

Public/Quasi-Public (PQP); 0.5 Maximum FAR and 50 percent lot coverage – The PQP land use designation provides opportunities for government owned facilities, public and private schools, institutions, civic uses, assembly uses, and public utilities, and quasi-public uses such as hospitals and churches. Multifamily and congregate residential housing is allowed when secondary to the primary use. This designation also allows commercial recreation uses, including public and private parks, beach and water access, recreation fields, lifestyle centers that include upscale specialty stores with dining and entertainment in an outdoor setting, and other community- and visitor-oriented recreation, provided that the project includes a component that provides a significant public benefit to the community.

Park (P); 0.2 Maximum FAR and 20 percent lot coverage – The P designation provides for neighborhood, community and regional parks, greenways, golf courses, and other outdoor recreational facilities within urban development. Specific uses include public recreation sites, including ball fields, tot lots and play apparatus, adult softball and soccer playing fields, swimming pools, community center buildings, meeting facilities, libraries, art centers, after school care facilities, art in public places, facilities for night-time recreation, trails benches, interpretive markers, picnic areas, barbecue facilities, landscaping, irrigation, City wells, trees, and natural habitat areas.

Open Space (OS); 0.05 Maximum FAR and 5 percent lot coverage – The OS designation provides for habitat, open space, natural areas, lands of special status species, wetlands, and riparian areas. These areas are set aside as permanent open space preserves to protect environmentally sensitive areas. Development is limited to improvements, such as parking, restrooms, and walkways, etc., to provide for public access to open space and educational facilities, such as learning centers or space for hosted talks and tours of the open space.

Other Land Use Designations

Agriculture (AG); 0.2 Maximum FAR and 20 percent lot coverage - The AG land use designation provides for agricultural uses (such as vineyards, orchards, and row crops), single family homes directly related to the agricultural use of the property, limited industrial uses directly related to the agricultural use of the property, and similar and compatible uses.

Urban Reserve Overlay -- The Urban Reserve Overlay designation is applied to select properties around the perimeter of the City and the Planning Area where the City intends to expand its urbanized development pattern in the time horizon beyond the General Plan. The overlay accompanies an underlying Agricultural, Very Low Density Residential, Low Density Residential, Business Industrial Park, or Industrial land use designation. The maximum intensity of development is based on the underlying land use designation.

Policy Area – The Policy Area designation is applied to provide for flexibility in achieving the vision of the General Plan for select areas that either 1) have approved land use entitlements (e.g., subdivision map, site plan, or specific plan), or 2) require a comprehensive approach to planning to achieve a broad goal, such as providing a high-quality transit corridor and opportunities for

expansion of necessary community services. The maximum intensity of development is based on General Plan policies associated with the specific policy area. The proposed General Plan designates five Policy Areas:

- Policy Area 1 is located southwest of Airport Way and Louise Avenue (Villa Ticino project area) as shown in Figure LU-5 of the Land Use Element. Policy Area 1 provides for residential, neighborhood serving commercial, and park uses.
- Policy Area 2 is located along West Yosemite Avenue and Airport Way as shown in Figure LU-6 of the Land Use Element. Policy Area 2 supports expansion and retention of the Kaiser Permanente facility, creation of a high-transit use corridor and linkages to a future nearby transit center, and provide connectivity to the Family Entertainment Zone and other destinations. Development within this area may include transit-oriented development, business and medical offices, commercial, recreation, and high and medium density residential, with appropriate transitions and buffers where residences would be located adjacent industrial, wastewater processing, and other intensive uses.
- Policy Area 3 is the Austin Road Business Park and Residential Community Master Plan area, as shown in Figure LU-7 of the Land Use Element. The primary land uses within Policy Area 3 are envisioned to be a master planned residential community with high-quality parks, community-serving commercial uses, and residential development ranging from very low to high density residential in order to accommodate a broad range of housing types, including executive housing and workforce housing.
- Policy Area 4 is the Lovelace Materials Recovery Facility and Transfer Station area, with boundaries as shown in Figure LU- 7 of the Land Use Element. Policy Area 4 is intended to buffer nearby planned residential uses from the more intensive uses and traffic associated with the facility. Residential, parks, and similar uses located near Policy Area 4 should include appropriate transitions and buffers within 500 feet of the policy area to reduce potential conflicts between uses while the facility is active.
- Policy Area 5 is the Yosemite Square Master Plan area located east of Austin Road and northeast of the Highway 99/Highway 120 interchange, as shown in Figure LU-8 of the Land Use Element. The primary land uses within Policy Area 5 are envisioned to be a mix of low, medium, and high density residential providing a variety of housing types, transitioning from the Highway 99 and Highway 120 interchange with an Open Space buffer.

TABLE 2.0-1: ACREAGE BY LAND USE DESIGNATION IN THE PROPOSED LAND USE MAP

LAND USE DESIGNATION	*CITY LIMITS*	*PLANNING AREA (OUTSIDE OF CITY)*	*TOTAL ACRES*
RESIDENTIAL LAND USES			
Very Low Density Residential	44	448	492
Low Density Residential	5,783	2,492	8,274
Medium Density Residential	486	192	679
High Density Residential	340	130	470
Residential Subtotal	*6,652*	*3,262*	*9,914*

LAND USE DESIGNATION	*CITY LIMITS*	*PLANNING AREA (OUTSIDE OF CITY)*	*TOTAL ACRES*
MIXED USE LAND USES			
Commercial Mixed Use	548	124	673
Downtown	160	-	160
Mixed Use Subtotal	*708*	*124*	*832*
COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES			
Business Professional	39	43	83
Business Industrial Park	103	192	295
Commercial	943	260	1,203
Industrial	1,025	1,237	2,262
Agricultural Industrial		232	232
Commercial, Professional, and Industrial Subtotal	*2,110*	*1,965*	*4,075*
PUBLIC LAND USES			
Public/Quasi-Public	976	368	1,344
Park	559	167	726
Open Space	370	101	471
Public Subtotal	*1,905*	*636*	*2,541*
OTHER LAND USES			
Agriculture	118	3,886	4,004
Right-of-Way	90	89	179
Water		180	180
Other Subtotal	*208*	*4,156*	*4,364*
URBAN RESERVE			
Urban Reserve – Very Low Density Residential		775	775
Urban Reserve – Low Density Residential		808	808
Urban Reserve – Medium Density Residential		28	28
Urban Reserve – High Density Residential		19	19
Urban Reserve – Business Industrial Park		302	302
Urban Reserve – Industrial		694	694
Urban Reserve – Park		18	18
Urban Reserve – Public/Quasi-Public		30	30
Urban Reserve – Open Space		4	4
Urban Reserve Subtotal	-	*2,677*	*2,677*
TOTAL	**11,583**	**12,821**	**24,404**

SOURCE: DE NOVO PLANNING GROUP, 2022

2.5 GENERAL PLAN BUILDOUT ANALYSIS AND GROWTH PROJECTIONS

The EIR evaluates the anticipated development that could occur within the Planning Area if every parcel in the City developed at the densities and intensities expected under the proposed General Plan. While no specific development projects are proposed as part of the General Plan Update, the proposed General Plan will accommodate future growth in Manteca, including new businesses, expansion of existing businesses, and new residential uses. The buildout analysis anticipates full buildout of the Planning Area, based on the proposed Land Use Map.

State law requires that the General Plan indicate the maximum densities and intensities permitted within the Land Use Plan. Maximum allowable development on individual parcels of land is governed by these measures of density or intensity.

Anticipated growth accommodated by the General Plan Update within the Planning Area includes new and expanded businesses, new and expanded governmental and educational uses, and new residential development. Table 2.0-2 below summarizes the range of net growth, including residential units (single family and multifamily) and non-residential square footage (commercial, office, industrial, governmental, public/quasi-public) that could occur. Growth is projected for the area within the City as well as for the Planning Area, which includes areas outside of the City but within the SOI. It is noted that the total growth estimates anticipate buildout of the entire Planning Area, with the exception of areas identified as Urban Reserve.

Growth projections should not be considered a prediction for growth, as the actual amount of development that will occur throughout the 20- to 30-year planning horizon of the General Plan is based on many factors outside of the City's control. Actual future development would depend on future real estate and labor market conditions, property owner preferences and decisions, site-specific constraints, and other factors.

TABLE 2.0-2:GROWTH PROJECTIONS OF PROPOSED LAND USE MAP

DEVELOPMENT	*RESIDENTIAL*				*NON-RESIDENTIAL*	
	SINGLE-FAMILY UNITS	*MULTI-FAMILY UNITS*	*TOTAL UNITS*	*POPULATION*	*NON-RESIDENTIAL SQUARE FOOTAGE*	*JOBS*
Existing Conditions (City)	23,697	4,553	28,250	89,835	N/A	16,381
Net Growth: City Limits	9,799	10,485	20,284	64,503	17,551,727	16,986
Net Growth: Planning Area (outside of City)	11,092	6,727	17,819	56,665	11,161,885	17,783
Total Net Growth	***20,891***	***17,212***	***38,103***	***121,168***	***28,713,612***	***27,448***
Total (Existing + Net Growth)	44,588	21,765	66,353	211,003	-	43,829

[1]E-5 ESTIMATES, DEPARTMENT OF FINANCE, 2020; ONTHEMAP, CENSUS.GOV, 2020; CITY DEVELOPMENT PROJECTS DATA, 2020

SOURCE: DE NOVO PLANNING GROUP, 2022

Table 2.0-3 below includes a comparison of the current General Plan Land Use Map and the proposed General Plan Land Use Map in terms of population, housing units, jobs, and the jobs-to-housing ratio.

As shown in Table 2.0-2, buildout of the proposed General Plan could yield new growth that totals up to 38,103 housing units, a population of 121,168 people, 28,713,612 square feet of non-residential building square footage, and 27,448 jobs within the Planning Area. As shown in Table

2.0-3, this represents development growth over the existing General Plan of up to 11,948 new housing units, 38,005 more people, and 1,372 more jobs.[1]

TABLE 2.0-3: COMPARATIVE GROWTH PROJECTIONS OF CURRENT GENERAL PLAN LAND USE MAP AND PROPOSED GENERAL PLAN LAND USE MAP

	HOUSING UNITS	*POPULATION*	*JOBS*	*JOBS PER HOUSING UNIT*
BUILDOUT CONDITIONS: CITY + PLANNING AREA				
Current General Plan	54,405	172,998	42,457	0.84
Draft General Plan	66,353	211,003	43,829	0.66
NEW GROWTH: CITY + PLANNING AREA				
Change from Current General Plan	11,948	38,005	1,372	-0.18

SOURCE: DE NOVO PLANNING GROUP, 2022

GENERAL PLAN BUILDOUT BY TYPE OF GROWTH

The General Plan Update anticipates development of pending, approved, and under construction development projects that are generally consistent with the General Plan Update. Development associated with these development projects is included in the net growth projections reflected in Tables 2.0-2 and 2.0-3 and includes 7,291 single family units, 1,295 multifamily units, and 8,647,145 non-residential square feet, including 3,052,187 s.f. of commercial uses, 1,114,694 s.f. of office uses, 4,438,868 s.f. of industrial uses, and 41,396 s.f. of other uses. These development projects would result in a population of approximately 27,303 and 8,775 new jobs.

2.6 USES OF THE EIR AND REQUIRED AGENCY APPROVALS

This EIR may be used for the following direct and indirect approvals and permits associated with adoption and implementation of the proposed project.

CITY OF MANTECA

The City of Manteca is the lead agency for the proposed project. The proposed General Plan Update will be presented to the Planning Commission for review and recommendation and to the City Council for comment, review, and consideration for adoption. The City Council has the sole discretionary authority to approve and adopt the Manteca General Plan. In order to approve the proposed project, the City Council would consider the following actions:

- Certification of the General Plan EIR;
- Adoption of required CEQA findings and Statement of Overriding Considerations for the above action;
- Adoption of a Mitigation Monitoring and Reporting Program; and
- Approval of the General Plan Update.

[1] Assumptions regarding expected densities, intensities, land use mixes, persons per household, and employment density are included as Appendix B.

SUBSEQUENT USE OF THE EIR

This EIR provides a review of environmental effects associated with implementation of the proposed General Plan. When considering approval of subsequent activities under the proposed General Plan, the City of Manteca would utilize this EIR as the basis in determining potential environmental effects and the appropriate level of environmental review, if any, of a subsequent activity. Projects or activities successive to this EIR may include, but are not limited to, the following:

- Approval and funding of major projects and capital improvements;
- Future Specific Plan, Planned Unit Development, or Master Plan approvals;
- Annexations;
- Revisions to the Manteca Zoning Ordinance;
- Development plan approvals, such as tentative subdivision maps, variances, conditional use permits, and other land use permits;
- Development Agreements;
- Property rezoning consistent with the General Plan;
- Permit issuances and other approvals necessary for public and private development projects; and
- Issuance of permits and other approvals necessary for implementation of the General Plan.

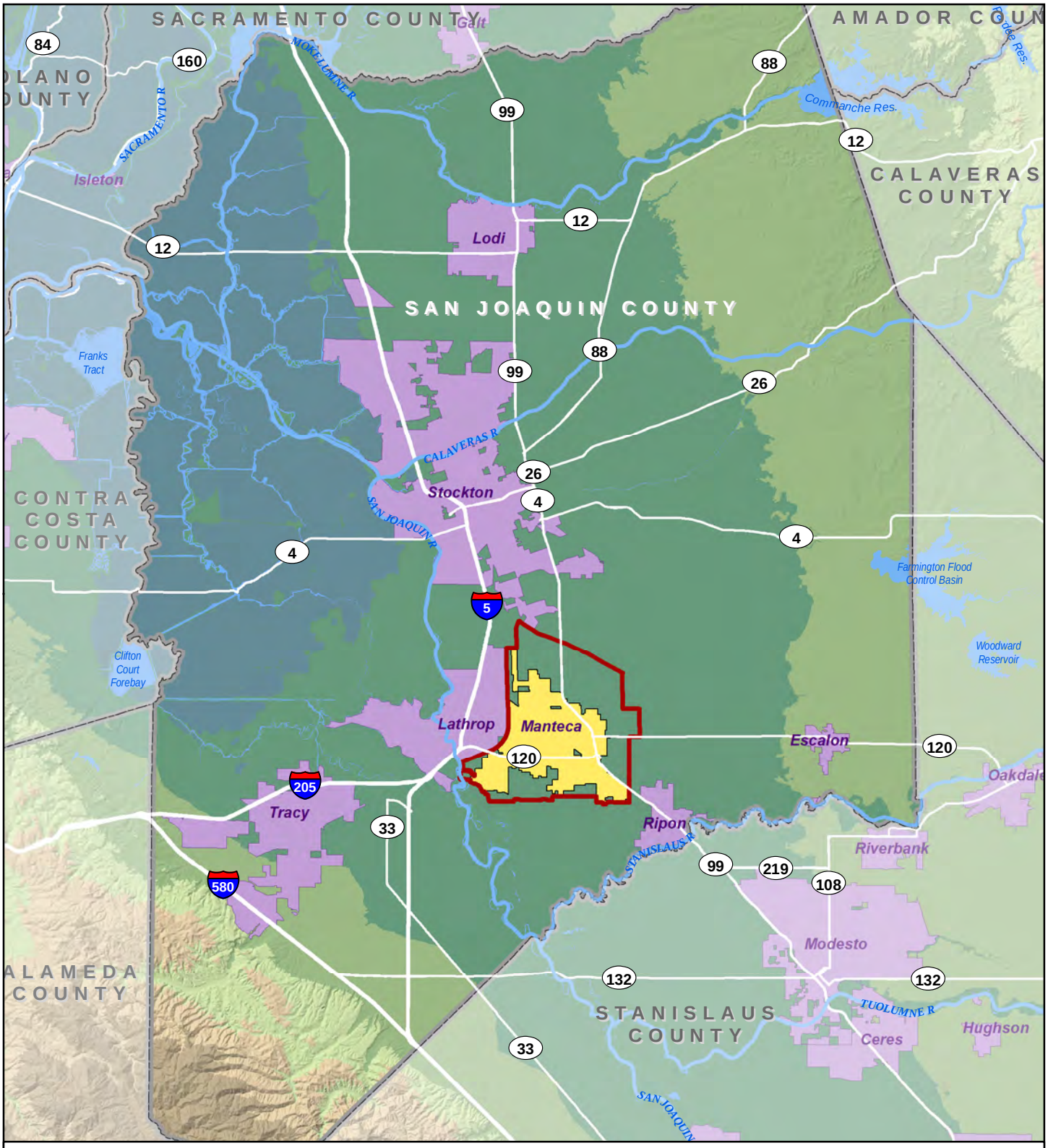
OTHER GOVERNMENTAL AGENCY APPROVALS

City approval of the proposed project would not require any actions or approvals by other public agencies. Subsequent projects and other actions to support implementation of the proposed project would require actions, including permits and approvals, by other public agencies that may include, but are not necessarily limited to:

- California Department of Fish and Wildlife (CDFW) approval of potential future streambed alteration agreements, pursuant to Fish and Game Code. Approval of any future potential take of State-listed wildlife and plant species covered under the California Endangered Species Act.
- California Department of Transportation (Caltrans) approval of projects and encroachment permits for projects affecting State highway facilities.
- Regional Water Quality Control Board (RWQCB) approval for National Pollution Discharge Elimination System compliance, including permits and Storm Water Pollution Prevention Plan approval and monitoring.
- San Joaquin Valley Air Pollution Control District (SJVAPCD) approval of construction-related air quality permits, authority to Construct, Permit to Operate for stationary sources of air pollution.
- U.S. Fish and Wildlife Service (USFWS) approvals involving any future potential take of Federally listed wildlife and plant species and their habitats, pursuant to the Federal Endangered Species Act.

- San Joaquin Local Agency Formation Commission (LAFCO) approval of Sphere of Influence modifications and annexations.

This page left intentionally blank.



Legend

- Manteca City Limits
- Planning Area
- Other Incorporated Area
- County Boundary

CITY OF MANTECA GENERAL PLAN

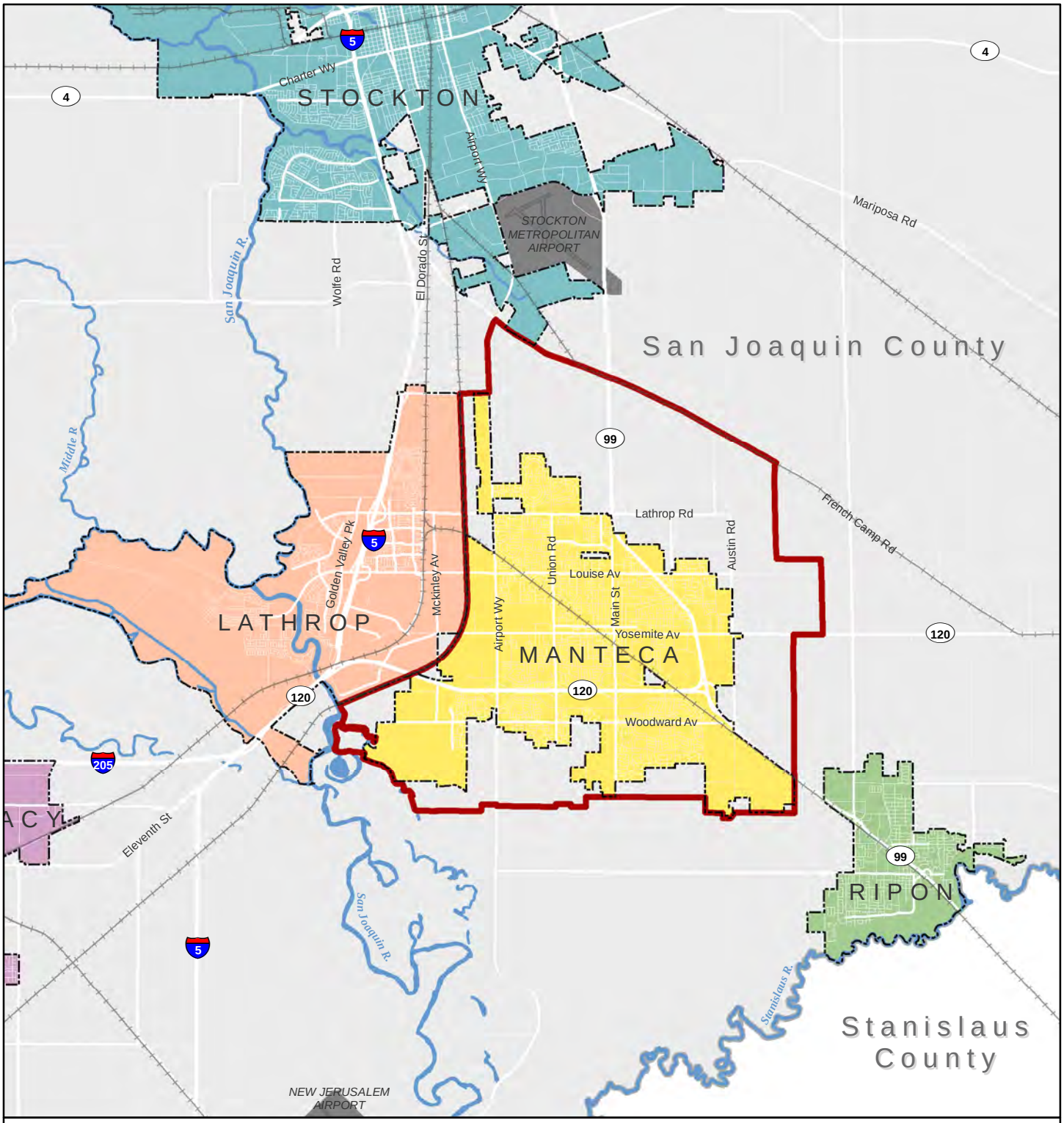
Figure 2.0-1. Regional Location Map

0 2½ 5
Miles

Sources: California State Geoportal; San Joaquin County GIS.
Map date: August 26, 2022.

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

This page left intentionally blank.



Legend

- Planning Area
- City of Manteca
- City of Lathrop
- City of Ripon
- City of Stockton
- City of Tracy

CITY OF MANTECA GENERAL PLAN

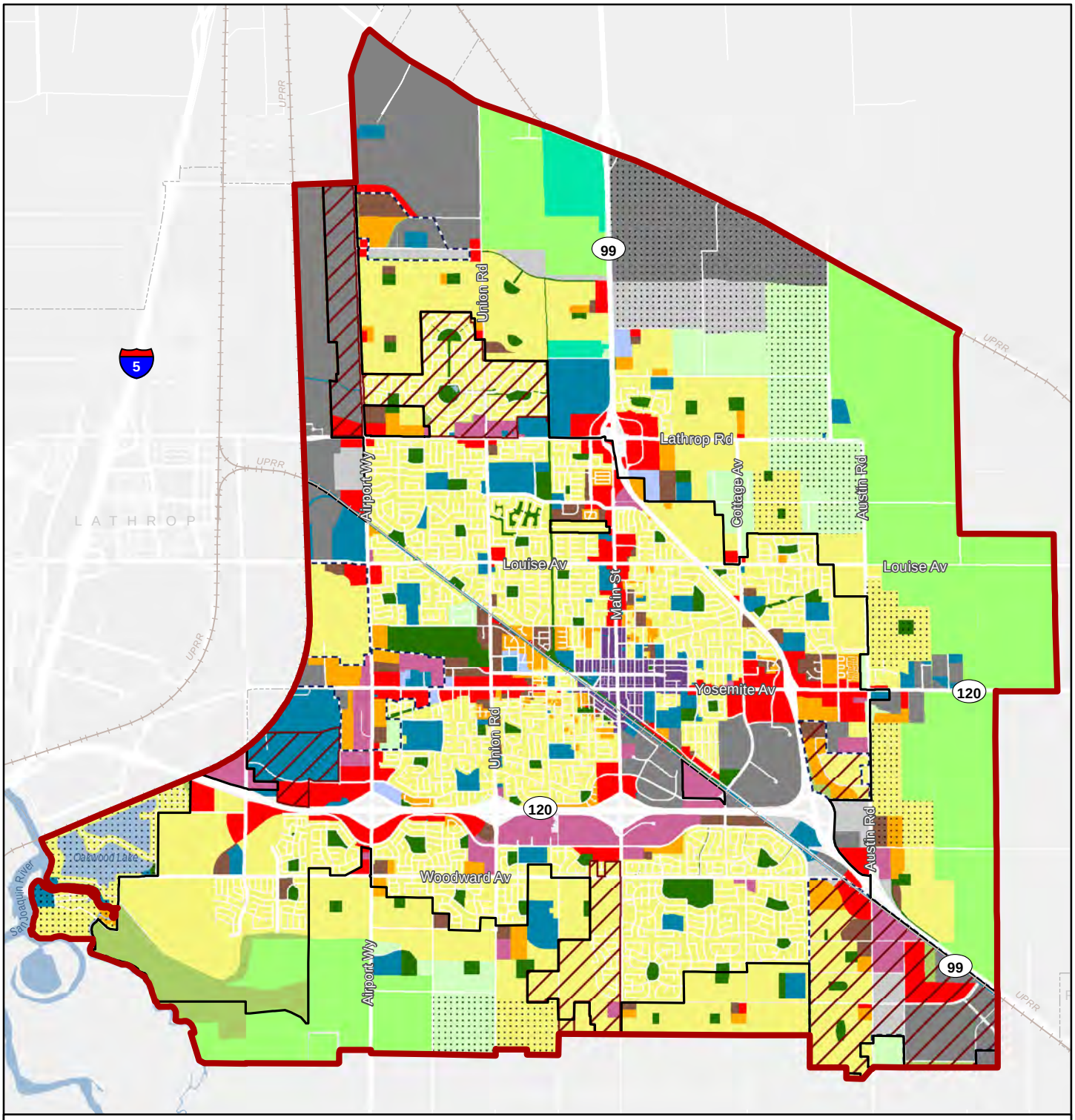
Figure 2.0-2. Vicinity Map

0 1 2 Miles

Sources: San Joaquin County GIS.
Map date: August 26, 2022.

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

This page left intentionally blank.



Legend

- City of Manteca
- Manteca Planning Area
- Master/Specific Plan Overlay
- Policy Area
- Urban Reserve Overlay
- AI - Agricultural Industrial
- AG - Agriculture
- C - Commercial
- CMU - Commercial Mixed Use
- DW - Downtown
- VLDR - Very Low Density Residential
- LDR - Low Density Residential
- MDR - Medium Density Residential
- HDR - High Density Residential
- BIP - Business Industrial Park
- BP - Business Professional
- I - Industrial
- OS - Open Space
- P - Park
- PQP - Public/Quasi-Public

Sources: City of Manteca; San Joaquin County. Map date: August 26, 2022.

CITY OF MANTECA GENERAL PLAN

Figure 2.0-3. Land Use Map

0 ½ 1
Miles

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

This page left intentionally blank.

Scenic resources are located within the vicinity of the Planning Area. These resources enhance the quality of life for Manteca residents, and provide for outdoor recreational uses. Landscapes can be defined as a combination of four visual elements: landforms, water, vegetation, and man-made structures. Scenic resource quality is an assessment of the uniqueness or desirability of a visual element.

This section was prepared based on existing reports and literature for Manteca and the surrounding areas in San Joaquin County. Additional sources of information included the California Department of Transportation's (Caltrans) Designated Scenic Route map for San Joaquin County.

This section evaluates potential impacts of the General Plan Update on the visual resources and aesthetic character of the Planning Area, including any scenic highways and corridors, and natural scenic resources such as creeks, wildlife areas, and prominent visual features found. This section is organized into discussions of the existing setting, regulatory setting, and impact analysis.

There were no comments received during the NOP comment period related to this environmental topic.

CONCEPTS AND TERMINOLOGY

The aesthetic value of an area is a measure of its visual character and quality, combined with the viewer response to the area. Scenic quality can best be described as the overall impression that an individual viewer retains after driving through, walking through, or flying over an area. Viewer response is a combination of viewer exposure and viewer sensitivity. Viewer exposure is a function of the number of viewers, number of views seen, distance of the viewers, and viewing duration. Viewer sensitivity relates to the extent of the public's concern for a particular viewshed. These terms and criteria are described in detail below.

Visual Character. Natural and artificial landscape features contribute to the visual character of an area or view. Visual character is influenced by geologic, hydrologic, botanical, wildlife, recreational, and urban features. Urban features include those associated with landscape settlements and development, including roads, utilities, structures, earthworks, and the results of other human activities. The perception of visual character can vary significantly seasonally, even hourly, as weather, light, shadow, and elements that compose the viewshed change. The basic components used to describe visual character for most visual assessments are the elements of form, line, color, and texture of the landscape features. The appearance of the landscape is described in terms of the dominance of each of these components.

Visual Quality. Visual quality is evaluated using the well-established approach to visual analysis adopted by the Federal Highway Administration, employing the concepts of vividness, intactness, and unity, which are described below.

- Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive visual patterns.

- Intactness is the visual integrity of the natural and human-built landscape and its freedom from encroaching elements; this factor can be present in well-kept urban and rural landscapes, and in natural settings.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole; it frequently attests to the careful design of individual components in the landscape.

Visual quality is evaluated based on the relative degree of vividness, intactness, and unity, as modified by visual sensitivity. High-quality views are highly vivid, relatively intact, and exhibit a high degree of visual unity. Low-quality views lack vividness, are not visually intact, and possess a low degree of visual unity.

Viewer Exposure and Sensitivity. The measure of the quality of a view must be tempered by the overall sensitivity of the viewer. Viewer sensitivity or concern is based on the visibility of resources in the landscape, proximity of viewers to the visual resource, elevation of viewers relative to the visual resource, frequency and duration of views, number of viewers, and type and expectations of individuals and viewer groups.

The importance of a view is related, in part, to the position of the viewer to the resource; therefore, visibility and visual dominance of landscape elements depend on their placement within the viewshed. A viewshed is defined as all of the surface area visible from a particular location (e.g., an overlook) or sequence of locations (e.g., a roadway or trail). To identify the importance of views of a resource, a viewshed must be broken into distance zones of foreground, middle ground, and background. Generally, the closer a resource is to the viewer, the more dominant it is and the greater its importance to the viewer. Although distance zones in a viewshed may vary between different geographic region or types of terrain, the standard foreground zone is 0.25 to 0.5 mile from the viewer, the middle ground zone is from the foreground zone to 3 to 5 miles from the viewer, and the background zone is from the middle ground to infinity.

Visual sensitivity depends on the number and type of viewers and the frequency and duration of views. Visual sensitivity is also modified by viewer activity, awareness, and visual expectations in relation to the number of viewers and viewing duration. For example, visual sensitivity is generally higher for views seen by people who are driving for pleasure, people engaging in recreational activities such as hiking, biking, or camping, and homeowners. Sensitivity tends to be lower for views seen by people driving to and from work or as part of their work. Commuters and non-recreational travelers have generally fleeting views and tend to focus on commute traffic, not on surrounding scenery; therefore, they are generally considered to have low visual sensitivity. Residential viewers typically have extended viewing periods and are concerned about changes in the views from their homes; therefore, they are generally considered to have high visual sensitivity. Viewers using recreation trails and areas, scenic highways, and scenic overlooks are usually assessed as having high visual sensitivity.

Judgments of visual quality and viewer response must be made based on a regional frame of reference. The same landform or visual resource appearing in different geographic areas could have a different degree of visual quality and sensitivity in each setting. For example, a small hill may be a significant visual element on a flat landscape but have very little significance in mountainous terrain.

Scenic Highway Corridor. The area outside of a highway right-of-way that is generally visible to persons traveling on the highway.

Scenic Highway/Scenic Route. A highway, road, drive, or street that, in addition to its transportation function, provides opportunities for the enjoyment of natural and human-made scenic resources and access or direct views to areas or scenes of exceptional beauty (including those of historic or cultural interest). The aesthetic values of scenic routes often are protected and enhanced by regulations governing the development of property or the placement of outdoor advertising. Until the mid-1980's, general plans in California were required to include a Scenic Highways Element.

View Corridor. A view corridor is a highway, road, trail, or other linear feature that offers travelers a vista of scenic areas within a city or county.

3.1.1 ENVIRONMENTAL SETTING

REGIONAL SCENIC RESOURCES

Visual resources are generally classified into two categories: scenic views and scenic resources. Scenic views are elements of the broader viewshed such as mountain ranges, valleys, and ridgelines. They are usually mid-ground or background elements of a viewshed that can be seen from a range of viewpoints, often along a roadway or other corridor. Scenic resources are specific features of a viewing area (or viewshed) such as trees, rock outcroppings, and historic buildings. They are specific features that act as the focal point of a viewshed and are usually foreground elements.

Aesthetically significant features occur in a diverse array of environments within the region, ranging in character from urban centers to rural agricultural lands to natural water bodies. Features of the built environment that may also have visual significance include individual or groups of structures that are distinctive due to their aesthetic, historical, social, or cultural significance or characteristics. Examples of the visually significant built environment may include bridges or overpasses, architecturally appealing buildings or groups of buildings, landscaped freeways, and a location where a historic event occurred.

SCENIC HIGHWAYS AND CORRIDORS

Scenic highways and corridors make major contributions to the quality of life enjoyed by the residents of a region. The development of community pride, the enhancement of property values, and the protection of aesthetically pleasing open spaces reflecting a preference for the local lifestyle are all ways in which scenic corridors are valuable to residents.

Scenic highways and corridors can also strengthen the tourist industry. For many visitors, highway corridors will provide their only experience of the region. Enhancement and protection of these corridors ensures that the tourist experience continues to be a positive one and, consequently, provides support for the tourist-related activities of the region's economy.

Scenic Highways

A scenic highway is generally defined by Caltrans as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

Only one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of Interstate 580 from Interstate 5 to State Route 205. This route traverses the edge of the Coast Range to the west and Central Valley to the east. The City of Manteca is not visible from this roadway segment.

Scenic Corridors

A scenic corridor is the view from the road that may include a distant panorama and/or the immediate roadside area. A scenic corridor encompasses the outstanding natural features and landscapes that are considered scenic. It is the visual quality of the man-made or natural environments within a scenic corridor that are responsible for its scenic value. Commonly, the physical limits of a scenic corridor are broken down into foreground views (zero to one quarter mile) and distant views (over one quarter mile). In addition to distinct foreground and distant views, the visual quality of a scenic corridor is defined by special features, which include:

- Focal points - prominent natural or man-made features which immediately catch the eye.
- Transition areas - locations where the visual environment changes dramatically.
- Gateways - locations which mark the entrance to a community or geographic area.

The City of Manteca General Plan does not designate any scenic corridors or viewsheds. As identified in the Open Space Element of the San Joaquin County General Plan, designated scenic routes in the county include Interstate 5 from the Sacramento County line south to Stockton. The City of Manteca is located south of Stockton, and Manteca is not visible from this segment of Interstate 5.

Visual Character and Other Scenic Resources Areas

Manteca's visual character is shaped by its agricultural heritage and suburban development pattern. The City is mostly urbanized with commercial, residential, and industrial uses concentrated along the Highway 99 and Highway 120 interchanges and corridors and other major roadway corridors, including Yosemite Avenue, Airport Way, Main Street, Union Road, Louise Avenue, and Atherton Drive. Residential neighborhoods, including parks and schools, occupy the remainder of the City's urbanized area. Much of the undeveloped land within the Planning Area surrounding the developed portion of Manteca is predominantly farmland, including alfalfa, orchards, row crops, and pasture, and rural residential uses.

Farmland and open space, interspersed with rural residential, agricultural, and industrial uses, generally border the City to the north, south, and east. To the west, the City is bordered by industrial

uses, the City of Lathrop, the San Joaquin River, Oakwood Lake, and the Oakwood Shores community.

Much of the undeveloped land within the City Limits, sphere of influence (SOI), Planning Area, and areas surrounding the urbanized portion of Manteca is predominantly farmland, including alfalfa, orchards, row crops, and pasture. Agricultural lands have become important visual resources that contribute to the community identity of Manteca, and the Central Valley region. Agricultural lands provide for visual relief form urbanized areas and act as community separators to nearby urban areas.

Water resources are important visual resources that draw tourists to the area for recreational opportunities, provide critical habitat, and provide for scenic areas within and surrounding urban areas. The most visually significant water body in the region is the San Joaquin River located along a portion of the southwest border of the City and the Planning Area.

LIGHT AND GLARE

During the day, sunlight reflecting from structures is a primary source of glare, while nighttime light and glare can be divided into both stationary and mobile sources. Stationary sources of nighttime light include structure illumination, interior lighting, decorative landscape lighting, and streetlights. The principal mobile source of nighttime light and glare is vehicle headlamp illumination. This ambient light environment can be accentuated during periods of low clouds or fog.

The variety of urban land uses in the Planning Area are the main source of daytime and nighttime light and glare. They are typified by single and multi-family residences, commercial structures, industrial areas, and streetlights. These areas and their associated human activities (inclusive of vehicular traffic) characterize the existing light and glare environment present during daytime and nighttime hours in the urbanized portions of the Planning Area. Areas to the north, east and south, outside of the city limits and near the fringes of the Planning Area, are characterized primarily by open space, agricultural and lower intensity residential development, and generally have lower levels of ambient nighttime lighting and daytime glare. However, areas along State Route (SR) 120 at the southern portion of the City as well as the areas along SR 99 at the eastern portion of the City generally have more sources of glare.

Sources of glare in urbanized portions of the Planning Area come from light reflecting off surfaces, including glass, and certain siding and paving materials, as well as metal roofing. The urbanized areas of Manteca contain sidewalks and paved parking areas which reflect street and vehicle lights. The existing light environment found in the project area is considered typical of suburban areas.

Sky glow is the effect created by light reflecting into the night sky. Sky glow is of particular concern in areas surrounding observatories, where darker night sky conditions are necessary, but is also of concern in more rural or natural areas where a darker night sky is either the norm or is important to wildlife. Due to the urban nature of the city limits, a number of existing light sources affect residential areas and illuminate the night sky. Isolating impacts of particular sources of light or glare is therefore not appropriate or feasible for the project.

3.1.2 REGULATORY SETTING

FEDERAL

There are no Federal regulations that apply to the proposed project related to visual resources in the Planning Area.

STATE

Caltrans California Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change, which would diminish the aesthetic value of lands adjacent to highways. The State laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. As previously described, there are no scenic highways in the Planning Area or with views of the Planning Area.

LOCAL

City of Manteca Municipal Code

Chapter 12.08, Trees and Shrubs, of the City Municipal Code outlines the City's tree planning, trimming, removal, and other regulations pertaining to trees. Section 12.08.050 includes a street tree list, while Section 12.08.060 outlines tree planting requirements in subdivisions.

Chapter 17.54, Signs on Private Property, of the City Zoning Ordinance contains standards and requirements for signage, including but not limited to design standards, maintenance and removal provisions, and prohibited signs.

Chapter 17.48, Landscaping, of the City Zoning Ordinance contains standards and provisions related to landscaping design requirements. The primary intent of Chapter 17.48, Landscaping, is to require water efficient landscaping and to promote water conservation. However, this chapter also includes provisions related to landscape design. These applicable provisions include parking lot landscaping design standards, setback area landscaping standards, and landscaping standards adjacent to fences and walls.

Chapter 17.50, Lighting, of the City Zoning Ordinance contains standards and provisions related to exterior lighting. The primary purpose of this chapter is to regulate lighting to balance the safety and security needs for lighting with the City's desire to preserve dark skies and to ensure that light trespass and glare have negligible impacts on surrounding property (especially residential) and roadways. Section 17.50.070 requires the preparation of an outdoor lighting plan as part of each Site Plan and Design Review application. At a minimum, the outdoor lighting plan shall include the following:

1. Manufacturer specifications sheets, cut sheets, and other manufacturer-provided information for all proposed outdoor light fixtures to show fixture diagrams and outdoor light output levels.

2. The proposed location, mounting height, and aiming point of all outdoor lighting fixtures.
3. If building elevations are proposed for illumination, drawings of all relevant building elevations showing the fixtures, the portions of the elevations to be illuminated, the illumination level of the elevations, and the aiming point for any remote light fixture.
4. Photometric data including a computer-generated photometric grid showing foot-candle readings every 10 feet within the property or site and 10 feet beyond the property lines.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

A Habitat Conservation Plan (HCP) is a federal planning document that is prepared pursuant to Section 10 of the FESA. An approved HCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under FESA during development activities.

A Natural Community Conservation Plan (NCCP) is a state planning document administered by CDFW. An approved NCCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under CESA during growth and development activities.

The key purpose of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), is to provide a strategy for balancing the need to conserve Open Space and the need to Convert Open Space to non-Open Space uses while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Federal Endangered Species Act (ESA) or the CESA; providing and maintaining multiple-use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to Project Proponents and society at large.

One nocturnal species, the Berkeley kangaroo rat, is protected by the SJMSCP. The Berkeley kangaroo rat is a nocturnal, seed-eating rodent that inhabits brushy and grassy slopes and flats in the San Francisco Bay area. There are three records of occurrences in the dry hills on the western side of the County. None are in the City Planning Area.

3.1.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on aesthetics if it will:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the

project conflict with applicable zoning and other regulations governing scenic quality; and/or

- 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: General Plan implementation would not have a substantial adverse effect on a scenic vista (Less than Significant)

While the Manteca Planning Area contains areas and viewsheds with scenic characteristics, such as views of open space and agricultural land, there are no officially designated scenic vista points in the Planning Area. Additionally, as described above, there are no officially designated scenic highways located in the vicinity of Manteca. The most significant visual features within or adjacent to the Manteca Planning Area are the San Joaquin River located to the west of the City and agricultural land and open space located in undeveloped areas within and around the City.

The City is mostly urbanized with commercial, residential, and industrial uses concentrated along the Highway 99 and Highway 120 corridors and other major roadway corridors, including Yosemite Avenue, Airport Way, Main Street, Union Road, Louise Avenue, and Atherton Drive and residential neighborhoods occupying most other developed areas. Much of the undeveloped land within the Planning Area surrounding the urbanized portion of Manteca is predominantly farmland, including alfalfa, orchards, row crops, and pasture, and rural residential uses. Agricultural lands have become important visual resources that contribute to the community identity of Manteca, and the Central Valley region.

However, as noted in greater detail in the Project Description chapter (Chapter 2.0), implementation of the proposed General Plan could lead to new and expanded urban and suburban development throughout the City and Planning Area, particularly in areas designated for residential, commercial, professional, industrial, mixed use, and public/quasi-public uses by the Land Use Map (Figure 2.0-3). This new development may result in changes to the skyline throughout the Planning Area, which may obstruct or interfere with views of visual features surrounding the Planning Area.

Future development would be required to be consistent with the proposed General Plan. A central theme of the General Plan is to preserve and protect the City's natural resources and scenic resources, including by designating lands for agricultural use in the eastern and southern portions of the Planning Area and designating open space lands along Walthall Slough in the southwestern portion of the Planning Area. Other General Plan policies promote provision of public and private open space within the Planning Area (LU-10.1, CD-4.6, CD-6.5), maintenance and protection of the existing open space within the City (LU-10.3, CD-1.2, RC-8.1, RC-8.2), preservation of public views (CD-6.4), and visually-appropriate on-site design and amenities, such as design and maintenance standards for City amenities (LU-3.2, LU-3.8, CD-1.5, CD-1.7). Moreover, other policies promote the installation of specific visual features, such as context planning and design integration. Other policies are directed more generally at integrating land uses and visual quality between land uses, such as major corridors, walkability, building massing, and connectivity.

The Manteca General Plan has been developed to preserve expansive areas of open space and to ensure that new development is located in and around existing urbanized areas, thus ensuring that new development is primarily an extension of the existing urban landscape, and minimizes interruption of views of nearby visual features.

In addition to the policies and actions identified below that provide protection for open space resources and visually prominent resources in the Planning Area, a range of policies and actions contained in the Land Use and Community Design Elements are intended to maintain and enhance the overall visual character of the Planning Area, and to avoid the installation of structures or features that conflict with the character of the surrounding area. These polices seek to ensure that new development fits within the existing community setting and is compatible with surrounding uses, support the preservation and protection of the City's existing neighborhoods, maintain homes, structures, and property at high standards, and promote the City visually through design and physical features.

The General Plan includes numerous policies and actions, set forth below, that would reduce the potential for an impact to occur related to this environmental topic. The implementation of the policies and actions contained in the General Plan listed below would ensure agricultural, riparian, and other open space uses are preserved consistent with the General Plan Land Use Map, and that new urban residential and non-residential development in the Manteca Planning Area is located in and around existing urbanized areas and developed to be visually compatible with nearby agricultural and other open space resources. Additionally, the implementation of the policies and actions contained in the Land Use and Community Design Elements would further ensure that new development is designed in a way that enhances the visual quality of the community, compliments the visual character of the City, and that adverse effects on public views are minimized. Therefore, the impact on scenic vistas would be ***less than significant***.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

LU-1.2: Promote land use compatibility through use restrictions, development standards, environmental review, and design considerations.

LU-3.2: Require the design of new residential development to be consistent with any applicable design guidelines, including complete streets standards, to ensure harmony with Manteca's unique character and compatibility with existing surrounding land uses.

LU-3.8: Where planned residential areas and expansions of existing residential neighborhoods interface with commercial, industrial, agricultural industrial, and other non-residential development, require that the proposed development be designed to maximize the compatibility between the uses and reduce any potentially significant or significant impacts associated with aesthetics, land use and planning, air quality, noise, safety, odor, and lighting that are identified through the California Environmental Quality Act (CEQA) review to less than significant.

LU-5.4: Ensure that employment-generating development, including industrial, warehouse, distribution, logistics, and fulfillment projects, does not result in adverse impacts (including health

risks and nuisances), particularly to residential uses and other sensitive receptors, including impacts related to the location and scale of buildings, lighting, noise, smell, and other environmental and environmental justice considerations. When development is incompatible, require adequate buffers and/or architectural consideration to protect residential areas, developed or undeveloped, from intrusion of nonresidential activities that may degrade the quality of life in such residential areas.

LU-10.1: Promote the provision of both public and private open space within Manteca to provide visual contrast with the built-environment and to increase recreational opportunities for Manteca residents. Private open space shall not be considered for public use, other than as visual open space, and shall not be constrained from other uses as identified in the General Plan, unless as provided for by agreement with the land owner.

LU-10.2: Protect those environmental features that make Manteca an attractive and desirable place to live, work, play, and visit.

LU-10.3: Protect significant open space and/or habitat areas for their ecological, educational, scenic, and recreational values.

LU-11.1: Protect agricultural land from urban development except where the General Plan Land Use Map has designated the land for urban uses.

CD-1.1: Require development projects to preserve positive characteristics and unique features of the site and consider the scale and character of adjacent uses.

CD-1.2: Maintain and enhance the city's compact and cohesive urban form.

CD-1.3: Recognize and enhance natural features and protect cultural and historic resources.

CD-1.4: Emphasize native, drought-tolerant landscaping as a fundamental design component, retaining mature landscaping when appropriate, to reinforce a sense of the natural environment and to maintain an established appearance.

CD-1.5: Require property owners to maintain structures and landscaping to high standards of design, health, and safety.

CD-1.7: Minimize the visual impacts of public and private communication, service, and utility facilities by requiring the provider to incorporate sensitive site design techniques, including, but not limited to the placement of facilities in less conspicuous locations, the undergrounding of facilities wherever possible, incorporating aesthetic features such as murals and civic enhancements, and the screening of facilities.

CD-2.7: Ensure that new development and redevelopment reinforces desirable elements of its neighborhood, district, or center, including architectural style, scale, and setback patterns.

CD-2.8: For infill development, incorporate context sensitive design elements that maintain compatibility and raise the quality of the area's architectural character.

CD-2.9: Design retention/detention basins to be visually attractive and well-integrated with any associated project and with adjacent land uses.

CD-4.1: Strengthen the positive qualities of the City's neighborhoods, districts, and centers.

CD-4.3: Strengthen the identity of individual neighborhoods, districts, and centers, including underserved areas, through the use of entry monuments, flags, street signs, themed streets, natural features, native landscaping, and lighting.

CD-4.6: Design neighborhoods, districts, and centers to provide access to adjacent open spaces.

