This section provides a background discussion of the regional hydrology, flooding, water quality, water purveyors, and water sources in Manteca. This section is organized with an existing setting, regulatory setting, and impact analysis.

Comments were received during the Notice of Preparation comment period regarding this environmental topic from the following: Terra Land Group, LLC (February 3, 2020), Marian Rawlins (February 4, 2020), and Central Valley Regional Water Quality Control Board (CVRWQCB) (January 16, 2020).

## KEY TERMS

**Groundwater:** Water that is underground and below the water table, as opposed to surface water, which flows across the ground surface. Water beneath the earth's surface fills the spaces in soil, gravel, or rock formations. Pockets of groundwater are often called "aquifers" and are the source of drinking water for a large percentage of the population in the United States. Groundwater is often extracted using wells which pump the water out of the ground and up to the surface. Groundwater is naturally replenished by surface water from precipitation, streams, and rivers when this recharge reaches the water table.

**Surface water:** Water collected on the ground or from a stream, river, lake, wetland, or ocean. Surface water is naturally replenished through precipitation but is naturally lost through evaporation and seepage into soil.

# 3.9.1 ENVIRONMENTAL SETTING

## REGIONAL HYDROLOGY

The City of Manteca is located 12 miles south of downtown Stockton, 14 miles northwest of Modesto, and 75 miles southeast of San Francisco. The Manteca Planning Area is situated in the south-central portion of San Joaquin County. Although Manteca is one of the smaller planning areas within the County geographically, Manteca is the third most populated planning area in the County. The San Joaquin River and the Stanislaus River border the southwest and southern edge of the Planning Area, respectively.

Manteca is located in northern San Joaquin Valley. The San Joaquin Valley is the southern section of the Great Central Valley of California; the Sacramento Valley is the northern section. The Great Central Valley is a sedimentary basin, with the Coast Range to the west and the Sierra Nevada to the east. Almost all of the sediments that fill the Great Central Valley eroded from the Sierra Nevada. The oldest of these sediments are full of fragments of volcanic rocks eroded from its early volcanoes. As erosion stripped the cover of volcanic rocks from the granites of the Sierra Nevada, their detritus of pale quartz and feldspar sand began to wash into the Great Central Valley. Drainage into the San Joaquin Valley is mainly from the Sierra Nevada. The sediments on the valley floor were deposited within the past one-two million years, some within the past few thousand years.

Generally, slopes are nearly level across the Planning Area. The elevation ranges from approximately 10 to 50 feet above sea level, gently rising from the San Joaquin River on the west toward the east and the Sierra Nevada.

## CLIMATE

Summers in the Planning Area are warm and dry ranging from an average high in July of 93°F to an average low of approximately 59°F. Winters are cool and mild, with an average high of 53°F and a low of 37°F in January. The average annual precipitation is approximately 13.81 inches. Precipitation occurs as rain most of which falls between the months of November through April, peaking in January at 2.85 inches. The average temperatures range from December lows of 37.5°F to July highs of 94.3°F.

## WATERSHEDS

A watershed is a region that is bound by a divide that drains to a common watercourse or body of water. Watersheds serve an important biological function, oftentimes supporting an abundance of aquatic and terrestrial wildlife including special status species and anadromous and native local fisheries. Watersheds provide conditions necessary for riparian habitat.

The State uses a hierarchical naming and numbering convention to define watershed areas for management purposes. This means that boundaries are defined according to size and topography, with multiple sub-watersheds within larger watersheds. Table 3.9-1 shows the primary watershed classification levels used by the State of California. The second column indicates the approximate size that a watershed area may be within a particular classification level, although variation in size is common.

***TABLE 3.9-1: STATE OF CALIFORNIA WATERSHED HIERARCHY NAMING CONVENTION***

| *WATERSHED LEVEL* | *APPROXIMATE SQUARE MILES (ACRES)* | *DESCRIPTION* |
|---|---|---|
| Hydrologic Region (HR) | 12,735 (8,150,000) | Defined by large-scale topographic and geologic considerations. The State of California is divided into ten HRs. |
| Hydrologic Unit (HU) | 672 (430,000) | Defined by surface drainage; may include a major river watershed, groundwater basin, or closed drainage, among others. |
| Hydrologic Area (HA) | 244 (156,000) | Major subdivisions of hydrologic units, such as by major tributaries, groundwater attributes, or stream components. |
| Hydrologic Sub-Area (HSA) | 195 (125,000) | A major segment of an HA with significant geographical characteristics or hydrological homogeneity. |

*SOURCE: CALWATER, CALIFORNIA INTERAGENCY WATERSHED MAPPING COMMITTEE, 2008.*

### Hydrologic Region

San Joaquin County is located in the San Joaquin River Hydrological Region. The San Joaquin River is the principal river of the region, and all other streams of the region are tributary to it. The Mokelumne River and its tributary the Cosumnes River originate in the central Sierra Nevada, along with the more southerly Stanislaus and Tuolumne rivers. The Merced River flows from the south central Sierra Nevada and enters the San Joaquin near the City of Newman. The Chowchilla and Fresno rivers also originate in the Sierra south of the Merced River and trend westward toward the San Joaquin River. Creeks originating in the Coast Range and draining eastward into the San Joaquin River include Del Puerto Creek, Orestimba Creek, and Panoche Creek. Del Puerto Creek enters the San Joaquin near the City of Patterson, and Orestimba Creek enters north of the City of Newman. During flood years, Panoche Creek may enter the San Joaquin River or the Fresno Slough near the town of Mendota. The Kings River is a stream of the Tulare Lake Hydrologic Region, but in flood years it may contribute to the San Joaquin River, flowing northward through the James Bypass and Fresno Slough to enter near the City of Mendota. The Mud, Salt, Berrenda, and Ash Sloughs also add to the San Joaquin River, and numerous lesser streams and creeks also enter the system, originating in both the Sierra Nevada and the Coast Range. The entire San Joaquin river system drains northwesterly through the Delta to Suisun Bay (DWR 2013, pg. SJR-5).

### Local Watersheds (Hydrologic Sub-Areas)

Within the San Joaquin River Hydrological Region, the Planning Area is located in the Lower Lone Tree Creek, Middle Lone Tree Creek, Oakwood Lake-San Joaquin River, Town of French Camp-San Joaquin River, Walker Slough-French Camp Slough, and Walthall Slough-San Joaquin River watersheds as shown on Figure 3.9-1.

## LOCAL DRAINAGE

The City of Manteca provides and maintains a system of storm drains, detention basins, and pumping facilities as well as monitoring and control of the operations of the storm drain system. Additionally, the City enforces storm drain regulations established by the US Environmental Protection Agency (EPA) and the State of California.

The City of Manteca operates and maintains its storm drainage system, which consists of approximately 170 miles of pipeline, 36 pump stations, and 35 detention basins. The runoff flows through this system, into South San Joaquin Irrigation District (SSJID) drains and laterals, and eventually into the San Joaquin River.

The City maintains a dynamic computer model of its storm drainage system. The model was formulated as an XP-SWMM model originally developed by the US EPA. The current version was advanced by a private sector organization, XP Software, Inc. The model provides analysis over time and offers the ability to maximize the efficiency of detention basin and pump operations along with the ability to monitor and control downstream water levels to minimize flooding problems with a minimum of new capital improvements.

The SSJID owns a complex network of irrigation Laterals and Drains that run throughout the City limits. These facilities deliver irrigation water to various farming operations in the region, and they convey excess irrigation water and field runoff to downstream receiving waters, specifically the San Joaquin River. The City relies on SSJID's facilities to convey its storm water runoff to the San Joaquin River.

The City and SSJID have a long-standing agreement that authorizes the City to discharge its storm water runoff into SSJID facilities for ultimate disposal to the San Joaquin River. In 1975 the City first entered into a storm drainage agreement with SSJID, and in 2006 the City renewed its drainage agreement with SSJID. Of the many requirements in the 2006 Agreement, the two most significant new requirements are that all storm water discharges into SSJID facilities must be monitored and controlled such that the capacity of SSJID's facilities is not exceeded, and that storm water quality must be controlled such that it complies with all applicable laws.

The City meets the first requirement by requiring all new development to attenuate its runoff in a storage facility before pumping it into SSJID's facilities. In addition, the City uses real-time water level monitoring stations at critical low points in the conveyance system complete with SCADA (Supervisory Control and Data Acquisition) facilities. Regarding the water quality requirement, the City is classified as a Phase II city by the State Water Resources Control Board. As such, the City, and consequently new development, is required to comply with the State Board's storm water National Pollution Discharge Elimination System (NPDES) permit for Phase II cities.

Per the City/SSJID Master Drainage Agreement, SSJID prohibits the direct discharge of storm water runoffs into its facilities. Accordingly, the City requires all new developments to attenuate its runoff in a storage facility before pumping it into SSJID's facilities. For surface attenuation facilities, there are two allowable basin types that may be used: Interim Percolation Basin or a Permanent Detention Basin.

### Future Storm Water Drainage Demand and System Improvements

The City's 2013 Storm Drain Master Plan (SDMP) provides a comprehensive planning document to guide improvement and expansion of the City's storm drainage system to meet current and future needs in a safe and reliable manner while maintaining compliance with all applicable regulations. Five planning zones have been identified to define the capital improvements needed to serve future growth: Zones 30, 32, 34, 36 and 39. With the exception of drainage Zone 39, all drainage zones are located in the SSJID service area.

## STORMWATER QUALITY

Surface water quality is affected by point source and non-point source pollutants. Point source pollutants are those emitted at a specific point, such as a pipe, while non-point source pollutants are typically generated by surface runoff from diffuse sources, such as streets, paved areas, and landscaped areas. Point source pollutants are controlled with pollutant discharge regulations or waste discharge requirements (WDRs). Non-point source pollutants are more difficult to monitor and control, although they are important contributors to surface water quality in urban areas.

Stormwater runoff pollutants vary based on land use, topography, the amount of impervious surface, and the amount and frequency of rainfall and irrigation practices. Runoff in developed areas typically contains oil, grease, and metals accumulated in streets, driveways, parking lots, and rooftops, as well as pesticides, herbicides, particulate matter, nutrients, animal waste, and other oxygen-demanding substances from landscaped areas. The highest pollutant concentrations usually occur at the beginning of the wet season during the “first flush.”

## 303(d) Impaired Water Bodies

Water quality in the City is governed by the CVRWQCB, which set water quality standards in their Water Quality Control Plan for the respective basins (Basin Plans). The Basin Plans identify beneficial uses for surface water and groundwater and establish water quality objectives to attain those beneficial uses.

Section 303(d) of the federal CWA requires States to identify waters that do not meet water quality standards or objectives and thus, are considered "impaired." Once listed, Section 303(d) mandates prioritization and development of a Total Maximum Daily Load (TMDL). The TMDL is a tool that establishes the allowable loadings or other quantifiable parameters for a waterbody and thereby the basis for the States to establish water quality-based controls. The purpose of TMDLs is to ensure that beneficial uses are restored and that water quality objectives are achieved.

According to the California Water Quality Control Monitoring Council, which is part of California Environmental Protection Agency, Natural Resources, there are many areas within the San Joaquin County which are considered Section 303(d) impaired waterbodies. Those areas in the regional vicinity of the Planning Area that are impaired are referred as Delta Waterways (Southern Portion) by the Water Quality Control Monitoring Council. This includes 3,125 acres listed as early as 1996 for Chlorpyrifos (Agriculture, Urban Runoff/Storm Sewers), DDT (Agriculture), Diazinon (Agriculture, Urban Runoff/Storm Sewers), Electrical Conductivity (Agriculture), Group A Pesticides (Agriculture), Invasive Species (Source Unknown), Mercury (Resource Extraction), and Unknown Toxicity (Source Unknown).

Storm water runoff may play a role in the water quality impairments described above. Runoff that occurs as overland flow across yards, driveways, and public streets is intercepted by the storm water drainage system and conveyed to local drainages before eventually being routed to the Pacific. This storm water can carry pollutants that can enter the local waterways and result in the types of water quality impairments described above. Common sources of storm water pollution in the City include litter, trash, pet waste, paint residue, organic material (yard waste), fertilizers, pesticides, sediments, construction debris, metals from automobile brake pad dust, air pollutants that settle on the ground or attach to rainwater, cooking grease, illegally dumped motor oil, and other harmful fluids.

Potential hazards to surface water quality include the following nonpoint pollution problems: high turbidity from sediment resulting from erosion of improperly graded construction projects, concentration of nitrates and dissolved solids from agriculture or surfacing septic tank failures,

contaminated street and lawn run-off from urban areas, and warm water drainage discharges into cold water streams.

The most critical period for surface water quality is following a rainstorm which produces significant amounts of drainage runoff into streams at low flow, resulting in poor dilution of contaminates in the low flowing stream. Such conditions are most frequent during the fall at the beginning of the rainy season when stream flows are near their lowest annual levels. Besides the greases, oils, pesticides, litter, and organic matter associated with such runoff, heavy metals such as copper, zinc, and cadmium can cause considerable harm to aquatic organisms when introduced to streams in low flow conditions.

Urban stormwater runoff was managed as a non-point discharge (a source not readily identifiable) under the Federal Water Pollution Control Amendments of 1972 (PL 92-500, Section 208) until the mid-1980's. However, since then, the Federal Environmental Protection Agency has continued to develop implementing rules which categorize urban runoff as a point source (an identifiable source) subject to NPDES permits. Rules now affect medium and large urban areas, and further rulemaking is expected as programs are developed to meet requirements of Federal water pollution control laws.

Surface water pollution is also caused by erosion. Excessive and improperly managed grading, vegetation removal, quarrying, logging, and agricultural practices all lead to increased erosion of exposed earth and sedimentation of watercourses during rainy periods. In slower moving water bodies these same factors often cause a buildup of siltation, which ultimately reduces the capacity of the water system to percolate and recharge groundwater basins, as well as adversely affecting both aquatic resources and flood control efforts.

Table 3.9-2 below summarizes 303(d) impaired water bodies in the vicinity of the Planning Area.

***TABLE 3.9-2: PLANNING AREA VICINITY IMPAIRED WATER BODIES***

| *POLLUTANT* | *FINAL LISTING DECISION* | *TMDL STATUS[1]* | *EXPECTED TMDL COMPLETION[2]* | *USEPA TMDL APPROVAL DATE[3]* | *POTENTIAL SOURCES* |
|---|---|---|---|---|---|
| *DELTA WATERWAYS, EASTERN PORTION (2,972 ACRES)* | | | | | |
| *METALS/METALLOIDS* | | | | | |
| Mercury | Do Not Delist from 303(d) list (USEPA approved TMDL) | 5B | | 10/20/2011 | Agricultural Return Flows, Atmospheric Deposition, Highway/Road/Bridge Runoff, Industrial Point Sources, Municipal Point Sources, Natural Sources, Resource Extraction, Miscellaneous, Urban Runoff/Storm Sewers |

| POLLUTANT | FINAL LISTING DECISION | TMDL STATUS[1] | EXPECTED TMDL COMPLETION[2] | USEPA TMDL APPROVAL DATE[3] | POTENTIAL SOURCES |
|---|---|---|---|---|---|
| MISCELLANEOUS | | | | | |
| Invasive Species | List on 303(d) list (TMDL required list) | 5A | 2019 | | Unknown |
| DDT (Dichlorodiphenyl trichloroethane) | Do Not Delist from 303(d) list | 5A | 2011 | | Unknown |
| Dieldrin | Do Not Delist from 303(d) list | 5A | 2013 | | Unknown |
| Diazinon | List on 303(d) list (USEPA approved TMDL) | 5B | | 10/10/2007 | Unknown |
| Chlorpyrifos | List on 303(d) list (USEPA approved TMDL) | 5B | | 10/10/2007 | Unknown |
| Group A Pesticides | List on 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |
| TOXICITY | | | | | |
| Toxicity | List on 303(d) list (TMDL required list) | 5A | 2019 | | Unknown |
| DELTA WATERWAYS, SOUTHERN PORTION (3,125 ACRES) | | | | | |
| METALS/METALLOIDS | | | | | |
| Mercury | Do Not Delist from 303(d) list (USEPA approved TMDL) | 5B | | 10/20/2011 | Agricultural Return Flows, Atmospheric Deposition, Highway/Road/Bridge Runoff, Industrial Point Sources, Municipal Point Sources, Natural Sources, Resource Extraction, Urban Runoff/Storm Sewers |
| MISCELLANEOUS | | | | | |
| Invasive Species | List on 303(d) list (TMDL required list) | 5A | 2019 | | Unknown |
| PESTICIDES | | | | | |
| DDT (Dichlorodiphenyl trichloroethane) | Do Not Delist from 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |
| Group A Pesticides | List on 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |
| Chlorpyrifos | List on 303(d) list (being addressed by USEPA approved TMDL) | 5B | | 10/10/2007 | Unknown |
| Diazinon | List on 303(d) list (being addressed by USEPA approved TMDL) | 5B | | 10/10/2007 | Unknown |

| POLLUTANT | FINAL LISTING DECISION | TMDL STATUS[1] | EXPECTED TMDL COMPLETION[2] | USEPA TMDL APPROVAL DATE[3] | POTENTIAL SOURCES |
|---|---|---|---|---|---|
| SALINITY | | | | | |
| Electrical Conductivity | Do Not Delist from 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |
| TOXICITY | | | | | |
| Toxicity | List on 303(d) list (TMDL required list) | 5A | 2019 | | Unknown |
| FRENCH CAMP SLOUGH (PORTION) (6.3 MILES) | | | | | |
| FECAL INDICATOR BACTERIA | | | | | |
| Indicator Bacteria | Do Not Delist from 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |
| NUTRIENTS | | | | | |
| Oxygen, Dissolved | Do Not Delist from 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |
| Diazinon | Do Not Delist from 303(d) list (being addressed with action other than TMDL) | 5C | | | Agriculture |
| Chlorpyrifos | List on 303(d) list (USEPA approved TMDL) | 5B | | 10/8/2007 | Agriculture |
| TOXICITY | | | | | |
| Toxicity | Do Not Delist from 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |
| LONE TREE CREEK (14.8 MILES) | | | | | |
| FECAL INDICATOR BACTERIA | | | | | |
| Indicator Bacteria | Do Not Delist from 303(d) list (TMDL required list) | 5A | 2021 | | Unknown |
| NUTRIENTS | | | | | |
| Ammonia | List on 303(d) list (TMDL required list) | 5A | 2020 | | Unknown |
| BOD, Biochemical oxygen demand | List on 303(d) list (TMDL required list) | 5A | 2020 | | Unknown |
| PESTICIDES | | | | | |
| Chlorpyrifos | Do Not Delist from 303(d) list (being addressed with action other than TMDL) | 5C | | | Agriculture |
| Diuron | Do Not Delist from 303(d) list (being addressed with action other than TMDL) | 5C | | | Agriculture |
| Diazinon | List on 303(d) list (being addressed by action other than TMDL) | 5C | | | Agriculture |

| POLLUTANT | FINAL LISTING DECISION | TMDL STATUS[1] | EXPECTED TMDL COMPLETION[2] | USEPA TMDL APPROVAL DATE[3] | POTENTIAL SOURCES |
|---|---|---|---|---|---|
| TOXICITY | | | | | |
| Toxicity | Do Not Delist from 303(d) list (TMDL required list) | 5A | 2021 | | Unknown |
| TOM PAINE SLOUGH, IN DELTA WATERWAYS SOUTHERN PORTION (14 MILES) | | | | | |
| NUTRIENTS | | | | | |
| Oxygen, Dissolved | List on 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |
| SALINITY | | | | | |
| Chloride | List on 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |
| Salinity | List on 303(d) list (TMDL required list) | 5A | 2027 | | Unknown |

*1: TOTAL MAXIMUM DAILY LOAD (TDML)*
*2: DETERMINATION THE LOADING CAPACITY OF THE WATERBODY AND ALLOCATION OF LOAD AMONG DIFFERENT POLLUTANT SOURCES.*
*3: APPROVED TMDL WASTELOAD ALLOCATIONS GENERALLY BECOME IMPLEMENTED THROUGH EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS UNDER CWA SECTION 402.*
*SOURCE: STATE WATER RESOURCES CONTROL BOARD, FINAL 2014/2016 CALIFORNIA INTEGRATED REPORT (CLEAN WATER ACT SECTION 303(D) LIST / 305(B) REPORT)*

## GROUNDWATER

The City of Manteca is located in the Eastern San Joaquin River Groundwater Basin. The basin is not adjudicated; however, a basin management plan has been created. The Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan (ESJGS-GSP) (Eastern San Joaquin Groundwater Authority, 2019) was prepared in November 2019. The purpose of the ESJGS-GSP is "to meet the regulatory requirements set forth in the three-bill legislative package consisting of Assembly Bill (AB) 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley), collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA." According to Department of Water Resources (DWR) Bulletin 118 (DWR, 2016), the ESJGB is in a critical condition of overdraft.