CD-4.7: Design neighborhoods in new growth areas to incorporate the following characteristics:

- *The edges of the neighborhood shall be identifiable by use of landscaped areas along major streets or natural features, such as permanent open space. Primary arterial streets may be used to define the boundaries of neighborhoods. The street system shall be designed to discourage high volume and high speed traffic through the neighborhood.*
- *Neighborhoods shall be not more than one mile in length or width.*
- *Each neighborhood shall include a distinct center, such as an elementary school, neighborhood park(s), and/or a mixed-use commercial area within a reasonable walking distance of the homes, approximately one-half mile.*
- *Each neighborhood shall include an extensive pedestrian and bikeway system comprised of complete street elements, including but not limited to sidewalks and bike lanes along streets and dedicated trails.*

CD-4.10: Strengthen the aesthetic and functional links between Downtown, the Civic Center, and other surrounding neighborhoods and districts.

CD-5.1: Encourage new and, when necessary, existing streets to improve walkability, bicycling, and transit integration and accessibility; strengthen connectivity; and enhance community identity through improvements to the public right-of-way such as sidewalks, street trees, parkways, curbs, street lighting, and street furniture.

CD-5.2: Require major arterial streets to include a common landscape theme that includes primary street trees, groundcover, sidewalks, bus shelters where required, and lighting applied throughout the City.

CD-5.3: Require the planting of street trees throughout the city to define and enhance the character of the street and the adjacent development and reduce the effects of urban heat exposure.

CD-5.4: To retain a visual reminder of the city's agricultural heritage, permit the use of non-fruiting species, such as flowering pear and plum, as secondary accent trees in landscape corridors along major streets.

CD-5.7: Limit uses that require soundwalls adjacent to the highways. Where soundwalls and other barriers surrounding neighborhoods, districts, and centers are necessary pursuant to the City's street standards and specifications, require the incorporation of aesthetic enhancements that reinforce the area's identity and present an attractive façade along the adjoining corridor. The first development to include construction of a sound wall shall set the design theme to be maintained along the arterial street until a roadway intersection.

CD-6.1: Encourage the mixing of land uses, where appropriate, but provide physical separation and/or buffers between incompatible land uses.

CD-6.2: Encourage the use of creative and functional (for example, stormwater capture) landscape design to create visual interest and reduce conflicts between different land uses.

CD-6.4: Avoid the blocking of public views by solid walls.

CD-6.5: Use open space, greenways, recreational lands, and water courses as community separators.

CD-8.1: To the extent possible, require new development to retain or incorporate visual reminders of the agricultural heritage of the community.

CD-9.1: Continue to encourage the use of murals and similar public art on buildings.

CD-9.2: Incorporate public art along public sidewalks and within parking areas.

CD-9.3: Where feasible, include public art at key gateways and in major projects and public gathering places.

RC-8.1: Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

RC-8.2: Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands.

ACTIONS

LU-3e: Develop and periodically update design and performance standards that update and complement the Zoning Code to provide recommended design solutions available to proposed development projects to reduce impacts associated with aesthetics, noise, safety, odor, glare, and lighting, including land use conflicts between residential uses and nearby industrial and agricultural uses, in compliance with the Zoning Code, as amended.

LU-5d: As part of the City's development review process, continue to ensure that employment-generating projects are designed to minimize conflicts with residential uses. Review of employment generating projects should ensure that the following design concepts are addressed in projects that abut residential areas:

- *Appropriate building scale and/or siting;*
- *Site design and features to protect residential uses and other sensitive receptors, developed or undeveloped, from impacts of non-residential development activities that may cause unwanted nuisances and health risks;*
- *Site design and noise-attenuating features to avoid exposure to excessive noise due to long hours of operation or inappropriate location of accessory structures;*
- *Site and structure design to avoid excessive glare or excessive impacts from light sources onto adjacent properties; and*
- *Site design to avoid unnecessary loss of community and environmental resources (archaeological, historical, ecological, recreational, etc.).*

CD-1a: With robust community and volunteer engagement, implementing a program of local improvements, including, but not limited to, street tree planting, annual clean-up days, sidewalk installation and repair, and similar local activities, to enhance the visual quality of the city.

CD-4a: As part of the design review of development and capital projects, encourage the integration of civic, cultural, natural, art, and other themes that create a sense of place for each neighborhood, district, and center, and contribute to the overall character of the community.

CD-4b: Periodically review the Downtown Design Improvement Plan and Streetscape Improvement Program and update as necessary to maintain consistency with the General Plan, the City's Zoning regulations, and current best practice design solutions.

CD-4c: Approve development projects within new growth areas that support Downtown's identity as the city's central business district.

CD-5a: Establish a street tree program for residential neighborhoods with input from community members and organizations.

CD-5b: Review the Design Standards for Yosemite Avenue and Main Street and update as necessary to maintain consistency with the General Plan, the City's Municipal Code, and current best practice design solutions.

CD-5c: Continue to work with Caltrans on implementing a freeway and interchange native landscaping planting and maintenance program to improve the appearance of the community from SR 99 and SR 120.

CD-5d: Establish design guidelines for non-residential uses within 200 feet of SR 99 and SR 120. The guidelines should address the following concepts.

- *New office and commercial land use shall provide attractive landscaping, lighting, and signage adjacent to all buildings oriented to SR 99 or SR 120.*
- *Encourage buildings that include attractive focal elements, such as a tower or articulated roofline in each non-residential development adjacent to SR 99 or SR 120 to serve as visual landmarks.*
- *New non-residential buildings oriented to SR 99 or SR 120 shall provide an attractive facade similar in articulation, and using the same materials and colors, as the primary facade of the building.*
- *Truck loading and refuse collection areas adjacent to SR 99 and SR 120 shall be screened from view.*
- *The landscape along SR 120 and SR 99 will reflect the natural character of the region in the selection of trees and groundcover.*

LU-10a: Preserve, enhance, and restore selected existing natural habitat areas.

Impact 3.1-2: General Plan implementation would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a State scenic highway (Less than Significant)

As discussed in the Existing Setting section, no adopted State scenic highway is located in Manteca. Only one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of Interstate 580 from Interstate 5 to Interstate 205. This route traverses the edge of the Coast Range to the west and Central Valley to the east. However, this officially designated scenic highway does not provide views of Manteca or the immediate surrounding areas, and there are no sections of highway in the Manteca vicinity eligible for Scenic Highway designation.

As previously described, the County has designated one scenic route, which is Interstate 5 from the Sacramento County line south to Stockton and does not provide views of the Planning Area.

Given that no adopted State scenic highways are located within the Planning Area or provide views of the Planning Area, State scenic highway impacts associated with General Plan implementation would be ***less than significant***.

Impact 3.1-3: General Plan implementation would not, in a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings, or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality (Less than Significant)

CEQA Guidelines Section 15387 defines an urbanized area as a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. The Planning Area consists of the City of Manteca, which is an urbanized area, as well as various rural residential, agricultural, industrial, and open space uses located in the unincorporated and non-urbanized portion of the Planning Area.

The City is largely developed with commercial, residential, and industrial uses concentrated along the Highway 99 and Highway 120 corridors and other major roadway corridors, including Yosemite Avenue, Airport Way, Main Street, Union Road, Louise Avenue, and Atherton Drive and residential neighborhoods occupying most other developed areas. Much of the undeveloped land within the Planning Area surrounding the urbanized portion of Manteca is predominantly farmland, including alfalfa, orchards, row crops, and pasture, and rural residential uses.

Implementation of the proposed General Plan could lead to new and expanded urban and suburban development throughout the City and Planning Area, particularly in areas designated for residential, commercial, professional, industrial, mixed use, and public/quasi-public uses by the Land Use Map (Figure 2.0-3).

Any development occurring under the proposed General Plan would be subject to compliance with the proposed General Plan policies and existing design guidelines, as well as the applicable

regulations set forth in the Manteca Municipal Code. The General Plan includes policies and actions to promote land use compatibility, ensure that new development is consistent with design guidelines and compatible with surrounding uses, protect and conserve open space, agricultural, riparian habitats, and other scenic and natural resources, ensure that in-fill development is designed to be sensitive to surrounding uses, and to strengthen the qualities of the City's neighborhoods, districts, and downtown. The City's Zoning Ordinance (Manteca Municipal Code Title 17) is the primary tool meant to implement the General Plan. It consists of a zoning map defining the location of districts and code sections detailing requirements for each district. The Zoning Ordinance establishes specific, enforceable standards with which development must comply such as minimum lot size, maximum building height, minimum building setback, and a list of allowable uses. Zoning applies lot-by-lot, whereas the General Plan has a community-wide perspective. Provisions pertaining to visual resources such as site-specific design standards, preservation of open space, landscaping, trees, and signs, are addressed.

The City intends to update the Zoning Code along with the General Plan Update, in compliance with State law that requires the Zoning Code to be consistent with the General Plan. Development as a result of the proposed General Plan will be required to be consistent with the zoning code. The proposed General Plan would therefore not substantially degrade the existing visual character or quality of public views of the SOI and its surroundings, or conflict with applicable zoning or other regulations governing scenic quality. Scenic quality-related impacts associated with the General Plan implementation would thus be ***less than significant***. The City has included the following policies and actions in the General Plan relating to visual character.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

Policies LU-1.2, LU-2.1, LU-3.2, LU-3.8, LU-5.4, LU-10.1, LU-10.2, LU-10.3, CD-1.1, CD-1.2, CD-1.3, CD-1.4, CD-1.5, CD-1.7, CD-2.7, CD-2.8, CD-2.9, CD-4.1, CD-4.3, CD-4.6, CD-4.7, CD-4.10, CD-5.1, CD-5.2, CD-5.3, CD-5.4, CD-5.7, CD-6.1, CD-6.2, CD-6.4, CD-6.5, CD-8.1, CD-9.1, CD-9.2, CD-9.3, RC-8.1, and RC-8.2 and Actions LU-3e, LU-5d, CD-1a, CD-4a, CD-4b, CD-4c, CD-5a, CD-5b, CD-5c, CD-5d, and LU-10a, as discussed under Impact 3.1-1.

Impact 3.1-4: General Plan implementation would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area (Less than Significant)

The primary sources of daytime glare are sunlight reflecting from structures and other reflective surfaces and windows. Although much of the Planning Area is urbanized and already generates substantial sources of light and glare, implementation of the proposed General Plan would introduce new sources of daytime glare into previously developed areas of the Planning Area and increase the amount of daytime glare in existing urbanized areas. The General Plan Land Use Map identifies areas for the future development of residential, commercial, industrial, recreational, and public uses. Such uses may utilize materials that produce glare. Daytime glare impacts would be most severe in the limited areas of the City that have not been previously disturbed, including the limited number of vacant parcels designated for urbanized land uses, and in areas that receive a high level of daily viewership (which includes areas that people congregate, such as downtown, and along well-

traveled roadways). Additionally, increased number of vehicles on the Planning Area roadways would increase glare.

The primary sources of nighttime lighting are from exterior building lights, street lights, and vehicle headlights. Exterior lighting around commercial and industrial areas may be present throughout the night to facilitate extended employee work hours, ensure worker safety, and to provide security lighting around structures and facilities. Much of the Planning Area is urbanized and already generates substantial sources of nighttime lighting. The nighttime lighting impacts of the General Plan Update would be most severe in areas that do not currently experience high levels of nighttime lighting. Increased nighttime lighting can reduce visibility of the night sky, resulting in fewer stars being visible and generally detracting from the quality of life in Manteca.

Future development would be required to be consistent with the General Plan, as well as lighting and design requirements in the Manteca Municipal Code, including Chapter 17.50. Section 17.50.070 of Chapter 17. 50 requires the preparation of an outdoor lighting plan as part of each Site Plan and Design Review application. At a minimum, the outdoor lighting plan shall include the following:

1. Manufacturer specifications sheets, cut sheets, and other manufacturer-provided information for all proposed outdoor light fixtures to show fixture diagrams and outdoor light output levels.
2. The proposed location, mounting height, and aiming point of all outdoor lighting fixtures.
3. If building elevations are proposed for illumination, drawings of all relevant building elevations showing the fixtures, the portions of the elevations to be illuminated, the illumination level of the elevations, and the aiming point for any remote light fixture.
4. Photometric data including a computer-generated photometric grid showing foot-candle readings every 10 feet within the property or site and 10 feet beyond the property lines.

Pertaining to glare, Chapter 17.50 notes that “land or buildings shall not be used or occupied in a manner creating any dangerous injurious, noxious, fire, explosive, or other hazard; noise, vibration, smoke, dust, odor, or form of air pollution; heat, cold, dampness, electrical, or other disturbance; glare, refuse, or wastes; or other substances, conditions, or elements which would adversely affect the surrounding area. All uses shall conform to the regulations of this Chapter in addition to the regulations set forth for the Zoning District in which the use is situated. (Ord. 1501 § 1, 2011)”. Additionally, as required by Section 17.50.060 of the Code, outdoor lighting shall be designed, located, installed, directed downward or toward structures, shielded, and maintained in order to prevent glare, light trespass, and light pollution. Further, Section 17.54.080 of Chapter 17.54, Signs on Private Property, notes that, “Where illumination of a sign is allowed, such illumination may be achieved by any method that minimizes glare onto neighboring or abutting property, such as from behind the sign (e.g., light source behind the face of the sign, such as with the opaque, non-transparent face of channel letters; silhouette halo illumination behind letters) or by a low-level spotlight.”

The proposed General Plan contains policies and actions, listed below, related to the regulation and reduction of daytime glare and nighttime lighting, including requirements that residential,

commercial, and employment-generating projects are designed to address lighting and glare impacts. Action LU-4b would require that new commercial projects do not generate excessive glare or light onto adjacent properties and Action LU-5d would ensure that employment-generating projects are designed to minimize glare and light impacts onto residential uses. Action CD-8 would ensure that projects developing on the fringes of the City or in rural or agricultural areas are designed to be compatible with the area, including the city's light and glare standards. These actions would ensure that new development projects utilize appropriate building materials that do not result in significant increases in nighttime lighting or daytime glare.

The General Plan includes numerous actions that would reduce the potential for an impact to occur related to this environmental topic. Through the implementation of these actions during the development review process, the City can ensure that adverse impacts associated with daytime glare and nighttime lighting are ***less than significant***.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

LU-3.8: Where planned residential areas and expansions of existing residential neighborhoods interface with commercial, industrial, agricultural industrial, and other non-residential development, require that the proposed development be designed to maximize the compatibility between the uses and reduce any potentially significant or significant impacts associated with aesthetics, land use and planning, air quality, noise, safety, odor, and lighting that are identified through the California Environmental Quality Act (CEQA) review to less than significant.

LU-4.4: Ensure that all commercial and other non-residential development is compatible with adjacent land uses, particularly residential uses, based upon the location and scale of buildings, lighting, and in conformance with the noise standards of the Safety Element. When development is incompatible, require commercial uses to provide adequate buffers and/or architectural features to protect residential areas, developed or undeveloped, from intrusion of nonresidential activities that may degrade the quality of life in such residential areas.

LU-5.4: Ensure that employment-generating development, including industrial, warehouse, distribution, logistics, and fulfillment projects, does not result in adverse impacts (including health risks and nuisances), particularly to residential uses and other sensitive receptors, including impacts related to the location and scale of buildings, lighting, noise, smell, and other environmental and environmental justice considerations. When development is incompatible, require adequate buffers and/or architectural consideration to protect residential areas, developed or undeveloped, from intrusion of nonresidential activities that may degrade the quality of life in such residential areas.

CD-2.11: Encourage the incorporation of lighting into signage design when appropriate in order to minimize glare and light spillage while accentuating the design of the signage.

CD-8.4: For lighting in rural areas of the community, provide:

- *Minimal levels of street, parking, building, site and public area lighting to meet safety standards and provide direction.*
- *Directional shielding for all exterior lighting to minimize the annoyance of direct or indirect glare.*
- *Automatic shutoff or motion sensors for lighting features in newly developed areas.*

ACTIONS

LU-3e: Develop and periodically update design and performance standards that update and complement the Zoning Code to provide recommended design solutions available to proposed development projects to reduce impacts associated with aesthetics, noise, safety, odor, glare, and lighting, including land use conflicts between residential uses and nearby industrial and agricultural uses, in compliance with the Zoning Code, as amended.

LU-4b: As part of the City's development review process, ensure that commercial projects are designed to minimize conflicts with residential uses. Review of commercial projects should ensure that the following design concepts are avoided in projects that abut residential areas:

- *Inappropriate building scale and/or siting on the lot.*
- *Excessive glare or excessive impacts from light sources onto adjacent properties.*
- *Excessive noise generated from freight and waste management activities during night hours.*
- *Excessive air pollutant emissions from freight trucks and large expanses of parking lot areas.*

LU-5d: As part of the City's development review process, continue to ensure that employment-generating projects are designed to minimize conflicts with residential uses. Review of employment generating projects should ensure that the following design concepts are addressed in projects that abut residential areas:

- *Appropriate building scale and/or siting;*
- *Site design and features to protect residential uses and other sensitive receptors, developed or undeveloped, from impacts of non-residential development activities that may cause unwanted nuisances and health risks;*
- *Site design and noise-attenuating features to avoid exposure to excessive noise due to long hours of operation or inappropriate location of accessory structures;*
- *Site and structure design to avoid excessive glare or excessive impacts from light sources onto adjacent properties; and*
- *Site design to avoid unnecessary loss of community and environmental resources (archaeological, historical, ecological, recreational, etc.).*

CD-8a: Require projects developing on the fringe of the City or adjacent to agricultural or rural residential uses to be compatible with the character of the area, including implementing the City's light and glare standards, use of appropriate materials and design, and siting of more intense uses away from rural and agricultural uses, where feasible.

This section provides a background discussion of agricultural lands, agricultural resources, and forest/timber resources found in the Manteca Planning Area. This section is organized with an environmental setting, regulatory setting, and impact analysis.

No comments on this environmental topic were received during the NOP comment period. Additionally, agricultural-related comments were received during the public review period for the Draft EIR (released March 22, 2021) from Herum Crabtree, Suntag Attorneys (May 5, 2021). The portion of this comment related to this topic is addressed within this section. Full comments received are included in Appendix A.

3.2.1 ENVIRONMENTAL SETTING

AGRICULTURAL RESOURCES

San Joaquin County occupies a central location in California's vast agricultural heartland, the San Joaquin Valley. The County's Agricultural Commissioner's most recent published Agricultural Reports (2017 and 2018) contains the following information relating to agriculture in the county.

San Joaquin County has a total land area of 1,391 square miles. The total acreage of crop land in the county is approximately 784,800. The gross value of agricultural production in San Joaquin County for 2018 was $2,594,246,000 which represents a 2.6 percent increase from 2017 when gross production value totaled $2,527,989,000. Table 3.2-1 lists the top eight commodities in San Joaquin County in 2017 and 2018.

TABLE 3.2-1: SUMMARY COMPARISON OF CROP VALUES

PRODUCT TYPE	*2017 VALUE IN DOLLARS*	*2018 VALUE IN DOLLARS*
Field Crops	$208,839,000.00	$200,369,000
Vegetable Crops	$255,928,000.00	$245,902,000
Fruit and Nut Crops	$1,362,531,000.00	$1,403,768,000
Nursery Products	$117,294,000.00	$120,004,000
Livestock and Poultry	$122,270,000.00	$120,100,000
Livestock and Poultry Products	$429,910,000.00	$467,289,000
Seed Crops	$4,671,000.00	$3,904,000
Apiary Products	$26,546,000.00	$32,910,000

SOURCE: SAN JOAQUIN COUNTY AGRICULTURAL REPORT, 2017 AND 2018.

Agricultural Capability

The California Department of Conservation Farmland Mapping and Monitoring Program identifies lands that have agriculture value and maintains a statewide map of these lands called the Important Farmlands Inventory (IFI). IFI classifies land based upon the productive capabilities of the land, rather than the mere presence of ideal soil conditions.

The suitability of soils for agricultural use is just one factor for determining the productive capabilities of land. Suitability is determined based on many characteristics, including fertility, slope, texture, drainage, depth, and salt content. A variety of classification systems have been devised by the state to categorize soil capabilities. The two most widely used systems are the Capability

Classification System and the Storie Index. The Capability Classification System classifies soils from Class I to Class VIII based on their ability to support agriculture with Class I being the highest quality soil. The Storie Index considers other factors such as slope and texture to arrive at a rating. The IFI is in part based upon both of these two classification systems.

Soil Capability Classification

The Soil Capability Classification System takes into consideration soil limitations, the risk of damage when soils are used, and the way in which soils respond to treatment. Capability classes range from Class 1 soils, which have few limitations for agriculture, to Class 8 soils that are unsuitable for agriculture. Generally, as the rating of the capability classification increases, yields and profits are more difficult to obtain. A general description of soil classifications, as defined by the Natural Resources Conservation Service (NRCS) is provided in Table 3.2-2 below.

A Custom Soil Survey was completed for the Planning Area using the NRCS Web Soil Survey program. Table 3.2-3 identifies the soils and soil classifications found in the Planning Area. The NRCS Soils Map is provided on Figure 3.6-2.

TABLE 3.2-2: SOIL CAPABILITY CLASSIFICATION

CLASS	*DEFINITION*
1	Soils have slight limitations that restrict their use.
2	Soils have moderate limitations that restrict choice plants or that require moderate conservation practices.
3	Soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.
4	Soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.
5	Soils are not likely to erode but have other limitations; impractical to remove that limits their use largely to pasture or range, woodland, or wildlife habitat.
6	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife habitat.
7	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
8	Soils and landforms have limitations that preclude their use for commercial plans and restrict their use to recreation, wildlife habitat, water supply, or aesthetic purposes.

SOURCE: USDA SOIL CONSERVATION SERVICE.

TABLE 3.2-3: SOIL CLASSIFICATION

UNIT SYMBOL	*NAME*	*ACRES IN AOI*	*PERCENT OF AOI*	*CAPABILITY CLASSIFICATION**	*STORIE INDEX*
108	Arents, saline-sodic, 0 to 2 percent slopes	395.47	1.44%	3-4	4
109	Bisgani loamy coarse sand, partially drained, 0 to 2 percent slopes	514.98	1.87%	3-4	4
130	Columbia fine sandy loam, drained, 0 to 2 percent slopes	390.33	1.42%	2-4	2
131	Columbia fine sandy loam, partially drained, 0 to 2 percent slopes, occasionally flooded	14.69	0.05%	4-4	2
141	Delhi fine sand, 0 to 5 percent slopes	1,126.51	4.10%	3-4	3
142	Delhi loamy sand, 0 to 2 percent slopes, MLRA 17	3,945.57	14.34%	3-4	2

UNIT SYMBOL	NAME	ACRES IN AOI	PERCENT OF AOI	CAPABILITY CLASSIFICATION*	STORIE INDEX
143	Delhi-Urban land complex, 0 to 2 percent slopes	3,626.60	13.18%	3-4	2
144	Dello sand, partially drained, 0 to 2 percent slopes, occasionally flooded	279.21	1.01%	3-4	4
145	Dello loamy sand, drained, 0 to 2 percent slopes	59.89	0.22%	3-4	4
150	Dumps	35.86	0.13%	8-8	--
152	Egbert mucky clay loam, partially drained, 0 to 2 percent slopes	23.77	0.09%	2-4	3
153	Egbert silty clay loam, partially drained, 0 to 2 percent slopes	84.97	0.31%	2-4	3
160	Galt clay, 0 to 1 percent slopes, MLRA 17	87.89	0.32%	3-3	5
166	Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes	85.33	0.31%	2-4	2
169	Guard clay loam, drained, 0 to 2 percent slopes	100.71	0.37%	2-4	3
175	Honcut sandy loam, 0 to 2 percent slopes	639.93	2.33%	2-4	1
196	Manteca fine sandy loam, 0 to 2 percent slopes	117.91	0.43%	3-4	4
197	Merritt silty clay loam, partially drained, 0 to 2 percent slopes	364.60	1.33%	2-4	3
254	Timor loamy sand, 0 to 2 percent slopes	2,028.27	7.37%	3-4	2
255	Tinnin loamy coarse sand, 0 to 2 percent slopes	7,725.56	28.08%	3-4	2
260	Urban land	125.52	0.46%	8-8	--
265	Veritas sandy loam, partially drained, 0 to 2 percent slopes	5,609.16	20.39%	2-4	2
266	Veritas fine sandy loam, 0 to 2 percent slopes	32.31	0.12%	2-4	1
284	Water	93.32	0.34%	--	--
--	**Totals**	**27,508.37**	100.00%	--	--

*NOTES: AOI = AREA OF INTEREST. * DEPICTS IRRIGATED VS NON-IRRIGATED CAPABILITY RATING.*

SOURCE: NRCS CUSTOM WEB SOIL SURVEY, 2022.

Important Farmlands

The California Department of Conservation (DOC), as part of its Farmland Mapping and Monitoring Program (FMMP), prepares Important Farmland Maps indicating the potential value of land for agricultural production. The San Joaquin County Important Farmland Map identifies five agriculture-related categories and three non-agricultural categories:

Prime Farmland: Prime farmland is land with 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 needed to produce sustained high yields. The land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

Farmland of Statewide Importance: Farmland of statewide importance 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.

Unique Farmland: Unique farmland 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 nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

Farmland of Local Importance: Farmland of local importance is considered land important to the local agricultural economy but does not meet the criteria of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. This includes land that is or has been used for irrigated pasture, dryland farming, confined livestock or dairy facilities, aquaculture, poultry facilities, and dry grazing. It also includes soils previously designated by soil characteristics as "Prime Farmland," "Farmland of Statewide Importance," and "Unique Farmland" that has since become idle.

Grazing Land: Grazing land is land on which the existing vegetation is suitable for 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 mapping unit for this category is 40 acres.

Urban and Built-up Land: This category consists of non-agricultural land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

Other Land: Other land is non-agricultural land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and non-agricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Water Area: This category consists of bodies of water.

IMPORTANT FARMLANDS IN PLANNING AREA

The State of California Department of Conservation Farmland Mapping and Monitoring Program and San Joaquin County GIS data were used to illustrate the farmland characteristics for the Planning Area. Farmlands in the Planning Area are identified in Table 3.2-4 and are shown on Figure 3.2-1. The farmland classifications for the site and surrounding area are described below.

TABLE 3.2-4: FARMLAND CLASSIFICATION

LAND CLASSIFICATION	CITY	PLANNING AREA	TOTAL
Cl - Confined Animal Ag	21.74	77.99	99.74
D - Urban/Built Up Land	8,633.92	1,214.39	9,848.32
L - Farmland of Local Importance	621.67	431.81	1,053.47
NV - Nonagricultural or Natural Vegetation	4.85	27.16	32.01
P - Prime Farmland	925.16	4,036.20	4,961.37
R - Rural Residential	285.54	601.54	887.08
S - Farmland of Statewide Importance	2,986.52	7,005.33	9,991.85
SAC - Semi-agricultural and Rural Commercial Land	72.29	119.08	191.37
U – Unique Farmland	0.87	1.16	2.03
V - Vacant or Disturbed Land	193.72	70.63	264.34
W - Water	0.00	176.78	176.78
Total	**13,746.29**	**13,762.07**	**27,508.36**

SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION; CALIFORNIA IMPORTANT FARMLAND FINDER, 2022.

Farmland Conversion

Data from the Department of Conservation indicates that approximately 762 acres of Prime Farmland in the County was developed for other uses between 2014 and 2016, resulting in an existing total of 382,879 acres of Prime Farmland (42 percent of agricultural land). The remaining agricultural land is comprised of Farmland of Statewide Importance (9 percent), Unique Farmland (9 percent), Farmland of Local Importance (8 percent), and Grazing Land (14 percent). The types and acreages of farmland in 2014 and 2016 are shown below in Table 3.2-5.

TABLE 3.2-5: SAN JOAQUIN COUNTY FARMLANDS SUMMARY AND CHANGE BY LAND USE CATEGORY

LAND USE CATEGORY	2014-2016 ACREAGE CHANGES							
	TOTAL ACREAGE INVENTORIED				ACRES LOST	ACRES GAINED	TOTAL ACREAGE CHANGED	NET ACREAGE CHANGED
	2014		2016		(-)	(+)		
	Acres	Percent	Acres	Percent				
Prime Farmland	382,879	42%	381,634	42%	4,338	3,093	7,431	-1,245
Farmland of Statewide Importance	82,271	9%	82,618	9%	1,189	1,536	2,725	347
Unique Farmland	76,415	8%	81,920	9%	830	6,335	7,165	5,505
Farmland of Local Importance	73,429	8%	68,903	8%	9,150	4,624	13,774	-4,526
IMPORTANT FARMLAND SUBTOTAL	614,994	67%	615,075	67%	15,507	15,588	31,095	81
Grazing Land	132,950	15%	129,760	14%	3,385	195	3,580	-3,190
AGRICULTURAL LAND SUBTOTAL	747,944	82%	744,835	82%	18,892	15,783	34,675	-3,109
Urban and Built-up Land	93,888	10%	95,329	10%	365	1,806	2,171	1,441
Other Land	59,004	6%	60,602	7%	1,482	3,080	4,562	1,598
Water Area	11,766	1%	11,836	1%	235	305	540	70
TOTAL AREA INVENTORIED	912,602	100%	912,602	100%	20,974	20,974	41,948	0

SOURCE: CA DEPARTMENT OF CONSERVATION, DIVISION OF LAND RESOURCE PROTECTION TABLE A-30, 2016.

Farmland Preservation

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965 to encourage the preservation of the state's agricultural lands and to prevent their premature conversion to urban uses. The Williamson Act is described in greater detail under the Regulatory Setting section of this chapter.

Table 3.2-6 shows lands within the SOI that are under a Williamson Act contract and the status of the contract. Figure 3.2-2 shows Williamson Act Contracts within the Planning Area. Of the 2,285.647 acres of Williamson Act Contract lands in the City and Planning Area, approximately 114.5 acres are in non-renewal.

TABLE 3.2-6: SUMMARY OF WILLIAMSON ACT CONTRACTS

CONTRACT LOCATION AND TYPE	*PARCEL COUNT*	*TOTAL ACRES*
Planning Area	68	2,264.133
WA-Farmland Security Zone	1	37.6947
WA-Non-Prime	43	1,375.834
WA-Non-Renewal	2	92.9555
WA-Prime	22	757.6485
Total	**69**	**2,285.647**

SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION, SAN JOAQUIN COUNTY, WILLIAMSON ACT, 2022.

Agricultural Zoning

Zoning Districts within Manteca are established in order to classify, regulate, restrict, and segregate the uses of land and buildings, to regulate and restrict the height and bulk of buildings, to regulate the area of yards and other open spaces around buildings, and to regulate the density of population. The City of Manteca Zoning Map identifies Agricultural zoned districts within the city, zoned Agricultural (A). This designation provides for agricultural uses (such as vineyards, orchards, and row crops), single-family homes directly related to the agricultural use of the property, limited industrial uses directly related to agriculture, and similar and compatible uses. However, there are no existing Agricultural zone districts applied within the city.

The Planning Area includes lands zoned for agricultural use by San Joaquin County. Further, there are lands adjacent the Planning Area that are zoned for agricultural use. These include lands that are designated as General Agriculture by the San Joaquin General Plan and zoned for Agriculture with minimum parcel size of 40 acres (AG-40).

FOREST RESOURCES

Forest land is defined by Public Resources Code Section 12220(g), and includes *"land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."*

Timber land is defined by Public Resources Code Section 4526, and means *"land, other than land owned by the federal government and land designated by the board as experimental forest land,*

which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis."

There are no forest lands or timber lands located within the Manteca Planning Area.

3.2.2 REGULATORY SETTING

FEDERAL

Farmland Protection Policy Act

The Natural Resources Conservation Service (NRCS), an agency within the U.S. Department of Agriculture, is responsible for implementation of the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize Federal programs' contribution to the conversion of farmland to non-agricultural uses by ensuring that Federal programs are administered in a manner that is compatible with state, local, and private programs designed to protect farmland. The NRCS provides technical assistance to Federal agencies, state and local governments, tribes, and nonprofit organizations that desire to develop farmland protection programs and policies. The NRCS summarizes FPPA implementation in an annual report to Congress.

Farm and Ranch Lands Protection Program

The NRCS administers the Farm and Ranch Lands Protection Program (FRPP), a voluntary program aimed at keeping productive farmland in agricultural uses. Under the FRPP, the NRCS provides matching funds to state, local, or tribal government entities and nonprofit organizations with existing farmland protection programs to purchase conservation easements. According to the 1996 Farm Bill, the goal of the program is to protect between 170,000 and 340,000 acres of farmland per year. Participating landowners agree not to convert the land to non-agricultural use and retain all rights to use the property for agriculture. A conservation plan must be developed for all lands enrolled based upon the standards contained in the NRCS Field Office Technical Guide. A minimum of 30 years is required for conservation easements and priority is given to applications with perpetual easements. The NRCS provides up to 50 percent of the fair market value of the easement being conserved (NRCS, 2004). To qualify for a conservation easement, farm or ranch land must meet several criteria. The land must be:

- Prime, Unique, or other productive soil, as defined by NRCS based on factors such as water moisture regimes, available water capacity, developed irrigation water supply, soil temperature range, acid-alkali balance, water table, soil sodium content, potential for flooding, erodibility, permeability rate, rock fragment content, and soil rooting depth;
- Included in a pending offer to be managed by a nonprofit organization, state, tribal, or local farmland protection program;
- Privately owned;
- Placed under a conservation plan;
- Large enough to sustain agricultural production;
- Accessible to markets for the crop that the land produces; and

- Surrounded by parcels of land that can support long-term agricultural production.

STATE

California Department of Conservation

The DOC administers and supports a number of programs, including the Williamson Act, the California Farmland Conservancy Program (CFCP), the Williamson Act Easement Exchange Program (WAEEP), and the FMMP. These programs are designed to preserve agricultural land and provide data on conversion of agricultural land to urban use. The DOC has authority for the approval of agreements entered into under the WAEEP. Key DOC tools available for land conservation planning are conservation grants, tax incentives to keep land in agriculture or open space, and farmland mapping and monitoring.

Williamson Act

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965 to encourage the preservation of the state's agricultural lands and to prevent their premature conversion to urban uses. In order to preserve these uses, the Act established an agricultural preserve contract procedure by which any county or city taxes landowners at a lower rate, using a scale based on the actual use of the land for agricultural purposes, as opposed to its unrestricted market value. In return, the owners guarantee that these properties remain under agricultural production for a 10-year period. The contract is self-renewing; however, the landowner may notify the county or city at any time of the intent to withdraw the land from its preserve status. There are two means by which the landowner may withdraw the land from its contract preserve status. First, the landowner may seek to cancel the contract. This takes the land out of the contract quickly with a minimal waiting period but the landowner pays a statutory penalty to the State. Second, the landowner may notice a non-renewal or seek a partial non-renewal of the contract. Land withdrawal through the non-renewal process involves a 9- or 10-year period (depending on the timing of the notice) of tax adjustment to full market value before protected open space can be converted to urban uses.

Williamson Act subvention payments to local governments have been suspended since the fiscal year 2009-10 due to the State's fiscal constraints. The Williamson Act contracts between landowners and local governments remain in force, regardless of the availability of subvention payments.

Farmland Security Zones

A Farmland Security Zone is an area created within an agricultural preserve by a board of supervisors (board) or city council (council) upon request by a landowner or group of landowners. An agricultural preserve defines the boundary of an area within which a city or county will enter into contracts with landowners. The boundary is designated by resolution of the board or council having jurisdiction. Agricultural preserves must generally be at least 100 acres in size. Farmland Security Zone contracts offer landowners greater property tax reduction. Land restricted by a Farmland Security Zone contract is valued for property assessment purposes at 65% of its Williamson Act valuation or 65% of its Proposition 13 valuation, whichever is lower.

Forest Practices Rules

The California Department of Forestry and Fire Protection (CalFire) implements the laws that regulate timber harvesting on privately-owned lands. These laws are contained in the Z'berg-Nejedly Forest Practice Act of 1973 which established a set of rules known as the Forest Practice Rules (FPRs) to be applied to forest management related activities (i.e., timber harvests, timberland conversions, fire hazard removal, etc.). They are intended to ensure that timber harvesting is conducted in a manner that will preserve and protect fish, wildlife, forests, and streams. Under the Forest Practice Act, a Timber Harvesting Plan (THP) is submitted to CalFire by the landowner outlining what timber is proposed to be harvested, harvesting method, and the steps that will be taken to prevent damage to the environment. If the landowner intends to convert timberland to non-timberland uses, such as a winery or vineyard, a Timberland Conversion Permit (TCP) is required in addition to the THP. It is CalFire's intent that a THP will not be approved which fails to adopt feasible mitigation measures or alternatives from the range of measures set out or provided for in the Forest Practice Rules, which would substantially lessen or avoid significant adverse environmental impacts resulting from timber harvest activities. THPs are required to be prepared by Registered Professional Foresters (RPFs) who are licensed to prepare these plans (CalFire, 2007). For projects involving TCPs, CalFire acts as lead agency under CEQA, and the county or city acts as a responsible agency.

Cortese-Knox-Hertzberg Local Government Reorganization Act

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Act) establishes procedures for local government changes of organization, including city incorporations, annexations to a city or special district, and city and special district consolidations. The following describes the findings necessary for incorporation:

Article 1. Incorporation Necessary findings; proposed incorporation

56720. The commission shall not approve or conditionally approve any proposal that includes an incorporation, unless the commission finds, based on the entire record, that:

(a) The proposed incorporation is consistent with the intent of this division, including, but not limited to, the policies of Sections56001, 56300, 56301, and 56377.

(b) It has reviewed the spheres of influence of the affected local agencies and the incorporation is consistent with those spheres of influence.

(c) It has reviewed the comprehensive fiscal analysis prepared pursuant to Section 56800 and the Controller’s report prepared pursuant to Section 56801.

(d) It has reviewed the executive officer's report and recommendation prepared pursuant to Section 56665, and the testimony presented at its public hearing.

(e) The proposed city is expected to receive revenues sufficient to provide public services and facilities and a reasonable reserve during the three fiscal years following incorporation.

LOCAL

San Joaquin Local Agency Formation Commission (LAFCo)

The San Joaquin LAFCo is responsible for coordinating orderly reorganization to local jurisdictional boundaries, including annexations. Annexation to the City of Manteca is subject to LAFCo approval, and LAFCo will review the proposed annexation for consistency with LAFCo's Annexation Policies and Procedures. An annexation can only be approved if the applicable Municipal Services Review (MSR) and Plan for Services demonstrate that adequate services can be provided to the annexed area. An MSR, produced as part of a LAFCo's regular review of municipal services, consists of a written statement of its determinations regarding infrastructure, growth and population projections, financing, cost avoidance, rate restructuring, shared facilities, government structure options, management efficiency, and local accountability and governance. An annexation proposal must include a Plan for Services consistent with the applicable MSR and must demonstrate that the City is capable of providing the required services. The City must pre-zone the lands to be annexed and subsequent changes to the General Plan land use designation and zoning are prohibited for two years.

San Joaquin LAFCo has adopted Policies and Procedures for Annexation and Detachment to and from all agencies within their jurisdiction. LAFCo has also adopted Procedures for the California Environmental Quality Act in accordance with the California Code of Regulations (Chapter 3, Title 14 Section 15022), which requires that each public agency adopt objectives, criteria, and specific procedures for administering its responsibilities under CEQA. Some of the policies pertain to agricultural land. Below is a brief discussion of San Joaquin LAFCo Policies and Procedures.

LAFCO CHANGE OF ORGANIZATION POLICIES AND PROCEDURES (INCLUDING ANNEXATIONS AND REORGANIZATIONS) (AS AMENDED 12/14/12)

General Standards for Annexation and Detachment

These standards govern San Joaquin LAFCo determinations regarding annexations and detachments to and from all agencies. The annexations or detachments must be consistent with the general policies set forth in these Policies and Procedures.

1. Spheres and Municipal Service Reviews

   The annexation or detachment must be consistent with the internal planning horizon of the sphere of influence. The land subject to annexation shall normally lie within the first planning increment (5 to 10 year) boundary. The annexation must also consider the applicable Municipal Service Review. An annexation shall be approved only if the Municipal Services Review and the Sphere of Influence Plan demonstrates that adequate services can be provided with the timeframe needed by the inhabitants of the annexed area. If detachment occurs, the sphere will be modified. LAFCo generally will not allow spheres of influence to be amended concurrently with annexation proposals.

   Proposed annexations of land that lie outside of the first planning horizon (5 to 10 year) are presumed to be inconsistent with the Sphere Plan. In such a case the agency must first request LAFCo to consider a sphere amendment pursuant to the above policies. If the amendment is approved, the agency may then proceed with the annexation proposal. A

change of organization or reorganization will not be approved solely because an area falls within the SOI of any agency.

As an exception to the presumed inconsistency mentioned above, Master Plan and Specific Plan developments may span several planning horizons of the sphere of influence. Annexation of the entire Project area may be desirable in order to comprehensively plan and finance infrastructure and provide for amenity-based improvements. In these cases, no amendment of the planning horizon is necessary provided Project phasing is recognized in the Sphere of Influence Plan.

2. Plan for Services

   Every proposal must include a Plan for Services that addresses the items identified in Section 56653 of the Government Code. The Plan for Services must be consistent with the Municipal Service Review of the Agency. Proponents must demonstrate that the city or special district is capable of meeting the need for services.

3. Contiguity

   Territory proposed to be annexed to a city must be contiguous to the annexing city or district unless specifically allowed by statute. Territory is not contiguous if the only connection is a strip of land more than 300 feet long and less than 200 wide, that width to be exclusive of highways. The boundaries of a proposed annexation or reorganization must not create or result in areas that are difficult to serve.

4. Development within Jurisdiction

   Development of existing vacant or non-prime agricultural lands for urban uses within the existing jurisdiction or within the sphere of influence should be encouraged before any proposal is approved which would allow for or lead to the development of existing open space lands for non-open space uses which are outside of the existing jurisdiction of the local agency or outside of the existing sphere of influence of the local agency. (Section 56377)

5. Progressive Urban Pattern

   Annexations to agencies providing urban services shall be progressive steps toward filling in the territory designated by the affected agency's adopted sphere of influence. Proposed growth shall be from inner toward outer areas.

6. Piecemeal Annexation Prohibited

   LAFCo requires annexations and detachments to be consistent with the schedule for annexation that is contained in the agency's Sphere of Influence Plan. LAFCo will modify small piece-meal or irregular annexations, to include additional territory in order to promote orderly annexation and logical boundaries, while maintaining a viable proposal. In such cases, detailed development plans may not be required for those additional areas but compliance with CEQA is required.

7. Annexations to Eliminate Islands

   Proposals to annex islands or to otherwise correct illogical distortion of boundaries will normally be approved unless they would violate another provision of these standards. In order to avoid the creation of an island or to encourage the elimination an existing island, detailed development plans may not be required for the remnant areas.

8. Annexations that Create Islands

   An annexation will not be approved if it will result in the creation of an island of unincorporated territory or otherwise cause or further the distortion of existing boundaries. The Commission may nevertheless approve such an annexation where it finds that the application of this policy would be detrimental to the orderly development of the community and that a reasonable effort has been made to include the island in the annexation but that inclusion is not feasible at this time.

9. Substantially Surrounded

   For the purpose of applying the provisions of the Cortese-Knox-Hertzberg Act regarding island annexation without protest hearings (Section 56375.5), the subject territory of an annexation proposal shall be deemed "substantially surrounded" if it is within the sphere of influence of the affected city and two-thirds of its boundary is surrounded by the affected city.

10. Definite and Certain Boundaries

    All boundaries shall be definite and certain and conform to lines of assessment or ownership. The Commission's approval of boundary change proposals containing split parcels will typically be subject to a condition requiring the recordation of a parcel map, lot line adjustment or other instrument to avoid creating remnants of legal lots.

11. Service Requirements

    An annexation shall not be approved merely to facilitate the delivery of one or a few services to the determent of the delivery of a larger number of services or service more basic to public health and welfare.

12. Adverse Impact of Annexation on the Other Agencies

    LAFCo will consider any significant adverse effects upon other service recipients or other agencies serving the area and may condition any approval to mitigate such impacts. Significant adverse effects shall include the effect of proposals that negatively impact special districts' budgets or services or require the continuation of services without the provision of adequate funding. LAFCo will not approve detachments from special districts or annexations that fail to provide adequate mitigation of the adverse impact on the district. LAFCo may determine an appropriate temporary mitigation, if any, and impose that temporary mitigation to the extent it is within its powers. If the needed mitigation is not within LAFCo's authority and approval would, in the opinion of the Commission, seriously impair the District's operation, the Commission may choose to deny the application.

13. District's Proposal to Provide new, different, or Divestiture of a Particular Function or Class of Services

    In addition to the plan for services specified in Section 2 of these Policies and Procedures any application for a new, different, or divestiture of a service shall also include the requirements outlined in Section 56824.12 of the Government Code. Applications for such request will be considered a change of organization and shall follow the requirements of such an application as outlined in the Cortese-Knox-Hertzberg Act and within these policies and procedures. The factors enumerated in Sections 56668 and 56824.14 of the Government Code shall be considered by the Commission at the time of consideration of the application for such functions.

14. Disadvantaged Unincorporated Communities

    Disadvantaged Unincorporated Communities (DUCs) are those territories shown in Exhibit A or as may be shown in a city municipal service review and sphere of influence plan.

    The Commission shall not approve an annexation to a city or any territory greater than 10 acres where there exists a disadvantaged unincorporated community (DUC) that is contiguous to the area of proposed annexation, unless a concurrent application to annex all or a portion of the DUC to the subject city has been filed. An application to annex a DUC shall not be required if either of the following applies:

    1. A prior application for annexation of the territory has been made in the preceding five years.

    2. The Commission finds, based upon written evidence, that a majority of the registered voters within the DUC are opposed to annexation.

       Written evidence can be a scientific survey conducted by an academic institution or professional polling company.

15. Protest Procedures

    The Commission delegates the conducting authority functions and responsibilities to the LAFCo Executive Officer pursuant to Government Code Section 57000.

City Annexations

1. Annexation of Streets

   Annexations shall reflect the logical allocation of streets and rights of way as follows:

   - Territory should be included within the annexation to assure that the city reasonably assumes the burden of providing adequate roads to the property to be annexed. LAFCo will require cities to annex streets where adjacent lands that are in the city will generate additional traffic or where the annexation will isolate sections of county road. Cities shall include all contiguous public roads that can be included without fragmenting governmental responsibility by alternating city and county road jurisdiction over short section of the same roadway.

- When a street is a boundary line between two cities the centerline of the street may be used as the boundary or may follow a boundary reached by agreement of the affected cities.

2. Pre-zoning Required

   The Cortese-Knox-Hertzberg Act requires the city to pre-zone territory to be annexed, and prohibits subsequent changes to the General Plan and /or pre-zoning designations for a period of two years after completion of the annexation, unless the city council makes a finding at a public hearing consistent with the provisions of Governments Code Section 56375(e). In instances where LAFCo amends a proposal to include additional territory, the Commission's approval of the annexation will be conditioned upon the pre-zoning of the new territory.

City of Manteca Agricultural Mitigation Fee Program

Chapter 13.42 of the Municipal Code establishes the City's Agricultural Mitigation Fee Program, which authorizes the collection of development impact fees to offset costs associated with the loss of productive agricultural lands converted for urban uses within the City. Agricultural mitigation fees are required to be paid prior to issuance of any building permit. Fees are used to protect agricultural lands planned for agricultural use. Fees collected under Chapter 13.42 may be used as fair compensation for farmland conservation easements or farmland deed restrictions that conserve existing agricultural land. For example, fees collected by the City are distributed to the California Farmland Trust on a quarterly basis. The Trust then acquires conservation easements from the funds collected.

City of Manteca Right to Farm Ordinance

Chapter 8.24 of the Municipal Code establishes the City's "Right to Farm" ordinance, which is intended to protect agricultural uses in the City. The ordinance establishes the City's policy to preserve, protect and encourage the use of viable agricultural land for the production of food and other agricultural products. Chapter 8.24 identifies that when nonagricultural land uses extend into or approach agricultural areas, conflicts may arise between such land uses and agricultural operations that often result in the involuntary curtailment or cessation of agricultural operations, and discourage investment in such operations.

Chapter 8.24 of the City's Municipal Code is intended to reduce the occurrence of such conflicts between nonagricultural and agricultural land uses within the City through requiring the transferor of any property in the City to provide a disclosure statement describing that the City permits agricultural operations, including those that utilize chemical fertilizers and pesticides. The disclosure statement notifies the purchaser that the property being purchased may be located close to agricultural lands and operations and that the purchaser may be subject to inconvenience or discomfort arising from the lawful and proper use of agricultural chemical and pesticides and from other agricultural activities, including without limitation, cultivation, plowing, spraying, irrigation, pruning, harvesting, burning of agricultural waste products, protection of crops and animals from depredation, and other activities which occasionally generate dust, smoke, noise and odor. In addition, prior to issuance of a city building permit for construction of a residential building, the

owner of the property upon which the building is to be constructed is required to file a disclosure statement acknowledging the proximity of agricultural operations and the potential for inconvenience or nuisance associated with those uses.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)

The SJMSCP provides comprehensive measures for compensation and avoidance of impacts on various biological resources, which includes ancillary benefits to agricultural resources. For instance, many of the habitat easements that are purchased or facilitated by the SJMSCP program are targeted for the protection of Swainson's hawk or other sensitive species habitat that are dependent on agricultural lands. The biological mitigation for these species through the SJMSCP includes the purchase of certain conservation easements for habitat purposes; however, the conservation easements are placed over agricultural land, such as alfalfa and row crops (not vines or orchards). As such, SJMSCP fees paid to SJCOG as administrator of the SJMSCP will result in the preservation of agricultural lands in perpetuity.

3.2.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on agricultural and forest resources if it will:

- 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)) or timberland zoned Timberland Production (as defined in Public Resources Code section 51104 (g));
- Result in the loss of forest land or conversion of forest land to non-forest use; or
- 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.

There are no forest lands or timber lands located within the Manteca Planning Area. There are also no parcels that are currently zoned as forest land, timber, or timber production. Therefore, implementation of the proposed General Plan would have no impact on forest land, timber, or timber production and this impact will not be discussed further.

IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: General Plan implementation would result in the conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, to non-agricultural use (Significant and Unavoidable)

As shown in Table 3.2-4, there are approximately 4,533.35 acres of Important Farmlands located within the city, including approximately 925.16 acres of Prime Farmland, 2,986.52 acres of Statewide Important Farmland and 621.67 acres of locally important farmland. As shown on Figure 3.2-1, the proposed General Plan Planning Area is designated as Urban and Built-Up (approximately 9,831.90 acres), Prime Farmland (4,636.38 acres), Farmland of Statewide Importance (9,948.09 acres), Farmland of Local Importance (1,016.53 acres), Semi-Agricultural and Rural Commercial Land and Vacant or Disturbed Land and Rural Residential (1,272.26 acres). Approximately 201.29 acres in the Planning Area contain Prime Farmland which is currently vacant and is designated for urban land uses (including the following land uses: Business Industrial Park [BIP], Commercial [C], Commercial Mixed-Use [CMU], Industrial [I], High Density Residential [HDR], Medium Density Residential [MDR], Low Density Residential [LDR], Very Low Density Residential [VLDR], Park [P], Public/Quasi Public [PQP], and roadway right of way) by the proposed General Plan Land Use Map. Approximately 1,281.14 acres in the Planning Area contain Farmland of Statewide Importance which is currently vacant and is designated for urban land uses (including the following land uses: Business Industrial Park [BIP], Commercial [C], Commercial Mixed-Use [CMU], Industrial [I], High Density Residential [HDR], Medium Density Residential [MDR], Low Density Residential [LDR], Very Low Density Residential [VLDR], Park [P], Public/Quasi Public [PQP], and roadway right of way) by the proposed General Plan Land Use Map.

While the proposed General Plan Land Use Map specifically identifies lands in Urban Reserve, Farmland, and Open Space that would not be converted to urban uses, it also designates a range of residential, commercial, industrial, public/quasi-public, and other uses that would convert farmland to urban and built up land. Therefore, the proposed Manteca General Plan has the potential to convert farmland to non-agricultural uses. However, the proposed General Plan emphasizes and prioritizes infill development, logical growth extending outward from existing development, and establishes Urban Reserve areas as part of its strategy to preserve and protect the greatest amount of agricultural land feasible. A large portion of the Planning Area is currently zoned for urban land uses (i.e., residential single family, multi-family, public and institutional, mixed use and commercial) and proposes zoning changes similar to the existing land uses. Land uses surrounding the Planning Area consist of light industrial, commercial general, commercial, open space, single family residential, rural residential, single family residential agricultural, limited agriculture, exclusive agriculture, and other similar land uses.

The Planning Area does contain prime soils as defined by the California Department of Conservation, Agricultural Conservation and Mitigation Program. According to the Agricultural Conservation and Mitigation Program Farmland shall be considered prime farmland if it meets the definition of "prime agricultural land" in Government Code Section 51201. Government Code Section 51201 states that prime agricultural land means any of the following:

(1) All land that qualifies for rating as class I or class II in the Natural Resource Conservation Service land use capability classifications.

(2) Land which qualifies for rating 80 through 100 in the Storie Index Rating.

(3) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.

(4) Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars ($200) per acre.

(5) Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than two hundred dollars ($200) per acre for three of the previous five years.

As described in Table 3.2-3, a majority of the soils within the Planning Area have a capability classification higher than class 3 or 4 which does not qualify as prime agricultural land under the Agricultural Conservation and Mitigation Program. However, the majority of soils have a storie index of 2, which correlates to a rating of 60 to 80, meaning soils within the Planning Area are suitable for most crops, but have minor limitations that narrow the choice of crops, have a few special management needs and could potentially qualify as prime agricultural land as defined by the Agricultural Conservation and Mitigation Program. In addition, a small portion of the planning area have a storie index of 1, which correlates to a rating of 80 to 100, which qualities as prime agricultural land as defined by the Agricultural Conservation and Mitigation Program.

Conversion of farmland as a result of Plan implementation is considered a ***potentially significant*** impact.

The proposed General Plan includes policies and action, identified below, that are intended to reduce the conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, to non-agricultural uses. These include policies that encourage the development of vacant lands within City boundaries prior to conversion of agricultural lands and ensure that urban development near existing agricultural lands will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations. Overall, the policies and actions included in the proposed General Plan are intended to support and preserve the agricultural heritage of Manteca as development continues to occur within the Planning Area.

In addition to the proposed General Plan's policies and actions, the City implements other programs and regulations aimed at protecting agricultural lands throughout the Planning Area. For example, Manteca Municipal Code Chapter 13.42 includes the City's agricultural land mitigation requirements. In order to mitigate and offset the loss of valuable farmland resources, the City requires an agricultural mitigation fee for any discretionary land use entitlement which will

permanently change agricultural land over one acre in size within the City's jurisdiction to any non-agricultural use. The in-lieu fee, paid to the City is distributed to the California Farmland Trust on a quarterly basis. The Trust then acquires conservation easements from the funds collected.

The City also implements a Right-to-Farm ordinance, as described in greater detail in the Regulatory Setting section of this chapter. One purpose of this ordinance is to prevent the loss of agricultural resources and damage to the local agricultural industry by creating a presumption that proper agricultural operations may not be deemed a public nuisance. An additional purpose of this ordinance is to promote a good neighbor policy by requiring notification to purchasers and users of property near agricultural operations of the inherent inconveniences associated with such operations.

The proposed General Plan would accommodate development that would result in the conversion of farmlands within the Planning Area to non-agricultural uses. The conversion of these farmlands requires mitigation through the City of Manteca Agricultural Mitigation Fee Program and Right to Farm Ordinance, as described previously. While the above-identified impact would be reduced through preservation of agricultural land resulting from the proposed Policies and Actions as well as the Agricultural Mitigation Fee Program and Right to Farm Ordinance, the impact would not be reduced to a less-than-significant level due to the fact that active agricultural land would still be permanently converted to urban uses. Feasible mitigation measures do not exist to reduce the above impact to a less-than-significant level. Therefore, the impact would remain ***significant and unavoidable***.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

RC-7.1: Support the continuation of agricultural uses on lands designated for urban use, until urban development is imminent.

RC-7.2: Provide an orderly and phased development pattern, encouraging the development of vacant lands within City boundaries prior to conversion of agricultural lands, so that farmland is not subjected to premature development pressure.

RC-7.3: Encourage permanent agricultural lands surrounding the Planning Area to serve as community separators and continue the agricultural heritage of Manteca.

RC-7.4: Support and encourage the preservation of designated Agriculture lands, without placing an undue burden on agricultural landowners.

RC-7.5: Minimize conflicts between agricultural and urban land uses.

RC-7.6: Ensure that urban development near existing agricultural lands will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations.

RC-7.7: Prohibit the fragmentation of agricultural parcels into small rural residential parcels except in areas designated for urban development in the Land Use Diagram.

RC-7.8: Encourage agricultural landowners in Manteca's Planning Area to participate in Williamson Act contracts and other programs that provide long-term protection of agricultural lands. Discourage the cancellation of Williamson Act contracts outside the Primary Urban Service Boundary line.

RC-7.9: Work with the Local Agency Formation Commission (LAFCO) on issues of mutual concern including the conservation of agricultural land through consistent use of LAFCO policies, particularly those related to conversion of agricultural lands and establishment of adequate buffers between agricultural and non-agricultural uses, and the designation of a reasonable and logical Sphere of Influence boundary for the City.

RC-7.10: Prohibit re-designation of Agricultural lands to other land use designations unless all of the following findings can be made:

- *a. There is a public need or net community benefit derived from the conversion of the land that outweighs the need to protect the land for long-term agricultural use.*
- *b. There are no feasible alternative locations for the proposed project that are either designated for non-agricultural land uses or are less productive agricultural lands.*
- *c. The use would not have a significant adverse effect on existing or potential agricultural activities on surrounding lands designated Agriculture.*

RC-7.11: Require the development projects to reduce impacts on agricultural lands through the use of buffers, such as greenbelts, drainage features, parks, or other improved and maintained features, in order to separate residential and other sensitive land uses, such as schools and hospitals, from agricultural operations and from lands designated Agriculture.

RC-7.12: Work with agricultural landowners to improve practices that have resulted in adverse impacts to adjacent properties. Such practices include site drainage and flood control measures.

RC-7.13: Support the procurement of expanded and additional water rights which provide for contractual supply reliability for agricultural use.

RC-7.14: Do not extend water and sewer lines to noncontiguous urban development that would adversely affect agricultural operations.

RC-7.15: Encourage small-scale food production, such as community gardens and cooperative neighborhood growing efforts, on parcels within the City limits, provided that the operations do not conflict with existing adjacent urban uses.

RC-7.16: Encourage Manteca Unified School District and the Delta Community College District to maintain school farm facilities and associated education programs.

RC-7.17: Encourage and support the development of new agricultural related industries featuring alternative energy, utilization of agricultural waste, biofuels, and solar or wind farms.

ACTIONS

LU-4b: As part of the City's development review process, ensure that commercial projects are designed to minimize conflicts with residential uses. Review of commercial projects should ensure that the following design concepts are avoided in projects that abut residential areas:

- *Inappropriate building scale and/or siting on the lot.*
- *Excessive glare or excessive impacts from light sources onto adjacent properties.*
- *Excessive noise generated from freight and waste management activities during night hours.*
- *Excessive air pollutant emissions from freight trucks and large expanses of parking lot areas.*

LU-5i: For the purposes of evaluating the potential for a project to result in conflicts with existing zoning for agricultural uses through the CEQA process, the Agricultural/Industrial land use classification shall be considered an agricultural use.

RC-7a: Continue to implement Chapter 8.24 (Right to Farm) of the Municipal Code in order to protect farming uses from encroaching urban uses and to notify potential homebuyers of nearby agricultural operations.

RC-7c: Amend Title 17 (Zoning) of the Municipal Code to include specific agricultural buffer requirements for new development projects, including residential and sensitive land uses (i.e., schools, day care facilities, and medical facilities), amendments to the General Plan, and rezoning applications that are proposed near existing agricultural lands in order to protect the associated agricultural operations from encroachment by incompatible uses. Buffers shall generally be defined as a physical separation, depending on the land use, and may consist of topographic features, roadways, bike/pedestrian paths, greenbelts, water courses, or similar features. The buffer shall occur on the parcel for which a permit is sought and shall favor protection of the maximum amount of agricultural land.

RC-7d: Collaborate with water suppliers and wastewater treatment plant operators to increase the availability of treated or recycled water for agricultural purposes.

RC-7e: Apply the following conditions of approval where urban development occurs next to farmland:

- *Require notifications in urban property deeds that agricultural operations are in the vicinity, in keeping with the City's right-to- farm ordinance.*
- *Require adequate and secure fencing at the interface of urban and agricultural use.*
- *Require phasing of new residential subdivisions; so as to include an interim buffer between residential and agricultural use.*
- *Require a buffer, which may include a roadway and landscaped buffer, open space transition area, or low intensity uses, between urban uses and lands designated Agriculture on the Land Use Map.*

RC-7f: Work with San Joaquin County on the following issues:

- *The establishment and implementation of consistent policies for agricultural lands in the Planning Area that prioritize the preservation of agricultural lands and support ongoing agricultural activities.*
- *Pesticide application and types of agricultural operations adjacent to urban uses.*
- *Support the continuation of County agricultural zoning in areas designated for agricultural land use in the Area Plan.*

RC-7g: Develop a program to support for agricultural tourism, u-pick orchards and farms, and other agricultural activities that serve as a regional draw to Manteca and enhance its agricultural heritage.

Impact 3.2-2: General Plan Implementation would conflict with existing zoning for agricultural use, or a Williamson Act Contract (Significant and Unavoidable)

While lands within the City are not zoned for agricultural use, the Planning Area includes lands zoned for agricultural use by San Joaquin County. These include lands that are designated as General Agriculture by the San Joaquin General Plan and zoned for Agriculture with minimum parcel size of 40 acres (AG-40). Further, there are lands adjacent the Planning Area that are zoned for agricultural use. Therefore, implementation of the General Plan may have the potential to conflict with lands zoned for agricultural uses. The Planning Area also includes approximately 1,375 acres of lands that are under a Williamson Act Contract. Currently, the majority of the Williamson Act Contract land within the Planning Area are designated for agricultural land uses and will continue to be used for agricultural purposes under the proposed General Plan. Under the proposed General Plan Land Use Map, the approximately 1,375 acres of Williamson Act Contract land are proposed for agriculture, very low density residential, business park industrial and industrial land uses. Therefore, the implementation of the proposed General Plan could conflict with existing Williamson Act Contracts because non-agricultural uses, such as proposed business park industrial and industrial land uses to the north, are not allowed on the existing Contract land. As a result, the proposed project could result in a significant impact on existing Williamson Act Contract land.

The proposed General Plan includes policies and actions, listed below, that are intended to reduce conflict between existing agricultural zones, or a Williamson Act Contract with new development as a result of the proposed general plan. These include policies which help explicitly minimize conflicts between agricultural and urban land uses. For example, the proposed general plan includes policies which encourage coordination LAFCO on issues of the conservation of agricultural land; promotes the enrollment in Williamson Act contracts; promotes the establishment of adequate buffers between agricultural and urban land uses; prohibits the redesignation of Agricultural lands to other land use designations unless specific findings are mad; and requires future development projects to reduce impacts on agricultural lands through the use of buffers, such as greenbelts, drainage features, parks, or other improved and maintained features. More specifically related to impacts to adjacent agricultural lands, General Plan Policy RC-8e requires that the following conditions of approval where urban development occurs next to farmland are implemented:

- Require notifications in urban property deeds that agricultural operations are in the vicinity, in keeping with the City's right-to- farm ordinance.
- Require adequate and secure fencing at the interface of urban and agricultural use.
- Require phasing of new residential subdivisions; so as to include an interim buffer between residential and agricultural use.
- Require a buffer, which may include a roadway and landscaped buffer, open space transition area, or low intensity uses, between urban uses and lands designated Agriculture on the Land Use Map.

The City's Right to Farm Ordinance is intended to reduce the occurrence of such conflicts between nonagricultural and agricultural land uses within the City through requiring the transferor of any property in the City to provide a disclosure statement describing that the City permits agricultural

operations, including those that utilize chemical fertilizers and pesticides Compliance with the City's Right to Farm Ordinance as well as the proposed General Plan policies and actions would ensure that projects include adequate measures to buffer project uses from adjacent agricultural uses and would reduce adverse effects on neighboring agricultural uses.

While the potential for conflicts between agricultural uses and non-agricultural uses would be minimized through the policies, actions, and requirements described above, the General Plan would allow the conversion of lands zoned for agricultural uses as well as approximately 407 acres of properties with Williamson Act Contracts to be developed with non-agricultural uses. This is considered a ***significant and unavoidable*** impact.

Impact 3.2-3: General Plan implementation would not result in the loss of forest land or conversion of forest land to non-forest use (No Impact)

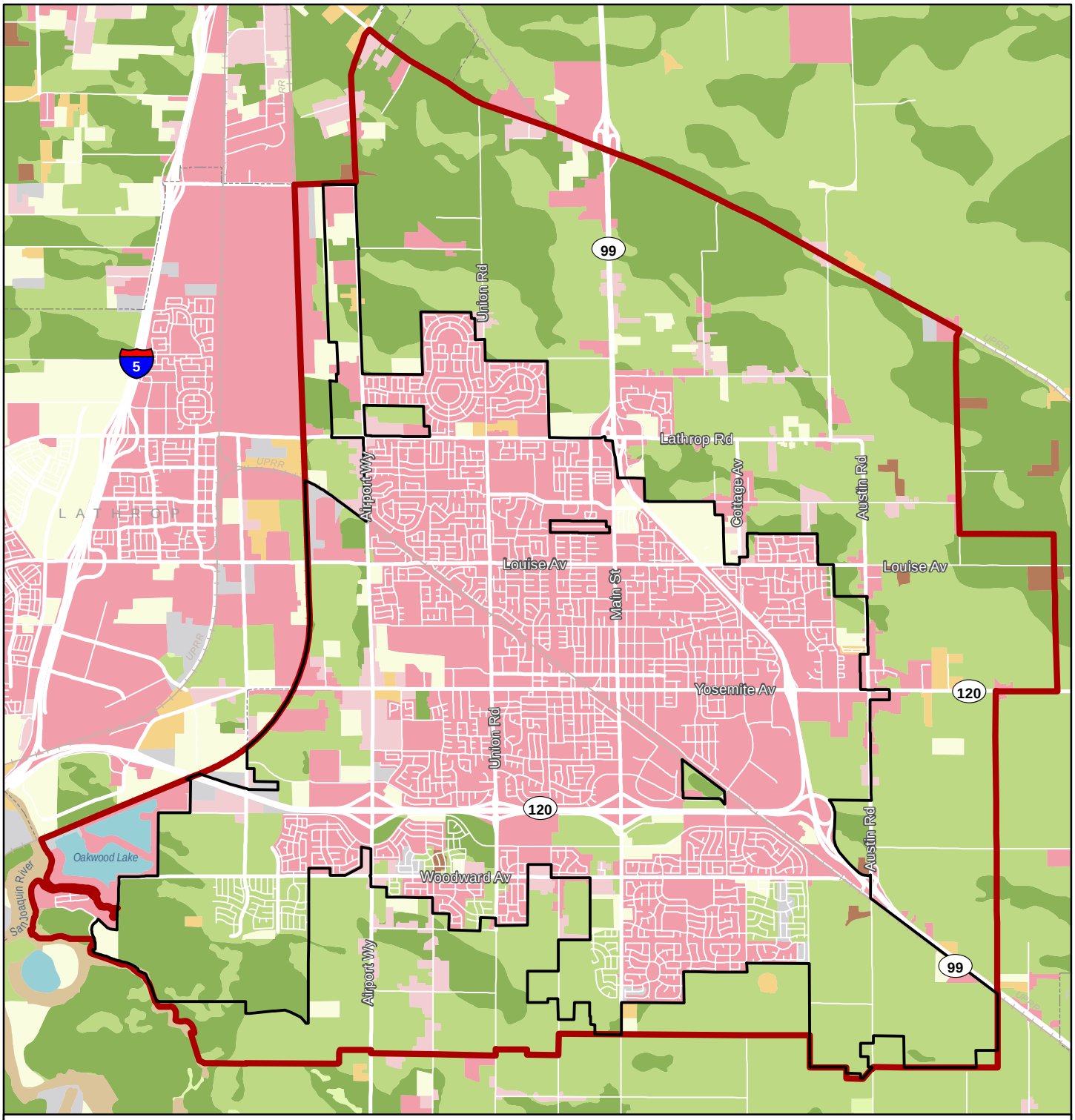
The Planning Area does not contain parcels designated as forest land and the proposed General Plan does not propose uses that would convert existing forest land to non-forest use. Therefore, the project would result in ***no impact*** regarding the loss of forest land or conversion of forest land to non-forest use.

Impact 3.2-4: General Plan implementation would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use (Less than Significant)

As discussed in Impact 3.2-1, future development in accordance with the proposed General Plan would result in the conversion of farmland to a non-agricultural use. The proposed General Plan would allow new urban uses that have the potential to conflict with existing agricultural operations, regardless of whether the operations are conducted on Williamson Act lands and lands zoned for agricultural use as discussed under Impact 3.2-2 above. Future development in areas within the Planning Area may involve other changes in the existing environment that could result in the conversion of farmland. Depending on the type of uses, an indirect impact of converting agricultural uses to urban uses could be increased water use. However, as mentioned above the proposed General Plan includes policies which would reduce the impact of development resulting in the conversion of existing farmland. This includes policies which encourage coordination LAFCO on issues of the conservation of agricultural land; promote the enrollment in Williamson Act contracts; promote the establishment of adequate buffers between agricultural and urban land uses; prohibit the redesignation of Agricultural lands to other land use designations unless specific findings are made; and require future development projects to reduce impacts on agricultural lands through the use of buffers, such as greenbelts, drainage features, parks, or other improved and maintained features. In addition, the City's Right to Farm Ordinance is intended to reduce the occurrence of conflicts between nonagricultural and agricultural land uses within the City by requiring the transferor of any property in the City to provide a disclosure statement describing that the City permits agricultural operations, including those that utilize chemical fertilizers and pesticides. Compliance with the City's Right to Farm Ordinance, as well as General Plan Policy RC-8e, would ensure that projects include adequate measures to buffer project uses from adjacent agricultural uses and would reduce adverse effects on neighboring agricultural uses.

Therefore, the proposed General Plan would result in a ***less than significant*** impact involving other changes in the existing environment that could result in the conversion of farmland.

This page left intentionally blank



Legend

- City of Manteca
- Manteca Planning Area
- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Farmland of Local Importance
- Confined Animal Agriculture
- Nonagricultural or Natural Vegetation
- Vacant or Disturbed Land
- Rural Residential Land
- Semi-agricultural and Rural Commercial Land
- Urban and Built-Up Land
- Water Area

CITY OF MANTECA GENERAL PLAN

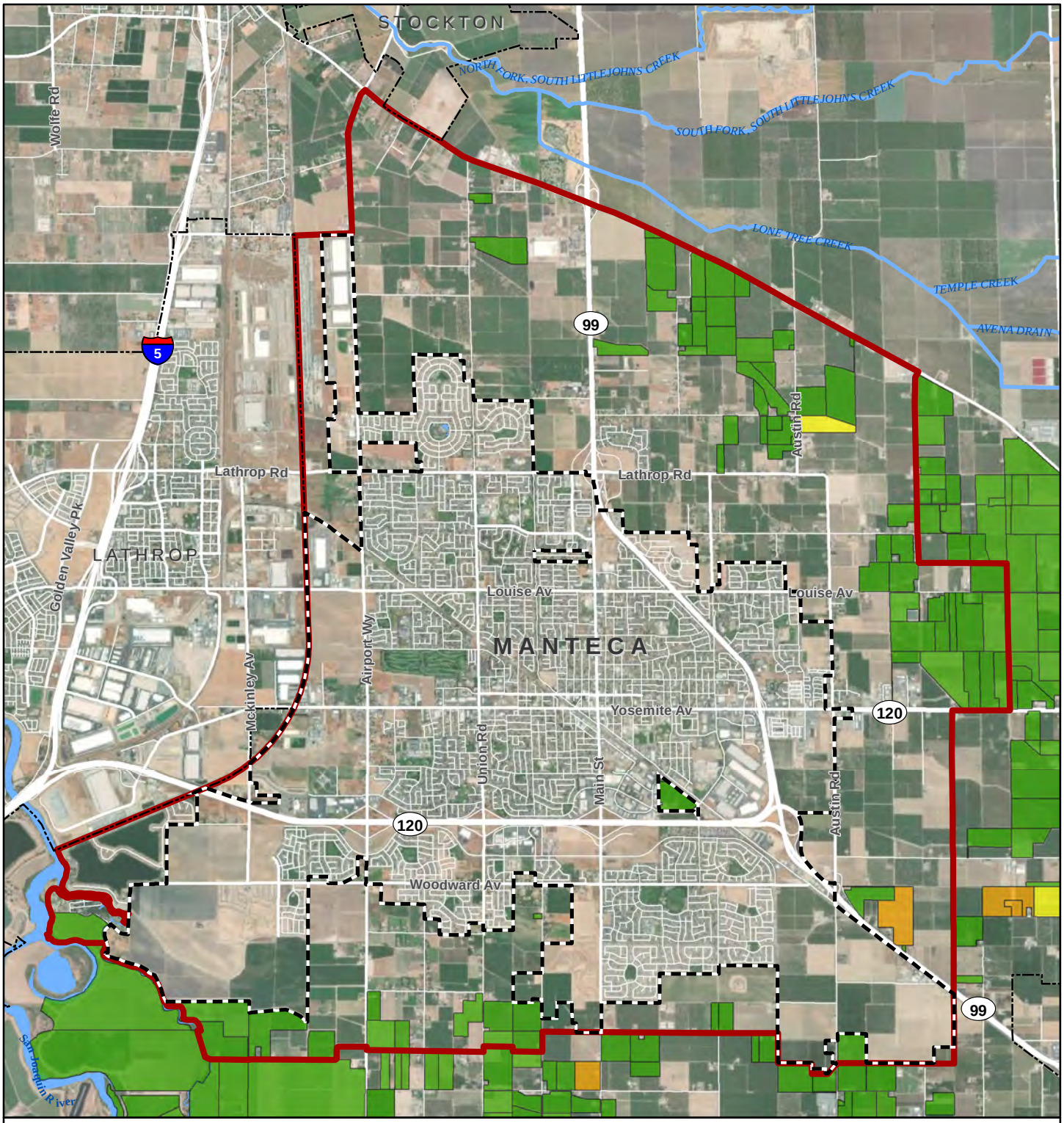
Figure 3.2-1. Important Farmlands

0 ½ 1
Miles

Sources: City of Manteca; San Joaquin County; California Department of Conservation Farmland Mapping and Monitoring Program, San Joaquin County 2018. Map date: February 1, 2022.

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

This page left intentionally blank



Legend

Planning Areas

- Manteca City Limits
- Surrounding Cities
- Manteca Planning Area

Williamson Act Lands

- Williamson Act Lands
- Williamson Act Lands - Non-Renewal
- Farmland Security Zone

Sources: Williamson Act Lands from City of Manteca, February 2022; San Joaquin County GIS. Map date: August 2, 2022.

CITY OF MANTECA GENERAL PLAN

Figure 3.2-2. Williamson Act Lands

0 ½ 1
Miles

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

This page left intentionally blank

This section describes the regional air quality, current attainment status of the applicable air basin, local sensitive receptors, emission sources, and impacts that are likely to result from proposed project implementation.

No comments were received during the NOP comment period regarding this environmental topic. However, air quality-related comments were received during the public review period for the Draft EIR (released March 22, 2021) from Joe Mendes (June 14, 2021), Shute Mihaly & Weinberger, LLP (June 10, 2021), and the Catholic Charities of the Diocese of Stockton (May 4, 2021).

3.3.1 ENVIRONMENTAL SETTING

SAN JOAQUIN VALLEY AIR BASIN

The City of Manteca (City) is in the northern portion of the San Joaquin Air Basin (SJVAB). The SJVAB consists of eight counties: Fresno, Kern (western and central), Kings, Tulare, Madera, Merced, San Joaquin, and Stanislaus. Air pollution from significant activities in the SJVAB includes a variety of industrial-based sources as well as on- and off-road mobile sources. These sources, coupled with geographical and meteorological conditions unique to the area, stimulate the formation of unhealthy air.

The SJVAB is approximately 250 miles long and an average of 35 miles wide. It is bordered by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. There is a slight downward elevation gradient from Bakersfield in the southeast end (elevation 408 feet) to sea level at the northwest end where the valley opens to the San Francisco Bay at the Carquinez Straits. At its northern end is the Sacramento Valley, which comprises the northern half of California's Central Valley. The bowl-shaped topography inhibits movement of pollutants out of the valley (San Joaquin Valley Air Pollution Control District (SJVAPCD), 2015).

Climate

The SJVAB is in a Mediterranean climate zone and is influenced by a subtropical high-pressure cell most of the year. Mediterranean climates are characterized by sparse rainfall, which occurs mainly in winter. Summers are hot and dry. Summertime maximum temperatures often exceed 100°F in the valley.

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface. Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500 to 3,000 feet).

Winter-time high pressure events can often last many weeks, with surface temperatures often lowering into the 30°F. During these events, fog can be present and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet (SJVAPCD, 2015).

Wind Patterns

Wind speed and direction play an important role in dispersion and transport of air pollutants. Wind at the surface and aloft can disperse pollution by mixing and transporting it to other locations.

Especially in summer, winds in the San Joaquin Valley most frequently blow from the northwest. The region's topographic features restrict air movement and channel the air mass towards the southeastern end of the valley. Marine air can flow into the basin from the San Joaquin River Delta and over Altamont Pass and Pacheco Pass, where it can flow along the axis of the valley, over the Tehachapi pass, into the Southeast Desert Air Basin. This wind pattern contributes to transporting pollutants from the Sacramento Valley and the Bay Area into the SJVAB. Approximately 27 percent of the total emissions in the northern portion, 11 percent of total emissions in the central region, and 7 percent of total emission in the south valley of the SJVAB are attributed to air pollution transported from these two areas.[1] The Coastal Range is a barrier to air movement to the west and the high Sierra Nevada range is a significant barrier to the east (the highest peaks in the southern Sierra Nevada reach almost halfway through the Earth's atmosphere). Many days in the winter are marked by stagnation events where winds are very weak. Transport of pollutants during winter can be very limited. A secondary but significant summer wind pattern is from the southeast and can be associated with nighttime drainage winds, prefrontal conditions, and summer monsoons.

Two significant diurnal wind cycles that occur frequently in the valley are the sea breeze and mountain-valley upslope and drainage flows. The sea breeze can accentuate the northwest wind flow, especially on summer afternoons. Nighttime drainage flows can accentuate the southeast movement of air down the valley. In the mountains during periods of weak synoptic scale winds, winds tend to be upslope during the day and downslope at night. Nighttime and drainage flows are especially pronounced during the winter when flow from the easterly direction is enhanced by nighttime cooling in the Sierra Nevada. Eddies can form in the valley wind flow and can recirculate a polluted air mass for an extended period.

Temperature

Solar radiation and temperature are particularly important in the chemistry of ozone formation. The SJVAB averages over 260 sunny days per year. Photochemical air pollution (primarily ozone) is produced by the atmospheric reaction of organic substances (such as volatile organic compounds) and nitrogen dioxide under the influence of sunlight. Ozone concentrations are very dependent on the amount of solar radiation, especially during late spring, summer, and early fall. Ozone levels typically peak in the afternoon. After the sun goes down, the chemical reaction between nitrous oxide and ozone begins to dominate. This reaction tends to scavenge and remove the ozone in the metropolitan areas through the early morning hours, resulting in the lowest ozone levels, possibly reaching zero at sunrise in areas with high nitrogen oxides emissions. At sunrise, nitrogen oxides

[1] SJVAPCD. Frequently Asked Questions, http://www.valleyair.org/general_info/frequently_asked_questions.htm#What%20is%20being%20done%20to%20improve%20ai r%20quality%20in%20the%20San%20Joaquin%20Valley, accessed March 3, 2020.

tend to peak, partly due to low levels of ozone at this time and also due to the morning commuter vehicle emissions of nitrogen oxides.

Generally, the higher the temperature, the more ozone formed, since reaction rates increase with temperature. However, extremely hot temperatures can “lift” or “break” the inversion layer. Typically, if the inversion layer does not lift to allow the buildup of contaminants to be dispersed, the ozone levels will peak in the late afternoon. If the inversion layer breaks and the resultant afternoon winds occur, the ozone will peak in the early afternoon and decrease in the late afternoon as the contaminants are dispersed or transported out of the SJVAB.

Ozone levels are low during winter periods when there is much less sunlight to drive the photochemical reaction (SJVAPCD, 2015).

Precipitation, Humidity, and Fog

Precipitation and fog may reduce or limit some pollutant concentrations. Ozone needs sunlight for its formation, and clouds and fog can block the required solar radiation. Wet fogs can cleanse the air during winter as moisture collects on particles and deposits them on the ground. Atmospheric moisture can also increase pollution levels. In fogs with less water content, the moisture acts to form secondary ammonium nitrate particulate matter. This ammonium nitrate is part of the valley’s $PM_{2.5}$ and PM_{10} problem. Ammonium nitrate contributes to the non-attainment status of $PM_{2.5}$ and PM_{10} air quality standards. 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 SJVAB 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} (SJVAPCD, 2015).

Inversions

The vertical dispersion of air pollutants in the San Joaquin Valley can be limited by persistent temperature inversions. Air temperature in the lowest layer of the atmosphere typically decreases with altitude. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. The height of the base of the inversion is known as the “mixing height.” This is the level to which pollutants can mix vertically. Mixing of air is minimized above and below the inversion base. The inversion base represents an abrupt density change where little air movement occurs.

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 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 (SJVAPCD, 2015).

CRITERIA POLLUTANTS

All criteria pollutants can have human health and environmental effects at certain concentrations. The United States Environmental Protection Agency (U.S. EPA) uses six "criteria pollutants" as

indicators of air quality and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). In addition, California establishes ambient air quality standards, called California Ambient Air Quality Standards (CAAQS). California law does not require that the CAAQS be met by a specified date as is the case with NAAQS.

The ambient air quality standards for the six criteria pollutants (as shown in Table 3.3-1) are set to public health and the environment within an adequate margin of safety (as provided under Section 109 of the Federal Clean Air Act). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants, and form the scientific basis for new and revised ambient air quality standards. Principal characteristics and possible health and environmental effects from exposure to the six primary criteria pollutants generated by the project are discussed below.

Ozone (O_3) is a photochemical oxidant and the major component of smog. While O_3 in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O_3 at ground level are a major health and environmental concern. O_3 is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of volatile organic compounds (COV), reactive organic gases (ROG), and oxides of nitrogen (NO_x) in the presence of sunlight. These reactions are stimulated by sunlight and temperature so that peak O_3 levels occur typically during the warmer times of the year. Both ROGs and NO_x are emitted by transportation and industrial sources. ROGs are emitted from sources as diverse as autos, chemical manufacturing, dry cleaners, paint shops and other sources using solvents. Relatedly, reactive organic compounds (ROC) are defined as the subset of ROGs that are reactive enough to contribute substantially to atmospheric photochemistry.

The reactivity of O_3 causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O_3 not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O_3 for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (U.S. EPA, 2019a). The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (U.S. EPA, 2019b). The average background level of

ozone in the California and Nevada is approximately 48.3 parts per billion, which represents approximately 77 percent of the total ozone in the western region of the U.S. (NASA, 2015).

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. O_3 can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Carbon monoxide (CO) is a colorless, odorless and poisonous gas produced by incomplete burning of carbon in fuels. Carbon monoxide is harmful because it binds to hemoglobin in the blood, reducing the ability of blood to carry oxygen. This interferes with oxygen delivery to the body's organs. The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain. For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies whose mothers experience high levels of CO exposure during pregnancy are at risk of adverse developmental effects. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects to ambient CO (CARB, 2019a).

Very high levels of CO are not likely to occur outdoors. However, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. These people already have a reduced ability for getting oxygenated blood to their hearts in situations where the heart needs more oxygen than usual. They are especially vulnerable to the effects of CO when exercising or under increased stress. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (U.S. EPA, 2016). Such acute effects may occur under current ambient conditions for some sensitive individuals, while increases in ambient CO levels increases the risk of such incidences.

Nitrogen oxides (NO_x) is a brownish, highly reactive gas that is present in all urban atmospheres. The main effect of increased NO_2 is the increased likelihood of respiratory problems. Under ambient conditions, NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O_3) and acid rain and may affect both terrestrial and aquatic ecosystems. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly are generally at greater risk for the health effects of NO_2.

The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO_x). NO_x plays a major role, together with ROGs, in the atmospheric reactions that produce O_3. NO_x forms when fuel is burned at high temperatures. The two major emission sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

Sulfur dioxide (SO_2) is one of the multiple gaseous oxidized sulfur species and is formed during the combustion of fuels containing sulfur, primarily coal and oil. The largest anthropogenic source of SO_2 emissions in the U.S. is fossil fuel combustion at electric utilities and other industrial facilities. SO_2 is also emitted from certain manufacturing processes and mobile sources, including locomotives, large ships, and construction equipment.

SO_2 affects breathing and may aggravate existing respiratory and cardiovascular disease in high doses. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children and the elderly. SO_2 is also a primary contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings and statues. In addition, sulfur compounds in the air contribute to visibility impairment in large parts of the country. Ambient SO_2 results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills and from nonferrous smelters.

Short-term exposure to ambient SO_2 has been associated with various adverse health effects. Multiple human clinical studies, epidemiological studies, and toxicological studies support a causal relationship between short-term exposure to ambient SO_2 and respiratory morbidity. The observed health effects include decreased lung function, respiratory symptoms, and increased emergency department visits and hospitalizations for all respiratory causes. These studies further suggest that people with asthma are potentially susceptible or vulnerable to these health effects. In addition, SO_2 reacts with other air pollutants to form sulfate particles, which are constituents of fine particulate matter ($PM_{2.5}$). Inhalation exposure to $PM_{2.5}$ has been associated with various cardiovascular and respiratory health effects (U.S. EPA, 2017). Increased ambient SO_2 levels would lead to increased risk of such effects.

SO_2 emissions that lead to high concentrations of SO_2 in the air generally also lead to the formation of other sulfur oxides (SOx). SOx can react with other compounds in the atmosphere to form small particles. These particles contribute to particulate matter (PM) pollution. Small particles may penetrate deeply into the lungs and in sufficient quantity can contribute to health problems.

Particulate matter (PM) includes dust, dirt, soot, smoke and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as SO_2 and ROGs are also considered particulate matter. PM is generally categorized based on the diameter of the particulate matter: PM_{10} is particulate matter 10 micrometers or less in diameter (known as respirable particulate matte*r*), and $PM_{2.5}$ is particulate matter 2.5 micrometers or less in diameter (known as fine particulate matter).

Based on studies of human populations exposed to high concentrations of particles (sometimes in the presence of SO_2) and laboratory studies of animals and humans, there are major effects of concern for human health. These include effects on breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis and premature death. Small particulate pollution causes health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed.

Respirable particulate matter (PM_{10}) consists of small particles, less than 10 microns in diameter, of dust, smoke, or droplets of liquid which penetrate the human respiratory system and cause irritation by themselves, or in combination with other gases. Particulate matter is caused primarily by dust from grading and excavation activities, from agricultural activities (as created by soil preparation activities, fertilizer and pesticide spraying, weed burning and animal husbandry), and from motor vehicles, particularly diesel-powered vehicles. PM_{10} causes a greater health risk than larger particles, since these fine particles can more easily penetrate the defenses of the human respiratory system.

$PM_{2.5}$ consists of fine particles, which are less than 2.5 microns in size. Similar to PM_{10}, these particles are primarily the result of combustion in motor vehicles, particularly diesel engines, as well as from industrial sources and residential/agricultural activities such as burning. It is also formed through the reaction of other pollutants. As with PM_{10}, these particulates can increase the chance of respiratory disease, and cause lung damage and cancer. In 1997, the U.S. EPA created new Federal air quality standards for $PM_{2.5}$.

The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly and children. Particulate matter also impacts soils and damages materials and is a major cause of visibility impairment.

Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lunch function, and increased respiratory symptoms. Studies show that every 1 microgram per cubic meter reduction in $PM_{2.5}$ results in a one percent reduction in mortality rate for individuals over 30 years old (Bay Area Air Quality Management District, 2017). Long-term exposures, such as those experienced by people living for many years in areas with high particle levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis – and even premature death. Additionally, depending on its composition, both PM_{10} and $PM_{2.5}$ can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. EPA, 2019c).

Lead (Pb) exposure can occur through multiple pathways, including inhalation of air and ingestion of Pb in food, water, soil or dust. Once taken into the body, lead distributes throughout the body in the blood and is accumulated in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system. Lead exposure also affects the oxygen carrying capacity of the blood. Excessive Pb exposure can cause seizures, mental retardation and/or behavioral disorders. Low doses of Pb can lead to central nervous system damage. Recent studies have also shown that Pb may be a factor in high blood pressure and subsequent heart disease.

Lead is persistent in the environment and can be added to soils and sediments through deposition from sources of lead air pollution. Other sources of lead to ecosystems include direct discharge of waste streams to water bodies and mining. Elevated lead in the environment can result in

decreased growth and reproductive rates in plants and animals, and neurological effects in vertebrates.

Lead exposure is typically associated with industrial sources; major sources of lead in the air are ore and metals processing and piston-engine aircraft operating on leaded aviation fuel. Other sources are waste incinerators, utilities, and lead-acid battery manufacturers. The highest air concentrations of lead are usually found near lead smelters. As a result of the U.S. EPA's regulatory efforts, including the removal of lead from motor vehicle gasoline, levels of lead in the air decreased by 98 percent between 1980 and 2014 (U.S. EPA, 2019d). Based on this reduction of lead in the air over this period, and since most new developments to not generate an increase in lead exposure, the health impacts of ambient lead levels are not typically monitored by the California Air Resources Board (CARB).

AMBIENT AIR QUALITY STANDARDS

Both the U.S. EPA and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant.

The federal and State ambient air quality standards are summarized in Table 3.3-1 for important pollutants. The federal and State ambient standards were developed independently, although both processes attempted to avoid health-related effects. As a result, the federal and State standards differ in some cases. In general, the California standards are more stringent. This is particularly true for ozone, $PM_{2.5}$, and PM_{10}. The U.S. EPA signed a final rule for the federal ozone eight-hour standard of 0.070 ppm on October 1, 2015, and was effective as of December 28, 2015 (equivalent to the California state ambient air quality eight-hour standard for ozone).

TABLE 3.3-1: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

POLLUTANT	*AVERAGING TIME*	*FEDERAL PRIMARY STANDARD*	*STATE STANDARD*
Ozone	1-Hour	--	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.03 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	0.03 ppm	--
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	--	20 ug/m^3
	24-Hour	150 ug/m^3	50 ug/m^3
$PM_{2.5}$	Annual	12 ug/m^3	12 ug/m^3
	24-Hour	35 ug/m^3	--
Lead	30-Day Avg.	--	1.5 ug/m^3
	3-Month Avg.	0.15 ug/m^3	--

NOTES: PPM = PARTS PER MILLION, UG/M3 = MICROGRAMS PER CUBIC METER

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2019A.

In 1997, new national standards for fine particulate matter diameter 2.5 microns or less ($PM_{2.5}$) were adopted for 24-hour and annual averaging periods. The existing PM_{10} standards were retained, but the method and form for determining compliance with the standards were revised.

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

Existing air quality concerns within San Joaquin County and the entire air basin are related to increases of regional criteria air pollutants (e.g., ozone and particulate matter), exposure to toxic air contaminants, odors, and increases in greenhouse gas emissions contributing to climate change. The primary source of ozone (smog) pollution is motor vehicles which account for 70 percent of the ozone in the region. Particulate matter is caused by dust, primarily dust generated from construction and grading activities, and smoke which is emitted from fireplaces, wood-burning stoves, and agricultural burning.

Attainment Status

In accordance with the California Clean Air Act (CCAA), the CARB is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria.

Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for ozone, carbon monoxide, and nitrogen dioxide as "does not meet the primary standards," "cannot be classified," or "better than national standards." For sulfur dioxide, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used.

San Joaquin County has a State designation Attainment or Unclassified for all criteria pollutants except for ozone, PM_{10} and $PM_{2.5}$. San Joaquin County has a national designation of either Unclassified or Attainment for all criteria pollutants except for Ozone and $PM_{2.5}$. Table 3.3-2 presents the state and nation attainment status for San Joaquin County.

TABLE 3.3-2: STATE AND NATIONAL ATTAINMENT STATUS IN SAN JOAQUIN COUNTY

CRITERIA POLLUTANTS	STATE DESIGNATIONS	NATIONAL DESIGNATIONS
Ozone (O_3)	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO_2)	Attainment	Unclassified/Attainment
Sulfates	Attainment	
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Unclassified	
Visibility Reducing Particles	Unclassified	

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2020.

San Joaquin County Air Quality Monitoring

The San Joaquin Valley Air Pollution District (SJVAPCD) and the CARB maintain air quality monitoring sites throughout San Joaquin County that collect data for ozone and $PM_{2.5}$. In addition, air quality monitoring sites for PM_{10} are located throughout the San Joaquin Valley (though not in San Joaquin County). It is important to note that while the State retains the one-hour standard, the federal ozone 1-hour standard was revoked by the U.S. EPA and is no longer applicable for federal standards. Best available data obtained from the monitoring sites between 2017 and 2019 (latest year of data available) is shown in Table 3.3-3, Table 3.3-4, and Table 3.3-5.

TABLE 3.3-3 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (SAN JOAQUIN COUNTY) - OZONE

YEAR	DAYS > STANDARD				1-HOUR OBSERVATIONS			8-HOUR AVERAGES				YEAR COVERAGE	
	STATE		NATIONAL			STATE	NAT'L	STATE		NATIONAL			
	1-HR	8-HR	1-HR	8-HR	MAX.	D.V.[1]	D.V.[2]	MAX.	D.V.[1]	MAX.	D.V.[2]	MIN	MAX
2019	2	4	0	4	0.098	0.09	0.092	0.08	0.0823	0.079	0.073	91	99
2018	1	8	0	8	0.099	0.10	0.099	0.082	0.0872	0.081	0.076	96	99
2017	0	8	0	6	0.093	0.10	0.105	0.082	0.0898	0.082	0.077	84	95

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. THE NATIONAL 1-HOUR OZONE STANDARD WAS REVOKED IN JUNE 2005 AND IS NO LONGER IN EFFECT. STATISTICS RELATED TO THE REVOKED STANDARD ARE SHOWN IN ITALICS. D.V. [1] = STATE DESIGNATION VALUE . D.V. [2]= NATIONAL DESIGN VALUE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR iADAM) AIR POLLUTION SUMMARIES.

TABLE 3.3-4: AMBIENT AIR QUALITY MONITORING DATA SUMMARY (SAN JOAQUIN VALLEY) – PM_{10}

YEAR	EST. DAYS > STD.		ANNUAL AVERAGE		HIGH 24-HR AVERAGE		YEAR COVERAGE
	NAT'L	STATE	NAT'L	STATE	NAT'L	STATE	
2019	16.2	129.7	55.6	55.6	652.2	664.2	0 – 100
2018	9.6	164.4	54.5	53.0	250.2	250.4	0 – 100
2017	7.7	145.5	55.3	48.4	298.4	210.0	0 – 100

NOTES: THE NATIONAL ANNUAL AVERAGE PM_{10} STANDARD WAS REVOKED IN DECEMBER 2006 AND IS NO LONGER IN EFFECT. AN EXCEEDANCE IS NOT NECESSARILY A VIOLATION. STATISTICS MAY INCLUDE DATA THAT ARE RELATED TO AN EXCEPTIONAL EVENT. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. NATIONAL STATISTICS ARE BASED ON STANDARD CONDITIONS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY

COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. ND=THERE WAS INSUFFICIENT (OR NO) DATA AVAILABLE TO DETERMINE THE VALUE.