Most of the fresh groundwater is encountered at depths of 700 to 1,900 feet, and most of this shallow groundwater is unconfined. A discussion of basin hydrogeology is provided in the ESJGS-GSP.

The Eastern San Joaquin Subbasin includes lands south of Dry Creek between the San Joaquin River on the west and the crystalline basement rock of the Sierra Nevada foothills on the east. The Eastern San Joaquin Subbasin boundary to the south stretches along the San Joaquin County line and continues along the Stanislaus River into Calaveras County to the east. Geologic units in the Eastern San Joaquin Subbasin consist of consolidated rocks and unconsolidated deposits.

The Eastern San Joaquin Subbasin Hydrogeologic Conceptual Model has one principal aquifer that provides water for domestic, irrigation, and municipal water supply and that is composed of three

water production zones. The zones have favorable aquifer characteristics that deliver a reliable water resource because of their basin location and sand thickness. The zones are:

- **Shallow Zone** that consists of the alluvial sands and gravels of the Modesto, Riverbank, and Upper Turlock Lake Formations;
- **Intermediate Zone** that consists of the Lower Turlock Lake and Laguna Formations;
- **Deep Zone** that consists of the consolidated sands and gravels of the Mehrten Formation.

The City's annual potable groundwater production increased with demand until 2005, reaching a peak of 14,900 AFY in 2004. Commissioning of the WTP in 2005 decreased groundwater use considerably. In addition, the City has shifted from potable water use to irrigation water use wherever possible, to reduce potable water demand and groundwater treatment costs. In 2015, the City's annual groundwater production was 7,249 AFY, of which 5,639 AFY was for potable use and 1,610 AFY for irrigation use (Kennedy/Jenks Consultants, 2016).

The City's 2015 UWMP indicates that the City's goal is to limit groundwater use to between 47 to 53 percent of total water supply. West Yost assumes the City will limit groundwater use to approximately 18,500 AFY, equal to the City's Normal Year surface water supply (West Yost, 2021). The estimated safe yield of the groundwater basin is 1 AFY/acre.

## FLOODPLAIN MAPPING

### FEMA Flood Zones

Federal Emergency Management Agency (FEMA) mapping provides important guidance for the City in planning for flooding events and regulating development within identified flood hazard areas. FEMA's National Flood Insurance Program (NFIP) is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, the NFIP defines floodplain and floodway boundaries that are shown on Flood Insurance Rate Maps (FIRMs). The FEMA FIRM for the Planning Area is shown on Figure 3.9-2.

Areas that are subject to flooding are indicated by a series of alphabetical symbols, indicating anticipated exposure to flood events:

- **Zone A:** Subject to 100-year flooding with no base flood elevation determined. Identified as an area that has a one percent chance of being flooded in any given year.
- **Zone AE:** Subject to 100-year flooding with base flood elevations determined.
- **Zone AH:** Subject to 100-year flooding with flood depths between one- and three-feet being areas of ponding with base flood elevations determined.
- **500-year Flood Zone:** Subject to 500-year flooding. Identified as an area that has a 0.2 percent chance of being flooded in a given year.

The Planning Area is subject to flooding problems along the natural creeks and drainages that traverse the area. The primary flood hazard is the San Joaquin River (four miles outside the Study Area) and its tributaries, notably Walthall Slough (contiguous with the southwestern Study Area boundary). A levee running from Williamson Road east to Airport Way provides flood protection

for the land north and east of Walthall Slough. This levee is under the jurisdiction of Reclamation District No. 17.

The 100-year flood plain is largely confined to the southwestern portion of the City limits and SOI. Similarly, the 500-year flood plain is located in the southwestern and western portions of the City limits and SOI.

## SB 5 Flood Zones

Both State policy and recently enacted State legislation (Senate Bill [SB] 5) call for 200-year (0.5% annual chance) flood protection to be the minimum level of protection for urban and urbanizing areas in the Central Valley. SB 5 requires that the 200-year protection be consistent with criteria used or developed by the Department of Water Resources. SB 5 requires all urban and urbanizing areas in the Sacramento and San Joaquin Valleys to achieve 200-year flood protection in order to approve development. The 200-year floodplain for the Planning Area, as mapped by the City of Manteca and San Joaquin County, is shown on Figure 3.9-3. As shown in the figure, the 200-year floodplain is located in the western portion of the City's SOI and City limits. Existing uses within the 200-year floodplain include mainly agricultural and rural-residential uses. Some more recently developed homes located south of State Route 120 are also located within the 200-year floodplain.

The City's 2013 Public Facilities Implementation Plan (PFIP) Update notes several stormwater control improvements aimed to protect the City from flooding during storm events. The 2013 Storm Drain Master Plan evaluates drainage from the General Plan lands within the City's Primary Urban Service Area through build out. Five planning zones have been identified to define the capital improvements needed to serve future growth: Zones 30, 32, 34, 36 and 39. With the exception of drainage Zone 39, all drainage zones are located in the SSJID service area. For development within Zone 39, separate facilities will be constructed to convey runoff to one regional pump station that will discharge to Walthall Slough. These facilities would be required as new development within Zone 39 occurs.

Additionally, as funds are available, the City will construct water level monitoring facilities in the various PFIP zones and in the French Camp Outlet Canal to monitor water elevations in real-time to prevent flooding caused by additional drainage flows. Each zone's proportionate share of the water level monitoring stations is included the various PFIP zone fees.

## Dam Inundation

Earthquakes centered close to a dam are typically the most likely cause of dam failure. Dam Inundation maps have been required in California since 1972, following the 1971 San Fernando Earthquake and near failure of the Lower Van Norman Dam. The Planning Area has the potential to be inundated by four dams: Tulloch Dam, San Luis Dam, New Exchequer Dam (Lake McClure), and New Melones Dam. The dam inundation area for each dam is shown in Figure 3.9-4. Each dam is briefly described below:

- The **Tulloch Dam**, owned and operated by the Oakdale and South San Joaquin Irrigation Districts (collectively known as the Tri-Dam Project), is a gravity dam located on the

Stanislaus River in both Calaveras and Tuolumne Counties. This dam was built in 1958 at a height of 205 feet with a reservoir capacity of 68,400 acre-feet. The Tulloch Dam is a jurisdictional dam.

- The **San Luis Dam** (or B.F. Sisk Dam), jointly owned and operated by the Bureau of Reclamation and the State of California, is a zoned earthfill dam that provides supplemental irrigation water to land in western Merced, Fresno and Kings Counties, as well as generates power. This dam, located on San Luis Creek near Los Banos, was completed in 1967 at a height of 382 feet with a reservoir capacity of 2,041,000 acre-feet. The San Luis Dam is a non-jurisdictional dam.
- The **New Exchequer Dam**, owned and operated by the Merced Irrigation District, is utilized for irrigation, power production, and downstream flood control. This concrete gravity-arch dam is located on the Merced River in Mariposa County. New Melones Dam was completed in 1967 at a height of 490 feet and a storage capacity of 1,024,600 acre-feet. The New Exchequer Dam is a jurisdictional dam.
- The **New Melones Dam**, owned and operated by Bureau of Reclamation's Central Valley Project, is utilized for irrigation, power production, and downstream flood control. This earth and rockfill dam is located on the Stanislaus River in southern Mother Lode, off of Highway 49. New Melones Dam was completed in 1979 at a height of 625 feet and a storage capacity of 2,400,000 acre-feet. The New Melones Dam is a non-jurisdictional dam.

These dams do not have a history of failure; however, they are identified as having the potential to inundate habitable portions of the Planning Area in the unlikely event of dam failure. The dam owners/operators, Oakdale and South San Joaquin Irrigation Districts, the Bureau of Reclamation, and the State of California, are responsible for the management, monitoring, and improvements to these dams to reduce the risk of dam failure and inundation.

Portions of the 100-year floodplain would be subject to inundation in the event of dam failure. Although the likelihood is remote, the area subject to inundation within the Study Area is not specifically defined, but would generally coincide with the area delineated as the 100-year floodplain.

Despite the number of dams near San Joaquin County, the risk of dam failure inundating portions of the County is considered low, and the degree and nature of risk for each dam is unknown. Dam failure can occur under three general conditions: as a result of an earthquake, an isolated incident due to structural instability, or because of intense rain in excess of design capacity.

Section 8589.5 of the California Government Code requires local jurisdictions to adopt emergency procedures for the evacuation of populated inundation areas identified by dam owners. The local Office of Emergency Services has prepared a Dam Failure Plan. This plan includes a description of dams, direction of floodwaters, responsibilities of local jurisdictions, and evacuation plans.

## 3.9.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the water resources of the state and nation including FEMA, the US EPA, the State Water Resources Control Board (SWRCB), and the CVRWQCB. The following is an overview of the federal, state and local regulations that are applicable to the proposed project.

### FEDERAL

#### Clean Water Act

The CWA, initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

The CWA establishes the basic structure for regulating the discharges of pollutants into the waters of the United States and gives the US Environmental Protection Agency (EPA) the authority to implement pollution control programs. The statute's goal is to regulate all discharges into the nation's waters and to restore, maintain, and preserve the integrity of those waters. The CWA sets water quality standards for all contaminants in surface waters and mandates permits for wastewater and stormwater discharges.

The CWA also requires states to establish site-specific water quality standards for navigable bodies of water and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The following CWA sections assist in ensuring water quality for the water of the United States:

CWA Section 208 requires the use of best management practices (BMPs) to control the discharge of pollutants in stormwater during construction CWA Section 303(d) requires the creation of a list of impaired water bodies by states, territories, and authorized tribes; evaluation of lawful activities that may impact impaired water bodies, and preparation of plans to improve the quality of these water bodies. CWA Section 303(d) also establishes TMDLs, which is the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards CWA Section 404 authorizes the US Army Corps of Engineers to require permits that will discharge dredge or fill materials into waters in the US, including wetlands.

In California, the EPA has designated the SWRCB and its nine RWQCBs with the authority to identify beneficial uses and adopt applicable water quality objectives.

The SWRCB) is responsible for implementing the CWA and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for storm water discharges (individual permits and general permits).

## Federal Emergency Management Agency

FEMA operates the NFIP. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the California Department of Water Resources to insure the proper implementation of FEMA floodplain management regulations.

## Flood Control Act

The Flood Control Act (1917) established survey and cost estimate requirements for flood hazards in the Sacramento Valley. All levees and structures constructed per the Act were to be maintained locally but controlled federally. All rights of way necessary for the construction of flood control infrastructure were to be provided to the Federal government at no cost.

Federal involvement in the construction of flood control infrastructure, primarily dams and levees, became more pronounced upon passage of the Flood Control Act of 1936.

## Flood Disaster Protection Act (FDPA)

The FDPA of 1973 was a response to the shortcomings of the NFIP, which were experienced during the flood season of 1972. The FDPA prohibited Federal assistance, including acquisition, construction, and financial assistance, within delineated floodplains in non-participating NFIP communities. Furthermore, all Federal agencies and/or federally insured and federally regulated lenders must require flood insurance for all acquisitions or developments in designated Special Flood Hazard Areas (SFHAs) in communities that participate in the NFIP.

Improvements, construction, and developments within SFHAs are generally subject to the following standards:

- All new construction and substantial improvements of residential buildings must have the lowest floor (including basement) elevated to or above the base flood elevation (BFE).
- All new construction and substantial improvements of non-residential buildings must either have the lowest floor (including basement) elevated to or above the BFE or dry-floodproofed to the BFE.
- Buildings can be elevated to or above the BFE using fill, or they can be elevated on extended foundation walls or other enclosure walls, on piles, or on columns.
- Extended foundation or other enclosure walls must be designed and constructed to withstand hydrostatic pressure and be constructed with flood-resistant materials and contain openings that will permit the automatic entry and exit of floodwaters. Any enclosed area below the BFE can only be used for the parking of vehicles, building access, or storage.

## National Flood Insurance Program (NFIP)

Per the National Flood Insurance Act of 1968, the NFIP has three fundamental purposes: *Better indemnify individuals for flood losses through insurance; Reduce future flood damages through State and community floodplain management regulations; and Reduce Federal expenditures for disaster assistance and flood control.*

While the Act provided for subsidized flood insurance for existing structures, the provision of flood insurance by FEMA became contingent on the adoption of floodplain regulations at the local level.

## National Pollutant Discharge Elimination System

NPDES permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal CWA, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the EPA Regional Administrator (EPA Region 9). The terms of these NPDES permits implement pertinent provisions of the Federal CWA and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the CWA's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the SWRCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from industrial and construction sites statewide. Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

Individual projects in the City that disturb more than one acre would be required to obtain NPDES coverage under the California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) describing Best Management Practices (BMP) the discharger would use to prevent and retain storm water runoff. The SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a waterbody listed on the 303(d) list for sediment.

### Rivers and Harbors Appropriation Act of 1899

One of the country's first environmental laws, this Act established a regulatory program to address activities that could affect navigation in Waters of the United States.

### Water Pollution Control Act of 1972

The Water Pollution Control Act (WPCA) established a program to regulate activities that result in the discharge of pollutants to waters of the United States

## STATE

### California Fish and Wildlife Code

The California Department of Fish and Wildlife (CDFW) protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Section 1600 to 1616 of the California Fish and Game Code. The California Fish and Game Code establishes that "an entity may not substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river stream, or lake" (Fish and Game Code Section 1602(a)) without notifying the CDFW, incorporating necessary mitigation and obtaining a streambed alteration agreement. The CDFWs jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

### California Code of Regulations

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminants levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

### California Government Code

Relevant sections of the California Government Code are identified below.

#### SECTION 65302

Revised safety elements must include maps of any 200-year flood plains and levee protection zones within the Planning Area.

#### SECTION 65584.04

Any land having inadequate flood protection, as determined by FEMA or DWR, must be excluded from land identified as suitable for urban development within the planning area.

### SECTION 8589.4

California Government Code §8589.4, commonly referred to as the Potential Flooding-Dam Inundation Act, requires owners of dams to prepare maps showing potential inundation areas in the event of dam failure. A dam failure inundation zone is different from a flood hazard zone under the National Flood Insurance Program (NFIP). NFIP flood zones are areas along streams or coasts where storm flooding is possible from a "100-year flood." In contrast, a dam failure inundation zone is the area downstream from a dam that could be flooded in the event of dam failure due to an earthquake or other catastrophe. Dam failure inundation maps are reviewed and approved by the California Office of Emergency Services (OES). Sellers of real estate within inundation zones are required to disclose this information to prospective buyers.

## California Department of Health Services

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund ("SRF") and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for MTBE and other oxygenates.

## Consumer Confidence Report Requirements

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminant levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

## California Water Code

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a Water Quality Control Plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

## Assembly Bill 162

Assembly Bill (AB) 162 requires a general plan's land use element to identify and annually review those areas covered by the general plan that are subject to flooding as identified by flood plain mapping prepared by FEMA or DWR. The bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the conservation element of the general plan to identify rivers, creeks, streams, flood corridors, riparian habitat, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management. By imposing new duties on local public officials, the bill creates a State-mandated local program.

This bill also requires, upon the next revision of the housing element, on or after January 1, 2009, the safety element to identify, among other things, information regarding flood hazards and to establish a set of comprehensive goals, policies, and objectives, based on specified information for the protection of the community from, among other things, the unreasonable risks of flooding.

## Assembly Bill 70

AB 70 provides that a city or county may be required to contribute its fair and reasonable share of the property damage caused by a flood to the extent that it has increased the State's exposure to liability for property damage by unreasonably approving, as defined, new development in a previously undeveloped area, as defined, that is protected by a State flood control project, unless the city or county meets specified requirements.

## Senate Bill 610 and Assembly Bill 901

The State Legislature passed SB 610 and AB 901 in 2001. Both measures modified the Urban Water Management Planning Act.

SB 610 requires additional information in an urban water management plan if groundwater is identified as a source of water available to an urban water supplier. It also requires that the plan include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 requires a city or county that determines a project is subject to CEQA to identify any public water system that may supply water to the project and to request identified public water systems to prepare a specified water supply assessment. The assessment must include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to these entitlements, rights, and contracts.

AB 901 requires an urban water management plan to include information, to the extent practicable, relating to the quality of existing sources of water available to an urban water supplier over given time periods. AB 901 also requires information on the manner in which water quality

affects water management strategies and supply reliability. The bill requires a plan to describe plans to supplement a water source that may not be available at a consistent level of use, to the extent practicable. Additional findings and declarations relating to water quality are required.

## Senate Bill 221

SB 221 adds Government Code Section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within five days of the subdivision application being accepted as complete for processing by the city or county. It also adds Government Code Section 66473.7, establishing detailed requirements for establishing whether a "sufficient water supply" exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring availability of a sufficient water supply. The applicable public water system must provide proof of availability. If there is no public water system, the city or county must undertake the analysis described in Government Code Section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.

## State Updated Model Landscape Ordinance

Under AB 1881, the updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by January 31, 2010 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance. Chapter 17.48, Landscaping, of the Manteca Municipal Code includes landscaping water use standards.

## Water Quality Control Basin Plan

The Water Quality Control Plan for the Sacramento-San Joaquin River Basins (Basin Plan), amended by the CVRWQCB in 2018, identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the Sacramento River and SJR 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 SJR include groundwater recharge and freshwater replenishment.

## State Water Resources Control Board Storm Water Strategy

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the State Water Board's role in storm water resources management and evolve the Storm Water Program by a) developing guiding principles to serve as the foundation of the storm water program, b) identifying issues that support or inhibit the program from aligning with the guiding principles, and c) proposing and prioritizing projects that the Water Boards could implement to address those issues.

The State Water Board staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the Water Board's Storm Water Program.

## LOCAL

### City of Manteca Municipal Code

#### TITLE 13 CHAPTER 13.28 STORM WATER MANAGEMENT DISCHARGES

The purpose of this chapter is to establish minimum storm water management requirements and controls to protect and safeguard the general health, safety and welfare of the public residing in watersheds within the city of Manteca. This chapter seeks to meet that purpose through the following objectives:

A. Minimize increases in storm water runoff from any development in order to reduce flooding, siltation and stream bank erosion and maintain the integrity of drainage channels;
B. Minimize increases in non-point source pollution caused by storm water runoff from development that would otherwise degrade local water quality;
C. Minimize the total annual volume of surface water runoff that flows from any specific site during and following development to not exceed the pre-development hydrologic regime to the maximum extent practicable; and
D. Reduce storm water runoff rates and volumes, soil erosion and non-point source pollution wherever possible, through storm water management controls and to ensure that these management controls are properly maintained and pose no threat to public safety. (Ord. 1253 § 1, 2004)

#### TITLE 13 CHAPTER 13.28 SECTION 13.28.060 DISCHARGES IN VIOLATION OF INDUSTRIAL OR CONSTRUCTION ACTIVITY NPDES STORM WATER DISCHARGE PERMIT.