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

TABLE 3.3-5 AMBIENT AIR QUALITY MONITORING DATA SUMMARY (SAN JOAQUIN COUNTY) - $PM_{2.5}$

YEAR	EST. DAYS > NAT'L '06 STD.	ANNUAL AVERAGE		NAT'L ANN. STD. D.V.[1]	STATE ANNUAL D.V.[2]	NAT'L '06 STD. 98TH PERCENTILE	NAT'L '06 24-HR STD. D.V.[1]	HIGH 24-HOUR AVERAGE		YEAR COVERAGE	
		NAT'L	STATE					NAT'L	STATE	MIN	MAX
2019	6.4	9.6	6.2	13.0	17	32.9	56	50.1	50.1	77	95
2018	25.0	17.6	17.4	13.8	17	96.9	56	188.0	257.5	96	100
2017	16.9	12.1	11.0	12.2	13	44.2	39	53.7	53.7	94	99

NOTES: ALL CONCENTRATIONS EXPRESSED IN PARTS PER MILLION. STATE AND NATIONAL STATISTICS MAY DIFFER FOR THE FOLLOWING REASONS: STATE STATISTICS ARE BASED ON CALIFORNIA APPROVED SAMPLERS, WHEREAS NATIONAL STATISTICS ARE BASED ON SAMPLERS USING FEDERAL REFERENCE OR EQUIVALENT METHODS. STATE AND NATIONAL STATISTICS MAY THEREFORE BE BASED ON DIFFERENT SAMPLERS. STATE CRITERIA FOR ENSURING THAT DATA ARE SUFFICIENTLY COMPLETE FOR CALCULATING VALID ANNUAL AVERAGES ARE MORE STRINGENT THAN THE NATIONAL CRITERIA. D.V. [1] = STATE DESIGNATION VALUE. D.V. [2]= NATIONAL DESIGN VALUE

SOURCE: CALIFORNIA AIR RESOURCES BOARD (AEROMETRIC DATA ANALYSIS AND MANAGEMENT SYSTEM OR IADAM) AIR POLLUTION SUMMARIES.

ODORS

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the

odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. A sensitive receptor is a location where human populations, especially children, seniors, and sick persons, are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals, and schools. The closest sensitive receptors to the Planning Area include existing residences located within the Planning Area itself.

In compliance with the California Environmental Quality Act (CEQA), a Lead Agency will often require that a health risk assessment (HRA) be performed if a project will generate substantial emissions of TACs. An HRA involves evaluation of emission sources to determine whether emission levels of certain substances will cause public health effects. The has compiled an extensive list of TACs that must be analyzed for impacts on public health, and a CEQA analysis may require the inclusion of TAC emissions from construction equipment and vehicles as well as operational stationary sources, as applicable. Typical TACs quantified and evaluated in an HRA include byproducts of fossil fuel combustion, commonly natural gas, gasoline, or diesel fuel, as diesel particulate matter (DPM) from diesel-fueled construction equipment, trucks, and emergency generators is an especially potent carcinogen. Other common TACs include volatile ingredients in commercial products such as coatings, adhesives, sealants, and solvents, which evaporate into the air when used.

An HRA estimates the public health impacts of TAC emissions within the vicinity of a proposed project for both short-term construction and long-term operation. In particular, an HRA evaluates the potential for impacts to sensitive receptors, which include residences, schools, daycare centers, hospitals, nursing homes, and assisted living facilities. In some air districts, emissions of fine particulate matter ($PM_{2.5}$), a criteria pollutant, must also be assessed. At a minimum, cancer and non-cancer (e.g., respiratory impairment) acute (short-term) and chronic (long-term) impacts to the nearest residents and neighboring workers are assessed. However, the level of health risk modeling – screening or refined – can vary depending on the TACs being emitted, mass emission rates, and distance to the nearest receptors.

In 2015, the OEHHA published its new *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.*

3.3.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The U.S. EPA is responsible for administering the FCAA. The FCAA requires the U.S. EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health (with an adequate margin of safety, including for sensitive populations such as children, the elderly, and individuals suffering from respiratory diseases), and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

NAAQS standards define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and $PM_{2.5}$ ambient air quality standards indicate that certain individuals exposed to these pollutants may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

NAAQS standards have been designed to accurately reflect the latest scientific knowledge and are reviewed every five years by a Clean Air Scientific Advisory Committee (CASAC), consisting of seven members appointed by the U.S. EPA administrator. Reviewing NAAQS is a lengthy undertaking and includes the following major phases: Planning, Integrated Science Assessment (ISA), Risk/Exposure Assessment (REA), Policy Assessment (PA), and Rulemaking. The process starts with a comprehensive review of the relevant scientific literature. The literature is summarized and conclusions are presented in the ISA. Based on the ISA, U.S. EPA staff perform a risk and exposure assessment, which is summarized in the REA document. The third document, the PA, integrates the findings and conclusions of the ISA and REA into a policy context, and provides lines of reasoning that could be used to support retention or revision of the existing NAAQS, as well as several alternative standards that could be supported by the review findings. Each of these three documents is released for public comment and public peer review by the CASAC. Members of CASAC are appointed by the U.S. EPA Administrator for their expertise in one or more of the subject areas covered in the ISA. The CASAC's role is to peer review the NAAQS documents, ensure that they reflect the thinking of the scientific community, and advise the Administrator on the technical and scientific aspects of standard setting. Each document goes through two to three drafts before CASAC deems it to be final.

Although there is some variability among the health effects of the NAAQS pollutants, each has been linked to multiple adverse health effects including, among others, premature death, hospitalizations and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. NAAQS standards were last revised for each of the six criteria pollutant as listed below, with detail on what aspects of NAAQS changed during the most recent update:

- Ozone: On October 1, 2015, the U.S. EPA lowered the national eight-hour standard from 0.075 ppm to 0.070 ppm, providing for a more stringent standards consistent with the current California state standard.
- CO: In 2011, the primary standards were retained from the original 1971 level, without revision. The secondary standards were revoked in 1985.
- NO_2: The national NO_2 standard was most recently revised in 2010 following an exhaustive review of new literature pointed to evidence for adverse effects in asthmatics at lower NO_2 concentrations than the existing national standard.
- SO_2: On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb.
- PM: the national annual average $PM_{2.5}$ standard was most recently revised in 2012 following an exhaustive review of new literature pointed to evidence for increased risk of premature mortality at lower $PM_{2.5}$ concentrations than the existing standard.
- Lead: The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. In 2016, the primary and secondary standards were retained.

The law recognizes the importance for each state to locally carry out the requirements of the FCAA, as special consideration of local industries, geography, housing patterns, etc. are needed to have full comprehension of the local pollution control problems. As a result, the U.S. EPA requires each state to develop a State Implementation Plan (SIP) that explains how each state will implement the FCAA within their jurisdiction. A SIP is a collection of rules and regulations that a particular state will implement to control air quality within their jurisdiction. The CARB is the state agency that is responsible for preparing the California SIP.

Transportation Conformity

Transportation conformity requirements were added to the FCAA in the 1990 amendments, and the U.S. EPA adopted implementing regulations in 1997. See §176 of the FCAA (42 U.S.C. §7506) and 40 CFR Part 93, Subpart A. Transportation conformity serves much the same purpose as general conformity: it ensures that transportation plans, transportation improvement programs, and projects that are developed, funded, or approved by the United States Department of Transportation or that are recipients of funds under the Federal Transit Act or from the Federal Highway Administration (FHWA), conform to the SIP as approved or promulgated by U.S. EPA.

Currently, transportation conformity applies in nonattainment areas and maintenance areas. Under transportation conformity, a determination of conformity with the applicable SIP must be

made by the agency responsible for the project, such as the Metropolitan Planning Organization, the Council of Governments, or a federal agency. The agency making the determination is also responsible for all the requirements relating to public participation. Generally, a project will be considered in conformance if it is in the transportation improvement plan and the transportation improvement plan is incorporated in the SIP. If an action is covered under transportation conformity, it does not need to be separately evaluated under general conformity.

Transportation Control Measures

One particular aspect of the SIP development process is the consideration of potential control measures as a part of making progress towards clean air goals. While most SIP control measures are aimed at reducing emissions from stationary sources, some are typically also created to address mobile or transportation sources. These are known as transportation control measures (TCMs). TCM strategies are designed to reduce vehicle miles traveled and trips, or vehicle idling and associated air pollution. These goals are achieved by developing attractive and convenient alternatives to single-occupant vehicle use. Examples of TCMs include ridesharing programs, transportation infrastructure improvements such as adding bicycle and carpool lanes, and expansion of public transit.

STATE

CARB Mobile-Source Regulation

The State of California is responsible for controlling emissions from the operation of motor vehicles in the State. Rather than mandating the use of specific technology or the reliance on a specific fuel, the CARB motor vehicle standards specify the allowable grams of pollution per mile driven. In other words, the regulations focus on the reductions needed rather than on the manner in which they are achieved. Towards this end, the CARB has adopted regulations which require auto manufacturers to phase in less polluting vehicles.

California Clean Air Act

The California Clean Air Act (CCAA) was first signed into law in 1988. The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the state's air quality goals, planning and regulatory strategies, and performance. The CARB is the agency responsible for administering the CCAA. The CARB established ambient air quality standards pursuant to the California Health and Safety Code (CH&SC) [§39606(b)], which are similar to the federal standards.

California Air Quality Standards

Although NAAQS are determined by the U.S. EPA, states have the ability to set standards that are more stringent than the federal standards. As such, California established more stringent ambient air quality standards. Federal and state ambient air quality standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates and lead. In addition, California has created standards for pollutants that are not covered by federal standards. Although there is some variability among the health effects of the CAAQS pollutants, each has

been linked to multiple adverse health effects including, among others, premature death, hospitalizations and emergency department visits for exacerbated chronic disease, and increased symptoms such as coughing and wheezing. The existing state and federal primary standards for major pollutants are shown in Table 3.3-1.

Air quality standard setting in California commences with a critical review of all relevant peer reviewed scientific literature. The OEHHA uses the review of health literature to develop a recommendation for the standard. The recommendation can be for no change, or can recommend a new standard. The review, including the OEHHA recommendation, is summarized in a document called the draft Initial Statement of Reasons (ISOR), which is released for comment by the public, and also for public peer review by the Air Quality Advisory Committee (AQAC). AQAC members are appointed by the President of the University of California for their expertise in the range of subjects covered in the ISOR, including health, exposure, air quality monitoring, atmospheric chemistry and physics, and effects on plants, trees, materials, and ecosystems. The Committee provides written comments on the draft ISOR. The ARB staff next revises the ISOR based on comments from AQAC and the public. The revised ISOR is then released for a 45-day public comment period prior to consideration by the Board at a regularly scheduled Board hearing.

In June of 2002, the CARB adopted revisions to the PM_{10} standard and established a new $PM_{2.5}$ annual standard. The new standards became effective in June 2003. Subsequently, staff reviewed the published scientific literature on ground-level ozone and nitrogen dioxide and the CARB adopted revisions to the standards for these two pollutants. Revised standards for ozone and nitrogen dioxide went into effect on May 17, 2006 and March 20, 2008, respectively. These revisions reflect the most recent changes to the CAAQS.

Tanner Air Toxics Act (TACs)

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and has adopted U.S. EPA's list of HAPs as TACs. Most recently, diesel PM was added to the CARB list of TACs. Once a TAC is identified, CARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technologies (BACT) to minimize emissions.

AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. CARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, CARB adopted a new public-transit bus-fleet rule and emission standards for new urban buses. These rules and standards provide for (1) more stringent emission

standards for some new urban bus engines, beginning with 2002 model year engines; (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and (3) reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule.

In order to provide consistency to lead agencies, project proponents and the general public throughout the state, the California Air Pollution Control Officers Association (CAPCOA) formed a subcommittee composed of representatives from the Planning Managers Committee and the Toxic Risk Managers Committee to develop guidance on assessing the health risk impacts from and to proposed land use projects. This CAPCOA guidance document focuses on the acute, chronic, and cancer impacts of sources affected by CEQA. It also outlines recommended procedures to identify when a project should undergo further risk evaluation, how to conduct the health risk assessment (HRA), how to engage the public, what to do with the results from the HRA, and what mitigation measures may be appropriate for various land use projects. With respect to health risks associated with locating sensitive land uses in proximity to freeways and other high traffic roadways, HRA modeling may not thoroughly characterize all the health risk associated with nearby exposure to traffic-generated pollutants.

Omnibus Low-NOx Rule

The CARB approved the Omnibus Low-NOx Rule on August 28, 2020, which will require engine NOx emissions to be cut to approximately 75% below current standards beginning in 2024, and 90% below current standards in 2027. The rule also places nine additional regulatory requirements on new heavy-duty truck and engines. Those additional requirements include a 50% reduction in particulate matter emissions, stringent new low-load and idle standards, a new in-use testing protocol, extended deterioration requirements, a new California-only credit program, and extended mandatory warranty requirements. The regulatory requirements in the Omnibus Low-NOX Rule will first become effective in 2024, at the same time as the Advanced Clean Trucks regulations that CARB approved that mandates manufacturers convert increasing percentages of their heavy-duty trucks sold in California to zero-emission vehicles.

Assembly Bill 170

Assembly Bill 170, Reyes (AB 170), was adopted by state lawmakers in 2003, creating Government Code Section 65302.1, which requires cities and counties in the San Joaquin Valley to amend their general plans to include data and analysis, comprehensive goals, policies, and feasible implementation strategies designed to improve air quality. The elements to be amended include, but are not limited to, those elements dealing with land use, circulation, housing, conservation, and open space. Section 65302.1.c identifies four areas of air quality discussion required in these amendments:

- A report describing local air quality conditions, attainment status, and state and federal air quality and transportation plans;
- A summary of local, district, state, and federal policies, programs, and regulations to improve air quality;
- A comprehensive set of goals, policies, and objectives to improve air quality; and

- Feasible implementation measures designed to achieve these goals.

LOCAL

City of Manteca Municipal Code

Chapter 17.58 of the Manteca Municipal Code describes the odor, particulate matter, and air containment standards applicable to all Zoning Districts in the City (consistent with the rules and regulations of the SJVAPCD and the California Health and Safety Code). Chapter 15.62 of the Municipal Code provides expedited permitting procedures for electric vehicle charging stations. Furthermore, Chapter 15.60 describes the solar energy system requirements associated with small residential rooftop solar energy systems within the City.

San Joaquin Valley Air Pollution Control District

The primary role of SJVAPCD is to develop plans and implement control measures in the SJVAB to control air pollution. These controls primarily affect stationary sources such as industry and power plants. Rules and regulations have been developed by SJVAPCD to control air pollution from a wide range of air pollution sources. SJVAPCD also provides uniform procedures for assessing potential air quality impacts of proposed projects and for preparing the air quality section of environmental documents.

AIR QUALITY PLANNING

The U.S. EPA requires states that have areas that do not meet the National AAQS to prepare and submit air quality plans showing how the National AAQS will be met. If the states cannot show how the National AAQS will be met, then the states must show progress toward meeting the National AAQS. These plans are referred to as the State Implementation Plans (SIP). California's adopted 2007 State Strategy was submitted to the U.S. EPA as a revision to its SIP in November 2007.[2] More recently, in October 2018, the CARB adopted the 2018 Updates to the California State Implementation Plan.

In addition, the CARB requires regions that do not meet California AAQS for ozone to submit clean air plans (CAPs) that describe measures to attain the standard or show progress toward attainment. To ensure FCAA compliance, SJVAPCD is currently developing plans for meeting new National AAQS for ozone and $PM_{2.5}$ and the California AAQS for PM_{10} in the SJVAB (for California CAA compliance)[3] The following describes the air plans prepared by the SJVAPCD, which are incorporated by reference per CEQA Guidelines Section 15150.

1-HOUR OZONE PLAN

Although U.S. EPA revoked its 1979 1-hour ozone standard in June 2005, many planning requirements remain in place, and SJVAPCD must still attain this standard before it can rescind CAA Section 185 fees. The SJVAPCD's most recent 1-hour ozone plan, the 2013 Plan for the

[2] Note that the plan was adopted by CARB on September 27, 2007; California Air Resources Board. 2007. California Air Resources Board's Proposed State Strategy for California's 2007 State Implementation Plan.
[3] SJVAPCD, 2012. 2012 $PM_{2.5}$ Plan, December 20.

Revoked 1-hour Ozone Standard, demonstrated attainment of the 1-hour ozone standard by 2017. However, on July 18, 2016, the U.S. EPA published in the Federal Register a final action determining that SJVAB has attained the 1-hour ozone NAAQS based on the 2012 to 2014 three-year period allowing nonattainment penalties to be lifted under federal Clean Air Act section 179b (SJVAPCD, 2015).

8-HOUR OZONE PLAN

The SJVAPCD's Governing Board adopted the 2007 Ozone Plan on April 30, 2007. This far-reaching plan, with innovative measures and a "dual path" strategy, assures expeditious attainment of the federal 8-hour ozone standard as set by U.S. EPA in 1997. The plan projects that the valley will achieve the 8-hour ozone standard for all areas of the SJVAB no later than 2023. The CARB approved the plan on June 14, 2007. The U.S. EPA approved the 2007 Ozone Plan effective April 30, 2012. SJVAPCD adopted the 2016 Ozone Plan to address the federal 2008 8-hour ozone standard, which must be attained by end of 2031.[4,5]

PM_{10} PLAN

Based on PM_{10} measurements from 2003 to 2006, the U.S. EPA found that the SJVAB has reached federal PM_{10} standards. On September 21, 2007, the SJVAPCD's Governing Board adopted the 2007 PM_{10} Maintenance Plan and Request for Redesignation. This plan demonstrates that the valley will continue to meet the PM_{10} standard. U.S. EPA approved the document and on September 25, 2008, the SJVAB was redesignated to attainment/maintenance (SJVAPCD, 2015).

PM2.5 PLAN

The SJVAPCD adopted the 2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards on November 15, 2018.[6] This plan addresses the U.S. EPA federal 1997 annual $PM_{2.5}$ standard of 15 µg/m³ and 24-hour $PM_{2.5}$ standard of 65 µg/m³; the 2006 24-hour $PM_{2.5}$ standard of 35 µg/m³; and the 2012 annual $PM_{2.5}$ standard of 12 µg/m³. This plan demonstrates attainment of the federal $PM_{2.5}$ standards as expeditiously as practicable (SJVAPCD, 2020).

All of the above-referenced plans include measures (i.e., federal, state, and local) that would be implemented through rule making or program funding to reduce air pollutant emissions in the SJVAB. Transportation control measures are part of these plans.

SJVAPCD RULES AND REGULATIONS

SJVAPCD Indirect Source Review

On December 15, 2005, SJVAPCD adopted the Indirect Source Review Rule (ISR or Rule 9510) to reduce ozone precursors (i.e., ROG and NOx) and PM_{10} emissions from new land use development projects. Specifically, Rule 9510 targets the indirect emissions from vehicles and construction

[4] SJVAPCD. Ozone Plans. http://www.valleyair.org/ Air_Quality_Plans/Ozone_Plans.htm, accessed March 3, 2020.

[5] SJVAPCD. 2016 Plan for the 2008 8-Hour Ozone Standard, http://www.valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm, accessed March 3, 2020.

[6] SJVAPCD. Particulate Matter Plans. http://valleyair.org/Air_Quality_Plans/PM_Plans.htm, accessed March 9, 2020.

equipment associated with these projects and applies to both construction and operational-related impacts. The rule applies to any applicant that seeks to gain a final discretionary approval for a development project, or any portion thereof, which upon full buildout would include any one of the following:

- 50 residential units.
- 2,000 square feet of commercial space.
- 25,000 square feet of light industrial space.
- 100,000 square feet of heavy industrial space.
- 20,000 square feet of medical office space.
- 39,000 square feet of general office space.
- 9,000 square feet of educational space.
- 10,000 square feet of government space.
- 20,000 square feet of recreational space.
- 9,000 square feet of space not identified above.
- Transportation/transit projects with construction exhaust emissions of two or more tons of NOx or two or more tons of PM_{10}.
- Residential projects on contiguous or adjacent property under common ownership of a single entity in whole or in part, that is designated and zoned for the same development density and land use, regardless of the number of tract maps, and has the capability of accommodating more than 50 residential units.
- Nonresidential projects on contiguous or adjacent property under common ownership of a single entity in whole or in part, that is designated and zoned for the same development density and land use, and has the capability of accommodating development projects that emit two or more tons per year of NOx or PM_{10} during project operations.

The rule requires all subject, nonexempt projects to mitigate both construction and operational period emissions by (1) applying feasible SJVAPCD-approved mitigation measures, or (2) paying any applicable fees to support programs that reduce emissions. Off-site emissions reduction fees (off-site fee) are required for projects that do not achieve the required emissions reductions through on-site emission reduction measures. Phased projects can defer payment of fees in accordance with an Off-site Emissions Reduction Fee Deferral Schedule (FDS) approved by the SJVAPCD.

To determine how an individual project would satisfy Rule 9510, each project would submit an air quality impact assessment (AIA) to the SJVAPCD as early as possible, but no later than prior to the project's final discretionary approval, to identify the project's baseline unmitigated emissions inventory for indirect sources: on-site exhaust emissions from construction activities and operational activities from mobile and area sources of emissions (excludes fugitive dust and permitted sources).28 Rule 9510 requires the following reductions, which are levels that the SJVAPCD has identified as necessary, based on their air quality management plans, to reach attainment for ozone and particulate matter:

Construction Equipment Emissions

The exhaust emissions for construction equipment greater than 50 horsepower (hp) used or associated with the development project shall be reduced by the following amounts from the statewide average as estimated by CARB:

- 20 percent of the total NOx emissions
- 45 percent of the total PM_{10} exhaust emissions

Mitigation measures may include those that reduce construction emissions on-site by using less polluting construction equipment, which can be achieved by utilizing add-on controls, cleaner fuels, or newer, lower emitting equipment.

Operational Emissions

- NOx Emissions. Applicants shall reduce 33.3 percent of the project's operational baseline NOx emissions over a period of 10 years as quantified in the approved AIA.
- PM_{10} Emissions. Applicants shall reduce of 50 percent of the project's operational baseline PM_{10} emissions over a period of 10 years as quantified in the approved AIA.

These requirements listed above can be met through any combination of on-site emission reduction measures. In the event that a project cannot achieve the above standards through imposition of mitigation measures, then the project would be required to pay the applicable off-site fees. These fees are used to fund various incentive programs that cover the purchase of new equipment, engine retrofit, and education and outreach.

Fugitive PM_{10} Prohibitions

SJVAPCD controls fugitive PM_{10} through Regulation VIII, Fugitive PM_{10} Prohibitions. The purpose of this regulation is to reduce ambient concentrations of PM_{10} and $PM_{2.5}$ by requiring actions to prevent, reduce, or mitigate anthropogenic (human caused) fugitive dust emissions.

- Regulation VIII, Rule 8021 applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on-site, and travel on access roads to and from the site.
- Regulation VIII, Rule 8031 applies to the outdoor handling, storage, and transport of any bulk material.
- Regulation VIII, Rule 8041 applies to sites where carryout or trackout has occurred or may occur on paved roads or the paved shoulders of public roads.
- Regulation VIII, Rule 8051 applies to any open area having 0.5 acre or more within urban areas or 3.0 acres or more within rural areas, and contains at least 1,000 square feet of disturbed surface area.
- Regulation VIII, Rule 8061 applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.
- Regulation VIII, Rule 8071 applies to any unpaved vehicle/equipment traffic area.
- Regulation VIII, Rule 8081 applies to off-field agricultural sources.

Sources regulated are required to provide Dust Control Plans that meet the regulation requirements. Under Rule 8021, a Dust Control Plan is required for any residential project that will include 10 or more acres of disturbed surface area, a nonresidential project with 5 or more acres of disturbed surface area, or a project that relocates 2,500 cubic yards per day of bulk materials for at least three days. The Dust Control Plan is required to be submitted to SJVAPCD prior to the start of any construction activity. The Dust Control Plan must also describe fugitive dust control measure to be implemented before, during, and after any dust-generating activity. For sites smaller than those listed above, the project is still required to notify SJVAPCD a minimum of 48 hours prior to commencing earthmoving activities.

National Emission Standards for Hazardous Air Pollutants

Rule 4002 applies in the event an existing building will be renovated, partially demolished or removed (National Emission Standards for Hazardous Air Pollutants); this rule applies to all sources of Hazardous Air Pollutants.

Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations

If asphalt paving will be used, then paving operations of the proposed project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

Nuisance Odors

SJVAPCD controls nuisance odors through implementation of Rule 4102, Nuisance. Pursuant to this rule, "a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property."

Employer Based Trip Reduction Program

SJVAPCD has implemented Rule 9410, Employer Based Trip Reduction. The purpose of this rule is to reduce VMT from private vehicles used by employees to commute to and from their worksites to reduce emissions of NOx, ROG, and particulate matter (PM_{10} and $PM_{2.5}$). The rule applies to employers with at least 100 employees. Employers are required to implement an Employer Trip Reduction Implementation Plan (ETRIP) for each worksite with 100 or more eligible employees to meet applicable targets specified in the rule. Employers are required to facilitate the participation of the development of ETRIPs by providing information to its employees explaining the requirements and applicability of this rule. Employers are required to prepare and submit an ETRIP for each worksite to the District. The ETRIP must be updated annually. Under this rule, employers shall collect information on the modes of transportation used for each eligible employee's commutes both to and from work for every day of the commute verification period, as defined in using either the mandatory commute verification method or a representative survey method. Annual reporting includes the results of the commute verification for the previous calendar year along with the measures implemented as outlined in the ETRIP and, if necessary, any updates to the ETRIP.

3.3.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed General Plan will have a significant impact on the environment associated with air quality if it will:

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

METHODOLOGY

Nearly all development projects within the San Joaquin Valley Air Basin, from general plans to individual development projects have the potential to generate air pollutants, making it more difficult to attain State and Federal ambient air quality standards. Therefore, it is necessary to evaluate air quality impacts to comply with CEQA. As identified in the SJVAPCD's *Guidance for Assessing and Mitigation Air Quality Impacts* (GAMAQI), land use decisions are critical to improving air quality within the San Joaquin Valley Air Basin because land use patterns greatly influence transportation needs and motor vehicle emissions are the largest source of air pollution. Land use decisions and project design elements such as preventing urban sprawl, encouraging mix-use development, and project designs that reduce vehicle miles traveled (VMT) have proven benefit for air quality.

The analysis presented below was completed to include both a qualitative and a quantitative approach. The qualitative analysis discusses the proposed General Plan's consistency with the applicable air quality plans and other applicable rules and regulations. The quantitative analysis presents the proposed General Plan's VMT projections associated with buildout of the General Plan, which were developed using the VTA Travel Demand Model, in comparison to the population and job projections associated with buildout of the General Plan. The VMT analysis is described in greater detail in Chapter 3.14, Transportation and Circulation.

IMPACTS AND MITIGATION MEASURES

Impact 3.3-1: General Plan implementation would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants (Significant and Unavoidable)

CEQA requires lead agencies to determine whether a project is consistent with all applicable air quality plans. The SJVAPCD's most current air quality plans for PM, ozone, and carbon monoxide are (respectively) the *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards*, the *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone*

Standard, and the *2004 Revisions to the Carbon Monoxide Maintenance Plan*. These plans are also known is "Air Quality Attainment Plans". The SJVAPCD's Air Quality Attainment Plans include reduction targets and measures to promote air quality elements in county and city general plans as one of the primary indirect source programs. For example, the *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards plan* identifies that 5% annual reduction in $PM_{2.5}$ is required annually. Separately, the *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard* plan describes a variety of U.S. Environmental Protection Agency (EPA) control technique guidelines to limit volatile organic compounds, including specification requirements for vapor control systems at gasoline service stations, cutback asphalt, and solvent metal cleaning.

The proposed General Plan has been designed to not conflict these air quality plans, since the proposed General Plan would not conflict with any of the development-related control measures contained within these plans. The implementation of the development-related control measures contained within these plans are demonstrated to be sufficient to achieve the requirements under the FCAA as described in further detail below. However, while growth of the City of Manteca as allowed by the proposed General Plan would be incorporated into the modeling projections of the future versions of the applicable air quality plans, as applicable, the proposed General Plan provides for greater growth than the adopted General Plan and may exceed growth projections assumed in the adopted air quality plans. The air quality plans are required to be updated periodically over time to continue to demonstrate compliance with the requirements of the FCAA.

Air Quality Plan Control Measures

The *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards plan*, which identifies that a 5% reduction in $PM_{2.5}$ is required annually, describes that all reasonably available emission reduction opportunities and best available control measures are already currently in place in the San Joaquin Valley for NOx and directly emitted $PM_{2.5}$ emissions to achieve the 5% annual goal. More specifically, the *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards plan* identifies that the most stringent measures, which includes all reasonably available emission reduction opportunities and best available control measures, are in place in the San Joaquin Valley for NOx and directly emitted $PM_{2.5}$ emissions. These control measures are reflected in the existing SJVAPCD rules and regulations (described in further detail below), which both existing and new developments are required to comply with. Implementation of the proposed General Plan itself does not contain any goals, policies, or actions that would contradict the existing SJVAPCD rules and regulations. However, the proposed General Plan would accommodate population growth greater than anticipated in the *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards plan.* Specifically, the *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards plan* anticipated a population of 782,662 in San Joaquin County in 2020 and 894,330 in 2030, an increase of 111,668 persons or an average of 1.4% per year. While the Plan does not specify population projections for Manteca, the proposed General Plan would accommodate a greater population increase than the adopted General Plan and could encourage growth at a rate faster than assumed in the *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards plan* which is a potential conflict.

Separately, the *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard* builds upon the analyses conducted for previous RACT demonstrations, as well as control measure analyses conducted within the *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards plan*, demonstrating that the SJVAPD rules for both NOx and $PM_{2.5}$ implemented the most stringent measures feasible for implementation in the region. This fulfills federal Clean Air Act requirements and demonstrates that all federal RACT requirements continue to be satisfied in the San Joaquin Valley. Therefore, compliance with the existing SJVAPCD rules and regulations, which reflect these control measures (i.e. the most stringent measures feasible), ensures that development within the City of Manteca (including through implementation of the proposed General Plan) would not conflict with the control measures contained within these plans. Further, while the *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard* does not contain population projections that could result in a conflict with the proposed General Plan, it does refer to the analysis for the *2018 Plan for the 1997, 2006, and 2012 $PM_{2.5}$ Standards plan* which does contain population growth assumptions that the proposed General Plan may exceed.

The *2004 Revisions to the Carbon Monoxide Maintenance Plan* does not contain any specific control measures. Rather, it identifies that a number of adopted measures are already being implemented by the CARB to reduce CO emissions far below attainment levels. These regulations have continued to cut CO emissions despite increases in growth in passenger vehicles and vehicle miles traveled over time. The margin by which these regulations bring CO levels even further below the standard serves to satisfy the contingency requirement and provide additional public health benefit now by lowering CO exposure. An example of a control measure is the Low-Emission Vehicles and Clean Fuels I – Post 1995 Standards (statewide measure), implemented between years 1996 and 2003. Therefore, the proposed General Plan would not conflict with the control measures identified by this plan. Further, the *2004 Revisions to the Carbon Monoxide Maintenance Plan* does not contain population projections that could result in a conflict with the proposed General Plan.

SJVAPCD RULES AND REGULATIONS

Some of the existing SJVAPCD rules and regulations that ensure compliance with the applicable air quality plans include:

- **Rule 4002 -- National Emission Standards for Hazardous Air Pollutants**: This rule incorporates the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR) and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations (CFR).
- **Rule 4101 -- Visible Emissions**: The purpose of this rule is to prohibit the emissions of visible air contaminants to the atmosphere.
- **Rule 9510 -- Indirect Source Review Rule**: The purpose of this rule is to reduce ozone precursors (i.e., ROG and NOx) and PM_{10} emissions from new land use development projects.

- **Rule 9410 – Employer Based Trip Reduction**: The purpose of this rule is reduce vehicle miles traveled (VMT) from private vehicles used by employees to commute to and from their worksites to reduce emissions of oxides of nitrogen (NOx), volatile organic compounds (VOC) and particulate matter (PM).
- **Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving, and Maintenance Operations:** The purpose of this rule is to limit VOC emissions by restricting the application and manufacturing of certain types of asphalt for paving and maintenance operations.
- **Rule 8021 – Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities**: The purpose of this rule is to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities.
- **Regulation VIII, Fugitive PM_{10} Prohibitions**:
    - Regulation VIII, Rule 8021 applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on-site, and travel on access roads to and from the site.
    - Regulation VIII, Rule 8031 applies to the outdoor handling, storage, and transport of any bulk material.
    - Regulation VIII, Rule 8041 applies to sites where carryout or trackout has occurred or may occur on paved roads or the paved shoulders of public roads.
    - Regulation VIII, Rule 8051 applies to any open area having 0.5 acre or more within urban areas or 3.0 acres or more within rural areas, and contains at least 1,000 square feet of disturbed surface area.
    - Regulation VIII, Rule 8061 applies to any new or existing public or private paved or unpaved road, road construction project, or road modification project.
    - Regulation VIII, Rule 8071 applies to any unpaved vehicle/equipment traffic area.
    - Regulation VIII, Rule 8081 applies to off-field agricultural sources.

The proposed General Plan would not conflict with any of these or any other applicable SJVAPCD rules and regulations, as they are required to be implemented by law. Additionally, the proposed General Plan includes several policies that help to ensure compliance with the applicable SJVAPCD rules and regulations. For example, General Plan Policy RC-5f requires that individual development and infrastructure project construction activity plans shall comply with Air District Rule 8021, including implementation of all required dust control measures and shall, where required, provide a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

This ensures that the proposed General Plan would not conflict with any of the control measures contained with the applicable air quality plans. Moreover, the SJVAPCD rules and regulations would be required to be updated over time, as needed, to reflect revisions to these air quality plans, which would be revised based on updated development patterns within the City of Manteca due to implementation of the proposed General Plan. Therefore, implementation of the proposed General Plan would not conflict with or obstruct implementation of the applicable air quality plans.

Criteria Air Pollutants

The San Joaquin Valley is in State-level non-attainment for ozone, PM_{10}, and $PM_{2.5}$. The SJVAPCD does not provide criteria pollutant thresholds for General Plans (such as the proposed Project). Thresholds of significance for criteria pollutants are established at the project-level by the SJVAPCD. As such, there is no programmatic threshold of significance established for criteria pollutants for which to compare the proposed General Plan.

This EIR explicitly acknowledges that the proposed Manteca General Plan will allow notable amounts of new residential and non-residential growth in Manteca, as described in detail in Chapter 2.0 (Project Description). This new growth will undoubtedly result in increases in the emissions of criteria pollutants, most notably from mobile-source and area-source emissions increases associated with increased growth and development in Manteca. Additionally, the implementation of individual development projects accommodated by the General Plan would have the potential to conflict with the SJVAPCD's thresholds of significance for criteria pollutants at the project-level.

The proposed General Plan includes an extensive list of policies and actions that are specifically aimed at improving air quality and reducing emissions of pollutants associated with future development projects. These policies and actions, which are provided below, limit impacts to air quality including by reducing the number and length of vehicle trips, supporting green and sustainable building development, promoting the use of renewable energy, and encouraging the conservation of resources. Development and infrastructure projects are also subject to the applicable SJVAPCD rules to reduce construction-related emissions. For example, General Plan Policy RC-5f requires that individual development and infrastructure project construction activity plans shall comply with Air District Rule 8021, including implementation of all required dust control measures and shall, where required, provide a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. A non-exhaustive list of other SJVAPCD rules and regulations that apply to future development and infrastructure projects is described above, and includes (but is not limited to) SJVAPCD Rule 4002, Rule 4101, Rule 9510, Rule 9410, Rule 4641, and Rule 8021.

The policies and actions included throughout the proposed General Plan cover the full breadth of air quality issues as recommended in the applicable air quality plans. If approval of the proposed General Plan would cause the disruption, delay, or otherwise hinder the implementation of any air quality plan control measure, it may be inconsistent with the applicable air quality plans. The proposed General Plan does not directly cause the disruption, delay, or otherwise hinder the implementation of any quality plan control measure; therefore, it is consistent with the applicable air quality plans. All future development and infrastructure projects within the Planning Area would be subject to the below-referenced General Plan goals, policies, and actions, which are intended to reduce emissions and air quality impacts. However, the proposed General Plan includes higher levels and rates of growth than those that would be facilitated under the existing Manteca General Plan. As such, total emissions levels associated with project buildout would increase, which may indirectly hinder the SJVAPCDs efforts to reduce total emissions of criteria pollutants.

The Planning Area is surrounded by a variety of existing urbanized and is bisected by two of the most heavily-travelled highway corridors in the San Joaquin Valley (SR 99 and SR 120). The proposed General Plan emphasizes a compact, mixed use, transit-oriented development pattern that emphasizes alternative transportation access and multi-modal connectivity throughout the Planning Area and into the surrounding areas.

Implementation of the proposed General Plan, which is consistent with all federal and state guidelines, would be consistent with the applicable air quality plans, but would still lead to overall increases in emissions of criteria pollutants, given the total growth projected upon full buildout of the proposed General Plan which may exceed population growth rates anticipated in applicable air quality plans as previously described.

The following quantitative analysis describes VMT and population increases associated with implementation of the General Plan. The proposed General Plan is intended to support and enhance jobs-generating uses within Manteca, and to assist the City in maintaining a balanced ratio of jobs to housing units within the city.

As part of the transportation analysis, Fehr & Peers (the traffic consultant) modeled VMT for the Planning Area for air quality analysis purposes.

As shown in Table 2.0-2 of this Draft EIR (see Chapter 2.0: Project Description), Manteca has an existing population of approximately 89,835. Full buildout of the General Plan could generate up to 121,168 new residents, for a total population of 211,003 at buildout. Manteca has an existing jobs base of approximately 16,381 jobs. Full buildout of the Planning Area could generate up to 27,448 new jobs in Manteca, resulting in 43,829 total jobs at buildout.

Table 3.3-6 shows the VMT measures per dwelling unit, per employee, per resident, and per service population for General Plan buildout conditions, as well as for the baseline condition plus development projects. As shown in the table, the proposed General Plan would result in decreased VMT per dwelling unit for residential land uses, flat VMT per employee for industrial uses, and increased VMT per employee for other employment-generating land uses as compared to the existing (baseline) condition.

TABLE 3.3-6: VMT PER DWELLING UNIT AND PER EMPLOYEE FOR EXISTING CONDITION, BASELINE PLUS PROJECTS, AND PROPOSED GENERAL PLAN

LAND USE	*UNITS*	*EXISTING CONDITION (2019 BASELINE)*	*PROPOSED GENERAL PLAN*	*PROPOSED GENERAL PLAN VS. EXISTING CONDITION*
Single family	VMT per dwelling unit	103.8	78.3	-25%
Multi family	VMT per dwelling unit	78.6	59.4	-24%
Age restricted	VMT per dwelling unit	44.1	29.9	-32%
Restaurant	VMT per employee[1]	186.0	**226.1**	+22%
Industrial	VMT per employee	75.3	**75.2**	-0.1%
Office	VMT per employee	32.4	**41.7**	+29%
Retail	VMT per employee	118.9	**207.6**	+75%
All residential	VMT per dwelling unit	94.8	70.0	-26%
All residential	VMT per resident[2]	29.8	22.0	-26%
All employment	VMT per employee	82.2	122.0	+48%
All land uses	VMT per service population[2,3]	36.7	39.9	+5%
Total VMT	VMT	3,755,100	9,376,561	+150%

NOTES: *[1]VMT PER EMPLOYEE RATIOS INCLUDE ALL TRIPS BY EMPLOYEES, CUSTOMERS, AND DELIVERIES*

[2]BASED ON 3.18 RESIDENTS/DWELLING UNIT (CALIFORNIA DEPARTMENT OF FINANCE, E-5 CITY/COUNTY POPULATION AND HOUSING ESTIMATES, 1/1/2020)

[3]SERVICE POPULATION INCLUDES RESIDENTS AND EMPLOYEES

[4]VMT INCLUDES FULL LENGTH OF ALL TRIPS WITH EITHER AN ORIGIN OR DESTINATION WITHIN THE PLANNING AREA

SOURCE: FEHR & PEERS, 2020

Table 3.3-6 shows the total VMT generation under existing conditions and with the proposed General Plan. As indicated by footnote 4 in this table, this total VMT calculation considers the full length of travel generated by all land uses in the planning area. It shows an expected 164 percent increase in total VMT generation.

The proposed General Plan would assist the city in achieving a more balanced jobs to housing ratio, and would increase opportunities for transit ridership in Manteca and the surrounding areas. The list below provides those General Plan policies and actions that would work to further reduce criteria pollutant emissions, including reviewing projects for conformance with applicable air quality plans and regulations, reducing energy demands, and implementing methods to reduce VMT. The General Plan policies ensure that individual projects will be reviewed for compliance and adherence to SJVAPCD standards. Nevertheless, since implementation of the General Plan may result in population growth, and an increase in vehicle miles traveled, that exceed the growth

projections assumed in the applicable air quality plans, the proposed Project has the potential to conflict with or obstruct implementation of an applicable air quality plan. Mitigation measures that would limit population or VMT growth to the levels assumed in the applicable air quality plans in order to ensure consistency would conflict with the proposed General Plan's goals to encourage high quality housing types and a variety of housing for all income levels and to provide and promote high-paying, local employment opportunities and retain and attract high-quality businesses and industry so that residents can live, shop, and work in Manteca. Therefore, this impact is considered ***significant and unavoidable***.

GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

Policies

LU-3.9: Locate residences and sensitive receptors away from areas of excessive noise, smoke, dust, odor, and lighting, and ensure that adequate provisions, including buffers or transitional uses, such as less intensive renewable energy production, light industrial, office, or commercial uses, separate the proposed residential uses from more intensive uses, including industrial, agricultural, or agricultural industrial uses and designated truck routes, to ensure the health and well-being of existing and future residents.

LU-6.8: Encourage the mixing of retail, service, residential, office, and institutional uses on the properties surrounding The Promenade to create a significant retail, employment, and cultural center south of Highway 120.

LU-6.9: Require mixed-use development to provide strong connections with the surrounding development and neighborhoods through the provision of pedestrian and bicycle infrastructure and facilities and, where feasible, site consolidation.

LU-6.10: Encourage the reuse of existing buildings within Downtown and in other developed locations designated for mixed-use development by utilizing the California Existing Building Code which provides flexibility in the retrofitting of buildings.

LU-6.11: Prioritize the revitalization of underutilized, deteriorated areas and buildings within Downtown and in other developed locations designated for mixed-use development through development incentives, public/private partnerships, and public investments.

LU-8.5: Policy Area 3 is the Austin Road Business Park and Residential Community Master Plan area, with boundaries as shown in Figure LU-6. The primary land uses within Policy Area 3 are envisioned to be a master planned residential community with high-quality parks, community-serving commercial uses, and residential development ranging from very low to high density residential in order to accommodate a broad range of housing types, including executive housing and workforce housing. Residential uses located near SR 99 and adjacent the railroad tracks should include appropriate transitions and buffers to address air quality and noise.

LU-9.1: Require future planning decisions, development, and infrastructure and public projects to consider the effects of planning decisions on the overall health and well-being of the community and its residents, with specific consideration provided regarding addressing impacts to disadvantaged populations and communities and ensuring disadvantaged communities have

equitable access to services and amenities and to be conducted through an open and engaging process inclusive of community residents.

LU-9.2: As part of land use decisions, ensure that environmental justice issues related to potential adverse health impacts associated with land use decisions, including methods to reduce exposure to hazardous materials, industrial activity, vehicle exhaust, other sources of pollution, and excessive noise on residents regardless of age, culture, gender, race, socioeconomic status, or geographic location, are considered and addressed.

C-2.7: Provide access for bicycles and pedestrians at the ends of cul-de-sacs, where right-of-way is available, to provide convenient access within and between neighborhoods and to encourage walking and bicycling to neighborhood destinations.

C-2.8: Signals, roundabouts, traffic circles and other traffic management, calming, and safety techniques shall be applied according to industry standards at residential and collector street intersections with collector and arterial streets in order to allow bicyclists and pedestrians to travel more conveniently and more safely from one neighborhood to another.

C-2.15: Ensure that development and infrastructure projects are designed in a way that provides pedestrian and bicycle connectivity to adjacent neighborhoods and areas (such as ensuring that sound walls, berms, and similar physical barriers are considered and gaps or other measures are provided to ensure connectivity).

C-4.1: Through regular updates to the City's Active Transportation Plan inclusive of community members and stakeholders, establish a more safe and more convenient network of identified bicycle and pedestrian routes connecting residential areas with schools, recreation, shopping, and employment areas within the city, generally as shown in Figure CI-2). The City shall also strive to develop connections with existing and planned regional routes shown in the San Joaquin County Bicycle Master Plan.

C-4.2: Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians by providing native and drought-tolerant shade trees and controlling traffic speeds by implementing narrow lanes or other traffic calming measures in accordance with the City Neighborhood Traffic Calming Program on appropriate streets, in particular residential and downtown areas.

C-4.3: Provide a sidewalk and bicycle route system that serves all pedestrian and bicycle users and meets the latest guidelines related to the Americans with Disabilities Act (ADA).

C-4.4: Provide bicycle parking facilities at commercial, business/professional and light industrial uses in accordance with Part 11 of the California Building Standards Code.

C-4.5: Expand the existing network of off-street bicycle facilities as shown in the City's Active Transportation Plan to accommodate cyclists who prefer to travel on dedicated trails. Further, the City shall strive to develop: 1) a "city-loop" Class I bike path for use by both bicyclists and pedestrians that links Austin Road, Atherton Drive, Airport Way, and a route along or near Lathrop Road to the Tidewater bike path and its existing and planned extensions, and 2) an off-street bicycle trail extension between the Tidewater Bike Trail near the intersection of Moffat Boulevard and Industrial Park Drive to the proposed regional route between Manteca and Ripon.

C.4-6: Provide on-street Class II bike lanes, Class IV protected bike lanes, or off-street Class I bike paths along major collector and arterial streets whenever feasible.

C.4.7: Facilitate bicycle travel through residential streets through signage necessary to communicate the presence of Class III bicycle routes on residential streets that have sufficiently low volumes as to not require bike lanes or have narrower street cross sections that assist in calming traffic.

C.4.8: Provide sidewalks and/or walkways connecting to the residential neighborhoods, primary public destinations, major public parking areas, transit stops, and intersections with the bikeway system.

C.4.9: Provide sidewalks along both sides of all new streets in the City and add sidewalks to fill gaps on existing streets as identified in the Active Transportation Plan.

C-5.1: Encourage and plan for the expansion of regional bus service in the Manteca area.

C-5.2: Promote increased commuter and regional passenger rail service that will benefit the businesses and residents of Manteca. Examples include Amtrak, the Altamont Commuter Express (ACE), and high-speed rail.

C-5.3: Identify and implement means of enhancing the opportunities for residents to commute from residential neighborhoods to the ACE station or other transit facilities that may develop in the City.

C-5.4: Include primary locations where the transit systems will connect to the major bikeways and pedestrian ways and primary public parking areas in the Active Transportation Plan (see C-4a).

C-5.5: Encourage programs that provide ridesharing and vanpool opportunities and other alternative modes of transportation for Manteca residents.

C-5.6: Promote the development of park-and-ride facilities near I-5, SR 120, SR 99, and transit stations.

C-5.7: Maintain a working relationship between the City administration and the local management of the Union Pacific Railroad regarding expansion of freight and passenger rail service and economic development of the region.

C-5.8: Design future roadways to accommodate transit facilities, as appropriate. These design elements should include installation of transit stops adjacent to intersections and provision of bus turnouts and sheltered stops, where feasible.

C-5.9: Encourage land uses and site developments that promote public transit along fixed route public transportation corridors, with priority given to those projects that will bring the greatest increase in transit ridership.

C-5.10: Ensure that development projects provide adequate facilities to accommodate school buses, including loading and turn-out locations in multifamily and other projects that include medium and high density residential uses, and that the school districts are provided an opportunity to address specific needs associated with school busing.

C-5.11: As new areas and neighborhoods of the City are developed, fund transit and paratransit expansion (including capital, operations, and maintenance) to provide service levels consistent with existing development.

C-7.1: Encourage employers to provide alternative mode subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, and work-at-home programs employee education and preferential parking for carpools/vanpools.

C-7.2: Require development projects that accommodate or employee 50 or more full-time equivalent employees to establish a transportation demand management (TDM) program that meets or exceeds applicable standards, including Air District requirements.

C-7.3: Partner with SJCOG on the Dibs program, which is the regional smart travel program, including rideshare, transit, walking, and biking, operated by SJCOG.

C-7.4: Require proposed development projects that could have a potentially significant VMT impact to consider reasonable and feasible project modifications and other measures during the project design and environmental review stage of project development that would reduce VMT effects in a manner consistent with state guidance on VMT reduction.

C-7.5: Evaluate the feasibility of a local or regional VMT impact fee program, bank, or exchange. Such an offset program, if determined feasible, would be administered by the City or a City-approved agency, and would offer demonstrated VMT reduction strategies through transportation demand management programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, or other land use project conditions that reduce VMT in a manner consistent with state guidance on VMT reduction. If, through on-site changes, a subject project cannot eliminate VMT impacts, the project could contribute on a pro-rata basis to a local or regional VMT reduction bank or exchange, as necessary, to reduce net VMT impacts.

C-7.6: Expand alternatives to driving by increasing opportunities to walk, bike, and use transit.

EF-2.3: Prioritize the development of employment-generating uses on sites with vacant buildings or on underutilized commercial, office, and industrial-designated parcels.

EF-2.9: Encourage mixed-use development on vacant and underutilized parcels along the North Main Street and Yosemite Avenue corridors, allowing flexible reaction to changing market conditions.

CF-11.3: Implement and enforce the provisions of the City's Source Reduction and Recycling Program and update the program as necessary to meet or exceed the State waste diversion requirements.

CF-11.4: Reduce municipal waste generation by increasing recycling, on-site composting, and mulching, where feasible, at municipal facilities, as well as using resource efficient landscaping techniques in new or renovated medians and parks.

CF-11.5: Encourage residential, commercial, and industrial recycling and reuse programs and techniques.

CF-11.6: Coordinate with and support other local agencies and jurisdictions in the region to develop and implement effective waste management strategies and waste-to-energy technologies.

RC-4.1 Support the conservation of energy through comprehensive and sustainable land use, transportation, and energy planning, implementation of greenhouse gas reduction measures, and inclusive public education and outreach regarding climate adaptation and greenhouse gas emissions to address opportunities to decrease emissions associated with growth, development, and local government operations.

RC-4.2 Support and actively participate with the state, regional, and local agencies and stakeholders toward State greenhouse gas emission reduction goals.

RC-4.3 Maintain a Climate Action Plan that addresses State-adopted GHG reduction goals and provides effective measures to meet GHG targets.

RC-4.4 Ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicle trips.

RC-4.5 Encourage private development to explore and apply non-traditional energy sources such as co-generation, wind, and solar to reduce dependence on traditional energy sources.

RC-4.6 Require all new public and privately constructed buildings to meet and comply with construction and design standards that promote energy conservation, including the most current "green" development standards in the California Green Building Standards Code.

RC-4.7 Support expanded innovative and green building best practices including, but not limited to, LEED certification for all new development and retrofitting existing uses, and encourage public and private projects to exceed the most current "green" development standards in the California Green Building Standards Code.

RC-4.8 Increase energy efficiency and conservation in public buildings and infrastructure.

RC-4.9 Encourage the conservation of public utilities and use of renewable energy technologies in new development, rehabilitation projects, and in City buildings and facilities.

RC-4.10 Encourage measures, including building siting and shading and use of shade trees, to reduce urban heat island effects.

RC-4.11 Support state efforts to power electricity with renewable and zero-carbon resources, such as solar and wind energy.

RC-4.12 Encourage the conservation of petroleum products.

RC-4.13 Encourage the installation of renewable energy technologies serving agricultural operations.

RC-5.1: Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation

measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:

- *Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.*
- *Identifying baseline air pollutant and greenhouse gas emissions.*
- *Encouraging zero emission or alternative fuel for city vehicle fleets, when feasible.*
- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*
- *Promoting participation of major existing and new employers in the transportation demand management (TDM) program facilitated by the San Joaquin Council of Governments.*

RC-5.2: Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including but not limited to industrial, manufacturing, and processing facilities, highways, and rail lines and, where uses or facilities pose substantial health risks, ensure that a Health Risk Assessment is conducted to identify and mitigate exposure to toxic air contaminants.

RC-5.3: Require construction and operation of new development to be managed to minimize fugitive dust and air pollutant emissions.

RC-5.4: Require installation of energy-efficient appliances and equipment, including wood-burning devices, in development projects to meet current standards for controlling air pollution, including particulate matter and toxic air contaminants.

RC-5.5: Require and/or cooperate with the Air District to ensure that burning of any combustible material within the City is consistent with Air District regulations to minimize particulate air pollution.

RC-5.6: Encourage and support the regional Sustainable Communities Strategy that integrates planning for growth, transportation, land use, housing, and sustainability to meet State greenhouse reduction goals.

Actions

LU-1b: Regularly review and revise, as necessary, the Zoning Code to accomplish the following purposes:

- *Ensure consistency with the General Plan in terms of zoning districts and development standards;*
- *Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;*
- *Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and*

- *Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.*
- *Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.*

LU-5f: Update the Municipal Code to include Good Neighbor Guidelines for Warehouse Distribution Facilities, including:

- *A definition of the type and size of facility that is subject to the Guidelines;*
- *Standards to minimize exposure to diesel emissions to sensitive receptors that are situated in close proximity to the proposed facility;*
- *Standards and practices that eliminate diesel trucks from unnecessarily traversing through residential neighborhoods;*
- *Standards and practices that eliminate trucks from using residential areas and repairing vehicles on the streets;*
- *Strategies to reduce and/or eliminate diesel idling within the facility's site;*

LU-6b: Implement incentives to support developers who construct vertical mixed-use projects and/or who build housing above non-residential ground-floor uses within Downtown.

LU-6e: Promote the intensified use and reuse of existing suites above ground floors.

LU-9a: Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

LU-9c: Encourage and support local transit service providers, through input from residents and stakeholders, to increase and expand services for people who are transit-dependent, including seniors, persons with mobility disabilities, and persons without regular access to automobiles by improving connections to regional medical facilities, senior centers, and other support systems that serve residents and businesses.

C-1c: Develop a pedestrian, bicycle, and transit improvement plan for the Downtown area through an engaging process inclusive of community members and stakeholders to facilitate implementation of level of service policy C-1.4. This plan will develop a list of multi-modal improvements in the Downtown area to increase the viability and encourage the use of non-auto modes.

C-2b: When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for more safe travel by all modes that use streets, including autos, transit, pedestrians, and bicycles. Complete streets shall be developed in a context-sensitive manner. For example, it may be more appropriate to provide a Class I bike path instead of bike lanes along a major arterial. Pedestrian districts like Downtown Manteca or areas near school entrances should have an enhanced streetscape (e.g., narrower travel lanes, landscape buffers with street trees, etc.) to better accommodate and encourage pedestrian travel.

C-2f: Ensure that bicycle and pedestrian access is both provided and prioritized through providing openings to increase access where soundwalls and berms are located to minimize travel distances and increase the viability walking and bicycling.

C-2i: Pursue funding to improve and address areas of traffic, bicycle, and pedestrian hazards and conflicts with vehicular traffic movements.

C-4a: Periodically update the Active Transportation Plan through a process inclusive of community members and stakeholders to include all areas envisioned for development by this General Plan and to address pedestrian and bicycle facilities needed to provide a complete circulation system that adequately meets the needs of pedestrians and bicyclists.

C.4b: Utilize the standards set forth in the latest editions of the California MUTCD and American Association of State Highway and Transportation Officials (AASHTO) Green Book for improvement and re-striping of appropriate major collector and arterial streets to accommodate Class II bike lanes or Class IV protected bikeways in both directions, where sufficient roadway width is available. This may include narrowing of travel lanes.

C.4d: Add bicycle facilities whenever possible in conjunction with road rehabilitation, reconstruction, or re-striping projects.

C-4e: Update the City's standard plans to accommodate pedestrians and bicyclists, including landscape-separated sidewalks where appropriate, and to include bike lanes on collector and arterial streets, as defined by the Active Transportation Plan.

C-4f: Encourage and facilitate resident and visitor use of the bike trail system by preparing a map of the pedestrian and bike paths and implementing wayfinding signage.

C-4g: Update the standard plans to specify a set of roadways with narrower lanes (less than 12 feet) and pedestrian bulb-outs to calm traffic and increase pedestrian and bicycle comfort. These narrow lane standards shall be applied to appropriate streets (e.g., they shall not be applied to outside lanes on major truck routes) and new development.

C-5a: Periodically review transit needs in the city through a process inclusive of community members and stakeholders and adjust bus routes to accommodate changing land use and transit demand patterns. The City shall also periodically coordinate with the San Joaquin Regional Transit District to assess the demand for regional transit services.

C-5b: Explore a transit connections study that would identify improvements to connections and access to the existing ACE station, the Manteca Transit Center, and future planned transit stations.

C-5c: Update the City's standard plans to include the option for bus turnouts at intersections of major streets.

C-5d: Review and consider alternatives to conventional bus systems, such as smaller shuttle buses (i.e. micro-transit), on-demand transit services, or transportation networking company services that connect neighborhood centers to local activity centers with greater cost efficiency.

C-5e: Work with the school districts to identify and implement opportunities for joint-use public transit that would provide both student transportation and local transit service.

C-5f: Through the development review process, ensure that projects provide increased land use densities and mixed uses, consistent with the Land Use Element to enhance the feasibility of transit and promote alternative transportation modes.

C-5g: Along fixed route corridors, require that new development to be compatible with and further the achievement of the Circulation Element. Requirements for compatibility may include but are not limited to:

- *Orienting pedestrian access to transit centers and existing and planned transit routes.*
- *Orienting buildings, walkways, and other features to provide pedestrian access from the street and locating parking to the side or behind the development, rather than separating the development from the street and pedestrian with parking.*
- *Providing clearly delineated routes through parking lots to safely accommodate pedestrian and bicycle circulation.*

C-5h: Review and update the City's funding programs to provide for adequate transit services, including funding for capital, operations, and maintenance, commensurate with growth of the City.

C-7a: Provide information about transit services, ridesharing, vanpools, and other transportation alternatives to single occupancy vehicles at City Hall, the library, on the City website, and through other channels.

C-7b: Develop TDM program requirements with consideration of addressing CEQA vehicle miles traveled impact analysis requirements (i.e., SB 743) in accordance with implementation measure C-1b. TDM programs shall include measures to reduce total vehicle miles traveled and peak hour vehicle trips. A simplified version of the Air District's Rule 9410 could be used to implement this measure.

C-7c: Coordinate with the San Joaquin Council of Governments on a Congestion/Mobility Management Program to identify TDM strategies to reduce VMT and mitigate peak-hour congestion impacts. Strategies may include: growth management and activity center strategies, telecommuting, increasing transit service frequency and speed, transit information systems, subsidized and discount transit programs, alternative work hours, carpooling, vanpooling, guaranteed ride home program, parking management, addition of general purpose lanes, channelization, computerized signal systems, intersection or midblock widenings, and Intelligent Transportation Systems.

*C-7d: Proposed development projects shall incorporate measures to reduce VMT, including consideration of the measures listed below. This list is not intended to be exhaustive, and not all measures may be feasible, reasonable, or applicable to all projects. The purpose of this list is to identify options for future development proposals, not to constrain projects to this list, or to require that a project examine or include all measures from this list. Potential measures, with possible ranges of VMT reduction for a project, include:**

- *Increase density of development (up to 10.75 percent)*
- *Increase diversity of land uses (up to 12 percent)*
- *Implement car-sharing programs (up to 5 percent)*
- *Implement parking management and pricing (up to 6 percent)*
- *Implement subsidized or discounted transit program (up to 0.7 percent)*
- *Implement commute trip reduction marketing and launch targeted behavioral interventions (up to 3 percent)*
- *Participating in local or regional carpool matching programs***
- *Providing preferential carpool and vanpool parking***
- *Providing secure bicycle parking, showers, and lockers at work site***

**Note: VMT reduction ranges based on Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association (2010), and new research compiled by Fehr & Peers (2020). Additional engineering analysis is required prior to applying reductions to specific projects. Actual reductions will vary by project and project context.*

***Reduction determined at the project-level*

C-7e: Partner with SJCOG, San Joaquin County, and neighboring cities to evaluate a potential regional VMT impact fee program, bank, or exchange.

C-7f: Implement the Active Transportation Plan and other Bikeway and Pedestrian Systems goals and polices (C-4).

C-7g: Expand transit service and increase transit frequency and implement Public Transit goals and policies (C-5).

RC-4a: Continue to assess and monitor performance of greenhouse gas emissions reduction efforts, including progress toward meeting longer-term GHG emissions reduction goals for 2035 and 2050 by reporting on the City's progress annually, updating the Climate Action Plan and GHG inventory regularly to demonstrate consistency with State-adopted GHG reduction targets, including those targets established beyond 2020, and updating the GHG Strategy in the General Plan, as appropriate. The Climate Action Plan shall be reviewed every 5 years and updated as necessary to be consistent with State-adopted GHG reduction targets, including revisions to GHG reduction measures to ensure effective implementation.

RC-4b: Implement development standards and best practices that promote energy conservation and the reduction in greenhouse gases, including:

- *Require new development to be energy-efficient through passive design concepts (e.g., techniques for heating and cooling, building siting orientation, street and lot layout, landscape placement, and protection of solar access;*
- *Require construction standards which promote energy conservation including window placement, building eaves, and roof overhangs;*
- *Require all projects to meet minimum State and local energy conservation standards;*
- *Require developments to include vehicle charging stations that meet or exceed the requirements of State law and to include outdoor electrical outlets to reduce the need for portable generators or other portable power sources, including for residential, commercia, industrial, park, and public/quasi-public uses;*
- *Require best practices in selecting construction methods, building materials, project appliances and equipment, and project design;*
- *Encourage and accommodate projects that incorporate alternative energy;*
- *Encourage projects to incorporate enhanced energy conservation measures, electric-only appliances, and other voluntary methods of reducing energy usage and greenhouse gas emissions; and*
- *Require large energy users to implement an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.*

RC-4c: Continue to review development projects to ensure that all new public and private development complies with or exceeds the California Code of Regulations, Title 24 standards as well as the energy efficiency standards established by the General Plan and the Municipal Code.

RC-4d: Develop a public education program in partnership with relevant agencies and community organizations to increase public participation in energy conservation.

RC-4e: Connect residents and businesses with programs that provide free or low-cost energy efficiency audits and retrofits to existing buildings.

RC-4f: Update the Municipal Code to incentivize the use of small-scale renewable energy facilities and, where appropriate, to remove impediments to such uses.

RC-4g: Cooperate with other agencies, jurisdictions, and organizations to expand energy conservation programs.

RC-4h: Explore alternative energy sources, including co-generation, active solar energy, and wind generation, and identify opportunities for alternative energy to be used in public and private projects.

RC-4i: Evaluate methods to increase energy efficiency and reduce greenhouse gas emissions, including 1) generating electricity on City-owned sites with solar and other low or zero-carbon emission resources to reduce the City's carbon footprint, 2) joining or creating a Community Choice Aggregator to encourage affordable access to clean power, 3) replacing City-owned vehicles with hybrid or electric vehicles, 4) increasing energy efficiency in public buildings and infrastructure, and 5) deploying affordable charging and alternative fuel options throughout Manteca.

RC-4i: Implement transportation measures, as outlined in the Circulation Element, which reduce the need for automobile use and petroleum products.

RC-4j: Develop a Zero Emissions Vehicle Market Development Strategy that ensures expeditious implementation of the systems of policies, programs and regulations necessary to address Executive Order N-79-20.

RC-5j: Implement transportation measures, as outlined in the Circulation Element, which reduce the need for automobile use and petroleum products.

RC-5a: Work with the Air District to implement the Air Quality Management Plan (AQMP).

- *Cooperate with the Air District to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.*
- *Cooperate with the Air District and the State Air Board in their efforts to develop a local airshed model.*
- *Cooperate with the Air District in its efforts to develop a cost/benefit analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.*
- *Cooperate with the Air District and community organizations to promote public awareness of air quality issues.*

RC-5b: Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:

- *Use of the Air District "Guide for Assessing and Mitigating Air Quality Impacts", as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- *Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*
- *Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate ;*
- *Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*
- *The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- *Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*
- *The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- *Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- *Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

RC-5c: Review area and stationary source projects that could have a significant air quality impact, either individually or cumulatively, to identify the significance of potential impacts and ensure that adequate air quality mitigation is incorporated into the project, including:

- *The use of best available and economically feasible control technology for stationary industrial sources;*
- *All applicable particulate matter control requirements of Air District Regulation VIII;*
- *The use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *Provision of adequate electric or natural gas outlets to encourage use of natural gas or electric barbecues and electric gardening equipment; and*
- *Use of alternative energy sources.*

RC-5d: Maintain adequate data to analyze cumulative land use impacts on air quality and climate change. This includes tracking proposed, planned, and approved General Plan amendments,

development, and land use decisions so that projects can be evaluated for cumulative air quality impacts, including impacts associated with transportation and land use decisions.

RC-5e: Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).

RC-5f: Construction activity plans shall comply with Air District Rule 8021, including implementation of all required dust control measures and shall, where required, provide a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

- *Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.*

Impact 3.3-2: General Plan implementation would not expose sensitive receptors to substantial pollutant concentrations (Less than Significant)

The SJVAPCD has identified local community risks from air pollutants to include exposure to TACs and $PM_{2.5}$ concentrations. TACs are a defined set of airborne pollutants that may pose a present or potential hazard to human health and $PM_{2.5}$ can cause a wide range of health effects (e.g., aggravating asthma and bronchitis, causing visits to the hospital for respiratory and cardiovascular systems, and contributing to heart attacks and deaths). Common stationary source types of TAC and $PM_{2.5}$ emissions include gasoline stations, dry cleaners, and diesel backup generators,[7] which are subject to SJVAPCD permit requirements that include pollution control standards. The other, often more significant, common source type is on-road motor vehicles on freeways and roads such as trucks and cars, and off-road sources such as construction equipment, ships, and trains. Implementation of the proposed General Plan would have the potential of introducing new sources of TAC and $PM_{2.5}$ emissions within the city as well as siting new sensitive receptors, such as new homes in close proximity to existing sources of TAC and $PM_{2.5}$ emissions.

Health risks associated with TACs are most pronounced in the areas adjacent to freeway segments. Regardless of the existing health risks associated with TACs, the SJVAPCD CEQA Guidelines provide recommendations for all communities to ensure reduced health risks associated with TACs. The proposed General Plan includes policies that are intended to minimize exposure of TACs to sensitive receptors (see below).

The *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook), adopted by CARB, May 2005 was prepared to address the siting of sensitive land uses in close proximity to sources of TAC emissions. This guidance document is advisory (rather than mandatory) in nature.

[7] It should be noted that a permit is required for diesel backup generators that have an engine greater than 50 horsepower.

Nevertheless, the Handbook provides recommended siting distances for the following sources within the City:

- Within 500 feet of Highway 99 and Highway 120;
- Within 1,000 feet of a distribution center;
- Within 300 feet of dry cleaning operations that use perchloroethylene; and
- Within 300 feet of a large gas station, or 50 feet of a typical gas station.

The proposed General Plan includes policies and programs that would limit exposure to TAC and PM concentrations within the city. These policies and actions are included within various elements of the General Plan. For example, Policy LU-3.9 requires that land uses are located away from excessive smoke, dust, and odors, including buffers for transitional uses, to ensure health and well-being of residents. In addition, Policy LU-9.2 requires that, as part of land use decisions, environmental justice issues related to potential health impacts associated with land use decisions are considered and addressed. Policy RC-5.2 would ensure that exposure of the public to toxic or harmful air emissions would be minimized by requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, and where uses or facilities pose substantial health risks, require that a Health Risk Assessment is conducted to identify and mitigate exposure to toxic air contaminants.

Furthermore, Implementing Measure RC-5e requires that, prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, developers must provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals). This is ensured through the development of an air toxics HRA for individual projects that propose air pollution point sources.

Individual projects would be required to provide their own environmental assessments to determine health impacts from the construction and operation of their projects. In the event that future individual projects may result in exposure to TACs by sensitive receptors, these future projects would be required to analyze TAC impacts on an individual project level, per SJVAPCD requirements, and in accordance with OEHHA guidance.

In addition, it should also be noted that the Omnibus Low-NOx Rule was approved by CARB August 28, 2020, which will require heavy-duty truck engine NOx emissions to be cut to approximately 75% below current standards beginning in 2024, and 90% below current standards in 2027. The rule also places nine additional regulatory requirements on new heavy-duty truck and engines. Those additional requirements include a 50% reduction in particulate matter emissions, stringent new low-load and idle standards, a new in-use testing protocol, extended deterioration requirements, a new California-only credit program, and extended mandatory warranty requirements.

Compliance with the applicable policies and programs in the proposed General Plan as well the applicable CARB and SJVAPCD rules and regulations, would minimize the potential exposure of sensitive receptors to substantial concentrations of TACs and $PM_{2.5}$ within the City.

It should be noted that the Circulation Element plans for a full multi-modal system. Although heavy-duty truck routes are not proposed as part of the proposed General Plan, an analysis of TAC impacts from heavy-duty trucks is provided (similar to what was provided for Alternative D, which does include proposed truck routes)[8] to address the potential for increased truck traffic on the roadway system. Disclosure of the results of this analysis is provided below (see Table 3.3-7).

RISK ASSESSMENT RESULTS ASSOCIATED WITH THE PROPOSED TRUCK ROUTES

The results of the risk analysis indicate that cancer and non-cancer risks vary depending on the exposure scenario and location. As would be expected, sensitive receptors nearest the roadway have the greatest exposure and the associated risks are considerably lower as distance from the truck traffic increases.

Table 3.3-7 summarizes daily truck trips under the existing condition and the projected daily truck trips associated with implementation of the proposed General Plan for roadway segments projected to have an increase of 1,000 or more daily truck trips. Segments with the nearest sensitive receptors combined with the highest increases in daily truck trips were selected as a representative sample of road segments to model potential health risks associated exposure to TACs associated with the truck routes. Based on these criteria, the following roadway segments, were selected for further analysis:

- Lovelace Road (west of SR 99 and east of Union Road);[9]
- SR 99 total north of Yosemite Avenue;
- SR 120 total between McKinley Avenue and Airport Way;
- Roth Road west of Airport Way; and
- SR 99 north of Lovelace Road

The analysis also addressed interacting roadway segments that intersect with the primary segments identified above to ensure that the cumulative, or combined effect, is addressed.

TABLE 3.3-7: SUMMARY OF MAXIMUM HEALTH RISKS ASSOCIATED WITH THE PROPOSED TRUCK ROUTE

SEGMENT	*2019 EXISTING CONDITION*		*PROPOSED GENERAL PLAN*		*INCREASE IN DAILY TRUCK TRIPS*
	AVERAGE DAILY TRIPS	*DAILY TRUCK TRIPS*	*AVERAGE DAILY TRIPS*	*DAILY TRUCK TRIPS*	
Airport Way south of Northgate Drive	10,800	970	40,890	2,560	1,590
Airport Way north of Daisywood Drive	10,130	2,090	41,220	3,970	1,880
Yosemite Avenue west of El Rancho Drive	27,090	2,050	79,700	3,990	1,940
Louise Ave west of Airport Way	12,730	590	47,510	1,720	1,130
Lovelace Rd west of SR 99	**-**	**-**	**31,880**	**1,770**	**1,770**

[8] See Chapter 5.0: Alternatives, for further detail.

[9] Note: The segments 'Lovelace Road west of SR 99' and 'Lovelace east of Union Road' were combined for the purposes of the health risk analysis. The most conservative truck trip generation values provided by Fehr & Peers for these segments were used for the analysis, to provide for a conservative analysis.

SEGMENT	2019 EXISTING CONDITION		PROPOSED GENERAL PLAN		INCREASE IN DAILY TRUCK TRIPS
	AVERAGE DAILY TRIPS	DAILY TRUCK TRIPS	AVERAGE DAILY TRIPS	DAILY TRUCK TRIPS	
Roth Rd west of Airport Way	**8,620**	**1,720**	**31,950**	**2,810**	**1,090**
Roth Rd east of Airport Way	-	-	16,750	1,810	1,810
Lovelace Rd east of Union Rd	**-**	**-**	**29,860**	**1,790**	**1,790**
SR 99 SB north of Lovelace Rd	**40,090**	**4,300**	**64,050**	**5,570**	**1,270**
SR 99 NB north of Lovelace Rd	**39,870**	**4,220**	**64,350**	**5,510**	**1,290**
SR 99 SB north of Yosemite Ave	**40,390**	**4,180**	**70,360**	**6,080**	**1,900**
SR 99 NB north of Yosemite Ave	**38,350**	**3,980**	**66,240**	**5,880**	**1,900**
SR 120 WB between McKinley Ave and Airport Way	**43,330**	**3,600**	**115,270**	**5,490**	**1,890**
SR 120 EB between McKinley Ave and Airport Way	**38,870**	**3,480**	**114,100**	**5,260**	**1,780**
SR 99 total north of Lovelace Rd	**79,960**	**8,520**	**128,400**	**11,080**	**2,560**
SR 99 total north of Yosemite Ave	78,740	8,160	136,600	11,960	3,800
SR 120 total between McKinley Ave and Airport Way	**82,200**	**7,080**	**229,370**	**10,750**	**3,670**

BOLD = SELECTED FOR FURTHER ANALYSIS
SOURCE: FEHR & PEERS, 2022

SCOPE OF RISK ASSESSMENT

Preparation of risk assessments is a three-step process. The first step is to identify potential contaminants that may lead to public health risks. The second step is to assess the magnitude of contaminants that may reach the public (exposure assessment). The last step is to calculate the magnitude of the health risk as a result of exposure to harmful contaminants on the basis of the toxicology of the contaminants.

The OEHHA, and the SJVAPCD provide guidance on the procedures that should be used, including, toxicological data for individual contaminants. While this risk assessment uses certain procedures and data from these Guidelines, this assessment is not intended to satisfy the reporting requirements under AB-2588 "Air Toxics" Hot Spots program.

The health risks that are evaluated in this analysis include:

- Residential Cancer Risk (70-year exposure; start at third trimester); and
- Acute and Chronic Hazard Indices.

The 70-year risk applies to residential areas where exposure may potentially occur 24 hours/day, 365 days/year. Non-cancer risks can be described as acute (short-term, exposure) or chronic health impacts.

SIGNIFICANCE CRITERIA

The following significance criteria shown in Table 3.3-8, based on guidance from the SJVAPCD, are used in this report to assess the significance of public health risks.

TABLE 3.3-8: THRESHOLDS OF SIGNIFICANCE FOR PUBLIC HEALTH RISKS

RISK METRIC	SIGNIFICANCE THRESHOLD
Residential Cancer Risk	20 per million
Chronic and Acute non-cancer hazard Indices	Non-cancer health hazard exposure index of 1.0

SOURCE: SJVAPCD, 2015.

As shown in Table 3.3-8, a project that contributes a cancer risk in excess of 20 new cases in a population of one million persons at identified residential receptors, or a non-cancer hazard index of greater than or equal to 1.0 would be considered to have a significant project-level impact.

EMISSION SOURCES AND EXPOSURE

The primary source of TACs is DPM from mobile emissions (from the heavy trucks) associated with buildout of the proposed General Plan.

Based on numerous studies by the CARB, DPM represents the largest single contributor to public health risks. Additionally, in its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks.

Table 3.3-9 displays the residential cancer risk and acute and chronic incidence rate results at nearest receptors at each of the segments analyzed (including the cumulative impacts associated with the combined impact of proposed segments and interacting segments together).

As shown in the Table 3.3-9, maximum health risks associated with the proposed General Plan would not exceed the applicable significance thresholds. As shown in Table 3.3-9, the highest maximum risk projected for the worst-case segments is well below the threshold of significance.

TABLE 3.3-9: SUMMARY OF MAXIMUM HEALTH RISKS ASSOCIATED WITH THE NEW TRUCK TRIPS

RISK METRIC	*MAXIMUM RISK (PER MILLION PERSONS)*	*SIGNIFICANCE THRESHOLD*	*IS THRESHOLD EXCEEDED?*
Truck Route Segment 1: Lovelace Road (west of SR 99 and east of Union Road)			
Residential Cancer Risk (70-year exposure beginning in 3rd trimester)	12.61	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥1	No
Acute (non-cancer	<0.01	Hazard Index ≥1	No
Truck Route Segment 2: SR 99 total north of Yosemite Avenue			
Residential Cancer Risk (70-year exposure beginning in 3rd trimester)	14.32	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥1	No
Acute (non-cancer	<0.01	Hazard Index ≥1	No
Truck Route Segment 3: SR 120 total between McKinley Avenue and Airport Way			
Residential Cancer Risk (70-year exposure beginning in 3rd trimester)	9.86	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥1	No
Acute (non-cancer	<0.01	Hazard Index ≥1	No
Truck Route Segment 4: Roth Road west of Airport Way			
Residential Cancer Risk (70-year exposure beginning in 3rd trimester)	1.57	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥1	No
Acute (non-cancer	<0.01	Hazard Index ≥1	No
Truck Route Segment 5: SR 99 North of Lovelace Road			
Residential Cancer Risk (70-year exposure beginning in 3rd trimester)	11.28	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥1	No
Acute (non-cancer	<0.01	Hazard Index ≥1	No

SOURCES: AERMOD (LAKES ENVIRONMENTAL SOFTWARE, 2022); AND HARP-2 AIR DISPERSION AND RISK TOOL.

NOTE: UNDER THE PROPOSED GENERAL PLAN, SEGMENT 2 AND SEGMENT 3 DID NOT GENERATE TRIPS ABOVE THE EXISTING SCENARIO; THEREFORE, INCREMENTAL TAC EMISSIONS ASSOCIATED WITH THESE SEGMENTS UNDER THE PROPOSED GENERAL PLAN ARE CONSIDERED TO BE ZERO.

CONCLUSION

As shown in Table 3.3-9, maximum health risks associated with the worst-case truck route segments that could occur with implementation of the proposed General Plan would not exceed the applicable significance thresholds. However, the proposed General Plan also accommodates

development of industrial and commercial projects, for which the specific characteristics are not known at this time. Examples of individual development projects that could generate TACs include warehouses, distribution centers, dry cleaners, and gas stations. Heavy-duty construction equipment during construction activities could also generate TACs. Individual projects will be required to provide project-specific environmental assessments to determine health impacts from the construction and operation of their projects. The proposed General Plan would assist the City in reducing exposure to TACs through various General Plan policies and implementation actions, which are provided below. Some of the policies that would reduce exposure to TACs include Policy LU-3.9, which requires residences and sensitive receptors to be located away from areas of excessive dust; Policy LU-9.2, which requires that environmental justice issues (including excessive air pollution) are taken into account as part of land use decisions; and Policy RC-5.2, which requires projects to minimize exposure to harmful air emissions through adequate buffers or distances between residential and other sensitive land uses and land uses that typically generate toxic air contaminants, and requires a health risk assessment for uses that pose substantial health risks. Further, Implementing Action RC-5e requires that projects that may be an air pollution point source shall provide documentation that appropriate separation, as determined by a HRA that demonstrates the project would not expose sensitive receptors to TACs at or above significance thresholds established by the SJVAPCD, is provided between the point source and residential areas and sensitive receptors.

In the event that future individual projects may result in exposure to TACs by sensitive receptors, these future individual projects would be required to analyze and mitigate TAC impacts on an individual project level, per SJVAPCD requirements, and in accordance with OEHHA guidance. The General Plan set of policies at a program level set forth the parameters wherein future individual projects may be required to perform HRAs. The General Plan, the policies therein coupled with the routine implementation of the project review necessary for zoning entitlements will ensure compliance with all applicable polices and implementing actions that address exposure to TACs. Therefore, this impact is ***less than significant***.

GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

Policies

LU-3.9: Locate residences and sensitive receptors away from areas of excessive noise, smoke, dust, odor, and lighting, and ensure that adequate provisions, including buffers or transitional uses, such as less intensive renewable energy production, light industrial, office, or commercial uses, separate the proposed residential uses from more intensive uses, including industrial, agricultural, or agricultural industrial uses and designated truck routes, to ensure the health and well-being of existing and future residents.

LU-9.2: As part of land use decisions, ensure that environmental justice issues related to potential adverse health impacts associated with land use decisions, including methods to reduce exposure to hazardous materials, industrial activity, vehicle exhaust, other sources of pollution, and excessive noise on residents regardless of age, culture, gender, race, socioeconomic status, or geographic location, are considered and addressed.

RC-5.1: Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:

- *Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.*
- *Identifying baseline air pollutant and greenhouse gas emissions.*
- *Encouraging zero emission or alternative clean fuel for city vehicle fleets, when feasible.*
- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*
- *Promoting participation of major existing and new employers in the transportation demand management (TDM) program facilitated by the San Joaquin Council of Governments.*

RC-5.2: Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including but not limited to industrial, manufacturing, and processing facilities, highways, and rail lines and, where uses or facilities pose substantial health risks, ensure that a Health Risk Assessment is conducted to identify and mitigate exposure to toxic air contaminants.

RC-5.3: Require construction and operation of new development to be managed to minimize fugitive dust and air pollutant emissions.

RC-5.4: Require installation of energy-efficient appliances and equipment, including wood-burning devices, in development projects to meet current standards for controlling air pollution, including particulate matter and toxic air contaminants.

RC-5.5: Require and/or cooperate with the Air District to ensure that burning of any combustible material within the City is consistent with Air District regulations to minimize particulate air pollution.

RC-5.6: Encourage and support the regional Sustainable Communities Strategy that integrates planning for growth, transportation, land use, housing, and sustainability to meet State greenhouse reduction goals.

Actions

LU-1b: Regularly review and revise, as necessary, the Zoning Code to accomplish the following purposes:

- *Ensure consistency with the General Plan in terms of zoning districts and development standards;*
- *Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;*

- *Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and*
- *Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.*
- *Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.*

LU-5f: Update the Municipal Code to include Good Neighbor Guidelines for Warehouse Distribution Facilities, including:

- *A definition of the type and size of facility that is subject to the Guidelines;*
- *Standards to minimize exposure to diesel emissions to sensitive receptors that are situated in close proximity to the proposed facility;*
- *Standards and practices that eliminate diesel trucks from unnecessarily traversing through residential neighborhoods;*
- *Standards and practices that eliminate trucks from using residential areas and repairing vehicles on the streets;*
- *Strategies to reduce and/or eliminate diesel idling within the facility's site;*

LU-9a: Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

RC-4i: Implement transportation measures, as outlined in the Circulation Element, which reduce the need for automobile use and petroleum products.

RC-4j: Develop a Zero Emissions Vehicle Market Development Strategy that ensures expeditious implementation of the systems of policies, programs and regulations necessary to address Executive Order N-79-20.

RC-5j: Implement transportation measures, as outlined in the Circulation Element, which reduce the need for automobile use and petroleum products.

RC-5a: Work with the Air District to implement the Air Quality Management Plan (AQMP).

- *Cooperate with the Air District to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.*
- *Cooperate with the Air District and the State Air Board in their efforts to develop a local airshed model.*
- *Cooperate with the Air District in its efforts to develop a cost/benefit analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.*
- *Cooperate with the Air District and community organizations to promote public awareness of air quality issues.*

RC-5b: Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:

- *Use of the Air District "Guide for Assessing and Mitigating Air Quality Impacts", as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- *Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*
- *Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate ;*
- *Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*
- *The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- *Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*
- *The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- *Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- *Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

RC-5c: Review area and stationary source projects that could have a significant air quality impact, either individually or cumulatively, to identify the significance of potential impacts and ensure that adequate air quality mitigation is incorporated into the project, including:

- *The use of best available and economically feasible control technology for stationary industrial sources;*
- *All applicable particulate matter control requirements of Air District Regulation VIII;*
- *The use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *Provision of adequate electric or natural gas outlets to encourage use of natural gas or electric barbecues and electric gardening equipment; and*
- *Use of alternative energy sources.*

RC-5e: Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is

located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals). Appropriate separation shall be determined through a Health Risk Assessment that demonstrates the project would not expose sensitive receptors to toxic air contaminants at or above significance thresholds as determined by the SJVAPCD.

RC-5f: Construction activity plans shall comply with Air District Rule 8021, including implementation of all required dust control measures and shall, where required, provide a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

- *Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.*

Impact 3.3-3: General Plan implementation would not result in other emissions (such as those leading to odors adversely affecting a substantial number of people) (Less than Significant)

Objectionable odors can be generated from certain types of commercial and/or industrial land uses. Common sources of odors include wastewater treatment plants, landfills, composting facilities, refineries, and chemical plants. Additionally, temporary odors may occur during construction activities, including diesel emissions from construction equipment and diesel trucks traveling on local roadways. In general, residential land uses are not associated with odor generation, but they do serve as sensitive receptors. Odors rarely have direct health impacts, but they can be very unpleasant and can lead to anger and concern over possible health effects among the public.

Future development under the proposed General Plan would be required to comply with all applicable SJVAPCD rules and regulations, and the proposed General Plan policies and actions. The proposed projects that could generate odor impacts on sensitive receptors are required to undergo an analysis consistent with the SJVAPCD's GAMAQI.

The proposed General Plan does not propose any specific development projects, but does identify areas for public and quasi-public facilities that could include expanded wastewater treatment facilities, composting facilities, and other potential odor sources. Similarly, lands designated for Industrial, Agricultural, and Agricultural Industrial uses could include new or expanded uses that could result in odors, including wastewater reclamation and treatment facilities, chemical manufacturing, materials manufacturing, food and beverage processing, and other uses that may involve odors. Similarly, agricultural uses may also include on-site processing or confined animal facilities that may result in odors. Individual projects that have the potential to generate significant objectionable odors would be required to undergo individual CEQA review, based upon the characteristics of each individual project. For example, projects that expand wastewater treatment facilities would require additional individual CEQA review. Individual projects could implement buffer distances, odor control technologies, and/or individual project-specific design-based measures to minimize odors, as applicable and feasible.

In addition, the General Plan policies and actions listed below would further minimize the potential for other emissions (such as odors) to adversely affect a substantial number of people. For example, Policy LU-3.9 requires that land uses are located away from excessive smoke, dust, and odors, including buffers for transitional uses, to ensure health and well-being of residents. Policy RC-5.2 would ensure that exposure of the public to toxic or harmful air emissions would be minimized by requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, and where uses or facilities pose substantial health risks, require that a HRA is conducted to identify and mitigate exposure to toxic air contaminants.

Additionally, Implementing Measure RC-5e requires that, prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, developers must provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).

Therefore, implementation of the proposed General Plan would have a **less than significant** impact relative to this topic.

GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MITIGATE POTENTIAL IMPACTS

Policies

LU-3.9: Locate residences and sensitive receptors away from areas of excessive noise, smoke, dust, odor, and lighting, and ensure that adequate provisions, including buffers or transitional uses, such as less intensive renewable energy production, light industrial, office, or commercial uses, separate the proposed residential uses from more intensive uses, including industrial, agricultural, or agricultural industrial uses and designated truck routes, to ensure the health and well-being of existing and future residents.

LU-9.2: As part of land use decisions, ensure that environmental justice issues related to potential adverse health impacts associated with land use decisions, including methods to reduce exposure to hazardous materials, industrial activity, vehicle exhaust, other sources of pollution, and excessive noise on residents regardless of age, culture, gender, race, socioeconomic status, or geographic location, are considered and addressed.

RC-5.1: Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:

- *Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.*
- *Identifying baseline air pollutant and greenhouse gas emissions.*
- *Encouraging zero emission or alternative fuel for city vehicle fleets, when feasible.*
- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*

- *Promoting participation of major existing and new employers in the transportation demand management (TDM) program facilitated by the San Joaquin Council of Governments.*

RC-5.2: Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including but not limited to industrial, manufacturing, and processing facilities, highways, and rail lines and, where uses or facilities pose substantial health risks, ensure that a Health Risk Assessment is conducted to identify and mitigate exposure to toxic air contaminants.

RC-5.3: Require construction and operation of new development to be managed to minimize fugitive dust and air pollutant emissions.

RC-5.4: Require installation of energy-efficient appliances and equipment, including wood-burning devices, in development projects to meet current standards for controlling air pollution, including particulate matter and toxic air contaminants.

RC-5.5: Require and/or cooperate with the Air District to ensure that burning of any combustible material within the City is consistent with Air District regulations to minimize particulate air pollution.

RC-5.6: Encourage and support the regional Sustainable Communities Strategy that integrates planning for growth, transportation, land use, housing, and sustainability to meet State greenhouse reduction goals.

Actions

LU-1b: Regularly review and revise, as necessary, the Zoning Code to accomplish the following purposes:

- *Ensure consistency with the General Plan in terms of zoning districts and development standards;*
- *Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;*
- *Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and*
- *Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.*
- *Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.*

LU-9a: Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods,

and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

RC-4i: Evaluate methods to increase energy efficiency and reduce greenhouse gas emissions, including 1) generating electricity on City-owned sites with solar and other low or zero-carbon emission resources to reduce the City's carbon footprint, 2) joining or creating a Community Choice Aggregator to encourage affordable access to clean power, 3) replacing City-owned vehicles with hybrid or electric vehicles, 4) increasing energy efficiency in public buildings and infrastructure, and 5) deploying affordable charging and alternative fuel options throughout Manteca.

RC-4i: Implement transportation measures, as outlined in the Circulation Element, which reduce the need for automobile use and petroleum products.

RC-4j: Develop a Zero Emissions Vehicle Market Development Strategy that ensures expeditious implementation of the systems of policies, programs and regulations necessary to address Executive Order N-79-20.

RC-5a: Work with the Air District to implement the Air Quality Management Plan (AQMP).

- *Cooperate with the Air District to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.*
- *Cooperate with the Air District and the State Air Board in their efforts to develop a local airshed model.*
- *Cooperate with the Air District in its efforts to develop a cost/benefit analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.*
- *Cooperate with the Air District and community organizations to promote public awareness of air quality issues.*

RC-5b: Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:

- *Use of the Air District "Guide for Assessing and Mitigating Air Quality Impacts", as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- *Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*
- *Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate ;*
- *Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*

- *The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- *Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*
- *The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- *Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- *Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

RC-5c: Review area and stationary source projects that could have a significant air quality impact, either individually or cumulatively, to identify the significance of potential impacts and ensure that adequate air quality mitigation is incorporated into the project, including:

- *The use of best available and economically feasible control technology for stationary industrial sources;*
- *All applicable particulate matter control requirements of Air District Regulation VIII;*
- *The use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *Provision of adequate electric or natural gas outlets to encourage use of natural gas or electric barbecues and electric gardening equipment; and*
- *Use of alternative energy sources.*

RC-5e: Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals). Appropriate separation shall be determined through a Health Risk Assessment that demonstrates the project would not expose sensitive receptors to toxic air contaminants at or above significance thresholds as determined by the SJVAPCD.

RC-5f: Construction activity plans shall comply with Air District Rule 8021, including implementation of all required dust control measures and shall, where required, provide a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

- *Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.*

This section describes biological resources in the Planning Area. This section provides a background discussion of the bioregions, regionally important habitat and wildlife, and special status species found in the vicinity of Manteca. This section is organized with an environmental setting, regulatory setting, and impact analysis.

No comments on this environmental topic were received during the NOP comment period.

KEY TERMS

The following key terms are used throughout this section to describe biological resources and the framework that regulates them:

Hydric Soils. One of the three wetland identification parameters, according to the Federal definition of a wetland, hydric soils have characteristics that indicate they were developed in conditions where soil oxygen is limited by the presence of saturated soil for long periods during the growing season. There are approximately 2,000 named soils in the United States that may occur in wetlands.

Hydrophytic Vegetation. Plant types that typically occur in wetland areas. Nearly 5,000 plant types in the United States may occur in wetlands. Plants are listed in regional publications of the U.S. Fish and Wildlife Service (USFWS) and include such species as cattails, bulrushes, cordgrass, sphagnum moss, bald cypress, willows, mangroves, sedges, rushes, arrowheads, and water plantains.

Sensitive Natural Community. A sensitive natural community is a biological community that is regionally rare, provides important habitat opportunities for wildlife, is structurally complex, or is in other ways of special concern to local, State, or Federal agencies. The California Environmental Quality Act (CEQA) identifies the elimination or substantial degradation of such communities as a significant impact. The California Department of Fish and Wildlife (CDFW) tracks sensitive natural communities in the California Natural Diversity Database (CNDDB).

Special Status Species. Special status species are those plants and animals that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by Federal, State, or other agencies. Some of these species receive specific protection that is defined by Federal or State endangered species legislation. Others have been designated as "sensitive" on the basis of adopted policies and expertise of State resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special status species" in this report, following a convention that has developed in practice but has no official sanction. For the purposes of this assessment, the term “special status” includes those species that are:

- Federally listed or proposed for listing under the Federal Endangered Species Act (50 CFR 17.11-17.12);
- Candidates for listing under the Federal Endangered Species Act (61 FR 7596-7613);
- State listed or proposed for listing under the California Endangered Species Act (14 CCR 670.5);

- Species listed by the USFWS or the CDFW as a species of concern (USFWS), rare (CDFW), or of special concern (CDFW);
- Fully protected animals, as defined by the State of California (California Fish and Game Code Section 3511, 4700, and 5050);
- Species that meet the definition of threatened, endangered, or rare under CEQA (CEQA Guidelines Section 15380);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.); and
- Plants listed by the California Native Plant Society (CNPS) as rare, threatened, or endangered (List 1A and List 2 status plants in Skinner and Pavlik 1994).

Waters of the U.S. The Federal government defines waters of the U.S. as "lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows" [33 C.F.R. §328.3(a)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the U.S. Army Corps of Engineers (USACE) as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

Wetlands. Wetlands are ecologically complex habitats that support a variety of both plant and animal life. The Federal government defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Wetlands require wetland hydrology, hydric soils, and hydrophytic vegetation. Examples of wetlands include freshwater marsh, seasonal wetlands, and vernal pool complexes that have a hydrologic link to waters of the U.S.

3.4.1 ENVIRONMENTAL SETTING

Manteca is located in the southern portion of San Joaquin County, approximately 10 miles south of Stockton and approximately 14 miles northwest of the Modesto. Manteca is bordered by the City of Lathrop to the west and unincorporated San Joaquin County to the north, south, and east. Much of the Manteca is relatively flat with elevations ranging from approximately 31 feet above mean sea level (amsl) to approximately 36 feet amsl.

The Planning Area outside Manteca's urbanized center and surrounding residential areas is predominantly farmland, including alfalfa, orchards, row crops, and pasture. Agricultural lands have become important foraging resources for a number of wildlife species, including Swainson's hawk.

No major watercourse lies within the Planning Area; however, the San Joaquin River flows along the west and southwest side of the Planning Area boundary. Walthall Slough is a tributary to the San Joaquin River and runs contiguous with the southwestern boundary of the Planning Area. Additionally, Oakwood Lake and Weatherbee Lake are found in the southwest corner of the Planning Area north of and adjacent to the Walthall Slough.

GEOMORPHIC PROVINCES/BIOREGIONS

The Planning Area is located in the western portion of the Great Valley Geomorphic Province of California. The Great Valley Province is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west. The San Joaquin River is located just south and west of the City. This major river drains the Great Valley Province into the San Joaquin Delta to the north, ultimately discharging into the San Francisco Bay to the northwest.

The Planning Area is located within the San Joaquin Valley Bioregion, which is comprised of Kings County, most of Fresno, Kern, Merced, and Stanislaus counties, and portions of Madera, San Luis Obispo, and Tulare counties. The San Joaquin Valley Bioregion is the third most populous out of ten bioregions in the state, with an estimated 2 million people. The largest cities are Fresno, Bakersfield, Modesto, and Stockton. Interstate 5 and State Route 99 are the major north-south roads that run the entire length of the bioregion.

The bioregion is bordered on the west by the coastal mountain ranges. Its eastern boundary joins the southern two-thirds of the Sierra bioregion, which features Yosemite, Kings Canyon, and Sequoia National Parks. At its northern end, the San Joaquin Valley bioregion borders the southern end of the Sacramento Valley bioregion. To the west, south, and east, the bioregion extends to the edges of the valley floor.

Habitat in the bioregion includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but about five percent. Remnants of the wetland habitats are protected in this bioregion in publicly owned parks, reserves, and wildlife areas. The bioregion is considered the state's top agricultural producing region with the abundance of fertile soil.

VEGETATION

Vegetation occurring within the Planning Area primarily consists of agricultural, ruderal, and landscaping vegetation. Because of urban nature of the developed areas within the city and the active agricultural uses in surrounding lands, there is limited natural vegetation. Common plant species observed in the planning area include: wild oat (*Avena barbata*), rip-gut brome (*Bromus diandrus*), softchess (*Bromus hordeaceus*) alfalfa (*Medicago sativa*), Russian thistle (Salsola tragus), Italian thistle (*Carduus pycnocephalus*), rough pigweed (*Amaranthus retroflexus*), sunflower (*Helianthus annuus*), tarragon (*Artemisia dracunculus*), coyote brush (*Baccharis pilularis*), prickly lettuce (*Lactuca serriola*), milk thistle (*Silybum marianum*), sow thistle (*Sonchus asper*), telegraph weed (*Heterotheca grandiflora*), barley (*Hordeum* sp.), mustard (*Brassica niger*), and heliotrope (*Heliotropium curassavicum*).