A. Any person subject to an industrial NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the director upon inspection of the facility, during any enforcement proceeding or action or for any other reasonable cause.
B. Any person subject to a construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the director prior to or as a condition of a subdivision map, site plan, building permit or development or improvement plan; upon inspection of the facility; during any enforcement proceeding or action; or for any other reasonable cause. Prior to issuance of a construction permit a copy of the Notice of Intent (NOI) and the Storm Water Pollution Prevention Plan (SWPPP) shall be submitted to the city. (Ord. 1253 § 1, 2004).

### Utility Master Plans

The City of Manteca maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. This includes the City's *Storm Drain Master Plan* (2013).

### Municipal Storm Water Program

The discharge of storm water within the City of Manteca is regulated by the SWRCB Water Quality Order No. 2013-0001-DWQ NPDES General Permit, WDRs for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4), collectively referred to as the Phase II Small MS4 General Permit. The City of Manteca is a Phase II MS4 permittee under the NPDES General Permit.

The City's Engineering Department oversees the Municipal Storm Water Program and works in conjunction with the Planning and Public Works Departments to implement requirements of the Phase II Small MS4 General Permit. Engineering and Planning Department staff review new and re-development projects for compliance with State and Regional Water Board requirements for storm water management and control. The Cities of Lathrop, Lodi, Manteca, Patterson, and Tracy, and County of San Joaquin collaborated to prepare the Multi-Agency Post-Construction Stormwater Standards Manual (Stormwater Standards Manual), dated June 2015. The Stormwater Standards Manual establishes post-construction standards to address stormwater quality for regulated new development and redevelopment projects in compliance with the requirements of Order No. 2013-0001-DWQ.

### NPDES Waste Discharge Requirements – Wastewater Quality Control Facility

On April 17, 2015, the Regional Water Quality Control Board, Central Valley Region, adopted Waste Discharge Requirements Order No. R5-2015-0026, (Order) NPDES No. CA0081558, prescribing waste discharge requirements for the City of Manteca Wastewater Quality Control Facility.

## 3.9.3 IMPACTS AND MITIGATION MEASURES

### THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with hydrology and water quality if it will:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Result in substantial erosion or siltation on- or off-site;
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - Impede or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

## IMPACTS AND MITIGATION

### Impact 3.9-1: General Plan implementation could violate water quality standards or waste discharge requirements or otherwise substantially degrade water quality or obstruct implementation of a water quality control plan (Less than Significant)

#### CONSTRUCTION-RELATED WATER QUALITY IMPACTS

Grading, excavation, removal of vegetation cover, and loading activities associated with future construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion impacts that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

As required by the CWA, each subsequent development project or improvement project will require an approved SWPPP that includes best management practices for grading and preservation of topsoil. A SWPPP is not required if the project will disturb less than one acre. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

Future development project applicants must submit the SWPPP with a Notice of Intent to the CVRWQCB to obtain a General Permit. The CVRWQCB is an agency responsible for reviewing the SWPPP with the Notice of Intent, prior to issuance of a General Permit for the discharge of storm water during construction activities. The CVRWQCB accepts General Permit applications (with the SWPPP and Notice of Intent) after specific projects have been approved by the lead agency. The lead agency for each specific project that is larger than one acre is required to obtain a General Permit for discharge of storm water during construction activities prior to commencing construction (per the CWA).

The General Plan sets policies and actions for build-out of the City, but it does not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such

projects is not feasible and would be speculative. However, each future project must include detailed project specific drainage plans that control storm water runoff and erosion, both during and after construction. The CVRWQCB will require a project specific SWPPP to be prepared for each future project that disturbs an area one acre or larger. The SWPPPs will include project specific best management measures that are designed to control drainage and erosion.

### NEW DEVELOPMENT-RELATED WATER QUALITY IMPACTS

New development and infrastructure improvements projects under the proposed General Plan could introduce constituents into the storm water system that are typically associated with urban runoff. These constituents include sediments, petroleum hydrocarbons, pesticides, fertilizers, and heavy metals such as lead, zinc, and copper. These pollutants tend to build up during the dry months of the year. Precipitation during the early portion of the wet season (generally from November to April) washes away most of these pollutants, resulting in high pollutant concentrations in the initial wet weather runoff. This initial runoff is referred to as the "first flush" of storm events. Subsequent periods of rain would result in less concentrated pollutant levels in the runoff.

The majority of development allowed under the General Plan would be within areas currently developed with urban uses, and the amount and type of runoff generated by various future development and infrastructure projects would be similar to existing conditions. However, new development and infrastructure projects have the potential to result in increases in the amount of impervious surfaces throughout Manteca. Future increases in impervious surfaces would result in increased urban runoff, pollutants, and first flush roadway contaminants, as well as an increase in nutrients and other chemicals from landscaped areas. These constituents could result in water quality impacts to onsite and offsite drainage flows to area waterways.

Waters that are listed under Section 303(d) of the CWA are known as "impaired." CWA Section 303(d) lists many water bodies within the County. Those areas in the regional vicinity of the Planning Area that are impaired by the Water Quality Control Monitoring Council include the: Delta Waterways (Northern Portion), Delta Waterways (Southern Portion), French Camp Slough (Portion), Lone Tree Creek, and Tom Paine Slough (in Delta Waterways Southern Portion). The Delta Waterways (Eastern Portion) includes 2,927 acres listed as in 2011 for Agricultural Return Flows, Atmospheric Deposition, Highway/Road/Bridge Runoff, Industrial Point Sources, Municipal Point Sources, Natural Sources, Resource Extraction, Miscellaneous, Urban Runoff/Storm Sewers. The Delta Waterways (Southern Portion) includes 3,125 acres listed as early as 1996 for Chlorpyrifos (Agriculture, Urban Runoff/Storm Sewers), DDT (Agriculture), Diazinon (Agriculture, Urban Runoff/Storm Sewers), Electrical Conductivity (Agriculture), Group A Pesticides (Agriculture), Invasive Species (Source Unknown), Mercury (Resource Extraction), and Unknown Toxicity (Source Unknown). The other impaired water bodies range in size from 6.3 to 14.8 miles with unknown or agricultural-related pollutant sources.

Storm water runoff may play a role in the water quality impairments described above. Runoff that occurs as overland flow across yards, driveways, and public streets is intercepted by the storm water drainage system and conveyed to local drainages before eventually being routed to the

Pacific. This storm water can carry pollutants that can enter the local waterways and result in the types of water quality impairments described above. Common sources of storm water pollution in the City include litter, trash, pet waste, paint residue, organic material (yard waste), fertilizers, pesticides, sediments, construction debris, metals from automobile brake pad dust, air pollutants that settle on the ground or attach to rainwater, cooking grease, illegally dumped motor oil, and other harmful fluids.

Due to future development and infrastructure projects, the overall volume of runoff in Manteca could be increased compared to existing conditions. If the City's drainage system is not adequately designed, General Plan buildout could result in localized higher peak flow rates. Localized increases in flow would be significant if increases exceeded system capacity or contributed to bank erosion. This is considered a potentially significant impact, which would be mitigated to a less than significant level through the implementation of the policies and actions listed below, as well as the City's adopted Municipal Code requirements.

The General Plan sets policies and actions for build-out of the City, but it does not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. However, each future development and infrastructure project is required to prepare a detailed project specific drainage plan, Water Quality Management Plan, and a SWPPP that will control storm water runoff and erosion, both during and after construction. If the project involves the discharge into surface waters the project proponent will need to acquire a Dewatering permit, NPDES permit, and Waste Discharge permit from the CVRWQCB.

As described above, under the Regulatory Setting, the City is required to implement a range of measures and procedures when reviewing new development and infrastructure projects.

Chapter 13.28 of the City's Municipal Code establishes minimum storm water management requirements and controls and outlines discharges which violate industrial or construction activity NPDES permit. Chapter 15.14 of the City's Municipal Code regulates stormwater quality and prohibits discharges of pollutants into surface waters unless the discharge is authorized by an NPDES storm water discharge permit. Compliance with existing City construction and stormwater management codes, and submittal of a site-specific drainage study and SWPPP, would reduce these potential impacts related to stormwater quality.

While the primary regulatory mechanisms for ensuring that future development and infrastructure projects do not result in adverse water quality impacts are contained in the Manteca Municipal Code, the City of Manteca has developed the General Plan to include additional policies and actions that, when implemented, will further reduce water pollution from construction, new development, and new infrastructure projects, and protect and enhance natural storm drainage and water quality features. The policies and actions identified below include numerous requirements that would reduce the potential for General Plan implementation to result in increased water quality impacts. Actions by the City during the development review process require the review of development projects to identify potential stormwater and drainage impacts

and require development to include measures to ensure that off-site runoff is not increased beyond pre-development levels during rain and flood events. In addition, compliance with the CWA and regulations enforced by the Regional Water Quality Control Board would ensure that construction-related impacts to water quality are minimized and future projects comply with all applicable laws and regulations.

The City of Manteca provides and maintains a system of storm drains, detention basins, and pumping facilities as well as monitoring and control of the operations of the storm drain system. The City relies on SSJID's facilities to convey its storm water runoff to the San Joaquin River. Provision of stormwater detention facilities as needed would reduce runoff rates and peak flows. The implementation of the General Plan policies and implementation actions listed below include policies aimed to maximize stormwater quality and infiltration as well as actions to review development projects to identify potential stormwater and drainage impacts and require development to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events. Existing regulatory requirements that manage water quality include requirements to obtain approval from the CVRWQCB for NPDES permits, other discharge permits, SWPPPs, and to implement Best Management Practices. These regulatory requirements are intended to ensure that water quality does not degrade to levels that would violate water quality standards. Through implementation of the General Plan policies and actions listed below, implementation of the Manteca Municipal Code requirements identified above, compliance with mandatory Federal and State regulations, and compliance with the existing regulations for the San Joaquin River Hydrological Region would ensure that impacts to drainage patterns and water quality would be mitigated to a **less than significant** level.

### GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MITIGATE POTENTIAL IMPACTS

#### POLICIES

*RC-1.7: Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces.*

*CF-8.1: Maintain and improve Manteca's storm drainage facilities.*

*CF-8.2: Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.*

*CF-8.6: Continue to work cooperatively with outside agencies such as the San Joaquin County Flood Control and Water Conservation District regarding storm drainage issues.*

#### IMPLEMENTATION ACTIONS

*RC-3b: Require site-specific land management and development practices for proposed development projects, including appropriate measures for drainage control and avoiding or reducing erosion.*

*RC-3c: Continue to implement, and periodically review/update as necessary, Municipal Code Section 17.48.070(G) (Grading Design Plan). The City shall review projects to ensure that best management practices are implemented during construction and site grading activities, as well as in project design to reduce pollutant runoff into water bodies.*

*RC-4b: When updating master plans for infrastructure, including water supply, flood control, and drainage, and critical facilities, review relevant climate change scenarios and ensure that the plans consider the potential effects of climate change and include measures to provide resilience.*

*CF-8a: Update the Storm Drainage Master Plan and Public Facilities Implementation Plan every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-8b: Continue to complete gaps in the drainage system in areas of existing development.*

*CF-8c: Identify which storm water and drainage facilities are in need of repair and address these needs through the City's Capital Improvement Program.*

*CF-8d: Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.*

## Impact 3.9-2: General Plan implementation could result in the depletion of groundwater supplies or interfere substantially with groundwater recharge or conflict with a groundwater management plan. (Less than Significant)

The quantity of ground water in the San Joaquin Valley has been declining for decades, as evidenced by the substantial lowering of water levels in the aquifers. Impacts on groundwater in the Manteca area are an important consideration in any development plan. See Impact 3.15-1 in Section 3.15, Utilities, for further discussions regarding water demand and groundwater supplies. Impacts related to groundwater supplies and interference with groundwater recharge are considered in two ways: (1) conversion of pervious surfaces (which allow for groundwater recharge), and (2) use of groundwater as a water supply (which reduces the amount of local groundwater supply).

Future development projects in the Planning Area would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge in those areas. Infiltration rates vary depending on the overlying soil types. In general, sandy soils have higher infiltration rates and can contribute to significant amounts of ground water recharge; clay soils tend to have lower percolation potential; and impervious surfaces such as pavement significantly reduce infiltration capacity and increase surface water runoff.

The City of Manteca is located in the Eastern San Joaquin River Groundwater Basin. The basin is not adjudicated; however, a basin management plan has been created. The ESJGS-GSP (Eastern San Joaquin Groundwater Authority, 2019) was prepared in November 2019. The purpose of the ESJGS-GSP is "to meet the regulatory requirements set forth in the three-bill legislative package

consisting of Assembly Bill (AB) 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley), collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA." According to Department of Water Resources (DWR) Bulletin 118 (DWR, 2016), the ESJGB is in a critical condition of overdraft.

Past estimates of safe groundwater yield from the basin have indicated that pumping at or below one acre-foot per acre per year (AF/AC/YR) of City land is sustainable. The City targets this sustainable yield, but it is important to note that the total groundwater pumping occurring within City boundaries includes City-owned municipal wells, City-owned park irrigation wells, and irrigation and domestic wells owned and operated by others. While all of the City's municipal wells have historically been metered, the irrigation wells were not all metered until 2015 and groundwater pumping data for other wells is incomplete. Therefore, the estimated safe yield for the City's wells includes some uncertainty. With the introduction of surface water supplies, as discussed above, and conservation measures, withdrawals have declined, stabilizing groundwater levels in the Manteca area (Kennedy/Jenks Consultants, 2016).

The 2014 SGMA enacted groundwater legislation in California that requires the formation of Groundwater Sustainability Agencies who will be responsible for developing Groundwater Sustainability Plans to manage groundwater basins. The City plans to play an active role in local GSA formation (Kennedy/Jenks Consultants, 2016).

As discussed in Section 3.15, Utilities and Service Systems, the City's 2015 UWMP documents 2015 and projected future water demands and supplies through 2040, as shown in Table 3.15-1 (Kennedy/Jenks Consultants, 2016). Water supplies to meet future demands include surface water purchased from SSJID, City produced groundwater and recycled water. The City's water supply is projected to increase by about 37 percent from 2015 to 2040, primarily due to implementation of Phase 2 of the SCWSP. Future City groundwater pumping is estimated based on the safe yield for all groundwater pumping within the City's planning area, less estimated groundwater pumping by other users. Recycled water demand projections assumed decreased use over time of water for crop irrigation, and implementation of a tertiary-treated irrigation supply by 2040.

Subsequent development projects under the General Plan, such as residential, commercial, industrial, and roadway projects would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge. However, the majority of the developable areas within the city are currently developed with urban uses. The majority of open undeveloped lands within the city are designated for parks and open space uses, while the majority of open undeveloped lands outside the SOI but within the Planning Area are proposed for agricultural uses. The proposed General Plan Land Use Map does not re-designate any areas currently designated for open spaces uses to urban uses. The amount of new pavement and impervious surfaces, and the extent to which they affect infiltration, depends on the site-specific features and soil types of a given project site. Projects located in urban areas would have less of an impact than projects converting open lands and spaces.

Given that implementation and future buildout of the proposed General Plan would not appreciably add to the volume of imperious surfaces in Manteca, when compared to the overall

size of the regional groundwater basin recharge area, and that there are adequate water supplies (including groundwater) to serve the projected buildout demand of the General Plan, this potential impact would be **less than significant**, and no additional mitigation is required.

While mitigation is not required for this less than significant impact, the General Plan includes policies and implementation actions that support water conservation and aim to diversify the City's water sources. The General Plan and development codes are consistent with the ESJGS-GSP. Implementation of the following General Plan policies and implementation actions would further ensure that the General Plan would have a **less than significant** impact relative to this topic.

### GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### POLICIES

*CF-6.1: Ensure the water system and supply is adequate to meet the needs of existing and future development and is utilized in a sustainable manner.*

*CF-6.3: Pursue additional water supply agreements to supplement the City's existing system in order to meet projected demand and to reduce the City's reliance on groundwater resources.*

*CF-6.6: Limit development of private water wells to occur only if the City makes a finding that it cannot feasibly provide water service. Such systems shall only be allowed to be used until such time as City water service becomes available.*

*CF-6.7: Ensure that all new development provides for and funds a fair share of the costs for adequate water distribution, including line extensions, easements, and plant expansions.*

*CF-6.8: Continue efforts to reduce potable water use and increase water conservation.*

*CF-6.9: Encourage the use of recycled water for industrial uses and landscape irrigation where feasible, within the parameters of State and County Health Codes and standards.*

*CF-6.10: Consider the effect of incremental increases in the demands on groundwater supply and water quality when reviewing development applications.*

#### IMPLEMENTATION ACTIONS

*CF-6a: Update the Public Facilities Implementation Plan, regarding water supply and distribution, every five years. The update shall reflect the most recent adopted groundwater studies that establish a safe yield for the groundwater basin and/or establish maximum extraction from the basin. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-6b: Continue to rely principally on groundwater resources in the near term, while participating in the regional improvements to deliver surface water to augment the City's groundwater supply in the mid and long term.*

*CF-6d: Regularly review and update the City's water conservation measures to be consistent with current best management practices for water conservation, considering measures recommended by the State Department of Water Resources, the California Urban Water Conservation Council, and the San Joaquin County Flood Control and Water Conservation District.*

*CF-6h: Retain a water conservation ordinance requiring the installation of low-flush toilets, low-flow showerheads, and similar features in all new development.*

*CF-6j: Regularly monitor water quality in the water system and wells and take necessary measures to prevent contamination and reduce known contaminants to acceptable levels.*

## Impact 3.9-3: General Plan implementation could alter the existing drainage pattern in a manner which would result in substantial erosion, siltation, flooding, impeded flows, or polluted runoff (Less than Significant)

The City is within the jurisdictional boundary of the CVRWQCB. Under the CVRWQCB NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge

General Plan implementation has the potential to impact the Planning Area's storm drainage system. The potential impacts would be primarily derived from development in what are now underdeveloped and/or underutilized areas. Construction activities are regulated by the NPDES General Construction Storm Water Permit. Compliance with the storm water permit during construction activities requires the preparation of a SWPPP that contains BMPs to control the discharge of pollutants, including sediment, into local surface water drainages.

A gradual increase in impervious cover associated with new development could increase operational storm water runoff. An agreement between the City and SSJID requires that the City monitor stormwater discharges to SSJID facilities to make sure that facilities capacities are not exceeded. The City is also required to control stormwater quality to meet applicable regulations. The detention basins are used to detain stormwater to attenuate peak flows before pumping drainage flows into SSJID facilities. Where required, to meet NPDES permit requirements, stormwater is treated prior to release to natural water bodies within the area. Treatment is provided at detention basin sites, or by on-site source control. Most of the City's pump stations pump from detention basins into the SSJID laterals and drains. The City system also includes 10 water level monitoring stations that are used to obtain real-time water level measurements at critical low points in the system, to prevent flooding. The storm drain system is monitored and controlled remotely through SCADA (City of Manteca, 2013).

In addition to complying with the NPDES programs and Municipal Code stormwater requirements, the General Plan contains policies and implementation actions to reduce impacts associated with stormwater and drainage including policies which require new development to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process. Additionally, the General Plan actions require the City to continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.