WILDLIFE

Agricultural and ruderal vegetation found in the Planning Area provides habitat for both common and special status wildlife populations. For example, some commonly observed wildlife species in

the region include: California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus),* American kestrel (*Falco sparverius*), white-tailed kite (*Elanus leucurus*), American killdeer (*Charadrius vociferus*), gopher snake (*Pituophis melanoleucus*), garter snake (*Thamnophis species*), and western fence lizard (*Sceloporus occidentalis*), as well as many native insect species. There are also several bat species in the region. Bats often feed on insects as they fly over agricultural and natural areas.

Locally common and abundant wildlife species are important components of the ecosystem. Due to habitat loss, many of these species must continually adapt to using agricultural, ruderal, and ornamental vegetation for cover, foraging, dispersal, and nesting.

PLANT COMMUNITIES

Agricultural and natural plant communities provide habitat for a variety of biological resources in the region. Sensitive habitats include those that are of special concern to resource agencies or those that are protected under a Habitat Conservation Plan, Natural Community Conservation Plan, the California Environmental Quality Act (CEQA), the Fish and Game Code, or the Clean Water Act (CWA). Additionally, sensitive habitats are usually protected under specific policies from local agencies. Figure 3.4-1 illustrates the plant communities (land cover types) in the vicinity of the Planning Area.

CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM

The California Wildlife Habitat Relationship (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

According to the California Wildlife Habitat Relationship System there are eighteen cover types (wildlife habitat classifications) in the Planning Area out of 59 found in the State. These include: Annual Grassland, Barren, Cropland, Deciduous Orchard, Dryland Grain Crops, Eucalyptus, Evergreen Orchard, Fresh Emergent Wetland, Irrigated Grain Crops, Irrigated Hayfield, Irrigated Row and Field Crops, Lacustrine, Pasture, Rice, Riverine, Urban, Valley Foothill Riparian, and Vineyard. Table 3.4-1 identifies the total area by acreage for each cover type (classification) found in Manteca. Figure 3.4-1 illustrates the location of each cover type (classification) within Manteca. A brief description of each cover type follows.

TABLE 3.4-1: COVER TYPES - CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM

COVER TYPE	*CITY (ACRES)*	*SOI (ACRES)*	*PLANNING AREA (TOTAL ACRES)*
Annual Grassland	118.49	39.43	157.93
Barren	3.04	200.51	203.56
Cropland	372.30	372.89	745.19
Deciduous Orchard	2,692.88	8,420.02	11,112.90
Dryland Grain Crops	1,001.02	941.20	1,942.21
Eucalyptus	1.75	0.00	1.75
Evergreen Orchard	36.34	19.04	55.38
Fresh Emergent Wetland	14.30	46.16	60.46
Irrigated Grain Crops	180.69	84.70	265.39
Irrigated Hayfield	690.27	1,114.76	1,805.03
Irrigated Row and Field Crops	754.79	282.46	1,037.25
Lacustrine	18.23	0.44	18.68
Pasture	520.04	529.14	1,049.18
Rice	0.32	1.72	2.04
Riverine	0.27	101.21	101.49
Urban	7,267.83	1,089.09	8,356.92
Valley Foothill Riparian	31.83	80.13	111.96
Vineyard	41.89	439.17	481.05
Total	**13,746.29**	**13,762.07**	**27,508.36**

SOURCE: SOURCE: CASIL GIS DATA, 2020, CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM, 2020.

Developed Cover Types

Cropland includes a variety of sizes, shapes, and growing patterns. Field corn can reach ten feet while strawberries are only a few inches high. Although most crops are planted in rows, alfalfa hay and small grains (barley and wheat) form dense stands with up to 100 percent canopy closure. Most croplands support annual crops, planted in spring and harvested during summer or fall. In many areas, second crops are commonly planted after harvesting the first. Wheat is planted in fall and harvested in late spring or early summer. Overwintering of sugar beets occurs in the Sacramento Valley, with harvesting in spring after the soil dries. Croplands are located on flat to gently rolling terrain. When flat terrain is put into crop production, it usually is leveled to facilitate irrigation. Rolling terrain is either dry farmed or irrigated by sprinklers. Soils often dictate the crops grown. Climate influences the type of crops grown. Within the Planning Area, there are 745.19 acres of cropland habitat.

Deciduous orchards are typically open single species tree dominated habitats. Depending on the tree type and pruning methods they are usually low, bushy trees with an open understory to facilitate harvest. Trees range in height at maturity for many species from 15 to 30 feet, but may be 10 feet or less depending on the species. Crowns usually touch and are usually in a linear pattern. Spacing between trees is uniform depending on desired spread of mature trees. The understory is usually composed of low-growing grasses, legumes, and other herbaceous plants, but may be

managed to prevent understory growth totally or partially, such as along tree rows. Deciduous orchards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. Though some deciduous orchards are nonirrigated, most are irrigated. Some flat soils are flood irrigated, but many deciduous orchards are sprinkler irrigated. Large numbers of orchards are irrigated by drip or trickle irrigation systems. Most deciduous orchards are in valley or foothill areas, with a few, such as, apples and pears, up to 3,000 feet elevation. Within the Planning Area, there are 11,114.59 acres of deciduous orchard habitat.

Evergreen orchards are typically open single species tree dominated habitats. Depending on the tree type and pruning methods they are usually low, bushy trees with an open understory to facilitate harvest. Trees range in height at maturity for many species from 15 to 30 feet, but may be 10 feet or less depending on the species. Crowns often do not touch and are usually in a linear pattern. Spacing between trees is uniform depending on desired spread of mature trees. The understory is usually composed of low-growing grasses, legumes, and other herbaceous plants, but may be managed to prevent understory growth totally or partially, such as along tree rows. Evergreen orchards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. All are irrigated. Some flat soils are flood irrigated, but most evergreen orchards are sprinkler irrigated. Large numbers of orchards are irrigated by drip or trickle irrigation systems. Most evergreen orchards are in valley or foothill areas. Except for olive, most evergreen orchard trees are not very frost tolerant. Within the Planning Area, there are 55.38 acres of evergreen orchard habitat.

Vineyards are composed of single species planted in rows, usually supported on wood and wire trellises. Vines are normally intertwined in the rows but open between rows. Rows under the vines are usually sprayed with herbicides to prevent growth of herbaceous plants. Between rows of vines, grasses and other herbaceous plants may be planted or allowed to grow as a cover crop to control erosion. Vineyards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. All are irrigated. Most vineyards are sprinkler irrigated. Large numbers of vineyards are irrigated by drip or trickle irrigation systems. Most vineyards are in valley or foothill areas. Within the Planning Area, there are 481.05 acres of vineyard habitat.

Dryland Grain Crops are composed of vegetation in the dryland (nonirrigated) grain and seed crops habitat includes seed producing grasses, primarily barley, cereal rye, oats, and wheat. These seed and grain crops are annuals. They are usually planted by drilling in rows which produce solid stands, forming 100 percent canopy at maturity in good stands. They are normally planted in fall and harvested in spring. However, they may be planted in rotation with other irrigated crops and winter wheat or barley may be planted after harvest of a previous crop in the fall, dry farmed (during the wet winter and early spring months), and then harvested in late spring. Within the Planning Area, there are 1,942.21 acres of Dryland Grain Crop habitat.

Irrigated Grain Crops include a variety of sizes, shapes and growing patterns. Field corn can reach ten feet tall while dry beans are only several inches tall. Most irrigated grain and seed crops are grown in rows. Some may form 100 percent canopy while others may have significant bare areas between rows. All seed and grain crops are annuals. They are usually planted in spring and harvested in summer or fall. However, they may be planted in rotation with other irrigated crops and

sometimes winter wheat or barley may be planted after harvest of a previous crop in the fall, dry farmed (during the wet winter and early spring months) or they may be irrigated, and then harvested in the late spring. Within the Planning Area, there are 265.39 acres of Irrigated Grain Crop habitat.

Irrigated Hayfield normally has a 2 to 6 months initial growing period, depending on climate, and soil, this habitat is dense, with nearly 100 percent cover. Average height is about 0.46 m. (1.5 feet) tall. Planted fields generally are monocultures (the same species or mixtures or a few species with similar structural properties). Structure changes to a lower stature following each harvest, grows up again and reverts to bare ground following plowing or discing. Plowing may occur annually, but is usually less often. Layering generally does not occur in this habitat. Unplanted "native" hay fields may contain short and tall patches. If not harvested for a year, they may develop a dense thatch of dead leaves between the canopy and the ground. Within the Planning Area, there are 1,805.03 acres of Irrigated Hayfield habitat.

Irrigated Row and Field Crops include a variety of sizes, shapes and growing patterns. Cotton and asparagus can be three or four feet tall while others may be a foot or less high. Most irrigated row and field crops are grown in rows. Some may form 100 percent canopy while others may have significant bare areas between rows. Most are annuals, while others, such as asparagus and strawberries are perennial. The annuals are usually planted in spring and harvested in summer or fall. However, they may be planted in rotation with other irrigated crops and sometimes winter wheat or barley may be planted after harvest of a previous crop in the fall, dry farmed (during the wet winter and early spring months), and then harvested in the late spring. In some areas of southern California three crops may be grown in a year. Within the Planning Area, there are 1,037.25 acres of Irrigated Row and Field Crop habitat.

Rice and wild rice are flood irrigated crops that are seed producing annual grasses. Commercial rice generally is only a couple of feet tall, whereas, commercially grown wild rice may be six feet tall or taller. They are usually grown in leveed fields that are flooded much of the growing period and dried out to mature and to facilitate harvesting. They usually produce 100 percent canopy closure as they mature. They are usually planted in spring and harvested in fall. Within the Planning Area, there are 2.04 acres of Rice habitat.

Urban habitats are not limited to any particular physical setting. Three urban categories relevant to wildlife are distinguished: downtown, urban residential, and suburbia. The heavily-developed downtown is usually at the center, followed by concentric zones of urban residential and suburbs. There is a progression outward of decreasing development and increasing vegetative cover. Species richness and diversity is extremely low in the inner cover. The structure of urban vegetation varies, with five types of vegetative structure defined: tree grove, street strip, shade tree/lawn, lawn, and shrub cover. A distinguishing feature of the urban wildlife habitat is the mixture of native and exotic species. Within the Planning Area, there are 8,357.77 acres of urban habitat.

Herbaceous Cover Types

Annual Grassland habitat occurs mostly on flat plains to gently rolling foothills. Climatic conditions are typically Mediterranean, with cool, wet winters and dry, hot summers. The length of the frost-

free season averages 250 to 300 days. Annual precipitation is highest in northern California. Within the Planning Area, there are 157.93acres of annual grassland habitat.

Fresh emergent wetland habitats occur on virtually all exposures and slopes, provided a basin or depression is saturated or at least periodically flooded. They are most common on level to gently rolling topography. They are found in various depressions or at the edge of rivers or lakes. Soils are predominantly silt and clay, although coarser sediments and organic material may be intermixed. In some areas organic soils (peat) may constitute the primary growth medium. Climatic conditions are highly variable and range from the extreme summer heat to winter temperatures well below freezing. Within the Planning Area, there are 60.46 acres of fresh emergent wetland habitat.

Pastures are planted on flat and gently rolling terrain. Flat terrain is irrigated by the border and check method of irrigation, except on sandy soils or where water supplies are limited. Pastures established on sandy soils or hills are sprinklered. Hilly lands also use wild flooding; that is, ditches that follow the grade along ridges and hillsides, where water is released at selected points along the ditch. Climate influences the length of the growing season. For example, pastures at higher elevations or in the north have a shorter growing season. Within the Planning Area, there are 1,049.18 acres of pasture habitat.

Tree Dominated Cover Types

Valley-foothill riparian habitats are found in valleys bordered by sloping alluvial fans, slightly dissected terraces, lower foothills, and coastal plains. They are generally associated with low velocity flows, flood plains, and gentle topography. Valleys provide deep alluvial soils and a high water table. The substrate is coarse, gravelly, or rocky soils more or less permanently moist, but probably well aerated. Frost and short periods of freezing occur in winter (200 to 350 frost-free days). This habitat is characterized by hot, dry summers and mild and wet winters. Temperatures range from 75 to 102 F in the summer to 29 to 44 F in the winter. Average precipitation ranges from 6-30 inches, with little or no snow. The growing season is 7 to 11 months. Within the Planning Area, there are 111.96 acres of valley-foothill riparian habitat.

Eucalyptus habitats range from single-species thickets with little or no shrubby understory to scattered trees over a well-developed herbaceous and shrubby understory. In most cases, eucalyptus forms a dense stand with a closed canopy. Stand structure for this habitat may vary considerably because most eucalyptus have been planted into either rows for wind protection or dense groves for hardwood production and harvesting (Cornell 1909, U.S. Forest Service 1933). Eucalyptus is often found in monotypic stands. The genus is composed of over 150 species with high morphological diversity (Cornell 1909). Thus, habitat structure may be affected if more than two or three species coexist. Tree size may vary considerably depending on spacing and species. Typically, trees may range in height from 87 to 133 feet and have diameters (dbh) of 8.6 to 15.1 inches (Walters 1980), with most growth occurring in the first 15 years. Trees in excess of 152 to 264 feet are not uncommon. Within the Planning Area, there are 1.75 acres of Eucalyptus habitat.

Aquatic Habitats

Riverine habitats can occur in association with many terrestrial habitats. Riverine habitats are found adjacent to many rivers and streams. Riverine habitats are also found contiguous to lacustrine and fresh emergent wetland habitats. This habitat requires intermittent or continually running water generally originating at some elevated source, such as a spring or lake, and flows downward at a rate relative to slope or gradient and the volume of surface runoff or discharge. Velocity generally declines at progressively lower altitudes, and the volume of water increases until the enlarged stream finally becomes sluggish. Over this transition from a rapid, surging stream to a slow, sluggish river, water temperature and turbidity will tend to increase, dissolved oxygen will decrease, and the bottom will change from rocky to muddy. Within the Planning Area, there are 101.49 acres of riverine habitat.

Lacustrine habitats are inland depressions or dammed riverine channels containing standing water. These habitats may occur in association with any terrestrial habitats, Riverine, or Fresh Emergent Wetlands. They may vary from small ponds less than one acre to large areas covering several square miles. Depth can vary from a few inches to hundreds of feet. Typical lacustrine habitats include permanently flooded lakes and reservoirs, and intermittent lakes and ponds (including vernal pools) so shallow that rooted plants can grow over the bottom. Most permanent lacustrine systems support fish life; intermittent types usually do not. Within the Planning Area, there are 18.68 acres of lacustrine habitat.

Other Habitats

Barren habitat is defined by the absence of vegetation. Any habitat with less than 2 percent total vegetation cover by herbaceous, desert, or non-wildland species and less than10 percent cover by tree or shrub species is defined this way. The physical settings for permanently barren habitat represent extreme environments for vegetation. An extremely hot or cold climate, a near-vertical slope, an impermeable substrate, constant disturbance by either human or natural forces, or a soil either lacking in organic matter or excessively saline can each contribute to a habitat being inhospitable to plants. Within the Planning Area, there are 203.56 acres of barren habitat.

SPECIAL-STATUS SPECIES

The following discussion is based on a background search of special-status species that are documented in the CNDDB, the CNPS Inventory of Rare and Endangered Plants, and the USFWS endangered and threatened species lists. The background search was regional in scope and focused on the documented occurrences within one and approximately 15 miles (12 quads) of Manteca. Figure 3.4-2 illustrates the special status species located within one mile of the Planning Area. As shown in Figure 3.4-3, the 12 quads consist of Holt, Stockton West, Stockton East, Peters, Union Island, Lathrop, Manteca, Avena, Tracy, Vernalis, Ripon, and Salida.

Special Status Plants

The search revealed documented occurrences of two special status plant species within one mile of the Manteca Planning Area. The search revealed documented occurrences of 25 special status plant

species (including three non-vascular plants) within approximately 15 miles (12 quads) of the Manteca Planning Area.

Tables 3.4-2 and 3.4-3 provide a list of special-status plant species that are documented within one and 15 miles of the Planning Area, along with their current protective status, geographic distribution, habitat, and blooming period. Figure 3.4-2 illustrates the special status species located within one mile of the Planning Area. Figure 3.4-3 illustrates the special status species located within approximately 15 miles (12 quads) of the Planning Area.

Special Status Animals

The search revealed documented occurrences of 46 special status animal species within approximately 15 miles (12 quads) of the Planning Area. Of these species, 10 are documented within approximately one mile of the city's SOI. Tables 3.4-4 and 3.4-5 provide a list of the special-status animal species that are documented within approximately one mile and 15 miles (12 quads) of the Planning Area, along with their current protective status, geographic distribution, and habitat. Figure 3.4-2 illustrates the location of documented occurrences within one mile of the Planning Area, and Figure 3.4-3 shown documented occurrences within approximately 15 miles (12 quads) of the Planning Area.

Sensitive Natural Communities

The CDFW considers sensitive natural communities to have significant biotic value, with species of plants and animals unique to each community. The CNDDB search revealed four sensitive natural communities within 15 miles of the Manteca Planning Area. This includes Elderberry Savanna, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Valley Oak Riparian Forest, and Coastal and Valley Freshwater Marsh.

All four of these community types were once more widely distributed throughout California, but have been modified or destroyed by grazing, cultivation, and urban development. Since the remaining examples of these sensitive natural communities are under continuing threat from future development, CDFW considers them "highest inventory priorities" for future conservation. Of these sensitive natural communities documented within 15 miles of Manteca, none are located within one mile of the Manteca Planning Area.

Wildlife Movement Corridors

Wildlife corridors refer to contiguous tracts of habitat that connect larger areas of habitat and facilitate genetic exchange within a population or between subpopulations by allowing for movement within or between habitat patches. Habitat reduction and fragmentation are among the primary causes of species decline; consequently, the identification and preservation of key corridors is important to retaining native populations in San Joaquin County.

The Planning Area does not currently provide an important connection between any areas of natural habitat that would otherwise be isolated. The Planning Area is not located within any of the ecological or wildlife movement corridors identified by the CDFW or identified in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) as important to

maintaining connectivity between communities, habitat patches, and species populations or identified in the SJMSCP 2019 Annual Report as preserve areas. The nearest wildlife movement corridor identified by the CDFW is approximately 670 acres in the City of Lathrop, approximately 1.9 miles west of the Planning Area.

While no wildlife movement corridors have been identified within the Planning Area, a portion of the Planning Area is adjacent to the San Joaquin River, which the SJMSCP identifies as a wildlife corridor due to its riparian habitat. To preserve the San Joaquin River Wildlife Corridor, the SJMSCP requires developments to be situated so as to maintain a 1,200-foot corridor encompassing 600 feet from the mean high water mark of the San Joaquin River, on both sides of the river, from Stewart Tract to the Stanislaus/San Joaquin County line. Additionally, for the area on the east side of the river bordering lands in the Lathrop and Manteca planned land use areas as indicated on the SJMSCP Planned Land Use Map, the SJMSCP indicates that final setbacks shall be established after the completion of surveys for the riparian brush rabbit.

Native Nursery Sites

Native Nursery Sites refer to areas in which members of the same species collectively breed and rear offspring in substantial numbers. There are multiple native nursery sites in the vicinity of the Planning Area due to the riparian woodland communities that have developed along the four main rivers in San Joaquin County, including the Mokelumne, San Joaquin, Calaveras, and Stanislaus rivers.

The closest native nursery site to the Planning Area is a known riparian brush rabbit population near Stewart Tract and Lathrop[1]. To protect this federally endangered riparian brush rabbit population, the San Joaquin River Oxbow Preserve was established in 2004 by Union Pacific Homes as mitigation for their development in Lathrop (USFWS, November 2012). This 30-acre riparian forest preserve is located adjacent to the San Joaquin River within Lathrop in San Joaquin County. As shown in Figure 3.4-1 and noted in Table 3.4-1, approximately 80-acres of Valley Foothill Riparian habitat exists in the southwest corner of the Planning Area outside of the City limits adjacent to the San Joaquin River. Given the habitats close proximity to the known native nursery site across the river, there is potential for riparian brush rabbit to utilize this riparian habitat within the Planning Area as a nursery site.

In addition, fish use the rivers in San Joaquin County for spawning, rearing, and migration. As previously stated, the San Joaquin River runs adjacent to the southwest corner of the Planning Area. Salmon and steelhead trout are anadromous fish species that are present in the Bay Delta and San Joaquin and Sacramento River Basins. Anadromous fish are born in freshwater rivers and streams, and then migrate to the Pacific Ocean to grow and mature before returning to their place of origin to spawn. The San Joaquin and Sacramento River system produces most of the Chinook salmon (*Oncorhynchus tshawytscha*) and a large percentage of the steelhead trout (*Oncorhynchus mykiss*) in California.

[1] USFWS. November 2012. *Proposed Expansion San Joaquin River National Wildlife Refuge [pg. 53]*

TABLE 3.4-2: SPECIAL-STATUS PLANT SPECIES PRESENT OR POTENTIALLY PRESENT (APPROXIMATELY ONE MILE)

SPECIES	*STATUS (FED./CA/ CNPS/SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT AND BLOOMING PERIOD*
Delta button-celery *Eryngium racemosum*	--/E/1B.1/Yes	San Joaquin River delta floodplains and adjacent Sierra Nevada foothills: Calaveras, Merced, San Joaquin, and Stanislaus Counties	Riparian scrub, seasonally inundated depressions along floodplains on clay soils; below 75 m. June-August
Wright's trichocoronis *Trichocoronis wrightii var. wrightii*	--/--/2.1/Yes	Scattered locations in the Central Valley; southern coast of Texas	Floodplains, moist places, on alkaline soils; below 450 m. May-September

SOURCE: CDFW CNDDB 2020

NOTES: CNPS = CALIFORNIA NATIVE PLANT SOCIETY
SJMSCP = SAN JOAQUIN MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

FEDERAL
E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

STATE
E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL CALIFORNIA ENDANGERED SPECIES ACT.
R = RARE UNDER THE CALIFORNIA ENDANGERED SPECIES ACT

CALIFORNIA NATIVE PLANT SOCIETY
1B = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE.
2 = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE.
3 = A REVIEW LIST – PLANTS ABOUT WHICH MORE INFORMATION IS NEEDED.
4 = PLANTS OF LIMITED DISTRIBUTION – A WATCH LIST
.1 = SERIOUSLY ENDANGERED IN CALIFORNIA (OVER 80% OF OCCURRENCES THREATENED-HIGH DEGREE AND IMMEDIACY OF THREAT).
.2 = FAIRLY ENDANGERED IN CALIFORNIA (20-80% OCCURRENCES THREATENED).
.3= NOT VERY ENDANGERED IN CALIFORNIA (<20% OF OCCURRENCES THREATENED)

TABLE 3.4-3: SPECIAL STATUS PLANTS PRESENT OR POTENTIALLY PRESENT (APPROXIMATELY 15 MILES)

SPECIES	*STATUS (FED./CA/ CNPS/SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT AND BLOOMING PERIOD*
Large-flowered fiddleneck *Amsinckia grandiflora*	E/E/1B.1/Yes	Native to California found in Contra Costa, Alameda, and San Joaquin Counties	Found in grasslands; it grows on sedimentary loam in mesic areas of its range. April - May
Alkali milk-vetch *Astragalus tener var. tener*	--/--/1B.2/Yes	Eastern San Francisco Bay region, the Delta, and western San Joaquin Valley south to the lower Salinas and San Benito valleys	Grassy alkaline flats and vernally moist meadows at elevations below 500 ft. March-June
Heartscale *Atriplex cordulata var. cordulata*	--/--/1B.2/Yes	Central Valley and interior valleys of the Coast Range from Butte to Kern counties	Saline or alkaline sandy soils in grassland or saltbush scrub. March-October
Lesser saltscale *Atriplex minuscula*	--/--/1B.2/No	Scattered locations in the Central Valley in Alameda, Butte, Fresno, Kings, Kern, Madera, Merced, Stanislaus, Tulare counties	Alkaline, sandy soils. Chenopod scrub, playas, valley and foothill grassland. May-October
Big tarplant *Blepharizonia plumosa*	--/--/1B.1/No	San Francisco Bay area with occurrences in Alameda, Contra Costa, San Joaquin, Stanislaus, and Solano Counties	Valley and foothill grassland; 30-505 m. July-October
Watershield *Brasenia schreberi*	--/--/2B.3/No	Central Valley of California and western North America	Freshwater Marshes and swamps. June-September
Bristly sedge *Carex Comosa*	--/--/2B.1/Yes	Scattered occurrences throughout California, including the inner North Coast Ranges, Klamath Ranges, High Cascade Range, San Francisco Bay area, Sacramento valley, San Joaquin valley, Central coast, San Bernardino Mountains, Warner Mountains, and Modoc Plateau. Outside of California: British Columbia and eastern North America.	Plants are indigenous to swamps, seeps, freshwater tidal marshes, bogs, pond and lake margins, wet meadows and ditches. July - August
Palmate-bracted salty bird's beak *Chloropyron palamtum*	E/E/1B.1/No	Scattered locations in Fresno and Madera counties in the San Joaquin Valley, San Joaquin, Yolo, and Colusa counties in the Sacramento Valley, and the Livermore Valley area of Alameda County.	Saline-alkaline soils in seasonally flooded lowland plains and basins at elevations of less than 500 feet. May-October
Slough thistle *Cirsium crassicaule*	--/--/1B.1/Yes	San Joaquin Valley: Kings, Kern, and San Joaquin Counties	Freshwater sloughs and marshes; 3-100 m. May-August
Recurved larkspur *Delphinium recurvatum*	--/--/1B.2/Yes	Central Valley from Colusa to Kern Counties	Alkaline soils in saltbush scrub, cismontane woodland, valley and foothill grassland; 3-750 m. March-May
Delta button-celery *Eryngium racemosum*	--/E/1B.1/Yes	San Joaquin River delta floodplains and adjacent Sierra Nevada foothills: Calaveras, Merced, San Joaquin, and Stanislaus Counties	Riparian scrub, seasonally inundated depressions along floodplains on clay soils; below 75 m. June-August

SPECIES	*STATUS (FED./CA/ CNPS/SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT AND BLOOMING PERIOD*
Diamond-petaled California poppy *Eschscholzia rhombipetala*	--/--/1B.1/	Found in Alameda, Contra Costa*, Colusa*, San Joaquin, San Luis Obispo (SLO), Stanislaus* Counties *presumed extirpated	Valley and foothill grassland. Alkaline, clay slopes and flats. 30-625 m. Mar-Apr.
San Joaquin spearscale *Extriplex joaquinana*	--/--/1B.2/No	Delta region, central valley and central coast	Alkaline. Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland. April-October
Woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	--/--/1B.2/Yes	Central Valley of California, as well as populations in eastern North America	All along the waterways of the Delta. June-September
Delta tule pea *Lathyrus jepsonii var. jepsonii*	--/--/1B.2/Yes	Primarily from the water's edge in the brackish and fresh-water portions of the Delta region, there are also records of this species from Fresno, Marin, San Benito, and Santa Clara counties. Within San Joaquin County	Closely associated with the waterways of the Delta. May-July
Mason's lilaeopsis *Lilaeopsis masonii*	--/CR/1B.1/	Sacramento-San Joaquin River Delta and nearby shores of San Francisco Bay.	Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. In brackish or freshwater. 0-10 m. Apr-Nov.
Delta mudwort *Limosella australis*	--/--/2B.1/	Found in Contra Costa County, Sacramento County, San Joaquin County, and Solano County.	Riparian scrub, marshes and swamps. Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with Lilaeopsis masonii. 0-5 m. May-Aug.
Showy golden madia *Madia radiata*	--/--/1B.1/	It is endemic to California, where it is known mostly from the Central Coast Ranges and adjacent edges of the San Francisco Bay Area and Central Valley.	Valley and foothill grassland, cismontane woodland. Mostly on adobe clay in grassland or among shrubs. 75-1220 m. Mar-May.
California alkali grass *Puccinellia simplex*	--/--/1B.2/No	Scattered locations in the Central Valley to Utah	Saline flats, mineral springs. March-May
Sanford's arrowhead *Sagittaria sanfordii*	--/--/1B.2/Yes	Its historic range in California is the Central Valley from Butte County to Fresno County and along the coast from Del Norte County to Ventura County. It is mostly extirpated from the Central Valley due to channel and flow alteration of the major waterways	Shallow, slow moving waters. Although its natural habitat is along streams and rivers, it also is sometimes found along man-made channels. May-October
Suisun Marsh aster *Symphyotrichum lentum*	--/--/1B.2/Yes	Delta region. Primarily the Bouldin Island, Isleton, Holt, Terminous, and Woodward Island quad	Water's edge, in places where water is brackish and there is some tidal influence. May-November
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	--/--/2.1/Yes	Scattered locations in the Central Valley; southern coast of Texas	Floodplains, moist places, on alkaline soils; below 450 m. May-September
Saline clover *Trifolium hydrophilum*	--/--/1B.2/No	Eastern and Northern San Francisco Bay region, the Delta, western San Joaquin Valley, southern San Jose	Marshes and swamps, Valley and foothill grassland (mesic, alkaline), and Vernal pools. April-June

SPECIES	*STATUS (FED./CA/ CNPS/SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT AND BLOOMING PERIOD*
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	--/--/1B.1/Yes	Historically known from the northwest San Joaquin Valley and adjacent Coast Range foothills; currently known from Fresno, Monterey, and San Luis Obispo Counties	Alkaline hills in valley and foothill grassland; below 455 m. March-April
Greene's tuctoria *Tuctoria greenei*	E/R/1B.1/Yes	Historic range is the Central Valley from Shasta to Tulare county, although it is extirpated from several of the southern counties	Large, relatively deep vernal pools, which often are located on low-lying lands suitable for agriculture. May-July

SOURCE: CDFW CNDDB 2020

NOTES: CNPS = CALIFORNIA NATIVE PLANT SOCIETY
SJMSCP = SAN JOAQUIN MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

FEDERAL
E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

STATE
E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL CALIFORNIA ENDANGERED SPECIES ACT.
R = RARE UNDER THE CALIFORNIA ENDANGERED SPECIES ACT

CALIFORNIA NATIVE PLANT SOCIETY
1B = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE.
2 = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE.
3 = A REVIEW LIST – PLANTS ABOUT WHICH MORE INFORMATION IS NEEDED.
4 = PLANTS OF LIMITED DISTRIBUTION – A WATCH LIST
.1 = SERIOUSLY ENDANGERED IN CALIFORNIA (OVER 80% OF OCCURRENCES THREATENED-HIGH DEGREE AND IMMEDIACY OF THREAT).
.2 = FAIRLY ENDANGERED IN CALIFORNIA (20-80% OCCURRENCES THREATENED).
.3= NOT VERY ENDANGERED IN CALIFORNIA (<20% OF OCCURRENCES THREATENED)

TABLE 3.4-4: SPECIAL STATUS ANIMALS PRESENT OR POTENTIALLY PRESENT (APPROXIMATELY ONE MILE)

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*
AMPHIBIANS			
California tiger salamander *Ambystoma californiense (A. tigrinum c.)*	T/SSC/Yes	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County	Small ponds, lakes, or vernal pools in grass-lands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy
BIRDS			
Tricolored blackbird *Agelaius tricolor*	BCC/C (SSC)/Yes	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony
Burrowing owl *Athene cunicularia*	BCC/SSC/Yes	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows
Swainson's hawk *Buteo swainsoni*	BCC/T/Yes	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields
Loggerhead shrike *Lanius lodovicianus*	BCC/SSC/Yes	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches
Yellow-headed blackbird *Xanthocephalus xanthocephalus*	--/SSC/Yes	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds	Nests only where large insects such as odonatan are abundant, nesting timed with maximum emergence of aquatic insects
FISH			
Steelhead – Central Valley DPS *Oncorhynchus mykiss irideus*	T/--/No	Sacramento River and tributary Central Valley rivers	Have the same general habitat requirements as winter and spring-run Chinook salmon
MAMMALS			
Riparian brush rabbit *Sylvilagus bachamani riparius*	E/E/Yes	Limited to San Joaquin County at Caswell State Park near the confluence of the Stanislaus and San Joaquin Rivers and Paradise Cut area on Union Pacific right-of-way lands	Native valley riparian habitats with large clumps of dense shrubs, low-growing vines, and some tall shrubs and trees

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*
INVERTEBRATES			
Western bumble bee *Bombus occidentalis*	--/--/No	Western North America, ranging from the tundra region in Alaska and Yukon south along the west coast to southern British Columbia to central California, Arizona and New Mexico and east into southern Saskatchewan and northwestern Great Plains	Open coniferous, deciduous and mixed-wood forests, wet and dry meadows, montane meadows and prairie grasslands, meadows bordering riparian zones, and along roadsides in taiga adjacent to wooded areas, urban parks, gardens and agricultural areas, subalpine habitats and more isolated natural areas
Moestan blister beetle *Lytta moesta*	--/--/Yes	Distribution of this species is poorly known	Annual grasslands, foothill woodlands or saltbush scrub

SOURCE: CDFW CNDDB 2020

SJMSCP = SAN JOAQUIN MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

STATUS EXPLANATIONS:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PE = PROPOSED FOR ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PT = PROPOSED FOR THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT.
D = DELISTED FROM FEDERAL LISTING STATUS.
BCC = BIRD OF CONSERVATION CONCERN

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE STATE ENDANGERED SPECIES ACT.
FP = FULLY PROTECTED UNDER THE CALIFORNIA FISH AND GAME CODE.
SSC = SPECIES OF SPECIAL CONCERN IN CALIFORNIA.

TABLE 3.4-5: SPECIAL STATUS ANIMALS PRESENT OR POTENTIALLY PRESENT (APPROXIMATELY 15 MILES)

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*
AMPHIBIANS			
California tiger salamander *Ambystoma californiense (A. tigrinum c.)*	T/SSC/Yes	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	Small ponds, lakes, or vernal pools in grass-lands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy.
Foothill yellow-legged frog *Rana Boylii*	--/C (SSC)/	Coast Ranges from northern Oregon, through California, and into Baja California, Mexico as well as in the foothills of the Sierra Nevada and southern Cascade Range in California.	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.
California red-legged frog *Rana draytonii*	FT/SSC/	The California red-legged frog is found in California and extreme northern Baja California, northwestern Mexico. This species now occurs most commonly along the northern and southern Coast Ranges, and in isolated areas in the foothills of the Sierra Nevada mountains.	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.
Western spadefoot *Spea Hammondii*	--/SSC/	Occur throughout the Central Valley of California into northwestern Baja California. In Baja, they are found at least as far south as Mesa de San Carlos.	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.
BIRDS			
Tricolored blackbird *Agelaius tricolor*	BCC/C (SSC)/Yes	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony
Burrowing owl *Athene cunicularia*	BCC/SSC/Yes	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows
Cackling (=Aleutian Canada) goose *Branta hutchinsii*	D/--/Yes	The entire population winters in Butte Sink, then moves to Los Banos, Modesto, the Delta, and East Bay reservoirs; stages near Crescent City during spring before migrating to breeding grounds.	Roosts in large marshes, flooded fields, stock ponds, and reservoirs; forages in pastures, meadows, and harvested grainfields; corn is especially preferred
Swainson's hawk *Buteo swainsoni*	BCC/T/Yes	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	T (BCC)/E/Yes	Nests along the upper Sacramento, lower Feather, south fork of the Kern, Amargosa, Santa Ana, and Colorado Rivers	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak riparian habitats where scrub jays are abundant
White-tailed kite *Elanus leucurus*	--/--/Yes	Gulf Coast in Texas and Mexico and in the valley and coastal regions of central and southern California.	Grasslands, marshes, row crops and alfalfa, where they hover while foraging for rodents and insects
California horned lark *Eremophila alpestris actia*	--/--/Yes	Central Valley and coastal valleys and foothills.	Forage in large groups in open grasslands, nesting in hollows on the ground, and are also regularly found breeding on the Valley floor in suitable habitat.
Merlin *Falco columbarius*	--/--/Yes	Does not nest in California. Rare but widespread winter visitor to the Central Valley and coastal areas	Forages along coastline in open grasslands, savannas, and woodlands. Often forages near lakes and other wetlands
Loggerhead shrike *Lanius lodovicianus*	BCC/SSC/Yes	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches
California black rail *Laterallus jamaicensis coturniculus*	--/T (FP)/	The majority of California Black Rails (>90 percent) are found in the tidal salt marshes of the northern San Francisco Bay region, primarily in San Pablo and Suisun Bays. Smaller populations occur in San Francisco Bay, the Outer Coast of Marin County, freshwater marshes in the foothills of the Sierra Nevada, and in the Colorado River Area	Tidal marshes and freshwater marshes in the western United States and Mexico. California black rails inhabit the drier portions of wetlands. The rails select areas with high stem densities and canopy coverage in shallow water; close to upland vegetation California black rails are also associated with plants of the upland/wetland interface, such as seep willow, arrowweed, saltgrass, and cottonwood.
Song sparrow ("Modesto" population) *Melospiza melodia*	BCC/SSC/Yes	Restricted to California, where it is locally numerous in the Sacramento Valley, Sacramento–San Joaquin River Delta, and northern San Joaquin Valley. Exact boundaries of range uncertain.	Found in emergent freshwater marshes dominated by tules (Scirpus spp.) and cattails (Typha spp.) as well as riparian willow (Salix spp.) thickets. They also nest in riparian forests of Valley Oak (Quercus lobata) with a sufficient understory of blackberry (Rubus spp.), along vegetated irrigation canals and levees, and in recently planted Valley Oak restoration sites.
Least Bell's vireo *Vireo bellii pusillus*	E/E/No	Central Valley of California and other low-elevation river valleys.	Dense brush, mesquite, willow-cottonwood forest, streamside thickets, and scrub oak
Yellow-headed blackbird *Xanthocephalus*	--/SSC/Yes	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds	Nests only where large insects such as odonatan are abundant, nesting timed with maximum emergence of aquatic insects.

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*
FISH			
Delta smelt *Hypomesus transpacificus*	T/T/Yes	Primarily in the Sacramento–San Joaquin Estuary but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay.	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand.
Hardhead *Mylopharodon conocephalus*	--/SSC/No	Tributary streams in the San Joaquin drainage; large tributary streams in the Sacramento River and the main stem	Resides in low to mid-elevation streams and prefer clear, deep pools and runs with slow velocities. They also occur in reservoirs.
Steelhead – Central Valley DPS *Oncorhynchus mykiss irideus*	T/--/No	Sacramento River and tributary Central Valley rivers.	Occurs in well-oxygenated, cool, riverine habitat with water temperatures from 7.8°C to 18°C. Habitat types are riffles, runs, and pools.
Longfin smelt *Spirinchus thaleichthys*	--/SSC/Yes	Occurs in estuaries along the California coast. Adults concentrated in Suisun, San Pablo, and North San Francisco Bays.	Prior to spawning, these fish aggregate in deepwater habitats available in the northern Delta, including, primarily, the channel habitats of Suisun Bay and the Sacramento River. Spawning occurs in fresh water on the San Joaquin River below Medford Island and on the Sacramento River below Rio Vista.
MAMMALS			
Pallid bat *Antrizous pallidus*	--/SSC (FP)/No	Pallid bats range from southern British Columbia through Montana to central Mexico. They occur from the Okanagan valley in British Columbia, south through eastern Washington, Oregon, and California to Baja California Sur, Sonora, Sinaloa, Nayarit, Jalisco, Queretaro, and Nuevo Leon in Mexico. They are found as far east as western Texas, Oklahoma, southern Kansas, southern Wyoming, and southern Idaho.	Mountainous areas, intermontane basins, lowland desert scrub, arid deserts and grasslands. Roosts in rock outcrops, hollow trees, abandoned mines, barns, and attics.
Townsend's big-eared bat *Corynorhinus townsendii*	--/SSC/	Throughout California in a wide variety of habitats	Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.
Western mastiff bat *Eumops perotis californicus*	--/SSC/	Ranges from central Mexico across the southwestern United States (parts of California, southern Nevada, southwestern Arizona, southern New Mexico and western Texas). Significant populations of E. perotis occur in many of the Sierra Nevada river drainages, particularly in the central and southern Sierra, i.e., the Stanislaus, Tuolumne, Merced (North and South Forks), San Joaquin, Kaweah, Tule, and Kern rivers.	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*
Riparian (=San Joaquin Valley) woodrat *Neotoma fuscipes riparius*	E/SSC (FP)/Yes	Historical distribution along the San Joaquin, Stanislaus, and Tuolumne Rivers, and Caswell State Park in San Joaquin, Stanislaus, and Merced Counties; presently limited to San Joaquin County at Caswell State Park and a possible second population near Vernalis	Riparian habitats with dense shrub cover, willow thickets, and an oak overstory
San Joaquin pocket mouse *Perognathus inornatus*	--/--/Yes	Occurs throughout the San Joaquin Valley and in the Salinas Valley	Favors grasslands and scrub habitats with fine textured soils
Riparian brush rabbit *Sylvilagus bachamani riparius*	E/E/Yes	Limited to San Joaquin County at Caswell State Park near the confluence of the Stanislaus and San Joaquin Rivers and Paradise Cut area on Union Pacific right-of-way lands	Native valley riparian habitats with large clumps of dense shrubs, low-growing vines, and some tall shrubs and trees
American badger *Taxidea taxus*	--/SSC/Yes	In California, badgers occur throughout the state except in humid coastal forests of northwestern California in Del Norte and Humboldt Counties	Badgers occur in a wide variety of open, arid habitats but are most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub; the principal habitat requirements for the species appear to be sufficient food (burrowing rodents), friable soils, and relatively open, uncultivated ground
San Joaquin kit fox *Vulpes macrotis mutica*	E/T/Yes	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub
REPTILES			
Northern California legless lizard *Anniella pulchra*	--/SSC/	This lizard is common in suitable habitats in the Coast Ranges from Contra Costa County south to the Mexican border, but only has a spotty occurrence throughout the rest of its range, which includes the San Joaquin Valley to the west slope of the southern Sierra, the Tehachapi Mountains west of the desert and in the mountains of southern California.	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.
California glossy snake *Arizona elegans occidentalis*	--/SSC/	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California.	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*
Western pond turtle *Emys marmorata*	--/SSC	Southern Central Valley (San Joaquin clade), a limited region in Santa Barbara and Ventura counties (Santa Barbara clade), and a region south of the Tehachapi Mountains and west of the Tranverse ranges south to Baja California (Southern clade)	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying
San Joaquin coachwhip *Masticophis flagellum ruddocki*	--/SSC	The San Joaquin coachwhip is endemic to California, ranging from Arbuckle in the Sacramento Valley in Colusa County southward to the Grapevine in the Kern County portion of the San Joaquin Valley and westward into the inner South Coast Ranges.	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.
Coast horned lizard *Phrynosoma blainvillii*	--/SSC	Historically found in California along the Pacific coast from the Baja California border west of the deserts and the Sierra Nevada, north to the Bay Area, and inland as far north as Shasta Reservoir, and south into Baja California.	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.
Giant gartersnake *Thamnophis gigas*	T/T/Yes	Central Valley from the vicinity of Burrel in Fresno County north to near Chico in Butte County; has been extirpated from areas south of Fresno	Sloughs, canals, low gradient streams and freshwater marsh habitats where there is a prey base of small fish and amphibians; they are also found in irrigation ditches and rice fields; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter
INVERTEBRATES			
Sacramento anthicid beetle *Anthicus sacramento*	--/--/No	Found in several locations along the Sacramento and San Joaquin rivers, from Shasta to San Joaquin counties, and at one site along the Feather River	Sand dune area, sand slipfaces among bamboo and willow, but may not depend on these plants.
Obscure bumble bee *Bombus caliginosus*	--/--/No	Coast ranges from southern British Columbia and northern Washington to southern California, with scattered records from the east side of California's Central Valley	Open grassy coastal prairies and coast range meadows
Crotch bumble bee *Bombus crotchii*	--/--/No	Central California south to Baja California del Norte, Mexico, and includes coastal areas east to the edges of the deserts and the Central Valley	Open grassland and scrub
Western bumble bee *Bombus occidentalis*	--/--/No	Western North America, ranging from the tundra region in Alaska and Yukon south along the west coast to southern British Columbia to central California, Arizona and New Mexico and east into southern Saskatchewan and northwestern Great Plains	Open coniferous, deciduous and mixed-wood forests, wet and dry meadows, montane meadows and prairie grasslands, meadows bordering riparian zones, and along roadsides in taiga adjacent to wooded areas, urban parks, gardens and agricultural areas, subalpine habitats and more isolated natural areas

SPECIES	*STATUS (FED/CA/ SJMSCP)*	*GEOGRAPHIC DISTRIBUTION*	*HABITAT REQUIREMENTS*
Conservancy fairy shrimp *Branchinecta conservatio*	E/--/Yes	Sacramento Valley and the northern San Joaquin Valley, and the eastern flank of the central coastal range	Large to very large vernal pools and vernal lakes although they also have been found in alkaline pools
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/--/Yes	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; they are also found in sandstone rock outcrop pools
Midvalley fairy shrimp *Branchinecta mesovallensis*	--/--/	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County.	Vernal pools or other seasonal wetlands
Valley elderberry Longhorn beetle *Desmocerus californicus dimorphus*	T/--/Yes	Stream side habitats below 3,000 feet throughout the Central Valley	Stream side habitats below 3,000 feet throughout the Central Valley
Vernal pool tadpole shrimp Lepidurus packardi	E/--/Yes	Shasta County south to Merced County	Vernal pools and ephemeral stock ponds
California linderiella *Linderiella occidentalis*	--/--/No	Ranges from near Redding in the north to as far south as Fresno County, mainly to the east of the Sacramento and San Joaquin Rivers	Natural, and artificial, seasonally ponded habitat types including: vernal pools, swales, ephemeral drainages, stock ponds, reservoirs, ditches, backhoe pits, and ruts caused by vehicular activities
Moestan blister beetle *Lytta moesta*	--/--/Yes	Distribution of this species is poorly known	Annual grasslands, foothill woodlands or saltbush scrub

SOURCE: CDFW CNDDB 2020

SJMSCP = SAN JOAQUIN MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN
STATUS EXPLANATIONS:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PE = PROPOSED FOR ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
PT = PROPOSED FOR THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT.
D = DELISTED FROM FEDERAL LISTING STATUS.
BCC = BIRD OF CONSERVATION CONCERN

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
T = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.
C = CANDIDATE SPECIES FOR LISTING UNDER THE STATE ENDANGERED SPECIES ACT.
FP = FULLY PROTECTED UNDER THE CALIFORNIA FISH AND GAME CODE.
SSC = SPECIES OF SPECIAL CONCERN IN CALIFORNIA.

3.4.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the natural resources of the State and nation including the CDFW, the USFWS, the USACE, and the National Marine Fisheries Service (NMFS). These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. The following is an overview of the Federal, State, and local regulations that are applicable to implementing the General Plan.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act, passed in 1973, defines an endangered species as any species or subspecies that is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Once a species is listed it is fully protected from a "take" unless a take permit is issued by the United States Fish and Wildlife Service. A take is defined as the harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct, including modification of its habitat (16 USC 1532, 50 CFR 17.3). Proposed endangered or threatened species are those species for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Migratory Bird Treaty Act

To kill, posses, or trade a migratory bird, bird part, nest, or egg is a violation of the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., §703, Supp. I, 1989), unless it is in accordance with the regulations that have been set forth by the Secretary of the Interior.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC Section 668) protects these birds from direct take and prohibits the take or commerce of any part of these species. The USFWS administers the act, and reviews Federal agency actions that may affect these species.

Clean Water Act – Section 404

Section 404 of the Clean Water Act (CWA) regulates all discharges of dredged or fill material into waters of the U.S. Discharges of fill material includes the placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §323.2(f)].

Waters of the U.S. include lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows [33 C.F.R. §328.3(a)]. Wetlands are defined as "those areas

that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the USACE as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

The USACE is the agency responsible for administering the permit process for activities that affect waters of the U.S. Executive Order 11990 is a Federal implementation policy, which is intended to result in no net loss of wetlands.

Clean Water Act – Section 401

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the Regional Water Quality Control Board. To obtain the water quality certification, the Regional Water Quality Control Board must indicate that the proposed fill would be consistent with the standards set forth by the State.

Department of Transportation Act - Section 4(f)

Section 4(f) has been part of Federal law since 1966. It was enacted as Section 4(f) of the Department of Transportation (DOT) Act of 1966 and set forth in Title 49 United States Code (U.S.C.), Section 1653(f). In January 1983, as part of an overall recodification of the DOT Act, Section 4(f) was amended and codified in 49 U.S.C. Section 303. This law established policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites as follows:

> *It is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities. The Secretary of Transportation may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of a historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if: a) There is no prudent and feasible alternative to using that land; and b) The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.*

Rivers and Harbors Act of 1899

The Rivers and Harbors Act prohibits the obstruction or alteration of any navigable water of the United States. The Act requires authorization from the USACE for any excavation or deposition of materials into these waters or for any work that could affect the course, location, condition, or capacity of rivers or harbors.

STATE

Fish and Game Code §2050-2097 - California Endangered Species Act

The California Endangered Species Act (CESA) protects certain plant and animal species when they are of special ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats.

CESA was expanded upon the original Native Plant Protection Act and enhanced legal protection for plants. To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species, but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Game Commission.

Fish and Game Code §1900-1913 California Native Plant Protection Act

In 1977 the State Legislature passed the Native Plant Protection Act (NPPA) in recognition of rare and endangered plants of the State. The intent of the law was to preserve, protect, and enhance endangered plants. The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFW 10 days in advance of approving a building site.

Fish and Game Code §3503, 3503.5, 3800 - Predatory Birds

Under the California Fish and Game Code, all predatory birds in the order Falconiformes or Strigiformes in California, generally called “raptors,” are protected. The law indicates that it is unlawful to take, posses, or destroy the nest or eggs of any such bird unless it is in accordance with the code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take. This generally includes construction activities.

Fish and Game Code §1601-1603 – Streambed Alteration

Under the California Fish and Game Code, CDFW has jurisdiction over any proposed activities that would divert or obstruct the natural flow or change the bed, channel, or bank of any lake or stream. Private landowners or project proponents must obtain a “Streambed Alteration Agreement” from CDFW prior to any alteration of a lake bed, stream channel, or their banks. Through this agreement, the CDFW may impose conditions to limit and fully mitigate impacts on fish and wildlife resources.

These agreements are usually initiated through the local CDFW warden and will specify timing and construction conditions, including any mitigation necessary to protect fish and wildlife from impacts of the work.

Public Resources Code § 21000 - California Environmental Quality Act

CEQA identifies that a species that is not listed on the Federal or State endangered species list may be considered rare or endangered if the species meets certain criteria. Under CEQA public agencies must determine if a project would adversely affect a species that is not protected by FESA or CESA. Species that are not listed under FESA or CESA, but are otherwise eligible for listing (i.e., candidate or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFW. Additionally, the California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere. List 3 contains plants where additional information is needed. List 4 contains plants with a limited distribution.

Public Resources Code § 21083.4 - Oak Woodlands Conservation

In 2004, the California legislature enacted SB 1334, which added oak woodland conservation regulations to the Public Resources Code. This new law requires a county to determine whether a project, within its jurisdiction, may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county must require oak woodland mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands. Such mitigation alternatives include: conservation through the use of conservation easements; planting and maintaining an appropriate number of replacement trees; contribution of funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and/or other mitigation measures developed by the county.

California Oak Woodland Conservation Act

The California Legislature passed Assembly Bill 242, known as the California Oak Woodland Conservation Act, in 2001 as a result of widespread changes in land use patterns across the landscape that were fragmenting oak woodland character over extensive areas. The Act created the California Oak Woodland Conservation Program within the Wildlife Conservation Board. The legislation provides funding and incentives to ensure the future viability of California's oak woodland resources by maintaining large scale land holdings or smaller multiple holdings that are not divided into fragmented, nonfunctioning biological units. The Act acknowledged that the conservation of oak woodlands enhances the natural scenic beauty for residents and visitors, increases real property values, promotes ecological balance, provides habitat for over 300 wildlife species, moderates

temperature extremes, reduces soil erosion, sustains water quality, and aids with nutrient cycling, all of which affect and improve the health, safety, and general welfare of the residents of the State.

California Wetlands Conservation Policy

In August 1993, the Governor announced the "California Wetlands Conservation Policy." The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and Federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act provides long-term protection of species and habitats through regional, multi-species planning before the special measures of the CESA become necessary.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to regulate state water quality and protect beneficial uses.

Water Quality Control Plan for the Sacramento-San Joaquin River Basins

The Water Quality Control Plan for the Sacramento-San Joaquin River Basins (Basin Plan), adopted by the CVRWQCB in 1998, identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the Sacramento River and San Joaquin River basins, including the Delta.

State and federal laws mandate the protection of designated “beneficial uses” of water bodies. State law defines beneficial uses as “domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves” (Water Code Section 13050[f]). Additional protected beneficial uses of the San Joaquin River include groundwater recharge and fresh water replenishment.

LOCAL

Manteca Municipal Code

Section 17.48.060 of the Manteca Municipal Code, Landscape Care, Maintenance, and Replacement, provides regulations for the maintenance, pruning, and removal of existing trees. Existing trees over six inches in trunk diameter, measured 4.5 feet above ground level, are required to be protected from construction equipment, grade changes, excavation for utilities, paving, and footers for proposed structures. Section 17.48.060 indicates that the removal of a tree shall be the final recourse in Manteca upon determining that it is infeasible to save the tree by any other method (e.g., pruning, treatment of diseases, fertilizing) and, prior to the removal of any tree, Community Development Director approval is required.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

A Habitat Conservation Plan (HCP) is a federal planning document that is prepared pursuant to Section 10 of the FESA. An approved HCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under FESA during development activities.

A Natural Community Conservation Plan (NCCP) is a state planning document administered by CDFW. An approved NCCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under CESA during growth and development activities.

BACKGROUND

The key purpose of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), is to provide a strategy for balancing the need to conserve Open Space and the need to Convert Open Space to non-Open Space uses while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Federal Endangered Species Act (ESA) or the CESA; providing and maintaining multiple-use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to Project Proponents and society at large.

San Joaquin County's past and future (2001-2051) growth has affected and will continue to affect 97 special status plant, fish and wildlife species in 52 vegetative communities scattered throughout San Joaquin County's 1,400+ square miles and 900,000+ acres, which include 43 percent of the Sacramento-San Joaquin Delta's Primary Zone. The SJMSCP, in accordance with ESA Section 10(a)(1)(B) and CESA Section 2081(b) Incidental Take Permits, provides compensation for the Conversion of Open Space to non-Open Space uses which affect the plant, fish and wildlife species covered by the Plan, hereinafter referred to as "SJMSCP Covered Species". In addition, the SJMSCP provides some compensation to offset the impacts of open space land conversions on non-wildlife

related resources such as recreation, agriculture, scenic values and other beneficial Open Space uses.

The SJMSCP compensates for Conversions of Open Space for the following activities: urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring outside of urban boundaries, levee maintenance undertaken by the San Joaquin Area Flood Control Agency, transportation projects, school expansions, non-federal flood control projects, new parks and trails, maintenance of existing facilities for non-federal irrigation district projects, utility installation, maintenance activities, managing Preserves, and similar public agency projects. These activities will be undertaken by both public and private individuals and agencies throughout San Joaquin County and within the County's incorporated cities of Escalon, Manteca, Lodi, Lathrop, Ripon, Stockton and Tracy. Public agencies including Caltrans (for transportation projects), and the San Joaquin Council of Governments (for transportation projects) also will undertake activities which will be covered by the SJMSCP. In addition, 5,340 acres is allocated for anticipated projects (e.g., annexations, general plan amendments)

The 97 SJMSCP Covered Species include 25 state and/or federally listed species. The SJMSCP Covered Species include 27 plants (6 listed), 4 fish (2 listed), 4 amphibians (1 listed), 4 reptiles (1 listed), 33 birds (7 listed), 15 mammals (3 listed) and 10 invertebrates (5 listed).

IMPLEMENTATION

The SJMSCP is administered by a Joint Powers Authority consisting of members of the San Joaquin County Council of Governments (SJCOG), the CDFW, and the USFWS. Development project applicants are given the option of participating in the SJMSCP as a way to streamline compliance with required local, State and federal laws regarding biological resources, and typically avoid having to approach each agency independently. According to the SJMSCP, adoption and implementation by local planning jurisdictions provides full compensation and mitigation for impacts to plants, fish and wildlife. Adoption and implementation of the SJMSCP also secures compliance pursuant to the state and federal laws such as CEQA, the National Environmental Policy Act (NEPA), the Planning and Zoning Law, the State Subdivision Map Act, the Porter-Cologne Act and the Cortese-Knox Act in regard to species covered under the SJMSCP.

Applicants pay mitigation fees on a per-acre basis, as established by the Joint Powers Authority according to the measures needed to mitigate impacts to the various habitat and biological resources. Different types of land require different levels of mitigation; i.e., one category requires that one acre of a similar land type be preserved for each acre developed, while another type requires that two acres be preserved for each acre developed. The entire County is mapped according to these categories so that land owners, project proponents and project reviewers are easily aware of the applicable SJMSCP fees for the proposed development.

The appropriate fees are collected by the City and remitted to SJCOG for administration. SJCOG uses the funds to preserve open space land of comparable types throughout the County, often coordinating with other private or public land trusts to purchase conservation easements or buy land outright for preservation. Development occurring on land that has been classified under the

SJMSCP as "no-pay" would not be required to pay a fee. This category usually refers to already urbanized land and infill development areas. Although the fees are automatically adjusted on an annual basis, based on the construction cost index, they often cannot keep pace with the rapidly rising land prices in the Central Valley.

3.4.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on biological resources if it will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US 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 sites;
- 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.

IMPACTS AND MITIGATION

Impact 3.4-1: General Plan implementation would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (Less than Significant)

Approval of the General Plan would not directly approve or entitle any development or infrastructure projects. However, implementation of the General Plan and Land Use Map would allow and facilitate future development in Manteca, which could result in adverse impacts to special-status plant and wildlife species, as well as sensitive natural habitat or wildlife movement corridors.

SPECIAL STATUS PLANT SPECIES

The search revealed documented occurrences of two special status plant species within one mile of the Planning Area. The search revealed documented occurrences of 20 special status plant species (including three non-vascular plants) within approximately 15 miles (12 quads) of the Planning Area. Tables 3.4-2 and 3.4-3 provide a list of special-status plant species that are documented within one and 15 miles of the Planning Area, along with their current protective status, geographic distribution, habitat, and blooming period. Figure 3.4-2 illustrates the special status species located within one mile of the Planning Area. Figure 3.4-3 illustrates the special status species located within approximately 15 miles (12 quads) of the Planning Area.

Subsequent development under the proposed General Plan could result in the direct loss of habitat areas associated with these special status plant species, since suitable habitat for these species does occur in the region. Additionally, indirect impacts to special status plant species could occur with implementation of the General Plan. Indirect impacts could include habitat degradation as a result of impacts to water quality.

Special status plant species receive protection from various Federal and State laws and regulations, including FESA and CESA. These regulations generally prohibit the taking of the plant species without a special permit. Additionally, the proposed General Plan includes numerous policies and actions intended to minimize the potential for impacts to special status plant species. These policies and actions are listed below.

SPECIAL STATUS ANIMAL SPECIES

The search revealed documented occurrences of 46 special status animal species within approximately 15 miles of the Planning Area (12 quads). This includes: four amphibian, 13 birds, four fish, eight mammals, six reptile, and 11 invertebrates, including insect species. Of these species, 10 are documented within approximately one mile of the city's SOI. Tables 3.4-4 and 3.4-5 provide a list of the special-status animal species that are documented within approximately one mile and 15 miles (12 quads) of the Planning Area, along with their current protective status, geographic distribution, and habitat. Figure 3.4-2 illustrates the special status species located within the one-mile search area and Figure 3.4-3 illustrates the special status species located within approximately 15 miles (12 quads) of the Planning Area.

While most new development in Manteca that would occur under the proposed General Plan would occur in areas that have been previously developed, subsequent development under the proposed General Plan could result in the direct loss of habitat areas associated with these special status animal species, since suitable habitat for these species does occur in the region and may occur on future development project sites within Manteca. Additionally, indirect impacts to special status animal species could occur with implementation of the General Plan. Indirect impacts could include habitat degradation as a result of impacts to water quality, increased human presence, and the loss of foraging habitat.

Special status animal species receive protection from various Federal and State laws and regulations, including FESA and CESA. These regulations generally prohibit the taking of a species or direct

impact to foraging and breeding habitat without a special permit. Additionally, the proposed General Plan includes numerous policies and actions intended to minimize the potential for impacts to special status animal species. These policies and actions are listed below.

CONCLUSION

Construction and maintenance activities associated with future development projects under the proposed General Plan could result in the direct and indirect loss or indirect disturbance of special status plant or animal species or their habitats that are known to occur, or have potential to occur, in the region. Impacts to special status species or their habitat could result in a substantial reduction in local population size, lowered reproductive success, or habitat fragmentation. Significant impacts on special status species associated with individual subsequent projects could include:

- increased mortality caused by higher numbers of automobiles in new areas of development;
- direct mortality from the collapse of underground burrows, resulting from soil compaction;
- direct mortality resulting from the movement of equipment and vehicles through construction areas;
- direct mortality resulting from removal of trees with active nests;
- direct mortality or loss of suitable habitat resulting from the trimming or removal of obligate host plants;
- direct mortality resulting from fill of wetlands features;
- loss of breeding and foraging habitat resulting from the filling of seasonal or perennial wetlands;
- loss of breeding, foraging, and refuge habitat resulting from the permanent removal of riparian vegetation;
- loss of suitable habitat for vernal pool invertebrates resulting from the destruction or degradation of vernal pools or seasonal wetlands;
- abandoned eggs or young and subsequent nest failure for special status nesting birds, including raptors, and other non-special status migratory birds resulting from construction-related noises;
- loss or disturbance of rookeries and other colonial nests;
- loss of suitable foraging habitat for special status raptor species;
- loss of migration corridors resulting from the construction of permanent structures or features; and
- impacts to fisheries/species associated with waterways.

However, implementation of the General Plan policies and actions listed below would assist in minimizing the potential for impacts. Subsequent development projects will be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of special status plants and animals, including habitat.

The City of Manteca has prepared the General Plan to include numerous policies and actions intended to protect special status plants and animals, including habitat, from adverse effects associated with future development and improvement projects. Specifically, General Plan policies

require City staff to continue to require projects to comply with the requirements of the SJMSCP when reviewing proposed public and private land use changes. The SJMSCP requires applicants to pay mitigation fees on a per-acre basis to mitigate impacts to the various habitat and biological resources within the Planning Area. For project proponents who opt not to participate in the SJMSCP, General Plan actions require project proponents to instead provide site-specific research and ground surveys for proposed development projects that include a detailed inventory of all biological resources onsite and appropriate mitigation measures for avoiding or reducing impact to these biological resources. Additionally, the General Plan requires project proponents to satisfy applicable U.S. ESA, CESA, National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

While future development could impact species habitat, the implementation of the policies and actions described above and listed below, as well as Federal and State regulations, would minimize the potential for impacts. Overall, this impact would be ***less than significant***.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

RC-1.1: Where feasible, protect and enhance surface water resources in creeks, streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat, and vernal pools through sound land use planning, community design, and site planning.

RC-1.6: Encourage and support the conservation of riparian habitat along local creeks and waterways in order to maintain water quality and provide suitable habitat for native fish and plant species.

RC-1.8: Minimize pollution of water resources, including the San Joaquin River, other waterways, and the groundwater basin, from urban runoff, soil erosion, and sedimentation.

RC-6.2: Conserve open space for conservation, recreation, and agricultural uses. Conversion of open space, as described under Policy RC-7.1, to developed residential, commercial, industrial, or other similar types of uses, shall be strongly discouraged. Undeveloped land that is designated for urban uses may be developed if needed to support economic development, improve the City's housing stock and range of housing types, and if the proposed development is consistent with the General Plan Land Use Map.

RC-7.1: Support the continuation of agricultural uses on lands designated for urban use, until urban development is imminent.

RC-7.2: Provide an orderly and phased development pattern, encouraging the development of vacant lands within City boundaries prior to conversion of agricultural lands, so that farmland is not subjected to premature development pressure.

RC-7.3: Encourage permanent agricultural lands surrounding the Planning Area to serve as community separators and continue the agricultural heritage of Manteca.

RC-11.1: Support the long-term viability and success of the natural Delta ecosystems and the continuation of Delta heritage.

RC-11.2: Support efforts to ensure the protection, viability, and restoration of the Delta ecosystem in perpetuity, including implementing local conservation efforts that improve adequate water supply and quality.

RC-11.4: Promote protection of areas for habitat restoration, including remnants of riparian and aquatic habitat, particularly in the Delta.

RC-11.5: Encourage compatibility between agricultural practices and wildlife habitat.

RC-11.6: Preserve and protect the water availability and quality of the Delta for designated beneficial uses and habitat protection.

RC-11.7: Encourage and promote the expansion of floodplains and riparian habitats in levee projects.

RC-8.1: Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

RC-8.2: Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands

RC-8.3: Focus conservation efforts on high priority conservation areas that contain suitable habitat for endangered, threatened, migratory, or special-status species and that can be managed with minimal interference with nearby urban land uses.

RC-8.4: Conserve existing native vegetation, where possible, and integrate regionally native plant species into development and infrastructure projects where appropriate.

RC-8.5: Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats.

RC-8.7: Protect special status species and other species that are sensitive to human activities.

RC-8.9: Encourage the planting of native vegetation on new drainage channels.

RC-8.8: Encourage contiguous habitat areas.

RC-8.10: Continue to support and implement the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (County Habitat Plan).

ACTIONS

RC-1f: Coordinate with the California Department of Fish and Wildlife, San Joaquin County, and local watershed protection groups to identify potentially impacted aquatic habitat within Manteca's Planning Area and to develop riparian management guidelines to be implemented by development, recreation, and other projects adjacent to creeks, streams, and other waterways.

RC-1g: Explore revising Title 17 (Zoning) of the Municipal Code to include standards for the protection of riparian habitat. The standards should include minimum setback requirements, site design standards, and requirements for the ongoing maintenance of creek and riparian habitat on public and private lands.

RC-1h: Conserve, and where feasible, create or restore areas that provide important water quality benefits such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, levees, and drainage canals. Restoration efforts should provide for naturalized hydraulic functioning. Restoration should also promote the growth of riparian vegetation to effectively stabilize banks, screen pollutants from runoff entering the channel, enhance fisheries, and provide other opportunities for natural habitat restoration.

RC-1k: Maintain a buffer area between waterways and urban development to protect water quality and riparian areas.

RC-9a: Continue to require projects to comply with the requirements of the County Habitat Plan when reviewing proposed public and private land use changes.

RC-9b: Require project proponents who opt not to participate in the SJMSCP to:

- *Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.*

- *Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.*

RC-9f: Implement the multiple use of resource areas, where feasible, that includes passive recreational and educational opportunities with the protection of wildlife and vegetation habitat areas.

RC-9h: Utilize existing regulations and procedures, including but not limited to, the Zoning Ordinance and the environmental review process, in order to address impacts to special-status species and conserve sensitive habitats, including wetlands and riparian habitat.

RC-11a: Review all projects affecting areas within the Delta Secondary Zone to ensure they are consistent with the criteria and policies set forth by the Delta Stewardship Council's "Delta Plan".

RC-11b: As applicable, provide opportunities for review of and comment by the Reclamation Districts, the Delta Stewardship Council, Delta Protection Commission, and SWRCB during project review.

RC-11c: Review all projects located within or adjacent to priority habitat restoration areas, and consult the California Department of Fish and Wildlife to ensure that any impacts do not have a significant effect on the opportunity to restore habitat as described in the Delta Plan.

Impact 3.4-2: General Plan implementation would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (Less than Significant)

The CDFW considers sensitive natural communities to have significant biotic value, with species of plants and animals unique to each community. The CNDDB search revealed four sensitive natural communities within 15 miles of Manteca. The sensitive natural communities within 15 miles of Manteca include Elderberry Savanna, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, and Great Valley Valley Oak Riparian Forest. All four of these community types were once more widely distributed throughout California, but have been modified or destroyed by grazing, cultivation, and urban development. Since the remaining examples of these sensitive natural communities are under continuing threat from future development, CDFW considers them "highest inventory priorities" for future conservation. Of these sensitive natural communities documented within 15 miles of Manteca, none are located within one mile of the City limits.

While not always documented as a sensitive natural community in the CNDDB, streams, rivers, wet meadows, and vernal pools are of high concern because they provide unique aquatic habitat for many endemic species, including special status plants, birds, invertebrates, and amphibians. Manteca is located in a bioregion that includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but five percent. Due to Manteca's agricultural history, agricultural irrigation ditches and canals are located in the Planning Area where active agricultural operations are found. A major area of riparian habitat is located on the west and southwest side of the Planning Area along the San Joaquin River. The riparian vegetation along Walthall Slough is contiguous with the southwestern Planning Area boundary. Additionally, seasonal wetland areas, including impounded irrigation runoff, along State Route 120 in the western portion of the Planning Area also support riparian vegetation and associated wildlife. These wetland areas are located within the SJMSCP Natural Lands Habitat Open Space category.

As noted in Table 3.4-1, approximately 112 acres of Valley Foothill Riparian habitat is located within the Planning Area. Over 225 species of birds, mammals, reptiles, and amphibians depend on California's riparian habitats, including the endangered riparian brush rabbit and the endangered riparian woodrat[2]. Development accommodated by the General Plan in or near riparian and habitat areas could result in removal of vegetation or further habitat degradation from pollutants transported by urban runoff, changes in vegetation as a result of changes in land use and management practices, as well as altered site hydrology from the construction of adjacent urban development and roadways. Alterations to the flow, bed, channel, or bank of creeks and streams within the Planning Area would affect the ability of riparian corridors to provide habitat for wildlife

[2] USFWS. November 2012. *Proposed Expansion San Joaquin River National Wildlife Refuge {pg. 1]*

species that utilize them for feeding, cover, and nesting, and thus could result in a loss of riparian habitat function.

The City of Manteca has prepared the General Plan to include numerous policies and actions intended to protect sensitive natural communities, including riparian habitat, from adverse effects associated with future development and improvement projects. As previously stated, the General Plan requires City staff to continue to require projects to comply with the requirements of the SJMSCP, which requires the applicants to pay mitigation fees on a per-acre basis to mitigate impacts to the various habitat and biological resources within the Planning Area. Additionally, the SJMSCP requires developments along both sides of the San Joaquin River to be situated so as to maintain a 1,200-foot corridor encompassing 600 feet from the mean high water mark of the river. Further, for the area on the east side of the river bordering lands in the Lathrop and Manteca planned land use areas as indicated on the SJMSCP Planned Land Use Map, the final setbacks shall be established after the completion of surveys for the riparian brush rabbit. The General Plan also includes a number of policies and actions related to habitat restoration and protection, including riparian and aquatic habitat, particularly in the Delta. For example, RC-9.5 requires new developments in the vicinity of the San Joaquin River and Walthall Slough to be conditioned to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats. Additionally, General Plan Action RC-11c requires City staff to consult the California Department of Fish and Wildlife for projects located within or adjacent to priority habitat restoration areas to ensure that any impacts do not have a significant effect on the opportunity to restore habitat as described in the Delta Plan.

Subsequent development projects will be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of sensitive natural communities, including riparian habitat. Overall, this impact would be ***less than significant***.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

RC-9.1: Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

RC-9.2: Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands

RC-9.3: Focus conservation efforts on high priority conservation areas that contain suitable habitat for endangered, threatened, migratory, or special-status species and that can be managed with minimal interference with nearby urban land uses.

RC-9.5: Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats.

RC-9.8: Encourage contiguous habitat areas.

RC-9.10: Continue to support and implement the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (County Habitat Plan).

ACTIONS

RC-8a: Continue to require projects to comply with the requirements of the County Habitat Plan when reviewing proposed public and private land use changes.

RC-8b: Require project proponents who opt not to participate in the SJMSCP to:

- *Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.*

- *Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.*

RC-8e: Limit the access of pedestrians and bicyclists to wetland areas so that access is compatible with long-term protection of these natural resources.

RC-8g: Where sensitive biological habitats have been identified on or immediately adjacent to a project site, the project shall include appropriate mitigation measures identified by a qualified biologist.

Impact 3.4-3: General Plan implementation would not 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 (Less than Significant)

Streams, rivers, wet meadows, and vernal pools (wetlands and jurisdictional waters) are of high concern because they provide unique aquatic habitat (perennial and ephemeral) for many endemic species, including special status plants, birds, invertebrates, and amphibians. These aquatic habitats oftentimes qualify as protected wetlands or jurisdictional waters and are protected from disturbance through the CWA.

There are no free-running streams or natural bodies of water within the Planning Area; however, the San Joaquin River flows along the west and southwest side of the Planning Area boundary. Walthall Slough is a tributary to the San Joaquin River and runs contiguous with the southwestern boundary of the Planning Area. Additionally, Oakwood Lake and Weatherbee Lake are found in the southwest corner of the Planning Area north of and adjacent to the Walthall Slough. The majority of the Study Area has been historically leveled and any naturally occurring drainages have been channelized or otherwise disturbed. Some of the numerous Planning Area irrigation and drainage ditches/canals support riparian vegetation. The irrigation runoff impoundments along State Route 120 on the west side of the Study Area function as seasonal wetlands. If the Corps determines that

the irrigation and drainage ditches/canals, or the irrigation water impoundments on the western edge of the Planning Area represent waters "adjacent" to the San Joaquin River, these features would be regulated pursuant to Section 404. No vernal pools are recorded by the SJMSCP within the Study Area.

Section 404 of the CWA requires any project that involves disturbance to a wetland or water of the U.S. to obtain a permit that authorizes the disturbance. If a wetland or jurisdictional water is determined to be present, then a permit must be obtained from the USACE to authorize a disturbance to the wetland. Although subsequent projects may disturb protected wetlands and/or jurisdictional waters, the regulatory process that is established through Section 404 of the CWA ensures that there is "no net loss" of wetlands or jurisdictional waters. If, through the design process, it is determined that a future development project cannot avoid a wetland or jurisdictional water, then the USACE would require that there be an equal amount of wetland created elsewhere to mitigate any loss of wetland.

The proposed project is a planning document that does not itself approve any specific physical changes to the to the environment, adoption of the proposed project would not directly impact the environment. However, the project could have an indirect change on the physical environment through subsequently approved projects that are consistent with the buildout that is contemplated in the General Plan. The implementation of an individual project would require a detailed and site-specific review of the site to determine the presence or absence of water features. If water features are present and disturbance is required, Federal and State laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these Federal and State laws are implemented through the permit process.

Construction and development activities associated with individual future projects could result in the disturbance or loss of waters of the United States. This includes perennial and intermittent drainages; unnamed drainages; vernal pools; freshwater marshes; and other types of seasonal and perennial wetland communities. Wetlands and other waters of the United States could be affected through direct removal, filling, hydrological interruption (including dewatering), alteration of bed and bank, encroachment, habitat conversion, routine maintenance, and other development-related activities. Impacts on wetlands and other waters could occur through habitat conversion, encroachment, routine maintenance, or other activities in the immediate vicinity of waterways and in habitat supporting wetlands. Indirect impacts could result from adjacent development that leads to habitat modifications such as changes in hydrology and reduction in water quality caused by urban runoff, erosion, and siltation.

Subsequent development projects will be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of sensitive natural communities, including protected wetlands. The City of Manteca has prepared the General Plan to include numerous policies and actions intended to protect wetlands and waters of the U.S. from adverse effects associated with future development and improvement projects. Overall, this impact would be ***less than significant***.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

RC-1.1: Where feasible, protect and enhance surface water resources in creeks, streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat, and vernal pools through sound land use planning, community design, and site planning.

RC-1.4: Encourage the rehabilitation of culverted or open existing channelized waterways to a more natural condition, as feasible, to remove concrete linings and allow for a connection between the stream channel and the natural water table. Avoid creating additional culverted or open channelized waterways, unless no other alternative is available to protect human health, safety, and welfare.

RC-1.5: Where feasible, require development projects adjacent to creeks and streams to include opportunities for beneficial uses, such as flood control, ecological restoration, public access trails, and walkways.

RC-1.6: Encourage and support the conservation of riparian habitat along local creeks and waterways in order to maintain water quality and provide suitable habitat for native fish and plant species.

RC-1.8: Minimize pollution of water resources, including the San Joaquin River, other waterways, and the groundwater basin, from urban runoff, soil erosion, and sedimentation.

RC-7.1: Consider General Plan land use designations that include agriculture, permanent open space, parks and similar uses, as well as waterways (i.e., San Joaquin River, Lower Lone Tree Creek, Middle Lone Tree Creek, Oakwood Lake, Walker Slough, and Walthall Slough), as contributing to the City's open space.

RC-8.1: Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

RC-8.2: Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands

RC-8.5: Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats.

RC-89.10: Continue to support regional efforts to address issues related to urban development, habitat conservation and agricultural protection through participating in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

RC-11.1: Support the long-term viability and success of the natural Delta ecosystems and the continuation of Delta heritage.

RC-11.4: Promote protection of areas for habitat restoration, including remnants of riparian and aquatic habitat, particularly in the Delta.

RC-11.7: Encourage and promote the expansion of floodplains and riparian habitats in levee projects.

ACTIONS

RC-1f: Coordinate with the California Department of Fish and Wildlife, San Joaquin County, and local watershed protection groups to identify potentially impacted aquatic habitat within Manteca's Planning Area and to develop riparian management guidelines to be implemented by development, recreation, and other projects adjacent to creeks, streams, and other waterways.

RC-1h: Conserve, and where feasible, create or restore areas that provide important water quality benefits such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, levees, and drainage canals. Restoration efforts should provide for naturalized hydraulic functioning. Restoration should also promote the growth of riparian vegetation to effectively stabilize banks, screen pollutants from runoff entering the channel, enhance fisheries, and provide other opportunities for natural habitat restoration.

RC-1k: Maintain a buffer area between waterways and urban development to protect water quality and riparian areas.

RC-8c: Until such time that a Clean Water Act regional general permit or its equivalent is issued for coverage under the SJMSCP, acquisition of a Section 404 permit by project proponents will continue to occur as required by existing regulations. Project proponents shall comply with all requirements for protecting federally protected wetlands.

RC-8e: Limit the access of pedestrians and bicyclists to wetland areas so that access is compatible with long-term protection of these natural resources.

RC-8i: Consult with State and Federal agencies during the development review process to help identify wetland and riparian habitat that has candidacy for restoration, conservation, and/or mitigation. Focus restoration and/or conservation efforts on areas that would maximize multiple beneficial uses for such habitat.

RC-11a: Review all projects affecting areas within the Deltas' Secondary Zone to ensure they are consistent with the criteria and policies set forth by the Delta Stewardship Council's "Delta Plan".

RC-11c: Review all projects located within or adjacent to priority habitat restoration areas, and consult the California Department of Fish and Wildlife to ensure that any impacts do not have a significant effect on the opportunity to restore habitat as described in the Delta Plan.

Impact 3.4-4: General Plan implementation would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (Less than Significant)

Habitat loss, fragmentation, and degradation resulting from land use changes or habitat conversion can alter the use and viability of wildlife movement corridors (i.e., linear habitats that naturally connect and provide passage between two or more otherwise disjunct larger habitats or habitat fragments). Wildlife habitat corridors maintain connectivity for daily movement, travel, mate-

seeking, and migration; plant propagation; genetic interchange; population movement in response to environmental change or natural disaster; and recolonization of habitats subject to local extirpation or removal. The suitability of a habitat as a wildlife movement corridor is related to, among other factors, the habitat corridor's dimensions (length and width), topography, vegetation, exposure to human influence, and the species in question.

Species utilize movement corridors in several ways. "Passage species" are those species that use corridors as thru-ways between outlying habitats. The habitat requirements for passage species are generally less than those for corridor dwellers. Passage species use corridors for brief durations, such as for seasonal migrations or movement within a home range. As such, movement corridors do not necessarily have to meet any of the habitat requirements necessary for a passage species everyday survival. "Corridor dwellers" are those species that have limited dispersal capabilities – a category that includes most plants, insects, reptiles, amphibians, small mammals, and birds – and use corridors for a greater length of time.

As noted in Impact 3.4-2, no major watercourse lies within the Planning Area; however, the San Joaquin River flows along the west and southwest side of the Planning Area boundary. Walthall Slough – a tributary to the San Joaquin River – runs contiguous with the southwestern boundary of the Planning Area. Additionally, Oakwood Lake and Weatherbee Lake are found in the southwest corner of the Planning Area north of and adjacent to the Walthall Slough. As shown in the proposed General Plan Land Use Map, Open Space land uses are found adjacent to the Walthall Slough and San Joaquin River in the southwest corner of the Planning Area. The areas designated for urban uses by the proposed Land Use Map near both creeks are generally developed with urban uses currently.

The Planning Area does not currently provide an important connection between any areas of natural habitat that would otherwise be isolated. The Planning Area is not located within any of the ecological or wildlife movement corridors identified by the CDFW or identified in the SJMSCP as important to maintaining connectivity between communities, habitat patches, and species populations or identified in the SJMSCP 2019 Annual Report as preserve areas. However, as previously discussed, a number of wildlife nursery sites exist in the vicinity of the Planning Area, including the San Joaquin River Oxbow Preserve. The San Joaquin River Oxbow Preserve is located adjacent to the San Joaquin River within Lathrop in San Joaquin County, which is a 30-acre riparian forest preserve to established as mitigation to protect the existing riparian brush rabbit population. As discussed in Impact 3.4-2, Valley Foothill Riparian habitat exists in the southwestern corner of the Planning Area in close proximity to the San Joaquin River Oxbow Preserve. Given the close proximity to the known native nursery site across the river, there is a possibility that riparian brush rabbit could utilize the Planning Area's riparian habitat as a nursery site.

Because the proposed project is a planning document and thus, no physical changes will occur to the environment, adoption of the proposed project would not directly impact the environment. However, development of the Planning Area could impede the movement of wildlife by disturbing and/or blocking local movement corridors or by disturbing nursery sites. Many of the species that would normally use annual grasslands and vernal pool complexes as foraging areas would not as easily move across the future urbanized landscapes planned for development. The General Plan

includes areas designated for Agricultural and Open Space uses, including farmlands, creeks, riparian areas, and grasslands, which would become the primary wildlife corridors as the landscape urbanizes. However, there is still a reasonable chance that movement corridors could be impacted throughout the buildout of subsequent individual projects.

Subsequent development projects will be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of movement corridors. The City of Manteca has prepared the General Plan to include policies and actions intended to protect movement corridors from adverse effects associated with future development and improvement projects. For example, the General Plan requires projects located on or immediately adjacent to areas where sensitive biological habitats have been identified to incorporate appropriate mitigation measures identified by a qualified biologist through the preparation of a site-specific technical report. The detailed and site-specific review of the site should include a determination of whether wildlife movement corridors are present or absent on a given project site. If movement corridors are present and disturbance is required, Federal and State laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these Federal and State laws are implemented through the permit process.

Overall, this impact would be ***less than significant***.

GENERAL PLAN POLICIES AND ACTION THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

RC-1.1: Where feasible, protect and enhance surface water resources in creeks, streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat, and vernal pools through sound land use planning, community design, and site planning.

RC-1.5: Where feasible, require development projects adjacent to creeks and streams to include opportunities for beneficial uses, such as flood control, ecological restoration, public access trails, and walkways.

RC-1.6: Encourage and support the conservation of riparian habitat along local creeks and waterways in order to maintain water quality and provide suitable habitat for native fish and plant species.

RC-6.1: Consider General Plan land use designations that include agriculture, permanent open space, parks and similar uses, as well as waterways (i.e., San Joaquin River, Lower Lone Tree Creek, Middle Lone Tree Creek, Oakwood Lake, Walker Slough, and Walthall Slough), as contributing to the City's open space.

RC-8.1: Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

RC-8.2: Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands

RC-8.3: Focus conservation efforts on high priority conservation areas that contain suitable habitat for endangered, threatened, migratory, or special-status species and that can be managed with minimal interference with nearby urban land uses.

RC-8.5: Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats.

RC-8.8: Encourage contiguous habitat areas.

ACTIONS

RC-1h: Conserve, and where feasible, create or restore areas that provide important water quality benefits such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, levees, and drainage canals. Restoration efforts should provide for naturalized hydraulic functioning. Restoration should also promote the growth of riparian vegetation to effectively stabilize banks, screen pollutants from runoff entering the channel, enhance fisheries, and provide other opportunities for natural habitat restoration.

RC-1k: Maintain a buffer area between waterways and urban development to protect water quality and riparian areas.

RC-6e: Review all development proposals within or adjacent to the Sphere of Influence, to ensure adequate preservation of community separators and open space resources.

RC-8a: Continue to require projects to comply with the requirements of the County Habitat Plan when reviewing proposed public and private land use changes.

RC-8b: Require project proponents who opt not to participate in the SJMSCP to:

- *Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.*

- *Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.*

RC-8e:Limit the access of pedestrians and bicyclists to wetland areas so that access is compatible with long-term protection of these natural resources.

RC-8f: Implement the multiple use of resource areas, where feasible, that includes passive recreational and educational opportunities with the protection of wildlife and vegetation habitat areas.

RC-8g: Where sensitive biological habitats have been identified on or immediately adjacent to a project site, the project shall include appropriate mitigation measures identified by a qualified biologist.

RC-8h: Utilize existing regulations and procedures, including but not limited to, the Zoning Ordinance and the environmental review process, in order to address impacts to special-status species and conserve sensitive habitats, including wetlands and riparian habitat.

Impact 3.4-5: The General Plan would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Less than Significant)

The proposed project is a policy document, in which local policies are established. This EIR presents the numerous policies of the General Plan. The General Plan itself does not conflict with its policies. Subsequent development projects will be required to comply with the General Plan policies, as well as the Municipal Code. The General Plan does not contain any provisions that would conflict with local requirements, including Zoning Code Section 17.48.060 which addresses the maintenance and removal of existing trees, that provide for the protection of biological resources. The General Plan provides for the continued implementation of local requirements, including policies and ordinances, related to protection of biological resources. This is a ***less than significant*** impact and no mitigation is required.

Impact 3.4-6: General Plan implementation would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan (Less than Significant)

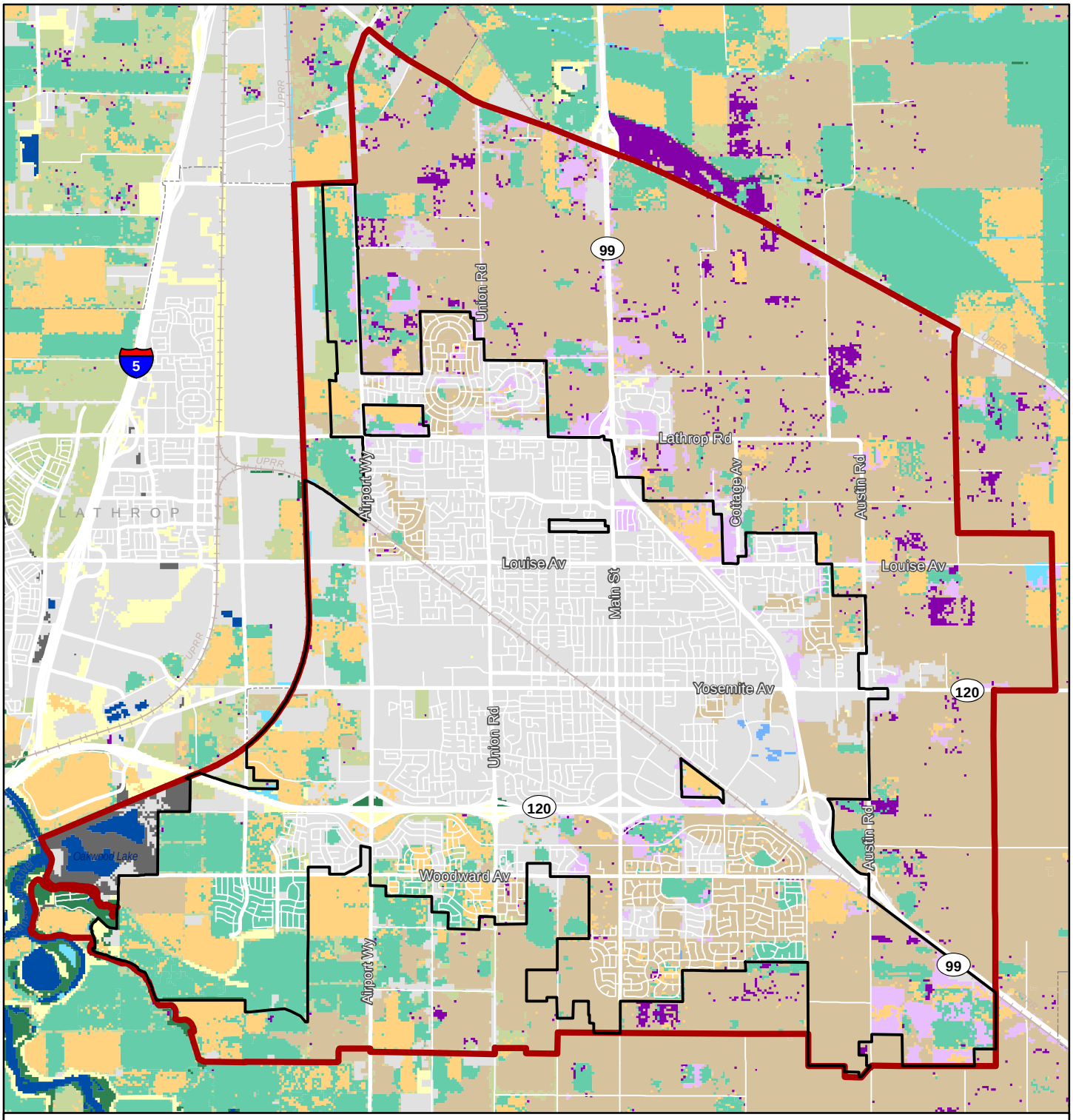
As noted previously, the City of Manteca is a participant in SJMSCP. The SJMSCP was approved in 2000 and the City of Manteca is a signatory to the SJMSCP.

The proposed General Plan Land Use Map does not re-designate any land currently designated for open space or habitat protection. As such, the proposed General Plan and the Land Use Map are consistent with the adopted SHMSCP in terms of land uses and habitat protection. Implementation of the General Plan would not conflict with the provisions of an adopted HCP/NCCP, or other approved local, regional, or State habitat conservation plan.

Future projects that do not comply with the SJMSCP could result in potentially significant impacts, which would be mitigated to a less than significant level through the implementation of Action RC-8a. Action RC-8a from the Resource Conservation Element of the General Plan requires City staff to continue to require projects to comply with the requirements of the SJMSCP when reviewing proposed public and private land use changes. Overall, the General Plan would have a ***less than significant*** impact relative to this topic.

GENERAL PLAN ACTION THAT MINIMIZES THE POTENTIAL FOR IMPACTS

RC-8a: Continue to require projects to comply with the requirements of the County Habitat Plan when reviewing proposed public and private land use changes.



Legend

- City of Manteca
- Manteca Planning Area

Agricultural

- Cropland
- Dryland Grain Crops
- Irrigated Grain Crops, Hayfield, and Row/Field Crops
- Orchard (Deciduous and Evergreen)
- Rice
- Vineyard
- Pasture

Non-Agricultural

- Annual Grassland
- Eucalyptus
- Lacustrine
- Fresh Emergent Wetland
- Riverine
- Valley Foothill Riparian

Other

- Barren
- Urban

CITY OF MANTECA GENERAL PLAN

Figure 3.4-1. Land Cover Types

N

0 ½ 1

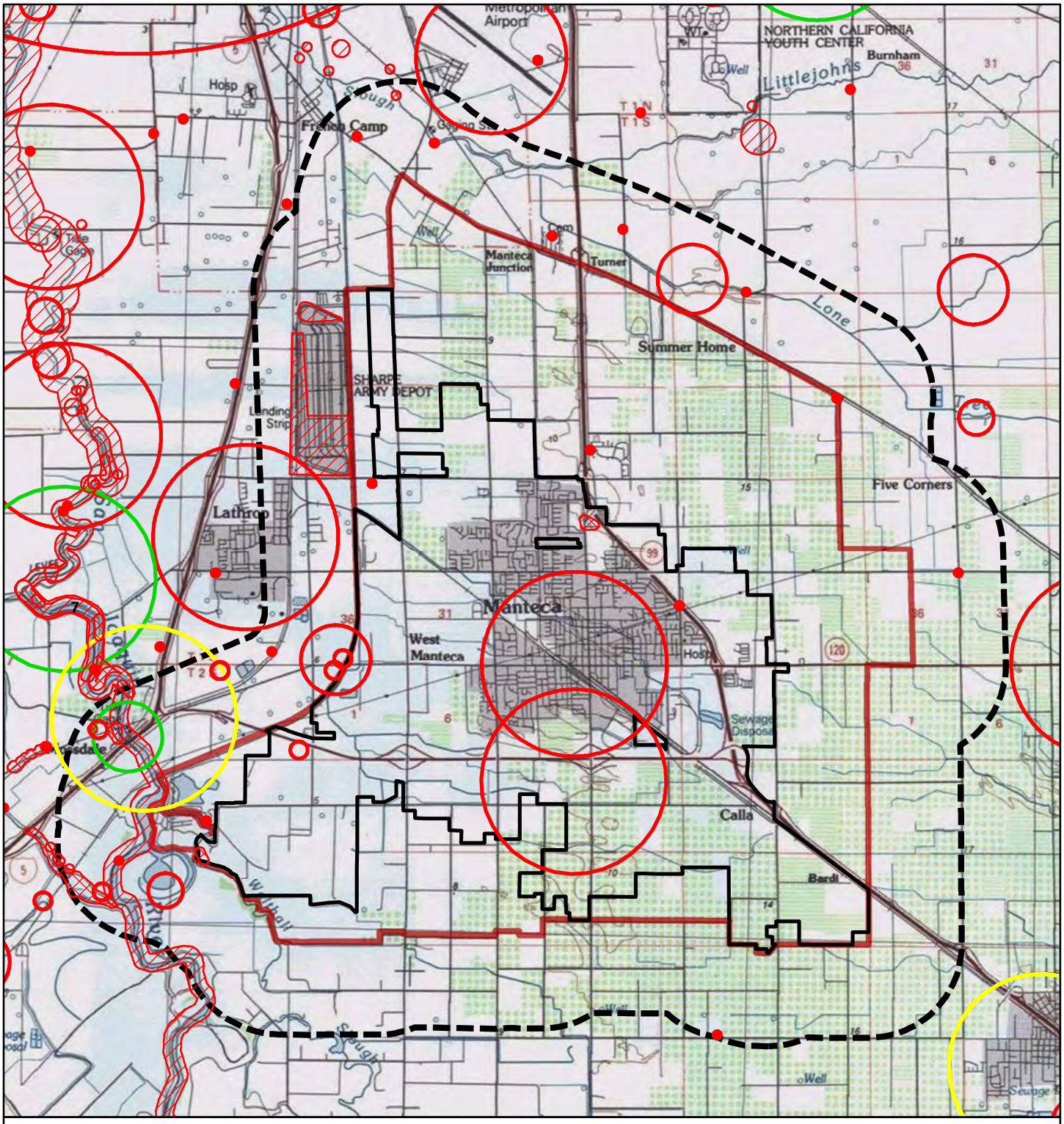
Miles

Sources: City of Manteca; San Joaquin County; CalFire FRAP FVEG15_1, 2015 .Map date: February 1, 2022.

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

This page left intentionally blank.



Legend

- Manteca City Limits
- Planning Area
- 1-mile Search Radius

Species Occurrence

- Plant (circular)
- Animal (specific)
- Animal (circular)
- Animal (80m)
- Animal (non-specific)
- Multiple (circular)

CNDDB version 01/2020. The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area. Basemap: ArcGIS Online Topographic Map Service. Map date: January 7, 2020. Planning Area boundaries revised: August 28, 2022.