Individual future projects developed after adoption of the General Plan would create new impervious surfaces. This would result in an incremental reduction in the amount of natural soil surfaces available for infiltration of rainfall and runoff, potentially generating additional runoff during storm events. In addition, the increase in impervious surfaces, along with the increase in surface water runoff, could increase the non-point source discharge of pollutants. Anticipated runoff contaminants include sediment, pesticides, oil and grease, nutrients, metals, bacteria, and trash. Contributions of these contaminants to stormwater and non-stormwater runoff would degrade the quality of receiving waters. During the dry season, vehicles and other urban activities release contaminants onto the impervious surfaces, where they can accumulate until the first storm event. During this initial storm event, or first flush, the concentrated pollutants would be transported via runoff to stormwater drainage systems. Contaminated runoff waters could flow into the stormwater drainage systems that discharge into rivers, agricultural ditches, sloughs, and channels, and ultimately could degrade the water quality of any of these water bodies.

The General Plan sets policies and actions for build-out of the City, but it does not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. As previously discussed in the Regulatory Setting section of this chapter, future project applicants would be required to obtain permits from the Army Corps of Engineers and the Department of Fish and Wildlife if any work is performed within a waterway. Each future development project must also include detailed project specific floodplain and drainage studies that assess the drainage characteristics and flood risks so that an appropriate storm drainage plan can be prepared to control storm water runoff, both during and after construction. The drainage plan will ultimately include project specific best management measures that are designed to allow for natural recharge and infiltration of stormwater. Construction of storm drainage improvements would occur as part of an overall development or infrastructure project, and is considered in the environmental impacts associated with project construction and implementation as addressed throughout this EIR.

The City manages local storm drain facilities and the SSJID is responsible for regional flood control planning. Provision of stormwater detention facilities as needed would reduce runoff rates and peak flows. The City has developed the General Plan to include policies and actions that, when implemented, will reduce flooding from new development, reduce storm water pollution from new development, and protect and enhance natural storm drainage and water quality features, which will in turn reduce water quality impacts.

Through implementation of the General Plan policies and actions listed below, implementation of the Manteca Municipal Code requirements identified above, and compliance with mandatory Federal and State regulations would ensure that impacts related to increased flooding or water quality impacts associated with increased runoff would be mitigated to a **less than significant** level.

### GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MITIGATE POTENTIAL IMPACTS

POLICIES

*CF-8.1: Maintain and improve Manteca's storm drainage facilities.*

*CF-8.2: Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.*

*CF-8.3: Continue to allow dual-use detention basins for parks, ball fields, and other uses where appropriate.*

*CF-8.4: Incorporate recreational trails and parkway vegetation design where open stormwater facilities are appropriate and ensure that vegetation does not reduce channel capacity.*

*CF-8.5: Maintain drainage channels in a naturalized condition where appropriate, incorporating recreational trails, parkway vegetation, and other amenities and ensuring that vegetation does not reduce channel capacity, and consistent with the Resource Conservation Element.*

*CF-8.6: Continue to work cooperatively with outside agencies such as the San Joaquin County Flood Control and Water Conservation District regarding storm drainage issues.*

IMPLEMENTATION ACTIONS

*CF-8a: Update the Storm Drainage Master Plan and Public Facilities Implementation Plan every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-8b: Continue to complete gaps in the drainage system in areas of existing development.*

*CF-8c: Identify which storm water and drainage facilities are in need of repair and address these needs through the City's Capital Improvement Program.*

*CF-8d: Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.*

## Impact 3.9-4: General Plan implementation would not release pollutants due to project inundation by flood hazard, tsunami, or seiche. (Less than Significant)

FLOOD

The FEMA FIRM for the Planning Area is shown on Figure 3.9-2. The Planning Area is subject to flooding problems along the natural creeks and drainages that traverse the area. The primary flood hazard is the San Joaquin River (four miles outside the Study Area) and its tributaries, notably Walthall Slough (contiguous with the southwestern Study Area boundary). A levee running from Williamson Road east to Airport Way provides flood protection for the land north and east of Walthall Slough. This levee is under the jurisdiction of Reclamation District No. 17. The 100-year

flood plain is largely confined to the southwestern portion of the City limits and SOI. Similarly, the 500-year flood plain is located in the southwestern and western portions of the City limits and SOI.

The 200-year floodplain for the Planning Area, as mapped by the City of Manteca and San Joaquin County, is shown on Figure 3.9-3. As shown in the figure, the 200-year floodplain is located in the western portion of the City's SOI and City limits. Existing uses within the 200-year floodplain include mainly agricultural and rural-residential uses. Some more recently developed homes located south of State Route 120 are also located within the 200-year floodplain.

The General Plan would allow development and improvement projects that would involve some land clearing, grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. As required by the CWA, each subsequent development project or improvement project will require an approved SWPPP that includes best management practices for grading and preservation of topsoil. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

As described previously in the Regulatory Setting, the City of Manteca regulates storm water discharge in accordance with the NPDES permit through Chapter 13.28 of the Manteca Municipal Code, Stormwater Quality Management Discharges. In addition to complying with the NPDES programs and Municipal Code requirements, the General Plan contains policies to reduce impacts associated with stormwater and drainage including policies to maintain sufficient levels of storm drainage service, maintain drainage channels in a naturalized condition where appropriate, and other best practices in order to protect the community from flood hazards and minimize the discharge of materials into the storm drain system that are toxic.

Additionally, Section 17.30.040, 200-Year Floodplain (F-200) Overlay Zone, of the City's Municipal Code requires certain findings prior to approving certain projects within a 200-year floodplain. The review authority shall not approve the execution of a development agreement, a tentative map, or a parcel map for which a tentative map is not required, or a discretionary permit or other discretionary entitlement that would result in the construction of a new building, or construction that would result in an increase in allowed occupancy for an existing building, or issuance of a ministerial permit that would result in the construction of a new residence for property that is located within the F-200 Zone unless the review authority finds, based on substantial evidence in the record, one of the following:

1. The facilities of the State Plan of Flood Control or other flood management facilities protect the property to the urban level of flood protection in urban and urbanizing areas;
2. The City has imposed conditions on a development agreement, map, permit, or entitlement that will protect the property to the urban level of flood protection in urban and urbanizing areas;
3. The local flood management agency has made adequate progress (as defined in California Government Code Section 65007) on the construction of a flood protection system that will result in flood protection equal to or greater than the urban level of flood protection in urban or urbanizing areas; or

4. The property is located in an area of potential flooding of three feet or less from a storm event that has a one in two hundred chance of occurring in any given year, from sources other than local drainage, in urban and urbanizing areas.

Further, the City's 2013 PFIP) Update notes several stormwater control improvements aimed to protect the City from flooding during storm events. The 2013 Storm Drain Master Plan evaluates drainage from the General Plan lands within the City's Primary Urban Service Area through build out. As funds are available, the City will construct water level monitoring facilities in the various PFIP zones and in the French Camp Outlet Canal to monitor water elevations in real-time to prevent flooding caused by additional drainage flows. Each zone's proportionate share of the water level monitoring stations is included the various PFIP zone fees.

Lastly, the proposed General Plan includes policies and actions in order to reduce impacts associated with flooding. For example, Policy S-3.3 requires evaluation of potential flood hazards prior to approval of development projects to determine whether the proposed development is reasonably safe from flooding. Action S-3e requires applications for development in areas subject to 200-year flooding to indicate the depth of predicted 200-year flooding on the basis of official maps approved by the City or Floodplain Administrator. The implementation of the General Plan would result in a **less than significant** impact relative to this topic.

### TSUNAMI AND SEICHES

Tsunamis and seiches are standing waves that occur in the ocean or relatively large, enclosed bodies of water that can follow seismic, landslide, and other events from local sources (California, Oregon, Washington coast) or distant sources (Pacific Rim, South American Coast, Alaska/Canadian coast).

Manteca is located approximately 67 miles from the Pacific Ocean at an elevation of approximately 20 feet above mean sea level. Based on tsunami inundation maps prepared by the Department of Conservation, California Emergency Management Agency, and California Geological Survey, the City is not identified as being within a tsunami inundation or run-up zone.

Seiches are typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the wind stops, the water rebounds to the other side of the enclosed area. The water then continues to oscillate back and forth for hours or even days. In a similar fashion, earthquakes, tsunamis, or severe storm fronts may also cause seiches along ocean shelves and ocean harbors, or other bodies large of water. Any body of water may experience limited oscillation during storm events or following seismic events, however oscillation in small bodies of water is generally limited. In smaller water bodies seiches may have the potential to damage or overtop dams. Generally, in lakes the threat of large-scale damage from seiches comes from downstream flooding that would be caused by large volumes of water overtopping a dam or reservoir.

As described previously, the Planning Area has the potential to be inundated by four dams: Tulloch Dam, San Luis Dam, New Exchequer Dam (Lake McClure), and New Melones Dam. The dam inundation area for each dam is shown in Figure 3.9-4. As such, the City is at significant risk from a

dam failure. Dam failure is generally a result of structural instability caused by improper design or construction, instability resulting from seismic shaking, or overtopping and erosion of the dam. As discussed previously, larger dams that are higher than 25 feet or with storage capacities over 50 acre-feet of water are regulated by the California Dam Safety Act, which is implemented by the California Department of Water Resources, DSD. The DSD is responsible for inspecting and monitoring these dams. The Act also requires that dam owners submit to the California Office of Emergency Services inundation maps for dams that would cause significant loss of life or personal injury as a result of dam failure. The County Office of Emergency Services is responsible for developing and implementing a Dam Failure Plan that designates evacuation plans, the direction of floodwaters, and provides emergency information.

Regular inspection by DSD and maintenance by the dam owners ensure that the dams are kept in safe operating condition. As such, failure of these dams is considered to have an extremely low probability of occurring and is not considered to be a reasonably foreseeable event.

In addition, man-made lakes within the Planning Area are shallow with limited surface areas and would not generate devastating seiches. The City of Manteca is not within a tsunami hazard area and would not be subject to substantial impacts from seiche events. This is a **less than significant** impact and no mitigation is required.

### GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### POLICIES

*S-1.1: Maintain and periodically update the City's Emergency Plan.*

*S-1.2: Ensure the availability and functionality of critical facilities during flooding events.*

*S-1.3: Locate new critical City facilities, and promote the location of non-City critical facilities, including hospitals, emergency shelters, emergency response centers, and emergency communications facilities, outside of flood hazard zones and geologic hazard areas where feasible. Critical facilities that are, or must be, located within flood hazard zones or areas with geologic hazards should incorporate feasible site design or building construction features to mitigate potential risks, including those associated with geologic, seismic, and flood events, to ensure accessibility, operation, and structural integrity, during an emergency and to minimize damage to the facility.*

*S-1.4: Encourage community awareness of seismic, flooding, and other disaster safety issues, including building safety, emergency response plans, and understanding steps to take for safety during and after a disaster, including identified evacuation routes.*

*S-1.5: Continue to cooperate with San Joaquin County and other public agencies in implementing the Countywide Emergency Preparedness Plan and Local Hazard Mitigation Plan.*

*S-3.3: Require evaluation of potential flood hazards prior to approval of development projects to determine whether the proposed development is reasonably safe from flooding and consistent with California Department of Water Resources Urban Level of Flood Protection Criteria (ULOP). The City shall not approve the execution of a development agreement, a tentative map, or a parcel map for which a tentative map is not required, or a discretionary permit or other discretionary entitlement*

*that would result in the construction of a new building, or construction that would result in an increase in allowed occupancy for an existing building, or issuance of a ministerial permit that would result in the construction of a new residence for property that is located within a 200-year flood hazard zone, unless the adequacy of flood protection as described in Government Code §65865.5(a), 65962(a), or 66474.5(a), has been demonstrated.*

*CF-8.1: Maintain and improve Manteca's storm drainage facilities.*

*CF-8.2: Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.*

*CF-8.3: Continue to allow dual-use detention basins for parks, ball fields, and other uses where appropriate.*

*CF-8.4: Incorporate recreational trails and parkway vegetation design where open stormwater facilities are appropriate and ensure that vegetation does not reduce channel capacity.*

*CF-8.5: Maintain drainage channels in a naturalized condition where appropriate, incorporating recreational trails, parkway vegetation, and other amenities and ensuring that vegetation does not reduce channel capacity, and consistent with the Resource Conservation Element.*

*CF-8.6: Continue to work cooperatively with outside agencies such as the San Joaquin County Flood Control and Water Conservation District regarding storm drainage issues.*

IMPLEMENTATION ACTIONS

*S-1e: Periodically coordinate with local flood protection agencies, including the reclamation districts, to discuss the status of flood protection facilities and improvements, strategize future improvements, consider potential climate change effects, financing for improvements, emergency response plans, and worker training for emergency response situations.*

*S-1f: Review and maintain critical City facilities to ensure the accessibility and structural and operational integrity of essential facilities during an emergency.*

*S-3e: Require applications for development in areas subject to 200-year flooding to indicate the depth of predicted 200-year flooding on the basis of official maps approved by the City of Manteca or Floodplain Administrator.*

*S-3f: Maintain an official 200-year Floodplain Map, including predicted flood depths, for reference when making land use determinations.*

*S-3g: Amend Chapter 8.30 (Floodplain Management) of the Municipal Code to reflect flood protection requirements specified in the Safety Element as well as any relevant updates to Federal or State requirements.*

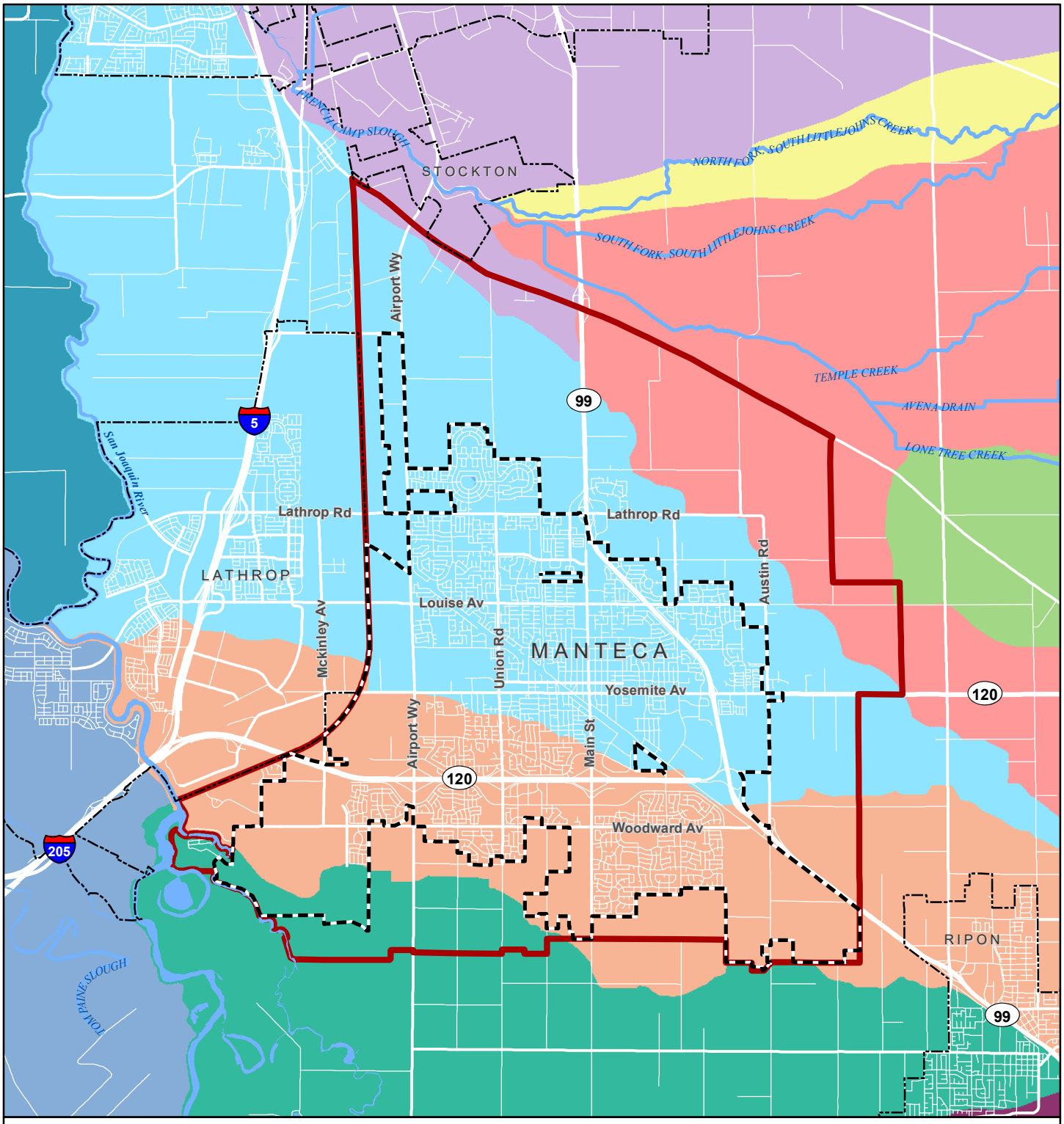
*S-3h: Consider potential effects of climate change in planning, design, and maintenance of levee improvements and other flood control facilities.*

*CF-8a: Update the Storm Drainage Master Plan and Public Facilities Implementation Plan every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-8b: Continue to complete gaps in the drainage system in areas of existing development.*

*CF-8c: Identify which storm water and drainage facilities are in need of repair and address these needs through the City's Capital Improvement Program.*

*CF-8d: Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.*




**Legend**

**Planning Areas**

- Manteca City Limits
- Surrounding Cities
- Manteca Planning Area

**Watersheds**

- Boscha Lake -Stanislaus River
- Lower Lone Tree Creek
- Middle Lone Tree Creek
- Oakwood Lake-San Joaquin River
- Roberts Island-Trapper Slough
- Simmons Creek-Littlejohns Creek
- Town of French Camp-San Joaquin River
- Upper Old River
- Walker Slough-French Camp Slough
- Walthall Slough-San Joaquin River

*Sources: USGS Watershed Boundary dataset; City of Manteca; San Joaquin County. Map date:December 12, 2016. Revisions: January 7, 2020; December 14, 2020.*

**CITY OF MANTECA GENERAL PLAN**

Figure 3.9-1. Watershed Map

N

0 ½ 1

Miles

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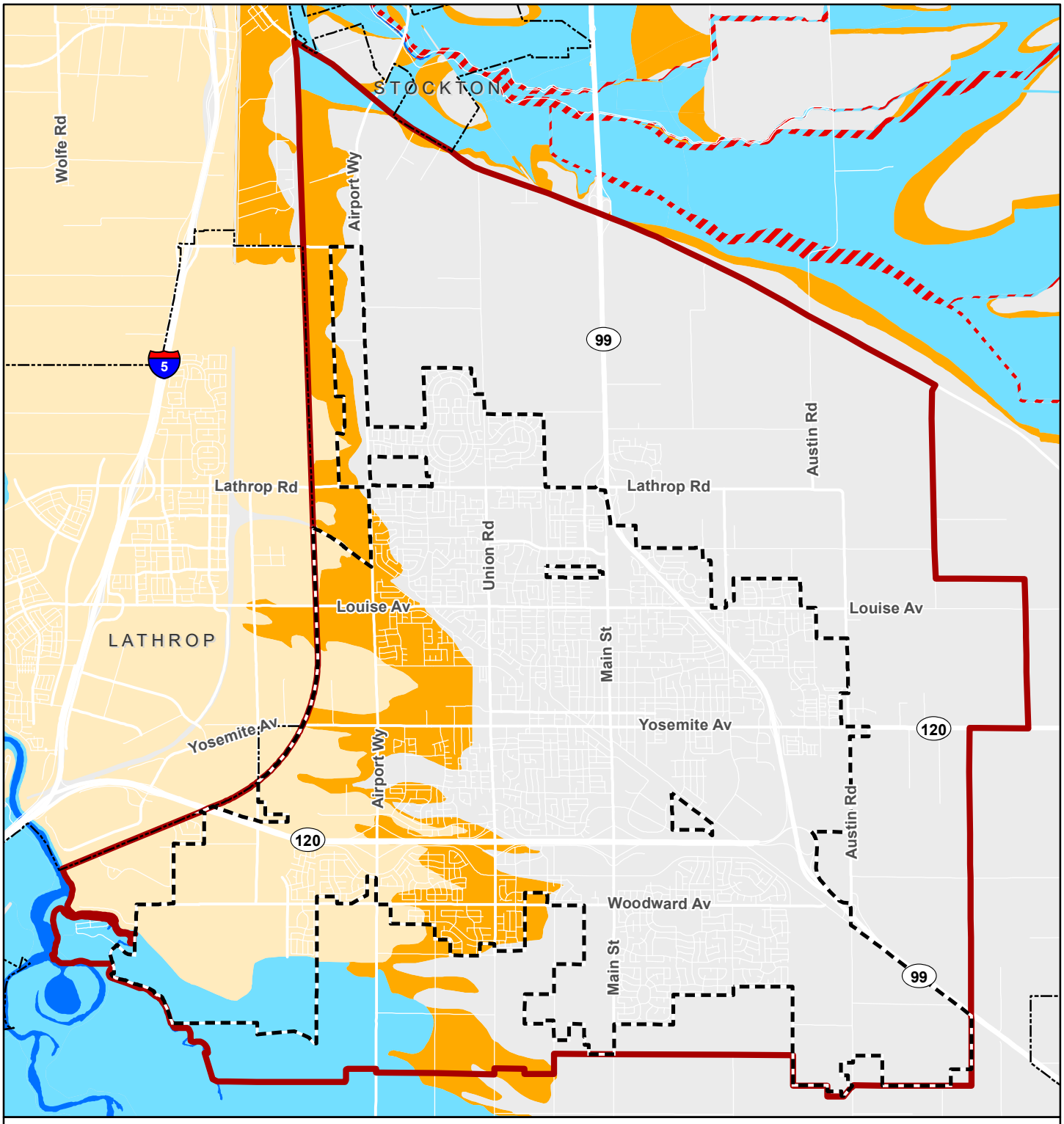


**Legend**

- Manteca City Limits
- Surrounding Cities
- Manteca Planning Area

**FEMA Designation**

- 100-year Flood Zone
- 500-year Flood Zone
- Regulatory Floodway
- Area of Minimal Flood Hazard
- Area with Reduced Risk due to Levee

**CITY OF MANTECA GENERAL PLAN**

Figure 3.9-2. FEMA Flood Zone Designations

N

0 ½ 1
Miles

*Source: FEMA's National Flood Hazard Layer, City of Manteca GIS.*
*Map date: October 7, 2016. Reviseions: January 5, 2020; December 14, 2020.*

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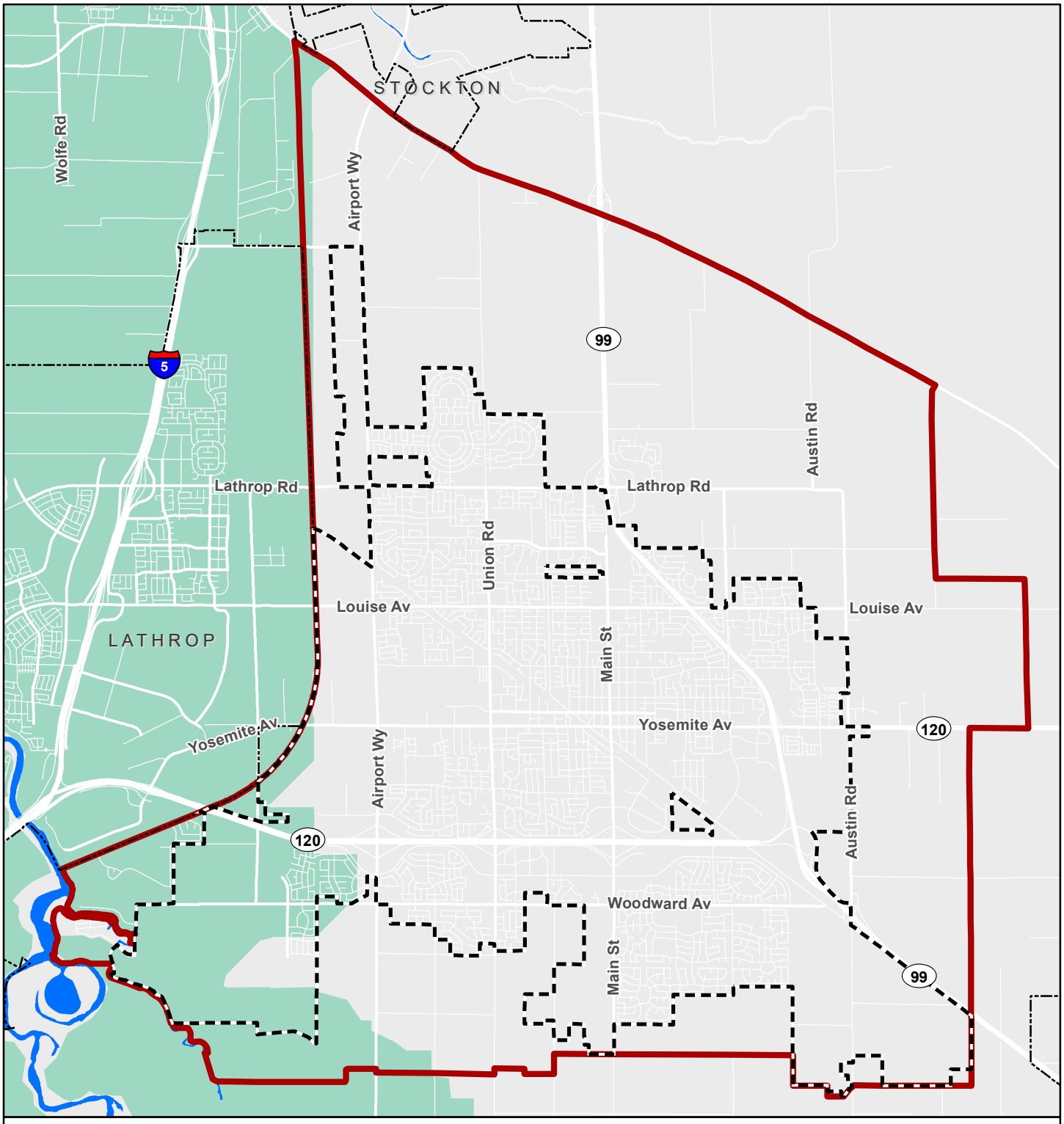


**Legend**

**Planning Areas**

- Manteca City Limits
- Surrounding Cities
- Manteca Planning Area

**USACE Comprehensive Study**

- 200-year Floodplain

**CITY OF MANTECA GENERAL PLAN**

Figure 3.9-3. 200-Year Floodplain

0 ½ 1
Miles

*Source: DWR Best Available Map (BAM) data USACE Comprehensive Study; San Joaquin County. Map date: January 5, 2020. Revised December 14, 2020.*

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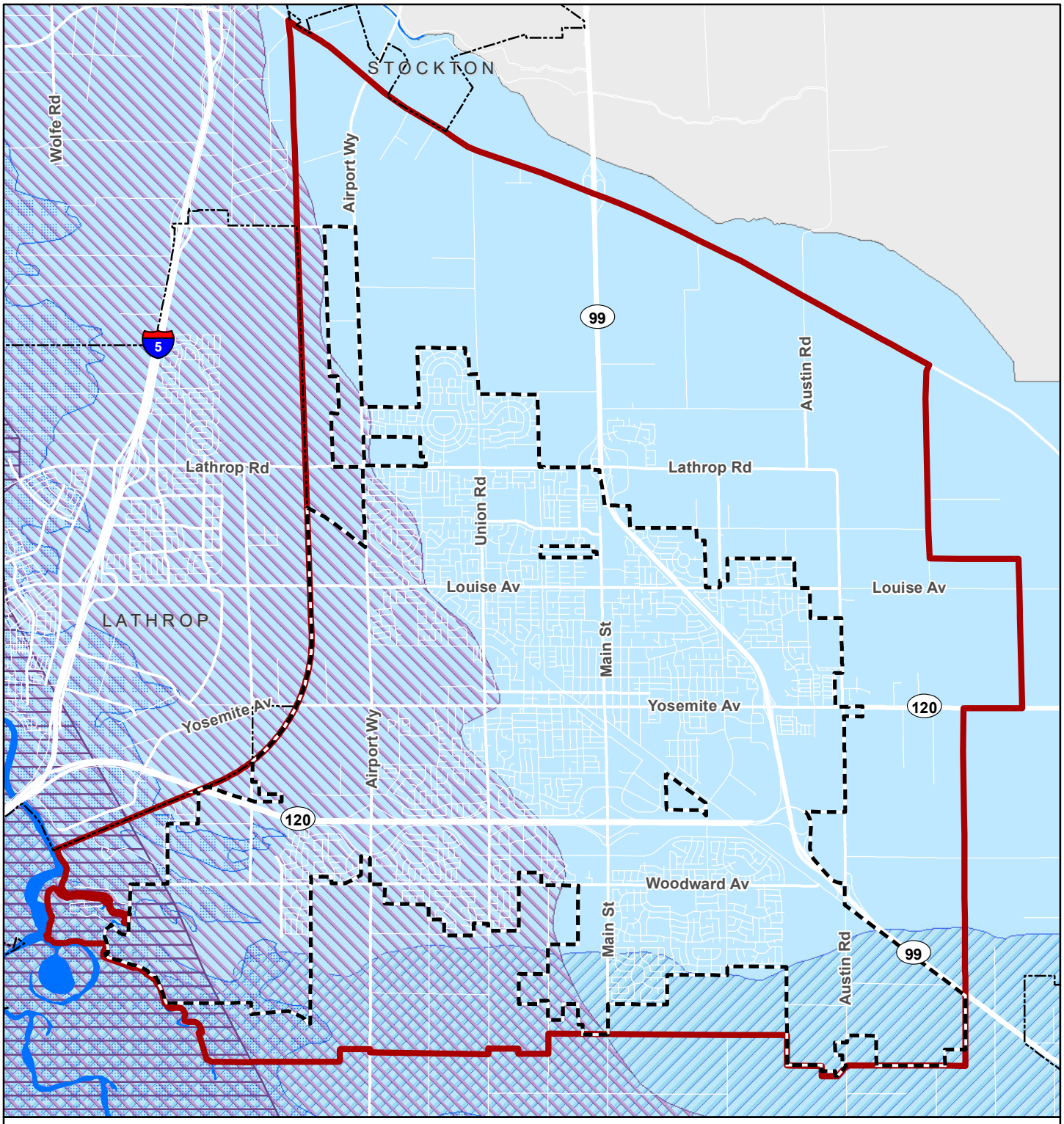


**Legend**

**Planning Areas**

- Manteca City Limits
- Surrounding Cities
- Manteca Planning Area

**OES Dam Inundation Areas**

- Pine Flat Dam
- Lake McClure Reservoir
- San Luis Reservoir
- Tulloch Reservoir
- New Melones Dam

**CITY OF MANTECA GENERAL PLAN**

Figure 3.9-4. Dam Inundation Areas

0 ½ 1 Miles

*Source: Office of Emergency Services Dam Inundation Areas made available via sjmap.org; San Joaquin County; City of Manteca. Map date: October 7, 2016. Revisions: January 5, 2020; December 14, 2020.*

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This section identifies the existing land use conditions, discusses population and housing trends and projections, analyzes the project's consistency with relevant planning documents and policies adopted for the purpose of avoiding or mitigating an environmental effect, and recommends mitigation measures to avoid or minimize the significance of potential environmental impacts. General Plan policies associated with other specific environmental topics are discussed in the relevant sections of this EIR.

Comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the California Department of Transportation (Caltrans), Curtis Powers, Herum\Crabtree\Suntag Attorneys, Zottarelli Ranch, and NorthStar Engineering. Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

## 3.10.1 ENVIRONMENTAL SETTING

### EXISTING CONDITIONS

The City Limits includes the area within the City's corporate boundary, over which the City exercises land use authority and provides public services. A City's Sphere of Influence (SOI) is the probable physical boundary and service area of a local agency, as adopted by a Local Agency Formation Commission (LAFCO). An SOI may include both incorporated and unincorporated areas within which a city or special district will have primary responsibility for the provision of public facilities and services. 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 city limits, the City's SOI, and lands beyond the SOI. Figure 2.0-2 in Chapter 2.0, Project Description, shows the Manteca Planning Area boundary.

#### Land Use Patterns

When discussing land use, it is important to distinguish between planned land uses and existing land uses. The General Plan land use designations identify the long-term planned use of land but do not present a complete picture of existing land uses. The San Joaquin County Assessor's office maintains a database of existing land uses on individual parcels, including the number of dwelling units and related improvements such as non-residential building square footage. This information is used as the basis for property tax assessments and is summarized in Table 3.10-1 and depicted on Figure 3.10-1.

Existing land uses refer to the existing built environment, which may be different from the land use or zoning designations applied to land for planning purposes. Existing land uses are based on data provided by the County Assessor. The predominant land uses in the City and Planning Area are agricultural uses (53% of total acres), single-family residential (26.9% of total acres, institutional

(8.2% of total acres), and commercial (4.7% of total acres). Additional uses in the City and Planning Area include industrial manufacturing and non-manufacturing, multifamily residential, parks and recreation, open space, office, and communication/utilities uses.

***TABLE 3.10-1: ASSESSED LAND USES – CITY OF MANTECA***

| *LAND USE* | *CITY LIMITS* | *PLANNING AREA (OUTSIDE OF CITY)* | *TOTAL ACRESA* |
|---|---|---|---|
| Single Family Residential | 4,384.73 | 2,141.52 | 6,526.25 |
| Multifamily Residential | 313.72 | 16.01 | 329.73 |
| Commercial | 1,108.06 | 35.78 | 1,143.85 |
| Industrial Manufacturing | 448.57 | 19.73 | 468.31 |
| Industrial Non-Manufacturing | 336.32 | 57.10 | 393.42 |
| Institutional | 1,300.78 | 685.28 | 1,986.07 |
| Office | 50.34 | 8.36 | 58.69 |
| Open Space | 0 | 176.14 | 176.14 |
| Parks and Recreation Facilities | 199.38 | 19.80 | 219.18 |
| Agricultural | 2,896.06 | 9,956.05 | 12,852.11 |
| Communication/Utilities | 14.99 | 6.86 | 21.85 |
| Non-Taxable | 23.65 | 23.65 | 23.65 |
| No Use Code | 32.03 | 0 | 32.03 |
| **Total** | **11,108.65** | **13,122.62** | **24,231.27** |

*SOURCE: SAN JOAQUIN COUNTY ASSESSOR'S OFFICE, 2016; DE NOVO PLANNING GROUP, 2020.*

## Development Trends

Development began in Manteca between 1914 and 1920. Residential neighborhoods were beginning to fill in by 1918. The City of Manteca was incorporated on May 28, 1918. During the 1950's, the City grew as inexpensive housing drew workers from the Sharpe Army Depot in Lathrop and industrial plants in south San Joaquin County.

Residential development constructed before 1940 until 1959 is generally located near Downtown Manteca. Scattered rural residences constructed in the same time period are also located in the periphery of the City. From 1960 to 1999, residential development was generally constructed south of Lathrop Road, west of Austin Road, north of SR 120, and east of Airport Way. Residential construction south of SR 120 and north of Lathrop Road generally occurred between 2000 to 2016.

While agriculture still plays an important role in the local economy, the economic base has become more diversified with the development of industries and the influx of Bay Area workers seeking affordable housing. The community has grown with the addition of new neighborhoods, primarily to the north and west of the historic geographic core.

Manteca has grown outward from the geographic center at Yosemite Avenue and Main Street. Commercial development along Yosemite Avenue and Main Street is flanked by residential neighborhoods. In the early years, the community grew close to the historic center in a concentric pattern.

In the decades of the 1970's through 1990's the community grew away from the center toward the north and west. In the latter 1990's, following the approval of the South Area Plan, Manteca began to grow south of SR 120. Large scale residential development south of SR 120 began in 2003. Additionally, residential development north of Lathrop Road began in late 2006.

Over the past two decades, subdivisions and multifamily development have continued to develop south of SR 120 and active adult subdivisions have developed north of Lathrop Road and east of SR 99 between Louse Ave and E. Southland Road. Residential, commercial, and industrial in-fill development has occurred throughout the City. Regional recreational and commercial uses, including the Big League Dreams sports park, Great Wolf Lodge, and Stadium Center Shopping Center have developed north of SR 120 between Airport Way and McKinley Avenue. Industrial uses have continued to expand, with significant warehousing and distribution development occurring west of Airport Way between Lathrop and Roth Roads.

## Population and Households

Table 3.10-2 summarizes the population and household data for Manteca and San Joaquin County from 1980 through 2017.

***TABLE 3.10-2: POPULATION AND HOUSEHOLD GROWTH TRENDS***

| | *1980* | *1990* | *2000* | *2010* | *2020* | *1980-2000 CHANGE* | *2000-2020 CHANGE* | *1980-2020 AVG. ANNUAL CHANGE* |
|---|---|---|---|---|---|---|---|---|
| *MANTECA* | | | | | | | | |
| **Population** | 24,925 | 40,773 | 49,258 | 67,096 | 84,800 | 98% | 72% | 3.1% |
| **Households** | 8,592 | 13,981 | 16,368 | 21,618 | 26,510 | 97% | 62% | 2.9% |
| **Persons per household** | 2.87 | 3.02 | 2.98 | 3.08 | 3.18 | 3.8% | 6.7% | 0.3% |
| *SAN JOAQUIN COUNTY* | | | | | | | | |
| **Population** | 347,342 | 480,628 | 556,229 | 685,306 | 773,632 | 60% | 39% | 2.0% |
| **Households** | 124,626 | 166,274 | 181,629 | 215,007 | 234,766 | 52% | 29% | 1.6% |
| **Persons per household** | 2.71 | 2.94 | 3.00 | 3.12 | 3.23 | % | 7.7% | 0.4% |

*SOURCE: U.S. CENSUS, 1980, 1990; MANTECA HOUSING ELEMENT, JANUARY 2016; CALIFORNIA DEPARTMENT OF FINANCE, 2020.*

From 1980 to 2000, the city's population increased by 98% from 24,925 to 49,258 persons. Additionally, from 2000 to 2020, Manteca experienced additional population growth increasing by approximately 72% from 49,258 to 84,800. Similarly, San Joaquin County's total population increased by approximately 39% during the 2000s and 2010s. Between 1980 and 2020, Manteca's population growth rate averages 3.1% per year, while that of San Joaquin County is an average of 2.9% per year.

Households have increased at a rate generally proportional to Manteca's population, with both households and populations increasing by similar percentages from 1980 to 2000 and 2010 to 2020. Over the years, the average household size has fluctuated slightly with a high of 3.18 in 2020 and a low of 2.87 in 1980. In recent years, household size has remained at relatively similar levels with an average of 3.08 persons per household in 2010 and 3.18 persons per household in 2020.

### Housing Units

As shown in Table 3.10-3, the number of housing units in Manteca has increased at rates similar to the population with significant increases since 1980. From 1980 to 2000, housing units increased from 9,165 to 16,368, a 79% increase. In 2020, there were 27,667 housing units in the city, which is a 28% increase from 2010.