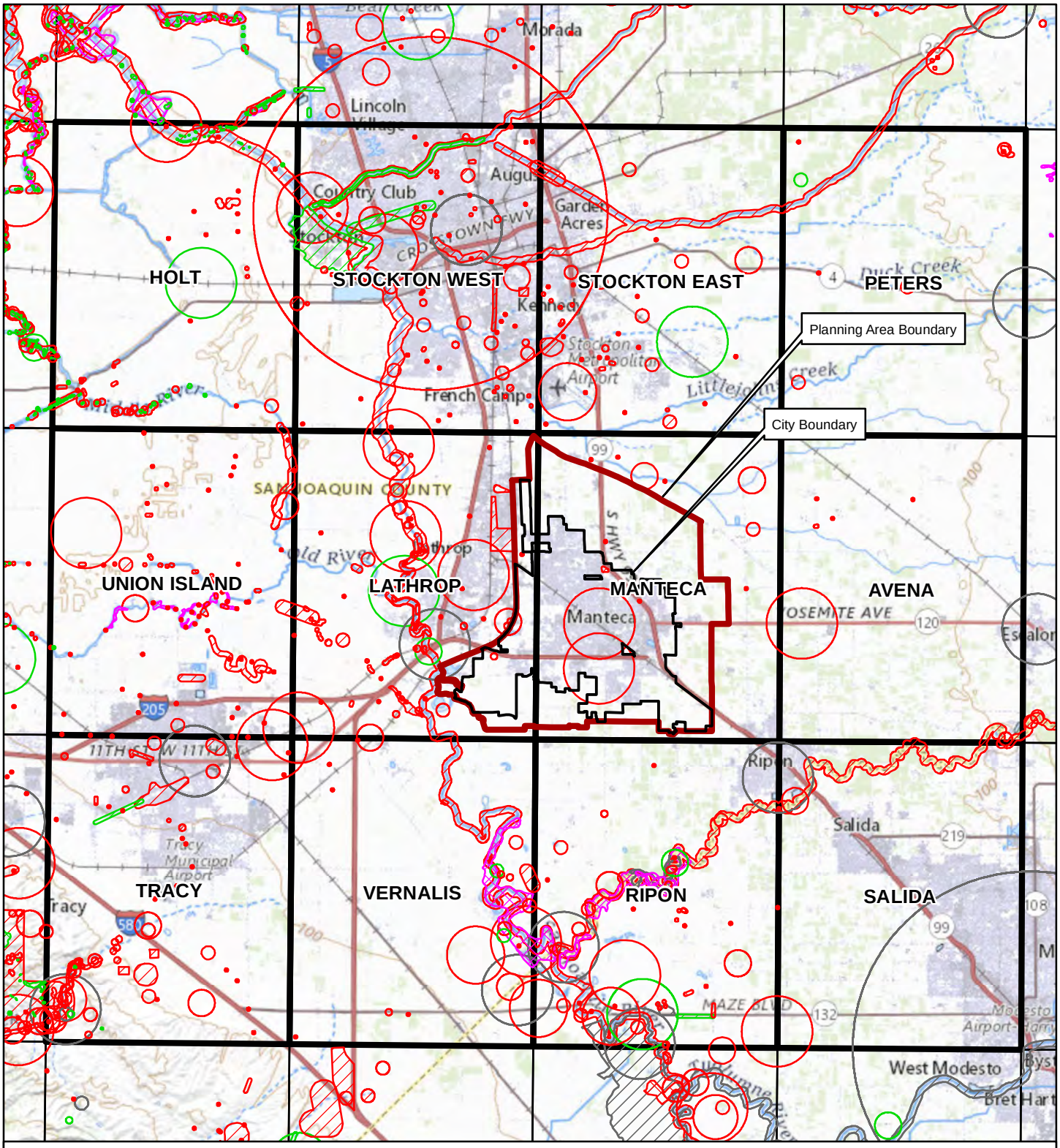
CITY OF MANTECA GENERAL PLAN

Figure 3.4-2. California Natural Diversity Database 1-mile Radius Search

0 ½ 1
Miles

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

This page left intentionally blank.



Special Status Species Occurrences

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (circular)
- Multiple (non-specific)
- Multiple (circular)

** Since the Planning lies within two USGS 7.5' quadrangles, the 9-quad search area has been expanded to 12 quads.*

CNDDB version 01/2020. The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area. Basemap: ArcGIS Online National Map Service. Map date: January 7, 2020. City and Planning Area boundaries revised: August 28, 2022.

CITY OF MANTECA GENERAL PLAN

Figure 3.4-3
California Natural Diversity Database 9-Quad* Search

0 1 2
Miles

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

This page left intentionally blank.

Cultural resources are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance. Preservation of the city's cultural heritage should be considered when planning for the future.

This section evaluates potential impacts of the General Plan Update on cultural resources in the Planning Area, including historic, archaeological, and tribal cultural resources. To provide context for the impact analysis, this section begins by providing a background discussion of the prehistory, ethnology, historical period background, and cultural resources found in Manteca. This section is organized with an existing setting, regulatory setting, and impact analysis. Paleontological resources are discussed in Section 3.6, Geology and Soils, of this Draft EIR.

The City received one comment letter related to this environmental topic during the Notice of Preparation (NOP) comment period. The Native American Heritage Commission (NAHC) submitted a letter, dated January 7, 2020. The comment letter provided an overview of tribal consultation requirements, and provided examples of recommended approaches to reducing potential impacts to cultural and tribal cultural resources. The issues raised in this letter have been addressed in this chapter of the Draft EIR.

3.5.1 ENVIRONMENTAL SETTING

PREHISTORY

The Central Valley region was among the first in the state to attract intensive fieldwork, and research has continued to the present day. This has resulted in a substantial accumulation of data.

In the early decades of the 1900s, E.J. Dawson explored numerous sites near Stockton and Lodi, later collaborating with W.E. Schenck (Schenck and Dawson 1929). By 1933, the focus of work was directed to the Cosumnes locality, where survey and excavation studies were conducted by the Sacramento Junior College (Lillard and Purves 1936). Excavation data, in particular from the stratified Windmiller site (CA-Sac-107), suggested two temporally distinct cultural traditions. Later work at other mounds by Sacramento Junior College and the University of California, Berkeley, enabled the investigators to identify a third cultural tradition, intermediate between the previously postulated Early and Late Horizons. The three-horizon sequence, based on discrete changes in ornamental artifacts and mortuary practices, as well as on observed differences in soils within sites (Lillard, Heizer and Fenenga 1939), was later refined by Beardsley (1954). An expanded definition of artifacts diagnostic of each time period was developed, and its application extended to parts of the central California coast. Traits held in common allow the application of this system within certain limits of time and space to other areas of prehistoric central California.

The Windmiller Culture (Early Horizon) is characterized by ventrally-extended burials (some dorsal extensions are known), with westerly orientation of heads; a high percentage of burials with grave goods; frequent presence of red ocher in graves; large projectile points, of which 60 percent are of materials other than obsidian; rectangular *Haliotis* beads; *Olivella* shell beads (types A1a and L); rare use of bone; some use of baked clay objects; and well-fashioned charmstones, usually perforated.

The Cosumnes Culture (Middle Horizon) displays considerable changes from the preceding cultural expression. The burial mode is predominately flexed, with variable cardinal orientation and some cremations present. There are a lower percentage of burials with grave goods, and ocher staining is common in graves. *Olivella* beads of types C1, F and G predominate, and there is abundant use of green *Haliotis* sp. rather than red *Haliotis* sp. Other characteristic artifacts include perforated and canid teeth; asymmetrical and "fishtail" charmstones, usually unperforated; cobble mortars and evidence of wooden mortars; extensive use of bone for tools and ornaments; large projectile points, with considerable use of rock other than obsidian; and use of baked clay.

Hotchkiss Culture (Late Horizon) -- The burial pattern retains the use of the flexed mode, and there is wide spread evidence of cremation, lesser use of red ocher, heavy sue of baked clay, *Olivella* beads of Types E and M, extensive use of *Haliotis* ornaments of many elaborate shapes and forms, shaped mortars and cylindrical pestles, bird-bone tubes with elaborate geometric designs, clam shell disc beads, small projectile points indicative of the introduction of the bow and arrow, flanged tubular pipes of steatite and schist, and use of magnesite (Moratto 1984:181-183). The characteristics noted are not all-inclusive, but cover the more important traits.

Schulz (1981), in an extensive examination of the central California evidence for the use of acorns, used the terms Early, Middle and Late Complexes, but the traits attributed to them remain generally the same. While it is not altogether clear, Schulz seemingly uses the term “Complex” to refer to the particular archeological entities (above called “Horizons”) as defined in this region. Ragir's (1972) cultures are the same as Schulz's complexes.

Bennyhoff and Hughes (1984) have presented alternative dating schemes for the Central California Archeological Sequence. The primary emphasis is a more elaborate division of the horizons to reflect what is seen as cultural/temporal changes within the three horizons and a compression of the temporal span.

There have been other chronologies proposed, including Fredrickson (1973), and since it is correlated with Bennyhoff's (1977) work, it does merit discussion. The particular archeological cultural entities Fredrickson has defined, based upon the work of Bennyhoff, are patterns, phases and aspects. Bennyhoff's (1977) work in the Plains Miwok area is the best definition of the Cosumnes District, which likely conforms to Fredrickson's pattern. Fredrickson also proposed periods of time associated heavily with economic modes, which provides a temporal term for comparing contemporary cultural entities. It corresponds with Willey and Phillips' (1958) earlier “tradition”, although it is tied more specifically to the archeological record in California.

ETHNOLOGY

The Planning Area lies within the northern portion of the ethnographic territory of the Yokuts people. The Yokuts were members of the Penutian language family which held all of the Central Valley, San Francisco Bay Area, and the Pacific Coast from Marin County to near Point Sur. The Yokuts differed from other ethnographic groups in California as they had true tribal divisions with group names (Kroeber 1925; Latta 1949). Each tribe spoke a particular dialect, common to its members, but similar enough to other Yokuts that they were mutually intelligible (Kroeber 1925).

The Yokuts held portions of the San Joaquin Valley from the Tehachapis in the south to Stockton in the north. On the north, they were bordered by the Plains Miwok, and on the west by the Saclan or Bay Miwok and Costonoan peoples. Although neighbors were often from distinct language families, differences between the people appear to have been more influenced by environmental factors as opposed to linguistic affinities. Thus, the Plains Miwok were more similar to the nearby Yokuts than to foothill members of their own language group. Similarities in cultural inventory co-varied with distance from other groups and proximity to culturally diverse people. The material culture of the southern San Joaquin Yokuts was therefore more closely related to that of their non-Yokuts neighbors than to that of Delta members of their own language group.

Trade was well developed, with mutually beneficial interchange of needed or desired goods. Obsidian, rare in the San Joaquin Valley, was obtained by trade with Paiute and Shoshoni groups on the eastern side of the Sierra Nevada, where numerous sources of this material are located, and to some extent from the Napa Valley to the north. Shell beads, obtained by the Yokuts from coastal people, and acorns, rare in the Great Basin, were among many items exported to the east by Yokuts traders (Davis 1961).

Economic subsistence was based on the acorn, with substantial dependency on gathering and processing of wild seeds and other vegetable foods. The rivers, streams, and sloughs that formed a maze within the valley provided abundant food resources such as fish, shellfish, and turtles. Game, wild fowl, and small mammals were trapped and hunted to provide protein augmentation of the diet. In general, the eastern portion of the San Joaquin Valley provided a lush environment of varied food resources, with the estimated large population centers reflecting this abundance (Cook 1955; Baumhoff 1963).

Settlements were oriented along the water ways, with their village sites normally placed adjacent to these features for their nearby water and food resources. House structures varied in size and shape (Latta 1949; Kroeber 1925), with most constructed from the readily available tules found in the extensive marshes of the low-lying valley areas. The housepit depressions for the structures ranged in diameter from 3 meters to 18 meters (Wallace 1978:470).

HISTORIC PERIOD BACKGROUND

The northern section of the City of Manteca lies on a portion of the Rancho Campo de los Franceses, the ranch named for the early camp first occupied by French-Canadian trappers employed by the Hudson's Bay Company in 1832. The site of the present-day location of French Camp was the terminus of the Oregon Trail used by the trappers between 1832 and 1845. In 1843, William Gulnac, likely one of the trappers who had become a Mexican citizen, with Charles Weber, later founder of Stockton, organized a company of 12 men for the purpose of forming a colony at French Camp. Gulnac filed for a land grant, and was awarded a large tract of land including French Camp and the later site of Stockton by the Mexican government.

The first extensive wheat-growing in the San Joaquin Valley took place on the sand plains in the region between Stockton and Manteca and on the west side of the valley between Tracy and Newman. The wheat growing was due to an initial experiment of John Wheeler Jones, who planted

160 acres to wheat in 1855 which included the central town site of what is now Manteca. He plowed his fields with a walking plow. The famous Stockton gang-plow was reported to be invented near the present site of Manteca (Smith 1960: 221, 243).

When the Visalia Branch of the Central Pacific Railroad (later the Fresno Branch of the Southern Pacific) was completed through the San Joaquin Valley, a shipping point was set up in the region and named Cowell or Cowell Station for Joshua Cowell, who had donated the right of way for the railroad. Maps of the area printed in the early San Joaquin County history shows scattered ranches in the area on large tracts of land (Thompson and West 1879). The town became a supply center for the region.

The station was re-named Manteca in 1904 or 1905 by the Southern Pacific for a local creamery that had taken its name from the Spanish word for "butter" or "lard" (Gudde 1969: 191). Another version of the naming of the town is that the Southern Pacific misprinted the name of the "Monteca" as "Manteca", and would not change the spelling (Hillman and Covello 1985).

After irrigation systems were developed, the large tracts of land formerly cultivated by dry land crops such as grain could be converted to use for orchards, alfalfa, diversified crops and large-scale dairying. Within a short time after the completion of the first irrigation system in the region by the Stanislaus and San Joaquin Water Company, the population of the town grew from 80 to about 500. Further growth occurred with the creation of the South San Joaquin Irrigation District in 1909 and the completion of Goodwin Dam on the Stanislaus River and associated canals in 1913 (Hillman and Covello 1985).

Industries in the area were agricultural in nature for many years, with stockyards, dairy farms, pumpkins and sugar beets being important economically. The Spreckels Sugar Company opened a mill in 1918 that remained an important industry in the region.

The population of Manteca began to grow at a rapid rate in the early 1950s, with the town serving as a bedroom community for industrial plants in San Joaquin County communities. Beginning in the 1970s, improvements to community infrastructure and the attractive pricing of homes brought even more growth (Hillman and Covelo 1985). The pattern of rapid growth continues to this day, with industrial development in the area, as well as many residents commuting daily to the Bay Area.

CULTURAL RESOURCES IN THE MANTECA PLANNING AREA

California Historic Resources Inventory System

Ninety-five cultural resources have been identified within the Planning Area, according to files maintained by the Central California Information Center (CCIC) of the California Historical Resources Information System (CHRIS). The ninety-five recorded cultural resources span both the prehistoric and historic periods and range from a Native American village site to historic period railroads, schools, buildings, and single-family homes (see Table 3.5-1).

TABLE 3.5-1: RESOURCES LISTED WITH THE CENTRAL CALIFORNIA INFORMATION CENTER FILE DIRECTORY

PROPERTY #	*ADDRESS*	*PERIOD/TYPE*	*NAME*
P-39-000002 (CA-SJO-250H)	Not Listed	Historic	Southern Pacific Railroad in San Joaquin County
P-39-000015 (CA-SJO-256H	Not Listed	Historic	Tidewater Southern Railway
P-39-000098 (CA-SJO-292H)	Not Listed	Historic	Western Pacific Railroad / Union Pacific Railroad
P-39-000099	Not Listed	Historic	Canal T and Drainage Canal, South San Joaquin Irrigation District
P-39-000102	Not Listed	Historic	Canal R, South San Joaquin Irrigation District
P-39-000103	Not Listed	Historic	Drainage Ditch, South San Joaquin Irrigation District
P-39-000111	Not Listed	Historic	East Union Cemetery
P-39-000133	Not Listed	Historic	Sharpe Facility Railroad System
P-39-000282 (CA-SJO-165/H)	Not Listed	Prehistoric Historic	Brown Site
P-39-000354 (CA-SJO-241H)	Not Listed	Historic	Permanente Metals Corporation Magnesium Plant
P-39-000394	Not Listed	Historic	Old French Camp Road
P-39-004187	2060 East Yosemite Avenue, Manteca	Historic/Single Family Residence	2060 East Yosemite Avenue
P-39-004188	2137 East Yosemite Avenue, Manteca	Historic/Single Family Residence	2137 East Yosemite Avenue
P-39-004189	2176 East Yosemite Avenue, Manteca	Historic/Single Family Residence	2176 East Yosemite Avenue
P-39-004190	2234 East Yosemite Avenue, Manteca	Historic/Single Family Residence	2234 East Yosemite Avenue
P-39-004191	10853 Austin Road, Manteca	Historic/Single Family Residence	10853 Austin Road
P-39-004192	Not Listed	Historic	Calaveras, Calla, Carnegie, and Castle Schools
P-39-004272	1810 East Yosemite Avenue, Manteca	Historic/Single Family Residence	1810 East Yosemite Avenue
P-39-004273	Not Listed	Historic/Bridge	Bridge 29-0125L and Bridge 29-0125R
P-39-004400	8800 Woodward Avenue, Manteca	Historic/Single Family Residence	8800 Woodward Avenue
P-39-004401	9308 Woodward Avenue, Manteca	Historic/Single Family Residence	9308 Woodward Avenue
P-39-004402	9336 Woodward Avenue, Manteca	Historic/Single Family Residence	9336 Woodward Avenue
P-39-004403	9362 Woodward Avenue, Manteca	Historic/Single Family Residence	9362 Manteca Avenue
P-39-004404	19362 South Austin Road, Manteca	Historic/Single Family Residence	19362 South Austin Road
P-39-004405	19408 South Austin Road, Manteca	Historic/Single Family Residence	19408 South Austin Road
P-39-004406	135 Cottage Avenue, Manteca	Historic/Single Family Residence	135 Cottage Avenue
P-39-004407	2057 East Yosemite Avenue, Manteca	Historic/Single Family Residence	2057 East Yosemite Avenue

PROPERTY #	*ADDRESS*	*PERIOD/TYPE*	*NAME*
P-39-004408	18102 South Austin Road, Manteca	Historic/Single Family Residence	18102 South Austin Road
P-39-004409	18294 South Austin Road, Manteca	Historic/Single Family Residence	18294 South Austin Road
P-39-004410	18352 South Austin Road, Manteca	Historic/Single Family Residence	18352 South Austin Road
P-39-004411	18498 South Austin Road, Manteca	Historic/Single Family Residence	18498 South Austin Road
P-39-004412	18536 South Austin Road, Manteca	Historic/Single Family Residence	18536 South Austin Road
P-39-004413	18566 South Austin Road, Manteca	Historic/Single Family Residence	18566 South Austin Road
P-39-004414	18660 South Austin Road, Manteca	Historic/Single Family Residence	18660 South Austin Road
P-39-004415	18742 South Austin Road, Manteca	Historic/Single Family Residence	18742 South Austin Road
P-39-004416	18816 South Austin Road, Manteca	Historic/Single Family Residence	18816 South Austin Road
P-39-004417	19090 South Austin Road	Historic Ancillary Building	Metal Barn, 19090 South Austin Road
P-39-004494	14580 Airport Way, Manteca	Historic/Single Family Residence	14580 Airport Way
P-39-004495	14745 South Union Road, Manteca	Historic/Farm Ranch	14745 South Union Road
P-39-004496	3833 Lathrop Road, Manteca	Historic/Single Family Residence	3833 Lathrop Road
P-39-004497	3807 Lathrop Road, Manteca	Historic/Single Family Residence	3807 Lathrop Road, Manteca
P-39-004498	14875 South Union Road, Manteca	Historic/Single Family Residence	16875 South Union Road
P-39-004499	4513 Lathrop Road, Manteca	Historic/Public Utility Building	4513 Lathrop Road
P-39-004500	14842 South Union Road, Manteca	Historic/Single Family Residence	14842 South Union Road
P-39-004501	14808 South Union Road, Manteca	Historic/Single Family Residence	14808 South Union Road
P-39-004502	14596 South Union Road, Manteca	Historic/Single Family Residence	14596 South Union Road
P-39-004503	14444 South Union Road, Manteca	Historic/Single Family Residence	14444 South Union Road
P-39-004646 (CA-SJO-316H)	Not Listed	Historic/Road	Historic French Camp Road
P-39-004864 (CA-SJO-319H)	Not Listed	Historic/Refuse Scatter	AR1H
P-39-004865	Not Listed	Historic/Water Conveyance System	AR2H
P-39-004866	Not Listed	Historic/Water Conveyance System	AR4H
P-39-004913	2064 North Union Road, Manteca	Historic/Single Family Residence	2064 North Union Road
P-39-005000	Not Listed	Historic/School	Lincoln School (Manteca)
P-39-005001	Not Listed	Historic/School	Lindberg, Linden Elementary, Linden High Schools
P-39-005002	Not Listed	Historic/School	Tyler (John), Union/East Unions, Valencia Schools

PROPERTY #	*ADDRESS*	*PERIOD/TYPE*	*NAME*
P-39-005004	Not Listed	Historic/School	Manteca Unified School District/Manteca/Yosemite School
P-39-005005	Not Listed	Historic/School	Mandeville/King Island Schools and Manteca High School
P-39-005046	Not Listed	Historic/School	Rustic School
P-39-005082	Not Listed	Historic/Engineering Structure	City of Manteca Municipal Water Tower and Tank
P-39-005086	Not Listed	Historic/Engineering Structure	RD 17 West Levee/Walthal Slough Dry Land Levee
P-39-005090	1110 Stonum Lane, Manteca	Historic/School	Elliot (Brock) School
P-39-005092	Not Listed	Historic/School	Golden West/Grant (Ulysses S.) Schools
P-39-005097	Not Listed	Historic/School	New Haven School
P-39-005098	710 Martha Street, Manteca	Historic/School	Sequoia Elementary School
P-39-005099	Not Listed	Historic/School	Shasta and Sierra Middle School
P-39-005156 (CA-SJO-341H)	19119 McKinley Avenue, Manteca	Historic/Foundation, Refuse Scatter	19119 McKinley Avenue
P-39-005157	18871 McKinley Avenue, Manteca	Historic/Single Family Residence	18871 McKinley Avenue
P-39-005158	Not Listed	Historic/Engineering Structure	Manteca-Vierra, Schulte SW Trans Line
P-39-005159	19020 McKinley Avenue, Manteca	Historic/Single Family Residence	19020 McKinley Avenue
P-39-005160	19160 McKinley Avenue, Manteca	Historic/Single Family Residence	19160 McKinley Avenue
P-39-005161	19365 McKinley Avenue, Manteca	Historic/Single Family Residence	19365 McKinley Avenue, Duvan Kennel
P-39-005162	19465 McKinley Avenue, Manteca	Historic/Single Family Residence	19465 McKinley Avenue
P-39-005163	19589 McKinley Avenue, Manteca	Historic/Single Family Residence	19589 McKinley Avenue
P-39-005164	2693 Bronzan Road, Manteca	Historic/Single Family Residence	2693 Bronzan Road
P-39-005165	2785 Bronzan Road, Manteca	Historic/Single Family Residence	2785 Bronzan Road
P-39-005203	11659 South Highway 99, Manteca	Historic/Single Family Residence	11659 South Highway 99
P-39-005204	11845 South Highway 99, Manteca	Historic/Single Family Residence	11845 South Highway 99
P-39-005205	11879 South Highway 99, Manteca	Historic/Single Family Residence	11879 South Highway 99
P-39-005206	11923 South Highway 99, Manteca	Historic/Single Family Residence	11923 South Highway 99
P-39-005207	14900 Frontage Road, Manteca	Historic/Single Family Residence	14900 Frontage Road
P-39-005208	15051-15053 Frontage Road, Manteca	Historic/Single Family Residence	15051-15053 Frontage Road
P-39-005209	15141 Frontage Road, Manteca	Historic/Single Family Residence	15141 Frontage Road
P-39-005210	15100 Frontage Road, Manteca	Historic/Single Family Residence	15100 Frontage Road
P-39-005211	15230 Frontage Road, Manteca	Historic/Single Family Residence/Farm Ranch	15230 Frontage Road

PROPERTY #	ADDRESS	PERIOD/TYPE	NAME
P-39-005212	15255 Frontage Road, Manteca	Historic/Commercial Building	15255 Frontage Road
P-39-005213	Not Listed	Historic/ Multiple Family Property	Southland Mobile Home Park
P-39-005214	5936 East Lathrop Road, Manteca	Historic/Single Family Residence	5936 East Lathrop Road
P-39-005215	5958 East Lathrop Road, Manteca	Historic/Single Family Residence	5958 East Lathrop Road
P-39-005216	6000, 6000B, 6000C, 6032 East Lathrop Road, Manteca	Historic/Single Family Residence/Commercial Building	6000, 8000B, 6000C, 6032 East Lathrop Road
P-39-005217	6160 East Lathrop Road, Manteca	Historic/Single Family Residence/Farm Ranch	6160 East Lathrop Road
P-39-005218	6404 East Lathrop Road, Manteca	Historic/Single Family Residence/Farm Ranch	6404 East Lathrop Road
P-39-005219	6600 East Lathrop Road, Manteca	Historic/Multiple Family Property	6600 East Lathrop Road
P-39-005220	1848 North Main Street, Manteca	Historic/Single Family Residence	1848 North Main Street
P-39-005221	1850 North Main Street, Manteca	Historic/Single Family Residence/Commercial	Casey's Garage
P-39-005222	Not Listed	Historic/Single Family Residence	Magna Terrace Estates, Unit No. 1

SOURCE: CENTRAL CALIFORNIA INFORMATION CENTER (CCIC) OF THE CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM (CHRIS)

Six additional built resources within the Planning Area are identified in the San Joaquin County Historic Property Data File Directory (see Table 3.5-2).

TABLE 3.5-2: BUILDINGS LISTED ON THE SAN JOAQUIN COUNTY HISTORIC PROPERTY DATA FILE DIRECTORY

PROPERTY #	ADDRESS	YEAR BUILT	NAME
068123	Maple Street, Manteca	Not Listed	Jesse Building
180296	1155 Virginia Street, Manteca	Not Listed	Not Listed
172503	1053 West Lathrop Road, Manteca	Not Listed	Not Listed
069125	West Yosemite Avenue, Manteca	Not Listed	Home Run Hot Dogs
069126	118 West Yosemite Avenue, Manteca	Not Listed	Warren's Shoes
069124	123 West Yosemite Avenue, Manteca	Not Listed	Manteca Drugs

SOURCE: SAN JOAQUIN COUNTY HISTORIC PROPERTY DATA FILE DIRECTORY

There are no properties or districts currently listed on the National Register of Historic Places or California Register of Historic Places within the Planning Area (www.nationalregisterofhistoricplaces.com).

NATIVE AMERICAN CONSULTATION

On May 18, 2017, tribal consultation letters were sent to: The Native American Heritage Commission; Ms. Roselynn Lwenya, Buena Vista Rancheria; Mr. Randy Yonemura, Ione Band of Miwok Indians; Ms. Katherine Erolinda Perez, Northern Valley Yokut Tribe; Mr. Gene Whitehouse, Chairman, United Auburn Indian Community of the Auburn Rancheria; Mr. Michael Mirelez, Torres Martinez Desert Cahuilla Indians; Ms. Rhonda Morningstar Pope, Chairperson, Buena Vista

Rancheria of Me-Wuk Indians; Ms. Crystal Martinez, Chairperson, Ione Band of Miwok Indians; Ms. Lois Martinez, Chairperson, Southern Sierra Miwuk Nation; Mr. Raymond Hitchcock, Chairperson, Wilton Rancheria; and, California Valley Miwok Tribe. The NAHC responded with a letter dated May 15, 2017. The NAHC response indicated that a search of the Sacred Lands File (SLF) was completed with positive results and that the Ione Band of Miwok Indians should be contacted for more information about the sacred sites in the Planning Area. Mr. Robert Columbro, Tribal Historic Preservation Officer, Buena Vista Rancheria of Me-Wuk Indians responded with a letter dated May 22, 2017 stating that the Rancheria respectively declined to become involved in consultation. The Wilton Rancheria responded by letter dated June 16, 2017 requesting formal consultation with the City of Manteca.

3.5.2 REGULATORY SETTING

FEDERAL

National Historic Preservation Act

Most regulations at the Federal level stem from the National Environmental Policy Act (NEPA) and historic preservation legislation such as the National Historic Preservation Act (NHPA) of 1966, as amended. 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 NEPA requirements concerning cultural resources. Provisions of NHPA establish a National Register of Historic Places (The National Register) maintained by the National Park Service, the Advisory Councils on Historic Preservation, State Historic Preservation Offices, and grants-in-aid programs.

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

a. That are associated with events that have made a significant contribution to the broad patterns of our history; or
b. That are associated with the lives of significant persons in or past; or
c. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
d. That have yielded or may be likely to yield, information important in history or prehistory.

American Indian Religious Freedom Act and Native American Graves and Repatriation Act

The American Indian Religious Freedom Act recognizes that Native American religious practices, sacred sites, and sacred objects have not been properly protected under other statutes. It establishes as national policy that traditional practices and beliefs, sites (including right of access), and the use of sacred objects shall be protected and preserved. Additionally, Native American remains are protected by the Native American Graves and Repatriation Act of 1990.

Other Federal Legislation

Historic preservation legislation was initiated by the Antiquities Act of 1966, which aimed to protect important historic and archaeological sites. It established a system of permits for conducting archaeological studies on federal land, as well as setting penalties for noncompliance. This permit process controls the disturbance of archaeological sites on federal land. New permits are currently issued under the Archaeological Resources Protection Act (ARPA) of 1979. The purpose of ARPA is to enhance preservation and protection of archaeological resources on public and Native American lands. The Historic Sites Act of 1935 declared that it is national policy to "Preserve for public use historic sites, buildings, and objects of national significance."

STATE

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 documents prepared pursuant to the California Environmental Quality Act (CEQA). 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.

The criteria for listing in the National Register follow established guidelines for determining the significance of properties. The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
B. That are associated with the lives of persons significant in our past; or
C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded, or may be likely to yield, information important in prehistory or history.

California Environmental Quality Act (CEQA)

CEQA requires that lead agencies determine whether projects may have a significant effect on archaeological and historical resources. This determination applies to those resources which meet significance criteria qualifying them as "unique," "important," listed on the California Register of Historical Resources (CRHR), or eligible for listing on the CRHR. If the agency determines that a project may have a significant effect on a significant resource, the project is determined to have a significant effect on the environment, and these effects must be addressed. If a cultural resource is found not to be significant under the qualifying criteria, it need not be considered further in the planning process.

CEQA emphasizes avoidance of archaeological and historical resources as the preferred means of reducing potential significant environmental effects resulting from projects. If avoidance is not feasible, an excavation program or some other form of mitigation must be developed to mitigate the impacts. In order to adequately address the level of potential impacts, and thereby design appropriate mitigation measures, the significance and nature of the cultural resources must be determined. The following are steps typically taken to assess and mitigate potential impacts to cultural resources for the purposes of CEQA:

- identify cultural resources;
- evaluate the significance of the cultural resources found;
- evaluate the effects of the project on cultural resources; and
- develop and implement measures to mitigate the effects of the project on cultural resources that would be significantly affected.

In 2015, CEQA was amended to require lead agencies to determine whether projects may have a significant effect on tribal cultural resources. (Public Resources Code [PRC] § 21084.2). To qualify as a tribal cultural resource, the resource must be a site, feature, place, cultural landscape, sacred place, or object, which is of cultural value to a California Native American Tribe and is listed, or eligible for listing, on the national, state, or local register of historic resources. (PPRC § 21074). Lead agencies may also use their discretion to treat any notable resource as a tribal cultural resource. To determine whether a project may have an impact on a resource, the lead agency is required to consult with any California Native American tribe that requests consultation and is affiliated with the geographic area of a proposed project (PRC § 21080.3.1). CEQA requires that a lead agency consider the value of the cultural resource to the tribe and consider measures to mitigate any adverse impact.

California Public Resources Code

Section 5097 of the Public Resources Code specifies the procedures to be followed in the event of the unexpected discovery of historic, archaeological, and paleontological resources, including human remains, historic or prehistoric resources, paleontological resources on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the California NAHC. Section 5097.5 of the Code states the following:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

California Health and Safety Code

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. CEQA Guidelines (Section 15064.5) 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 Native American Heritage Commission.

Senate Bill 18 (Burton, Chapter 905, Statutes 2004)

SB 18, authored by Senator John Burton and signed into law by Governor Arnold Schwarzenegger in September 2004, requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. This legislation, which amended §65040.2, §65092, §65351, §65352, and §65560, and added §65352.3, §653524, and §65562.5 to the Government Code, also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. The intent of SB 18 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. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Assembly Bill 978

In 2001, Assembly Bill (AB) 978 expanded the reach of Native American Graves Protection and Repatriation Act of 1990 and established a State commission with statutory powers to assure that Federal and State laws regarding the repatriation of Native American human remains and items of patrimony are fully complied with. In addition, AB 978 also included non-Federally recognized tribes for repatriation.

Assembly Bill 52

Assembly Bill (AB) 52, approved in September 2014, creates a formal role for California Native American tribes by creating a formal consultation process and establishing that a substantial adverse change to a tribal cultural resource has a significant effect on the environment. Tribal cultural resources are defined as:

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 CRHR
    B) Included in a local register of historical resources as defined in PRC Section 5020.1(k)
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 PRC Section 5024.1 (c). In applying the criteria set forth in PRC Section 5024.1 (c) the lead agency shall consider the significance of the resource to a California Native American tribe.

A cultural landscape that meets the criteria above is also a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. In addition, a historical resource described in PRC Section 21084.1, a unique archaeological resource as defined in PRC Section 21083.2(g), or a "non-unique archaeological resource" as defined in PRC Section 21083.2(h) may also be a tribal cultural resource if it conforms with above criteria.

AB 52 requires a lead agency, prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, to begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if: (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

3.5.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project is considered to have a significant impact on cultural or tribal cultural resources if it will:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries;
- 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:
    - 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);
    - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in

subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.

IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: General Plan implementation would not cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to Section 15064.5 (Less than Significant)

A substantial adverse change in the significance of an historic resource is defined in Section 15064.5 (b)(1) of the CEQA Guidelines as the "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." Known historic and prehistoric resource sites are located throughout the Planning Area, as shown in Tables 3.5-1 and 3.5-2, and it is expected that additional undiscovered sites may be located in various areas of the city as well.

The City of Manteca currently has 95 previously recorded archaeological sites (1 prehistoric archaeological sites and 94 historic archaeological sites) identified by the CCIC, and six built historic resources within the Planning Area identified by the San Joaquin County Historic Property Data File Directory. Additionally, as noted in General Plan Policy RC-10.1, the areas immediately surrounding the San Joaquin River and Walthall Slough, as well as on the east side of State Highway 99 and Louise Avenue crossing are known to have the potential for archaeological resources. Some of the land in these aforementioned areas are currently developed with residential and other uses. Land near the San Joaquin River and Walthall Slough are designated Low Density Residential/ Medium Density Residential, and Public/Quasi-Public by the proposed Land Use Map. Land on the east side of State Highway 99 and Louise Avenue crossing is designated Low Density Residential/ Medium Density Residential, Public/Quasi-Public, Park, and Open Space by the proposed Land Use Map.

While the General Plan does not directly propose any adverse changes to any historic or archaeological resources, future development allowed under the General Plan could affect known historical and archaeological resources or unknown historical and archaeological resources which have not yet been identified. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the City's General Plan, Municipal Code, and other applicable State and local regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. The General Plan includes policies and actions that would reduce impacts to cultural, historic, and archaeological resources, as well as policies and actions for the conservation of cultural, historic, and archaeological resources. Specifically, General Plan policies require the City to protect Manteca's Native American heritage by requiring projects to comply with the requirements of CEQA and the National Historic Preservation Act. Additionally, General Plan policies require development projects with a potential to impact archeological resources to consult with the CCIC of the California Historical Resources Information System to determine the potential for a

discovery of cultural resources, conduct a site evaluation as may be indicated and, mitigate any adverse impacts according to the recommendation of a qualified archaeologist. In addition, if historic or prehistoric archeological artifacts are discovered during grading or construction activities, all work within 100 feet of the discovery shall cease, the City shall be notified, and a qualified archeologist, paleontologist, or historian shall examine the discovery and recommend appropriate protection and preservation measures. Further, future development in the Planning Area would be required to comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Overall, impacts related to adverse effects on significant historic and archaeological resources would be ***less than significant***.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

RC-10.1 Protect, and support efforts of community members and organizations to protect, important historic resources and use these resources to promote a sense of place and history in Manteca.

RC-10.2: Encourage historic resources to remain in their original use whenever possible. The adaptive use of historic resources is preferred, particularly as museums, educational facilities, or visitor serving uses, when the original use can no longer be sustained. Older residences may be converted to office/retail use in commercial areas and to tourist or business use, so long as their historical authenticity is maintained or enhanced.

RC-10.3: Do not approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendation of a qualified archaeologist. City implementation of this policy shall be guided by CEQA and the National Historic Preservation Act.

RC-10.4: Require that the proponent of any development proposal in an area with potential archaeological resources, and specifically near the San Joaquin River and Walthall Slough, and on the east side of State Highway 99 at the Louise Avenue crossing, shall consult with the California Archaeological Inventory, Stanislaus State University to determine the potential for discovery of cultural resources, conduct a site evaluation as may be indicated, and mitigate any adverse impacts according to the recommendation of a qualified archaeologist. The survey and mitigation shall be developer funded.

RC-10.5: Work with property owners seeking registration of historical structures as Historic Landmarks or listing on the Register of Historic Sites.

RC-10.6: Support the efforts of property owners to preserve and renovate historic and architecturally significant structures. Where such buildings cannot be preserved intact, the City shall seek to preserve the building facades.

RC-10.7: Review new development projects and work in conjunction with the California Historical Resources Information System to determine whether project areas contain known archaeological resources, either prehistoric and/or historic-era, or have the potential for such resources.

ACTIONS

RC-10a: Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, cultural, or paleontological resources and/or to determine the potential for discovery of additional cultural or paleontological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-10b: Require a cultural and archaeological survey prior to approval of any project which would require excavation in an area that is sensitive for cultural or archaeological resources and require a paleontological survey in an area that is sensitive for paleontological resources. If significant cultural, archaeological, or paleontological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as documentation and conservation, to reduce adverse impacts to the resource.

RC-10c: Require all City permits for reconstruction or modification of existing buildings to include the submittal of a photograph of the existing structure or site. The intent is to create a record of the buildings in the City over time. A photograph will also be required for vacant sites that will be modified with new construction of new buildings or other above ground improvements.

RC-10d: Incorporate significant archaeological sites, where feasible, into open space areas.

RC-10e: Continue to inventory historic sites throughout the City. The inventory should contain a narrative of the significant facts regarding the historic events or persons associated with the site, and pictures of the site.

RC-10g: Adopt and implement a historic building code, as authorized by state law.

RC-11h: Adopt and implement a historical preservation ordinance.

RC-11i: Adopt and implement a historic building code, as authorized by state law.

RC-11j: Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources or human remains:

- *If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the Development Services Director shall be notified, the resources shall be examined by a qualified archaeologist, paleontologist, or historian for recommended protection and preservation measures; and work may only resume when recommended protections are in place and have been approved by the Development Services Director; and*
- *If construction or grading activities result in the discovery of significant tribal cultural resources, all work within 100 feet of the discovery shall cease, the Development Services Director shall be notified, the resources shall be examined by a qualified archaeologist and Native American tribes on the City's SB 18 and AB 52 list for recommended protection and preservation measures and work may only resume when recommended protections are in place and have been approved by the Development Services Director; and*
- *If human remains are discovered during any ground disturbing activity, work shall stop until the Development Services Director and the San Joaquin County Coroner have been*

contacted; if the human remains are determined to be of Native American origin, the Native American Heritage Commission and the most likely descendants have been consulted; and work may only resume when measures to relocate or preserve the remains in place, based on the above consultation, have been taken and approved by the Development Services Director.

Impact 3.5-2: General Plan implementation would not lead to the disturbance of any human remains (Less than Significant)

Indications are that humans have occupied San Joaquin County for over 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities allowed under the General Plan may yield human remains that may not be interred in marked, formal burials.

Although Native American human remains are normally associated with former residential village locations, isolated burials and cremations have been found in many other locations. Future projects may disturb or destroy buried Native American human remains, including those interred outside of formal cemeteries. Consistent with state laws protecting these remains (that is, Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98), sites containing Native American human remains must be treated in a sensitive manner.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the City's General Plan, Municipal Code, and other applicable State and local regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Under CEQA, human remains are protected under the definition of archaeological materials as being "any evidence of human activity." Public Resources Code Section 5097 has specific stop-work and notification procedures to follow in the event that Native American human remains are inadvertently discovered during development activities. The General Plan requires that human remains are treated in compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98. Overall, impacts related to human remains would be ***less than significant***.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

RC-10.9: Review new development projects and work in conjunction with the California Historical Resources Information System to determine whether project areas contain known archaeological resources, either prehistoric and/or historic-era, or have the potential for such resources.

RC-10.10: Ensure that human remains are treated with sensitivity and dignity, and ensure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98

RC-10.11: Consistent with State, local, and tribal intergovernmental consultation requirements such as SB 18, consult as necessary with Native American tribes that may be interested in proposed new development and land use policy changes.

ACTIONS

RC-10a: Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, cultural, or paleontological resources and/or to determine the potential for discovery of additional cultural or paleontological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-10j: Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources or human remains:

- *If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the Development Services Director shall be notified, the resources shall be examined by a qualified archaeologist, paleontologist, or historian for recommended protection and preservation measures; and work may only resume when recommended protections are in place and have been approved by the Development Services Director;*
- *If construction or grading activities result in the discovery of significant tribal cultural resources, all work within 100 feet of the discovery shall cease, the Development Services Director shall be notified, the resources shall be examined by a qualified archaeologist and Native American tribes on the City's SB 18 and AB 52 list for recommended protection and preservation measures and work may only resume when recommended protections are in place and have been approved by the Development Services Director; and*
- *If human remains are discovered during any ground disturbing activity, work shall stop until the Development Services Director and the San Joaquin County Coroner have been contacted; if the human remains are determined to be of Native American origin, the Native American Heritage Commission and the most likely descendants have been consulted; and work may only resume when measures to relocate or preserve the remains in place, based on the above consultation, have been taken and approved by the Development Services Director.*

Impact 3.5-3: General Plan implementation would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency (Less than Significant)

A SLF search was requested from the NAHC. The NAHC replied on May 15, 2017, and indicated that a search of the SLF was completed with positive results and that the Ione Band of Miwok Indians should be contacted for more information about the sacred sites in the Planning Area.

The City of Manteca conducted Native American consultations under Senate Bill 18 (Chapter 905, Statutes of 2004), also known as SB18, which requires local governments to consult with Tribes prior to making certain planning decisions and requires consultation and notice for a general and specific plan adoption or amendments in order to preserve, or mitigate impacts to, cultural places that may be affected. In addition to SB18 consultation, the City conducted tribal consultations under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)), also known as AB 52, which requires consulting for projects within the City of Manteca's jurisdiction and within the traditional territory of the Tribal Organizations who have previously requested AB52 consultations with the City. Eleven Tribal Organizations were contacted under AB52 and SB18. Notification letters were sent to all 11 Tribal Organizations on May 18, 2017 via certified mail. To date, two responses have been received and are summarized below.

- On May 22, 2017, Mr. Robert Columbro, Tribal Historic Preservation Officer, of the Buena Vista Rancheria of Me-Wuk Indians responded with a stating that the Rancheria respectively declined to become involved in consultation.
- On June 16, 2017, the Wilton Rancheria responded by letter dated June 16, 2017 requesting formal consultation with the City of Manteca under SB18. The Wilton Rancheria did not identify any specific sacred sites or tribal cultural resources within the City and Planning Area. However, the Wilton Rancheria requested to receive any cultural resource assessments or other assessments that have been completed on all or part of the Planning Area's area of potential affect, including, but not limited to any:
    - Record searches conducted at an Information Center of the CHRIS;
    - Archaeological inventory surveys;
    - Sacred Land Files checks;
    - Ethnographic studies; and
    - Geotechnical reports.

Specific locations for future development and improvements have not been identified. Future projects would be required to be evaluated for project-specific impacts under CEQA at the time of application. The General Plan and local CEQA guidelines require tribal consultation and the protections of any identified archeological and tribal cultural resources.

All future development projects would be required to follow development requirements, including compliance with local policies, ordinances, and applicable permitting procedures related to protection of tribal cultural resources. Subsequent projects would be required to prepare site-specific project-level analysis to fulfill CEQA requirements, which also would include additional AB 52 and/or SB 18 consultation that could lead to the identification of potential site-specific tribal cultural resources.

As discussed under Impacts 3.5-1 and 3.5-2, impacts from future development could impact unknown archaeological resources including Native American artifacts and human remains. Compliance with the General Plan policies and actions, as well as State and local guidelines would provide an opportunity to identify, disclose, and avoid or minimize the disturbance of and impacts to a tribal cultural resource through tribal consultation and CEQA review procedures. Therefore, impacts related to tribal cultural resources as a result of General Plan implementation would be considered ***less than significant***.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE THE POTENTIAL FOR IMPACTS

POLICIES

RC-10.1: Protect, and support efforts of community members and organizations to protect, important historic resources and use these resources to promote a sense of place and history in Manteca.

RC-10.2: Encourage historic resources to remain in their original use whenever possible. The adaptive use of historic resources is preferred, particularly as museums, educational facilities, or visitor serving uses, when the original use can no longer be sustained. Older residences may be converted to office/retail use in commercial areas and to tourist or business use, so long as their historical authenticity is maintained or enhanced.

RC-10.3: Do not approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendation of a qualified archaeologist. City implementation of this policy shall be guided by CEQA and the National Historic Preservation Act.

RC-10.4: Require that the proponent of any development proposal in an area with potential archaeological resources, and specifically near the San Joaquin River and Walthall Slough, and on the east side of State Highway 99 at the Louise Avenue crossing, shall consult with the California Archaeological Inventory, Stanislaus State University to determine the potential for discovery of cultural resources, conduct a site evaluation as may be indicated, and mitigate any adverse impacts according to the recommendation of a qualified archaeologist. The survey and mitigation shall be developer funded.

RC-10.6: Support the efforts of property owners to preserve and renovate historic and architecturally significant structures. Where such buildings cannot be preserved intact, the City shall seek to preserve the building facades.

RC-10.11: Consistent with State, local, and tribal intergovernmental consultation requirements such as SB 18, consult as necessary with Native American tribes that may be interested in proposed new development and land use policy changes.

ACTIONS

RC-10a: Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, cultural, or paleontological resources and/or to determine the potential for discovery of additional cultural or paleontological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-10b: Require a cultural and archaeological survey prior to approval of any project which would require excavation in an area that is sensitive for cultural or archaeological resources and require a paleontological survey in an area that is sensitive for paleontological resources. If significant cultural, archaeological, or paleontological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as documentation and conservation, to reduce adverse impacts to the resource.

RC-10d: Incorporate significant archaeological sites, where feasible, into open space areas.

RC-10j: Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources or human remains:

- *If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the Development Services Director shall be notified, the resources shall be examined by a qualified archaeologist, paleontologist, or historian for recommended protection and preservation measures; and work may only resume when recommended protections are in place and have been approved by the Development Services Director;*
- *If construction or grading activities result in the discovery of significant tribal cultural resources, all work within 100 feet of the discovery shall cease, the Development Services Director shall be notified, the resources shall be examined by a qualified archaeologist and Native American tribes on the City's SB 18 and AB 52 list for recommended protection and preservation measures and work may only resume when recommended protections are in place and have been approved by the Development Services Director; and*
- *If human remains are discovered during any ground disturbing activity, work shall stop until the Development Services Director and the San Joaquin County Coroner have been contacted; if the human remains are determined to be of Native American origin, the Native American Heritage Commission and the most likely descendants have been consulted; and work may only resume when measures to relocate or preserve the remains in place, based on the above consultation, have been taken and approved by the Development Services Director.*

This page left intentionally blank.