***TABLE 3.10-3: HOUSING UNITS***

| | *1980* | *1990* | *2000* | *2010* | *2020* | *1980-2000 CHANGE* | *2000-2020 CHANGE* |
|---|---|---|---|---|---|---|---|
| **Manteca** | 9,165 | 13,466 | 16,368 | 21,618 | 27,667 | 79% | 28% |
| **San Joaquin Co.** | 136,001 | 158,659 | 181,629 | 215,007 | 249,058 | 34% | 16% |

*SOURCE: U.S. CENSUS, 1990; MANTECA HOUSING ELEMENT, 2016; CALIFORNIA DEPARTMENT OF FINANCE, 2020.*

## 3.10.2 REGULATORY SETTING

## STATE

### California General Plan Law

Government Code Section 65300 requires that each county and city adopt a General Plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning."

The General Plan will include a comprehensive set of goals, policies, and actions (implementation measures), as well as a revised Land Use Map. It is a comprehensive long-term plan for the physical development of the county or city and is considered a "blueprint" for development. The General Plan must contain seven state-mandated elements: Land Use, Open Space, Conservation, Housing, Circulation, Noise, and Safety. It may also contain any other elements that the county or city wishes to include. The land use element designates the general location and intensity of designated land uses to accommodate housing, business, industry, open space, education, public buildings and grounds, recreation areas, and other land uses.

The 2017 General Plan Guidelines, established by the Governor's Office of Planning and Research (OPR) to assist local agencies in the preparation of their general plans, further describe the mandatory land use element as a guide to planners, the general public, and decision makers prescribing the ultimate pattern of development for the county or city.

## Regional Housing Needs Plan

California General Plan law requires each city and county to have land zoned to accommodate a fair share of the regional housing need. The share is known as the Regional Housing Needs Allocation (RHNA) and is based on a Regional Housing Needs Plan (RHNP) developed by councils of government. The San Joaquin Council of Governments (SJCOG) is the lead agency for developing the RHNP for the San Joaquin County area that includes the Cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy. Manteca's fair share of the adopted RHNA for 2014-2023 is summarized in Table 3.10-4

***TABLE 3.10-4: REGIONAL HOUSING NEEDS ALLOCATION***

| *EXTREMELY LOW INCOME* | *VERY LOW INCOME* | *LOW INCOME* | *MODERATE INCOME* | *ABOVE MODERATE INCOME* | *TOTAL* |
|---|---|---|---|---|---|
| *2014 - 2023* | | | | | |
| 459 | 466 | 693 | 825 | 1,958 | 4,401 |

*SOURCE: SJCOG,2014-2023 REGIONAL HOUSING NEEDS PLAN (RHNP), AUGUST 2014.*

The City is not required to ensure that adequate development to accommodate the RHNA occurs; however, the City must facilitate housing production by ensuring that land is available and that unnecessary development constraints have been removed. The City's Housing Element, adopted in 2010, provides for the accommodation of the 2014-2023 RHNA that has been assigned to the City of Manteca.

## Regional Transportation Plan/Sustainable Communities Strategy

SJCOG approved its most-recent Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) in June 2018, which continues to provide a "sustainability vision" through year 2042 that recognizes the significant impact the transportation network has on the region's public health, mobility, and economic vitality. The Plan serves as a guide for achieving public policy decisions that will result in balanced investments for a wide range of multimodal transportation improvements. The plan charts a course for closely integrating land use and transportation – so that the region can grow smartly and sustainably. It outlines more than $11.461 billion in transportation system investments through 2042. The Plan was prepared through a collaborative and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within San Joaquin County.

## California Environmental Quality Act

The California Environmental Quality Act (CEQA) was developed to protect the quality of the environment and the health and safety of persons from adverse environmental effects. Discretionary projects are required to be reviewed consistent with the requirements of CEQA to determine if there is potential for the project to cause a significant adverse effect on the environment. Depending on the type of project and its potential effects, technical traffic, noise, air quality, biological resources, and geotechnical reports may be needed. If potential adverse effects can be mitigated to less than significant levels, a mitigated negative declaration may be adopted. If potentially adverse effects cannot be mitigated to less than significant levels, an environmental

impact report is required. These documents have mandated content requirements and public review times. Preparation of CEQA documents can be costly and time-consuming, potentially extending the processing time of a project by a year or longer.

## Subdivision Code

A subdivision is any division of land for the purpose of sale, lease or finance. The State of California Subdivision Map Act (Government Code § 66410) regulates subdivisions throughout the state. The goals of the Subdivision Map Act are as follows:

- To encourage orderly community development by providing for the regulation and control of the design and improvement of a subdivision with proper consideration of its relationship to adjoining areas.
- To ensure that areas within the subdivision that are dedicated for public purposes will be properly improved by the subdivider so that they will not become an undue burden on the community.
- To protect the public and individual transferees from fraud and exploitation.

The Map Act allows cities flexibility in the processing of subdivisions. Manteca controls this process through the subdivision regulations in the Municipal Code Title 7 (referred to as the Manteca Subdivision Code). These regulations ensure that minimum requirements are adopted for the protection of the public health, safety and welfare; and that the subdivision includes adequate community improvements, municipal services, and other public facilities.

## Delta Protection Act of 1992

The southwest corner of the General Plan Study Area is within the “Secondary Zone” defined in the Resource Management Plan required in the California Delta Protection Act of 1992. As stated in the act the “basic goals of the state for the delta are the following:

(a) Protect, maintain, and, where possible, enhance and restore the overall quality of the delta environment, including, but not limited to, agriculture, wildlife habitat, and recreational activities.

(b) Assure orderly, balanced conservation and development of delta land resources.

(c) Improve flood protection by structural and nonstructural means to ensure an increased level of public health and safety.

"Secondary zone" means all the delta land and water area within the boundaries of the delta not included within the primary zone, subject to the land use authority of local government, and that includes the land and water areas as shown on the map titled "Delta Protection Zones" on file with the State Lands Commission. (Section 29731) However, this division does not confer any permitting authority upon the commission or require any local government to conform their general plan, or land use entitlement decisions, to the resource management plan, except with regard to lands within the primary zone. The resource management plan does not preempt local government general plans for lands within the secondary zone. (Section 29764)

### The Delta Reform Act of 2009

While there are many agencies involved in both the near and long-term management of the Delta, the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act) established the Delta Stewardship Council (Council) to create a comprehensive, long-term, legally enforceable plan to guide how multiple federal, state, and local agencies manage the Delta's water and environmental resources. The 2009 legislation directed the Council to oversee implementation of this plan through coordination and oversight of state and local agencies proposing to fund, carry out, and approve Delta-related activities. It also granted the Council regulatory and appellate authority over certain actions that take place in whole or in part in the Delta and Suisun Marsh, referred to as covered actions.

Since 2010, the Council has developed, amended, and begun implementing the Delta Plan, addressing multiple complex challenges in the process. Much progress has been made, but much remains to be done. Developed to achieve the state's coequal goals of a reliable statewide water supply and a protected, restored Delta ecosystem in a manner that preserves the values of the Delta as a place, the Delta Plan includes 14 regulatory policies and 95 recommendations. Collectively, these policies and recommendations address current and predicted challenges related to the Delta's ecology, flood management, land use, water quality, and water supply reliability. The Delta Plan's policies and recommendations are based on best available science and depend on cooperation and coordination among federal, state, and local agencies.

## LOCAL

### City of Manteca General Plan

The current Manteca General Plan was adopted in October 2003 and provided a comprehensive update to the 1988 General Plan document. The current General Plan provides a comprehensive set of goals, policies, and implementing actions to guide the County's growth through the year guides the City to the year 2023. Since adoption in 2003, the current General Plan has been amended In June 2010 to incorporate an updated Housing Element and in April 2011 to incorporate an updated Circulation Element.

The current Manteca General Plan includes the following elements and goals:

#### LAND USE ELEMENT

**Goal LU-1.** To provide for orderly, well-planned, and balanced growth consistent with the limits imposed by the city's infrastructure and the city's ability to assimilate new development.

**Goal LU-2.** To provide adequate land in a range of densities to meet the housing needs of all income groups expected to reside in Manteca, and to regulate residential growth consistent with the capacities of City facilities and services and the ability of the community to assimilate new development.

**Goal LU-3.** Provide adequate land for the development of commercial uses that provide goods and services to Manteca residents and Manteca's market area.

**Goal LU-4.** Provide for land uses that expand employment, education, recreation and cultural opportunities for residents and enhance Manteca as the commercial and service center for southern San Joaquin County.

**Goal LU-5.** To provide adequate land for development of public and quasi-public uses to support existing and new residential, commercial, and industrial land uses.

**Goal LU-6.** Provide open space as a framework for the city, and meet the active and passive recreational needs of the community.

**Goal LU-7.** Reinforce land use and development patterns that encourage walking and the use of public transit within the community.

**Goal LU-8.** To reinforce strong urban design, quality development and a compact city form.

### COMMUNITY DESIGN ELEMENT

**Goal CD-1.** Retain the compact and cohesive community form of the City.

**Goal CD-2.** Maintain a memorable City identity characterized by distinctive, high quality buildings and streetscapes.

**Goal CD-3.** Establish distinct, attractive identities for neighborhoods, gateways and commercial areas.

**Goal CD-4.** Promote the upgrading and aesthetic improvement of the downtown.

**Goal CD-5.** Strengthen the aesthetic and functional links between the Central Business District (CBD) and the Civic Center.

**Goal CD-6.** Promote the aesthetic development of Main Street and Yosemite Avenue.

**Goal CD-7.** Develop attractive and memorable entries to Manteca.

**Goal CD-8.** Upgrade and enhance the visual quality of Manteca's arterial and collector streets.

**Goal CD-9.** Establish a durable sustainable community that utilizes resources efficiently.

**Goal CD-10.** Establish a pedestrian and bicycle friendly environment in neighborhoods and commercial and office land use areas.

**Goal CD-11.** To the extent possible, new development shall retain or incorporate visual reminders of the agricultural heritage of the community.

### CIRCULATION ELEMENT

**Goal C-1.** Provide for a circulation system that allows for the efficient movement of people, goods, and services within and through Manteca while minimizing public costs to build and maintain the system.

**Goal C-2.** Provide complete streets designed to serve a broad spectrum of travel modes, including automobiles, public transit, walking, and bicycling.

**Goal C-3.** Develop attractive streetscapes that include landscaping, street trees, planted berms, and landscaped medians.

**Goal C-4.** Support the development of a Downtown area that is highly accessible to all modes of travel, focusing primarily on pedestrians, bicyclists, and transit riders.

**Goal C-5.** Balance the level of service for all modes so that residents and visitors have a variety of transportation choices.

**Goal C-6.** Maintain a safe transportation system for all modes.

**Goal C-7.** Accommodate truck and freight movements by developing city-wide truck routes and encouraging the development of freight and warehousing centers near existing rail lines and spurs.

**Goal C-8.** Establish reasonable parking requirements (minimum and maximum rates for uses) that limit parking encroachment while minimizing the amount of land consumed by parking lots.

**Goal C-9.** Provide a safe, secure, and convenient bicycle route system that connects to retail, employment centers, public facilities, and parks.

**Goal C-10.** Provide for safe and convenient pedestrian circulation.

**Goal C-11.** Maintain a coordinated, efficient bus service that provides both an effective alternative to automobile use and serves members of the community that cannot drive.

**Goal C-12.** Support and encourage regional transit connections that link Manteca to other cities.

### ECONOMIC DEVELOPMENT ELEMENT

**Goal ED-1.** Provide for adequate land for a wide range of commercial activities. Industrial, office and retail land should be designated in an appropriate mix to provide a full range of employment and opportunities that match the skills of Manteca residents as well as shopping to meet the needs of residents.

**Goal ED-2.** Locate commercially designated land in the appropriate places to maximize job creation, local capture of commercial sales, regional and interregional competitiveness and to minimize residential/commercial conflicts.

**Goal ED-3.** Expand, retain, and attract stable employment opportunities available to broad income levels.

**Goal ED-4.** Expand education and training opportunities for City residents at all levels.

**Goal ED-5.** Attract new industries that are compatible with the character of the City.

**Goal ED-6.** Protect and promote the overall commercial service and retail business sectors of the local economy.

**Goal ED-7.** Promote the establishment and expansion of small businesses and work place alternatives including home occupations, telecommuting businesses, and technology transfer based industries.

**Goal ED-8.** Reform and improve regulatory processes relating to businesses to foster the spirit of cooperation, understanding, and consensus between government and business.

**Goal ED-9.** Promote the development of affordable and market rate housing that matches with the needs of the present and future Manteca work force.

**Goal ED-10.** Provide a variety of housing types to house all segments of the Manteca community in accordance with the Housing Element.

**Goal ED-11.** Maintain and enhance the real and perceived safety in the community.

**Goal ED-12.** Enhance recreational and educational opportunities in the community.

**Goal ED-13.** Preserve and strengthen the city neighborhoods.

**Goal ED-14.** Enhance cultural opportunities both public and private.

**Goal ED-15.** Promote and protect the qualities and resources that make the Manteca area special, identifiable, unique and attractive.

**Goal ED-16.** Maintain and enhance the physical beauty of the Community and surrounding landscape.

**Goal ED-17.** Assure adequate public infrastructure is available at the right place and the right time to serve economic development opportunities.

**Goal ED-18.** Work with private utilities and private firms to assure that private infrastructure needed to support modern commercial development is available at a reasonable cost.

**Goal ED-19.** Assure that new development provides funding for necessary infrastructure.

**Goal ED-20.** Provide for affordable private infrastructure cost by pursuing alternative sources of energy and other utilities.

### PUBLIC FACILITIES AND SERVICES ELEMENT

**Goal PF-1.** The City will be innovative in new techniques and technologies to provide the best available level of public services in a cost-effective manner.

**Goal PF-2.** Public infrastructure and services will be affordable to the residents and business interests in the City.

**Goal PF-3.** Facilities improvements and services required to serve development will not place an economic burden on existing residents of the City. Development will pay a fair share of all costs of required public infrastructure and services.

**Goal PF-4.** Public improvements and facilities will be designed to enhance, rather than degrade, the natural environment in the City and surrounding area.

**Goal PF-5.** The City's public services and facilities will support economic development and residential growth in the City.

**Goal PF-6.** Public facilities and services agencies will cooperate on a regional basis.

**Goal PF-7.** Maintain an adequate level of service in the City's water system to meet the needs of existing and projected development.

**Goal PF-8.** Maintain an adequate level of service in the City's sewage collection and disposal system to meet the needs of existing and projected development.

**Goal PF-9.** Maintain 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.

**Goal PF-10.** The City shall ensure adequate, reliable electric service is available to all users in the City.

**Goal PF-11.** Provide for the implementation and enforcement of the provisions for the Source Reduction and Recycling Element, as mandated by the State.

**Goal PF-12.** Maintain efficient, effective and economical solid waste services for the residents, businesses and visitors to Manteca.

**Goal PF-13.** Maintain sufficient land inventory so that the Manteca Unified School District can provide for the educational needs of Manteca residents.

**Goal PF-14.** Establish and maintain a park system and recreation facilities that support economic development and residential growth in the City.

**Goal PF-15.** Establish and maintain a park system and recreation facilities that are suited to the needs of Manteca residents and visitors.

**Goal PF-16.** Promote the provision of private recreational facilities and opportunities.

**Goal PF-17.** Establish a recreation program that is suited to the needs and interests of all Manteca residents.

**Goal PF-18.** Provide a network of pedestrian and bicycle routes connecting Manteca's major open space areas and destination points.

### SAFETY ELEMENT

**Goal S-1.** Prevent loss of lives, injury, and property damage due to geological hazards and seismic activity.

**Goal S-2.** Prevent loss of lives, injury, and property damage due to the collapse of buildings and critical facilities, and to prevent disruption of essential services in the event of an earthquake.

**Goal S-3.** Protect life and property from flood events.

**Goal S-4.** Provide a planning framework suitable for flood protection and risk management consistent with Federal and State law.

**Goal S-5.** Pursue flood control solutions that minimize environmental impacts.

**Goal S-6.** The City shall protect the health, safety, natural resources, and property through regulation of use, storage, transport, and disposal of hazardous materials.

**Goal S-7.** Ensure that City emergency procedures are adequate in the event of potential natural or man-made disasters.

### RESOURCE CONSERVATION ELEMENT

**Goal RC-1.** Minimize the consumption of water to reasonable levels consistent with a high level of amenities and quality of life for City residents and visitors.

**Goal RC-2.** Maximize the beneficial uses of water by recycling water for irrigation and other non-potable uses.

**Goal RC-3.** The City shall ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicle trips and thereby help conserve scarce or nonrenewable energy resources.

**Goal RC-4.** 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.

**Goal RC-5.** Promote energy efficiency in new development and in building design.

**Goal RC-6.** Preserve and maintain Manteca's soils to avoid pollution of surface waters, decreased air quality, and loss of soil.

**Goal RC-7.** To protect water quality in the San Joaquin River and in the area's groundwater basin.

**Goal RC-8.** To provide adequate land for open space as a framework for urban development, to meet the passive recreation needs of the community, and to set aside wildlife habitat.

**Goal RC-9.** To promote the continuation of agricultural uses in the Manteca area and to discourage the premature conversion of agricultural land to nonagricultural uses, while providing for the urban development needs of Manteca.

**Goal RC-10.** Protect sensitive native vegetation and wildlife communities and habitat in Manteca.

**Goal RC-11.** Preserve and enhance Manteca's archaeological and historic resources for their aesthetic, educational and cultural values.

**Goal RC-12.** Protect Manteca's Native American heritage.

### NOISE ELEMENT

**Goal N-1.** Protect the residents of Manteca from the harmful and annoying effects of exposure to excessive noise.

**Goal N-2.** Protect the quality of life in the community and the tourism economy from noise generated by incompatible land uses.

**Goal N-3.** Ensure that the downtown core noise levels remain acceptable and compatible with commercial and higher density residential land uses.

**Goal N-4.** Protect public health and welfare by eliminating existing noise problems where feasible, by establishing standards for acceptable indoor and outdoor noise, and by preventing significant increases in noise levels.

**Goal N-5.** Incorporate noise considerations into land use planning decisions, and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

### AIR QUALITY ELEMENT

**Goal AQ-1.** Improve air quality by:

- Achieving and maintaining ambient air quality standards established by the U.S. Environmental Protection Agency, the California Air Resources Board, and the San Joaquin Air Pollution Control District;
- Minimizing public exposure to toxic or hazardous air pollutants; and
- Minimizing public exposure to pollutants that create a public nuisance, such as unpleasant odors.

**Goal AQ-2.** Integrate air quality planning with land use and transportation planning processes in order to reduce vehicle miles traveled in the City and by commuters.

**Goal AQ-3.** Increase opportunities for alternatives to internal combustion automobiles including, but not limited to, public transportation, bicycles, walking and alternative fuel vehicles including hybrid gaselectric, electric and compressed natural gas.

**Goal AQ-4.** Reduce air emissions through energy conservation.

### ADMINISTRATION AND IMPLEMENTATION ELEMENT

**Goal AD-1.** To provide for the ongoing administration and implementation of the General Plan.

### LAND USE DESIGNATIONS

The following are the land use designations identified in the current Manteca General Plan:

- Agriculture;
- General Commercial;
- Neighborhood Commercial;
- Commercial Mixed Use;
- Heavy Industrial;
- Light Industrial;
- Business Industrial Park;
- Business Professional;
- High Density Residential (15.1 to 25 dwelling units per acre);

- Medium Density Residential (8.1 to 15 dwelling units per acre);
- Low Density Residential (2.1 to 8 dwelling units per acre);
- Very Low Density Residential (0.5 to 2 dwelling units per acre);
- Public/Quasi-Public;
- Open Space; and
- Park.

## City of Manteca Community Growth Management Program

The City's Community Growth Management Program is summarized in Chapter 18.04 of the City's Municipal Code. The Community Growth Management Program applies to all development project(s) within the city and those development projects outside the city seeking sewer capacity that the city council, by special agreement ratified by a city council resolution securing an approving vote of the majority of the entire city council, determines appropriate, except as otherwise provided in Chapter 18.04. No development project building permits shall be issued by the city unless and until a project allocation has been obtained by the development project in accordance with this chapter, except as otherwise provided in Chapter 18.04. The Community Growth Management Program requires projects to secure a project allocation before a building permit for such development can be issued. The allocation process involves both:

A. The sewer allocation system (as set forth in Chapter 18.04 and in subsequent city council action) which shall determine the amount of phase three sewage capacity available to each type of development; and
B. The point rating system, to be established by subsequent city council action, which shall establish a mechanism by which to evaluate specific development project proposals competing for such available sewage capacity.

## City of Manteca Zoning Ordinance

Title 17 of the Manteca Municipal Code is the City's Zoning Ordinance. The Zoning Ordinance carries out the policies of the General Plan by classifying and regulating the uses of land and structures within the City, consistent with the General Plan. The Zoning Ordinance is adopted to protect and promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses. More specifically, the purpose of the Zoning Ordinance is to achieve the following objectives:

1. To provide a precise guide for the physical development of the City in such a manner as to progressively achieve the arrangement of land uses depicted in the Manteca General Plan consistent with the goals and policies of the General Plan;
2. To facilitate prompt review of development proposals and provide for public information, review, and comment on development proposals;
3. To foster a harmonious, convenient, and workable relationship among land uses to help ensure the provision of adequate water, sewer, transportation, off-street parking and off-street loading facilities, drainage, parks, open space, and other public and community facilities and institutions;

4. To promote the stability of existing land uses that conform with the General Plan and to protect them from inharmonious influences and harmful intrusions;
5. To ensure that public and private lands are ultimately used for the purposes which are most appropriate and most beneficial from the standpoint of the City as a whole;
6. To protect and enhance real property values;
7. To ensure compatibility between residential and nonresidential development and land uses;
8. To conserve and protect the City's natural resources and features, such as creeks, significant trees, and historic and environmental resources; and
9. To safeguard and enhance the appearance of the City and its established character and the social and economic stability of agricultural, residential, commercial, industrial, and other types of improved areas.

Article II of the Zoning Ordinance includes the City's Zoning Map and provides direction for the interpretation of the Zoning Map. Articles III through V define allowable land uses within each zoning district, provide development standards for each zoning district and, where applicable, provide performance standards and identify design criteria.

## Downtown Design Improvement Plan and Streetscape Improvements Project

The Downtown Design Improvement Plan and Streetscape Improvements Project applies to development within the Planning Area, located in downtown Manteca. The Downtown Design Improvement Plan covers an area of 9.1 acres, incorporating 25 city blocks. The Plan focuses on the traditional core downtown of properties along the east-west streets of Yosemite Avenue, Center Street, Mikesell Street, and Moffat Boulevard. In the north-south direction, the Plan area includes land east of the Union Pacific Railroad (UPRR) tracks at Elm Avenue, the streets of Poplar Avenue, Manteca Avenue, Sycamore Avenue, Maple Avenue, Main Street, Grant Avenue, and Lincoln Avenue. The Plan area also incorporates several blocks immediately south of the UPRR tracks.

The intent of the Downtown Manteca Design Guidelines is:

- To promote the continuing development and revitalization of the downtown;
- To act as a continuation and amplification of the goals and objectives for the downtown as outlined in "Vision 2020, Manteca California";
- To complement the existing and proposed land uses that are part of the overall Downtown Improvement Plan; and
- To help property owners and developers design desired improvements in a manner that will insure a positive impact on the collective character and quality of downtown and create a more secure climate for other property owners to make comparable new investments.

The Downtown Manteca Design Guidelines identify a specific set of criteria for site planning, building design, and public places (i.e., sidewalks, landscaping, parking, etc.). The Downtown

Manteca Design Guidelines contain guidelines for new development on lots smaller than 9,999 square feet, new development on lots larger than 10,000 square feet, and renovations of existing buildings.

## Local Agency Formation Commission of San Joaquin County

In 1963, the State Legislature created a LAFCO for each county, with the authority to regulate local agency boundary changes. Subsequently, the State has expanded the authority of a LAFCO. The goals of a LAFCO include preserving agricultural and open space land resources and providing for efficient delivery of services. The San Joaquin LAFCO has authority over land use decisions in San Joaquin County affecting local agency boundaries. Its authority extends to the incorporated cities, including annexation of County lands into a city, and special districts within the County. LAFCO has the authority to review and approve or disapprove the following:

- Annexations to or detachments from cities or districts;
- Formation or dissolution of districts;
- Incorporation or disincorporation of cities;
- Consolidation or reorganization of cities or districts;
- Extensions of service beyond an agency's jurisdictional boundaries;
- Development of, and amendments to, Spheres of Influence (SOI). The SOI is the probable physical boundary and service area of each local government agency. This may extend beyond the current service area of the agency; and
- Provision of new or different services by districts.

In addition, LAFCO conducts Municipal Service Reviews (MSRs) for services within its jurisdiction. A MSR typically includes a review of existing municipal services provided by a local agency and its infrastructure needs and deficiencies. It also evaluates financing constraints and opportunities, management efficiencies, opportunities for rate restructuring and shared facilities, local accountability and governance, and other issues.

Legislation, including Assembly Bill 1555 and Senate Bill 244, has been enacted to encourage the identification and annexation of islands, which are unincorporated areas substantially surrounded by a city or cities.

## San Joaquin County Aviation System Airport Land Use Compatibility Plans

In July 2009, the San Joaquin County's Aviation System Airport Land Use Commission adopted the Countywide Airport Land Use Compatibility Plan (ALUCP) for all airports within San Joaquin County except Stockton Metropolitan, which sets forth the "referral area boundaries" around each airport in the County and the limits on land use, building height, and population density in those areas. The ALUCP regulates land use in three major areas: safety zones, noise zones, and height restrictions. It provides land use compatibility guidelines for lands near the airport, to avert potential safety problems and to ensure unhampered airport operations. The ALUCP establishes two compatibility areas: safety and noise. In May 2016, the San Joaquin County's Aviation System Airport Land Use Commission adopted the Stockton Metropolitan Airport Land Use Compatibility Plan (ALUCP), which establishes the planning boundaries around airport that define

height/airspace protection, noise, and safety areas for policy implementation, and areas within which notification of airport proximity is required as part of real estate transactions. Both the Countywide ALUCP and Stockton Metropolitan ALUCP were updated in 2018 to ensure consistency between the two ALUCPs.

Under California Government Code Section 65302.3(a), general plans must be consistent with any airport land use plan adopted pursuant to Public Utilities Code Section 21675. The Stockton Metropolitan Airport is the closest airport to Manteca. The northernmost portion of the City of Manteca and the City's Planning Area are located the airport influence area for the Stockton Metropolitan Airport identified in the ALUCP. The majority of this land within the airport influence area is zoned for agricultural uses by the City's municipal code. Other land uses within the airport influence area include park, industrial, commercial, public, low density residential, and medium density residential.

The lands within the Planning Area that are located in the airport influence area for the Stockton Metropolitan Airport are not within the Airport's noise exposure contours. However, the lands within the City that are located in the airport influence area are within two of the Airport's Safety Zones: Traffic Pattern Zone 7b and Zone 8. Lands within Traffic Pattern Zone 7b cannot be developed with non-residential intensities greater than 450 persons per acre and must have open land over 10% of the site. Additionally, uses within Traffic Pattern Zone 7b cannot be hazardous to flight, and outdoor stadiums are prohibited. Non-residential development on land within Traffic Pattern Zone 8 is not subject to a maximum intensity or open space requirement. Airspace review is required for development greater than 100 feet tall on lands within Zone 7b or Zone 8. Similarly, new dumps or landfills within Zone 7b or Zone 8 are subject to the Federal Aviation Administration (FAA) notification and review and are further subject to restrictions and conditions outlined by the FAA.

## San Joaquin County General Plan

San Joaquin County adopted its General Plan in December 2016. The County's General Plan provides a comprehensive set of goals, policies, and implementing actions to guide the County's growth through the year 2035. The County's General Plan includes the following Elements:

- Community Development
- Public Facilities and Services
- Public Health and Safety
- Natural and Cultural Resources

The County's General Plan establishes allowed land uses for lands within the City's SOI. While the City of Manteca General Plan Land Use Map identifies planned land uses within the SOI, San Joaquin County has ultimate land use planning and project approval authority within the SOI unless the lands are annexed to the City.

## 3.10.3 IMPACTS AND MITIGATION MEASURES

### THRESHOLDS OF SIGNIFICANCE

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

- Physically divide an established community;
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect;
- 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); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

### IMPACTS AND MITIGATION MEASURES

#### Impact 3.10-1: General Plan implementation would not physically divide an established community (Less than Significant)

The proposed General Plan establishes the City's vision for future growth and development. Goal LU-1 of the General Plan aims to "*maintain a land use plan that provides a mix and distribution of uses that meet the identified needs of the community.*" The land uses allowed under the proposed General Plan (Figure 2.0-3) provide opportunities for cohesive new growth at in-fill locations within existing urbanized areas of the city, as well as new growth adjacent to existing urbanized areas, but would not create physical division within the community. New development and redevelopment projects would be designed to complement the character of the existing community and neighborhoods and provide connectivity between existing development and new development. The proposed General Plan Land Use Map designates sites for a range of urban and rural developed uses as well as open space. The proposed General Plan does not include any new areas designated for urbanization or new roadways, infrastructure, or other features that would divide existing communities. The proposed General Plan would have a **less than significant** impact associated with the physical division of an established community. The policies and actions listed below would ensure that future development is compatible with adjacent communities and land issues.

#### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

##### LAND USE ELEMENT POLICIES

*LU-1.1: Maintain an adequate supply of land to support projected housing, employment, service, retail, educational, and institutional needs for the community.*

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

*LU-2.3: To maintain balanced growth and to manage the City's investment in infrastructure, facilities, and services for growth areas, encourage infill development, redevelopment, and rehabilitation projects within the City and growth that is contiguous with existing development and/or the boundary of the City.*

*LU-2.4: Continue to encourage the use of specific and master plans, as needed, to ensure orderly, well-planned growth.*

*LU-2.5: Lands within the SOI that are not designated with the Urban Reserve Overlay are intended to serve as the Primary Urban Service Area and be planned for development during the General Plan horizon (2040). Lands within the SOI that are designated with the Urban Reserve Overlay as well as lands within the Planning Area that are outside of the SOI are anticipated to accommodate the City's long-term growth and are intended to serve as the Secondary Urban Service Area.*

*LU-2.6: Evaluate applications for annexations based upon the following criteria:*

- *The annexation shall mitigate its impacts through consistency with the General Plan goals and polices and shall provide a positive benefit to Manteca.*
- *The annexation area is contiguous with city boundaries and provides for logical expansion and development.*
- *The annexation area creates clear and reasonable boundaries for the City and service providers.*
- *The annexation area will be adequately served by municipal services.*
- *The annexation area will be adequately served by schools.*
- *The annexation, when reviewed cumulatively with other annexations, provides a long-term fiscal balance for the City and its residents.*
- *The annexation is consistent with State law and San Joaquin County Local Agency Formation Commission standards.*
- *The annexation is consistent with the General Plan.*
- *The annexation contributes its fair-share to applicable infrastructure and public services needs, including facilities identified in the Regional Transportation Plan, Public Facilities Implementation Plan, and Capital Improvement Program.*
- *The effect of the proposal on maintaining the physical and economic integrity of agricultural lands and achievement of Resource Conservation and Community Design Elements goals.*
- *The extent to which the proposal will assist the City in achieving the adopted fair share of the Regional Housing Needs Assessment as determined by the San Joaquin Council of Governments.*
- *The extent to which the proposal will promote environmental justice. As used in this policy, "environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.*
- *The extent in which the proposal facilitates achievement of the City's jobs/housing balance goal of a 1:1 ratio.*

LAND USE ELEMENT ACTIONS

*LU-1a: As part of the annual report on the implementation of the General Plan to the Planning Commission and City Council, provide an evaluation of the year's development trends, current land supply, and the ability of infrastructure and public services to meet future needs.*

*LU-1b: Regularly review and revise, as necessary, the Zoning Ordinance 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 needs over time as technology, social expectations, and business practices change.*

*LU-2a: Monitor the issuance of building permits and development entitlement in order to determine and forecast the rate of future development.*

*LU-2b: Educate the community regarding the benefits of infill development.*

*LU-2d: Prior to the consideration of any General Plan amendment to modify the land use allocation or expand the City's boundaries or sphere of influence, the City shall complete or cause to be completed the following City-wide studies/plans:*

a. *Recreational needs assessment and consistency with the Open Space and Conservation Element and Parks and Recreation Master Plan.*
b. *Economic Development Studies and consistency with Economic Development and Fiscal Element goals and policies.*
c. *Public Facilities and Services Capacity Study consistent with the Public Facilities and Services Element.*
d. *Transportation System Capacity Study, including Long Range Transit Plan consistent with the Circulation Element.*

*The studies shall define overall holding capacities and identify additional performance standards that will need to be met to ensure the achievement of the goals and policies of the General Plan.*

## 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 (Less than Significant)

STATE PLANS

The proposed General Plan was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental

protection. Discussion of the proposed General Plan's consistency with State regulations, plans, and policies associated with specific environmental issues (e.g., air quality, traffic, water quality, etc.) is provided in the relevant chapters of this Draft EIR. The State would continue to have authority over any State-owned lands in the vicinity of the city and the proposed General Plan would not conflict with continued application of State land use plans, policies, and regulations adopted to avoid or mitigate environmental effects.

The Delta Plan contains a set of regulatory policies with which State and local agencies are required to comply with. The Delta Reform Act specifically established a certification process for compliance with the Delta Plan. This means that State and local agencies that propose to carry out, approve, or fund a qualifying action in whole or in part in the Delta, called a "covered action," must certify that this action is consistent with the Delta Plan and must file a certificate of consistency with the Council that includes detailed findings. Areas Subject to the Delta Plan are included within the Delta's Primary and Secondary zones. As previously mentioned, the southwest corner of the General Plan Study Area is within the "Secondary Zone." Figure RC-2 of the proposed General Plan shows lands within the Manteca Planning Area that are subject to the Delta Plan.

The City of Manteca has prepared the General Plan to include numerous policies and actions intended to ensure construction and maintenance activities associated with future development projects under the proposed General Plan do not conflict with the Delta Plan. For example, General Plan Action RC-11a requires City staff to 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". Additionally, General Plan Action RC-11b requires City staff to provide opportunities for review of and comment by the Reclamation Districts, the Delta Stewardship Council, Delta Protection Commission, and SWRCB during project review, as applicable. Further, General Plan Action RC-11d requires City staff to review and regulate new development to ensure consistency with Federal and State flood and floodway requirements, including BDCP and Delta Plan policies. Overall, consistency with the General Plan policies and actions described above and listed below would ensure future development projects under the proposed General Plan would not conflict with the Delta Plan.

As previously mentioned, the northernmost portion of the Planning Area is located within the airport influence area for the Stockton Metropolitan Airport identified in the Stockton Metropolitan ALUCP. Construction and maintenance activities associated with future development projects under the proposed General Plan could result in conflicts with the adopted ALUCP for the Stockton Metropolitan Airport. For this reason, the City of Manteca has prepared the General Plan to include numerous policies and actions intended to ensure consistency between the General Plan and the Stockton Metropolitan ALUCP. General Plan Policy LU-2.10 states that the City will ensure that development within the Stockton Metropolitan Airport Influence Area is consistent with the compatible uses identified in the Project Review Guidelines for the Airport Land Use Commission. Lands within the Planning Area include lands within Zone 7 (traffic pattern zone) and Zone 8 (airport influence area). Additionally, General Plan Action LU-2i states that the City will refer all applications for development within the Stockton Metro Airport Area of Influence to the ALUC and the Stockton Metro Airport for comment to ensure that all future plans have limited impacts to the

community of Manteca. Consistency with the General Plan policies and actions described above would ensure future development projects under the proposed General Plan would not conflict with an adopted ALUCP.

### CITY PLANS

As set forth by State law, the General Plan serves as the primary planning document for the City and subordinate documents and plans would be updated to be consistent with the General Plan. Similar to the existing General Plan, the proposed General Plan focuses on a balanced land use pattern, creating a community where new development blends with existing neighborhoods, and promoting the City as a desirable place to live and work. The proposed General Plan carries forward and enhances policies and measures from the City's existing General Plan that were intended for environmental protection and would not remove or conflict with City plans, policies, or regulations adopted for environmental protection. The proposed General Plan would require modifications to the City's Zoning Ordinance to provide consistency between the General Plan and zoning; however, these modifications will not remove or adversely modify portions of the Manteca Municipal Code that were adopted to mitigate an environmental effect.

The General Plan Update includes modifications to the General Plan Land Use Map. The proposed Land Use Map is depicted in Figure 2.0-3-2. The revisions to the Land Use Map are consistent with the City's overall objectives provided in Chapter 2.0, Project Description. While the proposed General Plan has been developed to be largely consistent with adopted plans and regulations, the General Plan Land Use Map designates lands for development that are designated as open space, agricultural, or urban reserve by the current General Plan or identifies lands for intensification of land use (development at higher densities and intensities) than the current General Plan. In some cases, the redesignation reflects existing development on parcels and would not provide for additional density. However, there would be parcels currently designated as open space and agricultural use that would be allowed to develop with urban uses under the proposed project. Environmental impacts, including aesthetics, air quality, biological resources, noise, transportation and traffic, and utilities, associated with potential development under the proposed General Plan are discussed in Sections 3.1 through 3.9 and 3.11 through 4.0 of this Draft EIR.

### SUMMARY

Subsequent development and infrastructure projects would be required to be consistent with all applicable policies, standards, and regulations, including those land use plans, policies, and regulations adopted to mitigate environmental effects by the City as well as those adopted by agencies with jurisdiction over components of future development projects. Any potential environmental impact associated with conflicts with land use requirements would be **less than significant**. The policies listed below would ensure that the General Plan does not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

## GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

### LAND USE ELEMENT POLICIES

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

*LU-1.3: Ensure consistency between the Land Use Map and implementing plans, ordinances, and regulations.*

*LU-1.4: Assign the land use designations throughout the City and to parcels within the Planning Area, as included in this element and shown in the Land Use Map (Figure LU-2).*

*LU-2.1: Continue to maintain and implement the City's Growth Management Program, as set forth in the Growth Management Element.*

*LU-2.3: To maintain balanced growth and to manage the City's investment in infrastructure, facilities, and services for growth areas, encourage infill development, redevelopment, and rehabilitation projects within the City and growth that is contiguous with existing development and/or the boundary of the City.*

*LU-2.4: Continue to encourage the use of specific and master plans, as needed, to ensure orderly, well-planned growth*

*LU-2.6: Evaluate applications for annexations based upon the following criteria:*

- *The annexation shall mitigate its impacts through consistency with the General Plan goals and polices and shall provide a positive benefit to Manteca.*
- *The annexation area is contiguous with city boundaries and provides for logical expansion and development.*
- *The annexation area creates clear and reasonable boundaries for the City and service providers.*
- *The annexation area will be adequately served by municipal services.*
- *The annexation area will be adequately served by schools.*
- *The annexation, when reviewed cumulatively with other annexations, provides a long-term fiscal balance for the City and its residents.*
- *The annexation is consistent with State law and San Joaquin County Local Agency Formation Commission standards.*
- *The annexation is consistent with the General Plan.*
- *The annexation contributes its fair-share to applicable infrastructure and public services needs, including facilities identified in the Regional Transportation Plan, Public Facilities Implementation Plan, and Capital Improvement Program.*
- *The effect of the proposal on maintaining the physical and economic integrity of agricultural lands and achievement of Resource Conservation and Community Design Elements goals.*
- *The extent to which the proposal will assist the City in achieving the adopted fair share of the Regional Housing Needs Assessment as determined by the San Joaquin Council of Governments.*
- *The extent to which the proposal will promote environmental justice. As used in this policy, "environmental justice" means the fair treatment of people of all races, cultures, and*

*incomes with respect to the location of public facilities and the provision of public services.*

- *The extent in which the proposal facilitates achievement of the City's jobs/housing balance goal of a 1:1 ratio.*

*LU-2.7: Review public and private development proposals and land use changes within the City's Sphere of Influence (SOI) and Planning Area for consistency within the General Plan.*

*LU-2.10: Ensure that development within the Stockton Metropolitan Airport Influence Area (Figure LU-3) is consistent with the compatible uses identified in the Project Review Guidelines for the Airport Land Use Commission. Lands within the Planning Area include lands within Zone 7 (traffic pattern zone) and Zone 8 (airport influence area).*

### RESOURCE CONSERVATION ELEMENT POLICIES

*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-11.3: Support funding mechanisms that provide for the longer-term improvement and maintenance of Delta levees, and coordinate Delta emergency preparedness, response, and recovery with local agencies.*

*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-11.8: Recognize that climate change impacts may influence future guidance, and best available data, and continue to ensure that up-to-date information is consulted when reviewing projects for potential impacts to the Delta.*

### LAND USE ELEMENT ACTIONS

*LU-1b: Regularly review and revise, as necessary, the Zoning Ordinance 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 needs over time as technology, social expectations, and business practices change.*

*LU-1c: Conduct a General Plan review in conjunction with adoption of policy and regulatory documents to ensure consistency with the Land Use Map.*

*LU-2c: Maintain a computerized land use database system that includes current parcel-specific information regarding General Plan, Zoning, parcel size, pending and approved development, and other relevant factors.*

*LU-2f: Formally request that the County provide the City with notice of development applications and related actions within and adjacent to the Planning Area and provide the City with the opportunity to comment on land use changes and development proposals under review. The City's review of projects within the referral area shall emphasize the importance of:*

- *Consistency with the Land Use Map;*
- *The protection of agricultural lands and open space;*
- *The protection of biological resources, including riparian habitat and corridors;*
- *The protection of groundwater recharge areas and watersheds;*
- *Reducing sprawl; and*
- *Ensuring quality development that meets the City's standards and is consistent with the City's character and values.*

*LU-2g: Review and comment on development proposals in adjacent communities to minimize potential environmental and economic impacts to Manteca.LU-2i: Refer all applications for development within the Stockton Metro Airport Area of Influence to the Airport Land Use Commission and the Stockton Metro Airport for comment.*

### RESOURCE CONSERVATION ELEMENT ACTIONS

*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.*

*RC-11d: Review and regulate new development to ensure consistency with Federal and State flood and floodway requirements, including BDCP and Delta Plan policies as applicable.*

### 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) (Less than Significant)

The proposed General Plan is a long-range planning document that establishes the City's vision for growth patterns, including areas for development and lands for open space and conservation. The General Plan provides the framework for the City's plan for growth and development, including new businesses, expansion of existing businesses, and new residential uses. Infrastructure and services would need to be extended to accommodate future growth. At full buildout, the proposed General Plan could accommodate approximately a total of up to 36,650 housing units and 35,458,437 square feet of non-residential building square footage within the Planning Area. As shown in Table 2.0-3 in Chapter 2.0, compared to the existing General Plan, the proposed General Plan would result in approximately 10,498 new housing units. This new growth may increase the city's population by approximately 33,383 residents and 11,893 employees compared to the existing General Plan for a total of approximately 116,546 residents and 37,969 jobs. Depending on growth rates, the actual growth during the life of the General Plan could be lower or higher, but would not exceed the theoretical buildout described in Chapter 2.0.

Given the historical and current population, housing, and employment trends, growth in the city, as well as the entire state, is inevitable. The primary factors that account for population growth are natural increase and net migration. The average annual birth rate for California is expected to be 20 births per 1,000 population. Additionally, California is expected to attract more than one third of the country's immigrants. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. While these factors would likely result in growth in Manteca during the planning period of the proposed General Plan, growth will continue to occur based primarily on the demand of the housing market and demand for new commercial, industrial, and other non-residential uses. As future development occurs under the proposed General Plan, new roads, infrastructure, and services would be necessary to serve the development, and this infrastructure would accommodate planned growth. The proposed General Plan is intended to accommodate the City's fair share of statewide housing needs, which are allocated by the SJCOG, based on regional numbers provided by the California Department of Housing and Community Development on a regular basis (every eight years).

The proposed General Plan includes policies and actions that mitigate environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality effects. Chapters 3.1 through 3.16 and 4.0 provide a discussion of environmental effects associated with development allowed under the proposed General Plan. Each of these EIR chapters include relevant policies and action items that would mitigate potential environmental impacts associated with growth, to the greatest extent feasible.

With implementation of General Plan, policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted

thresholds, beyond those disclosed and analyzed throughout this EIR. Therefore, population and housing growth associated with the proposed General Plan would result a **less than significant** impact, as there are no additional potential environmental impacts, beyond those analyzed and disclosed in this EIR, that would result from growth accommodated by the proposed project. No additional mitigation is required.

## Impact 3.10-4: General Plan implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere (Less than Significant)

The majority of developed land in the Planning Area is comprised of residential uses, which are not anticipated to undergo significant land use changes under the Proposed Project. The proposed General Plan focuses on providing the framework for logical, orderly growth from the City's compact, historic center extending to well-delineated residential neighborhoods, employment centers, and community amenities. The proposed General Plan Land Use Map includes an expansion to the City's Planning Area in the northwest, increasing the total size of the Planning Area. When compared to the existing General Plan, the proposed General Plan increases the total amount of residential land uses (i.e., Very Low Density Residential, Low Density Residential, Medium Density Residential, and High Density Residential) in the Planning Area by 3,556 acres resulting in an increase of 10,498 dwelling units at full buildout. The increase in dwelling units allows for the diversification of the City's housing supply to meet the needs of the community at various socioeconomic levels. While the proposed General Plan may result in development that would remove residences, development allowed under the General Plan identifies lands for a variety of housing densities and types would result in an increase in the total number of residences and provide housing opportunities for persons that may be displaced as a result of development.

Therefore, impacts of the proposed General Plan on the displacement of people or housing are considered **less than significant** and no mitigation is required. The policies listed below would further ensure that a range of housing types are provided in the City, and that housing conditions are evaluated as the housing supply ages.

### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### ECONOMIC DEVELOPMENT ELEMENT POLICIES

*ED-4.1: Plan for a broad range of housing types and densities to accommodate all income levels and job classifications.*

*ED-4.2: Plan for a balanced community where the Manteca workforce will be able to afford housing within the city of Manteca.*

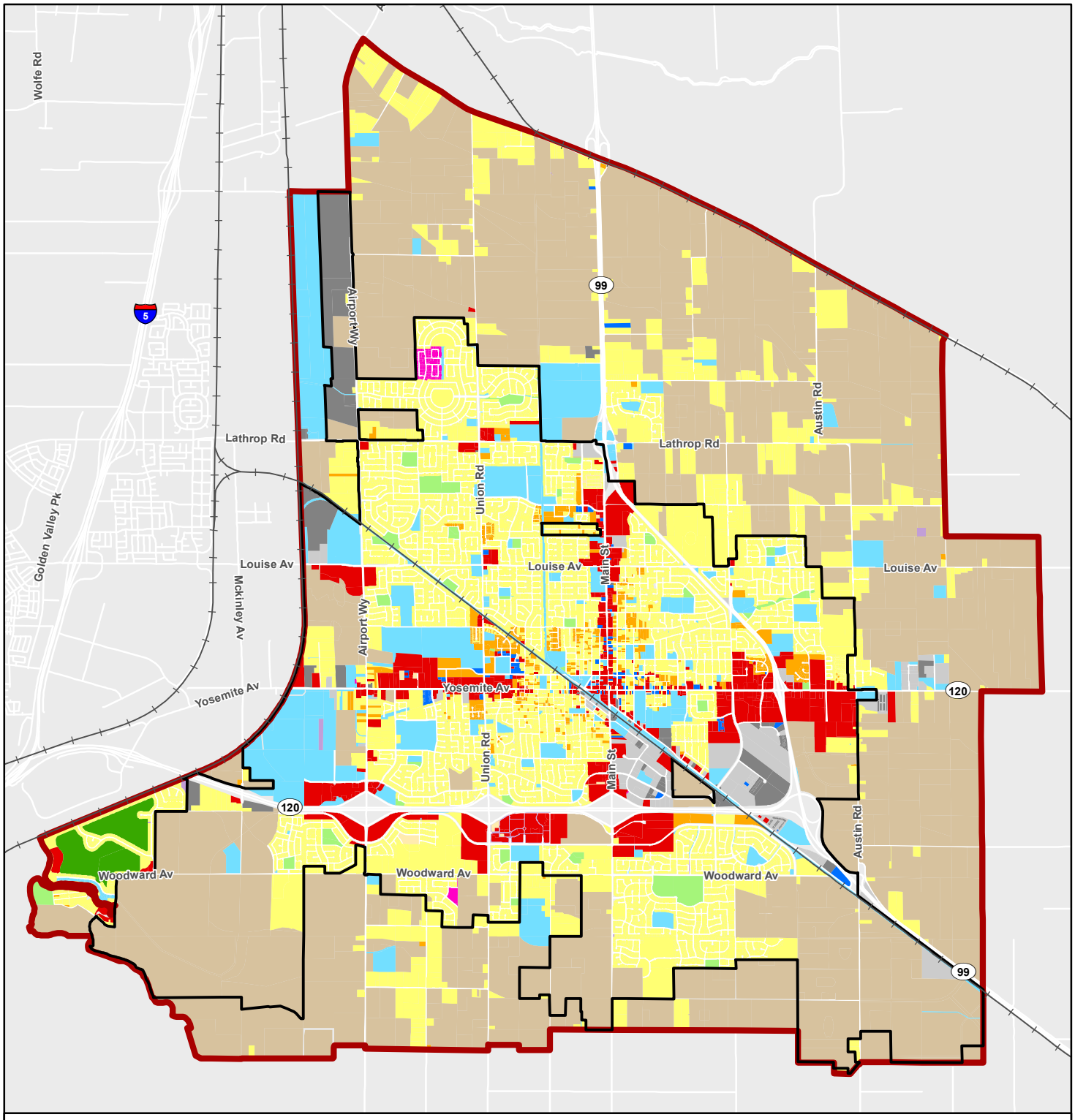
#### ECONOMIC DEVELOPMENT ELEMENT ACTIONS

*ED-4a: Use the Policies and Implementation Measures outlined in the Housing Element to assure provision of housing affordable to the existing and future workforce.*

*ED-4b: Use appropriate land use, zoning, and permit streamlining strategies, and financial incentives to provide for and encourage housing types that are compatible with wage structures associated with existing and forecast employment.*

*ED-4c: Encourage specific plans and large planned developments throughout the City to include a mix of housing types and density ranges (consistent with the Zoning Ordinance) related to local wage structures to achieve a jobs/housing balance.*

*ED-4d: Encourage creative approaches to encourage integration of housing production with commercial development.*




**Planning Areas**

Manteca City Limits

Manteca Planning Area

**Assessor Land Use Categories**

- Agricultural
- Single Family Residential
- Multifamily Residential
- Commercial
- Communication/Utilities
- Industrial Non-Manufacturing
- Industrial Manufacturing
- Institutional
- Office
- Parks and Recreation Facilities
- Open Space
- Non-Taxable
- No Use Code

**CITY OF MANTECA GENERAL PLAN**

Figure 3.10-1. Assessed Land Uses

0 ½ 1
Miles

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*Source: City of Manteca GIS; San Joaquin County Assessor's Office. Map date: October 19, 2016. Revised December 14, 2020.*

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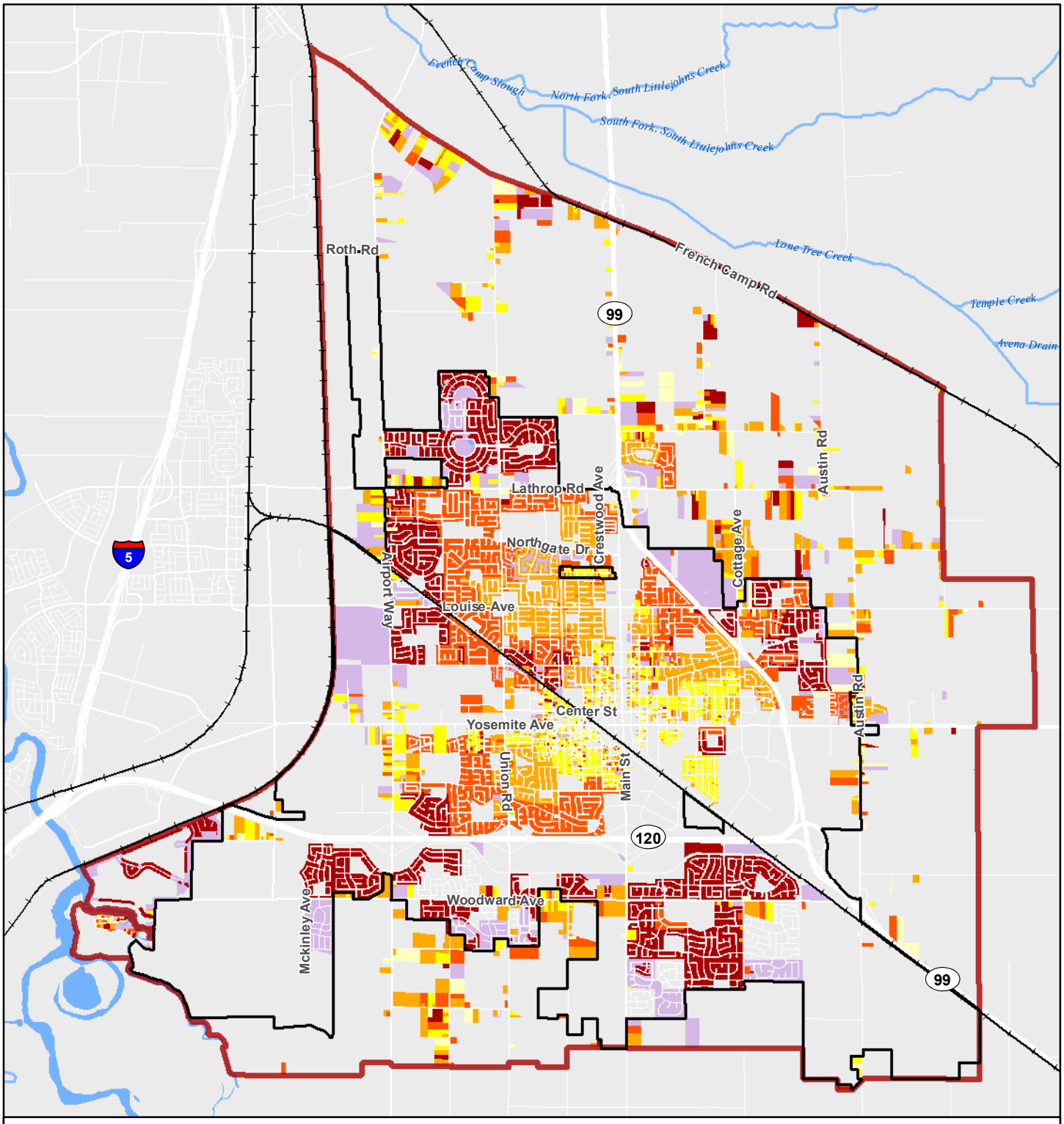


**Legend**

- City of Manteca
- Manteca Planning Area

Development Periods

- Pre-1940
- 1940-1959
- 1960-1979
- 1980-1999
- 2000-2016
- No Year Given

**CITY OF MANTECA GENERAL PLAN**

Figure 3.10-2. Residential Development Trends

0 ½ 1 Miles

*Source: City of Manteca GIS; San Joaquin County. Map date: August 16, 2017.*
*Revised Planning Area and City boundaries: March 4, 2021.*

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This section provides a background discussion and analysis of mineral and energy resources in Manteca. This section is organized with an environmental setting, regulatory setting, and impact analysis.

No comments were received on this environmental topic during the NOP comment period.

## 3.11.1 ENVIRONMENTAL SETTING

### MINERAL RESOURCE CLASSIFICATION

Pursuant to Surface Mining and Reclamation Act (SMARA), the California State Mining and Geology Board oversees the mineral resource zone (MRZ) classification system. The MRZ system characterizes both the location and known/presumed economic value of underlying mineral resources. The mineral resource classification system uses four main MRZs based on the degree of available geologic information, the likelihood of significant mineral resource occurrence, and the known or inferred quantity of significant mineral resources. The four classifications are described in Table 3.11-1.

***TABLE 3.11-1: MINERAL RESOURCE CLASSIFICATION SYSTEM***

| *CLASSIFICATION* | *DESCRIPTION* |
|---|---|
| MRZ-1 | Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. |
| MRZ-2 | Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. |
| MRZ-3 | Areas containing mineral deposits, the significance of which cannot be evaluated. |
| MRZ-4 | Areas where available information is inadequate for assignment to any other MRZ classification. |

*SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF MINES AND GEOLOGY, 2002.*

### MINERAL RESOURCES

Mineral resources include commercially viable oil and gas deposits, and nonfuel mineral resources deposits. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate, including sand, gravel, and crushed stone. California is the largest producer of sand and gravel in the nation.

In 2014, the California Geological Survey identified that approximately 4 billion tons of permitted aggregate reserves lie within the 31 aggregate study areas in California. These permitted aggregate reserves have been determined to be acceptable for commercial use, exist within properties owned or leased by aggregate producing companies, and have permits allowing mining of aggregate material. Sand, gravel, and crushed stones are construction materials that are collectively referred to as construction aggregate. These materials provide the bulk and strength to Portland cement concrete (PCC), asphaltic concrete (AC), plaster, and stucco. Other uses include road base, subbase, railroad ballast, and fill.

From 1981 to 2010, California consumed an average of about 180 million tons of construction aggregate (all grades) per year. (CGS, 2012)

The California Geological Survey issued Special Report 199 designating areas within the Stockton-Lodi P-C Region based on the significance of mineral resources. The Stockton-Lodi P-C Region contains about 969 million tons PCC-grade aggregate resources and 67 million tons PCC-grade sand resources. These resources are classified into different mineral resource zone designations, MRZ-1, MRZ-2, MRZ-2 (PCC sand), MRZ-3, and MRZ-4.

MRZ-2 (PCC-1) zones are identified as areas where adequate information indicates that fine aggregate (naturally sand) mineral deposits are present, or where it is judged that a high likelihood for their presence exists. The fine sand aggregate found in these areas are typically used to produce PCC-grade aggregate. PCC-1 indicates that it produces general use cement, as opposed to type 2 or 3 used for structures in water or in high early strength periods. The primary mineral resources in San Joaquin County are sand, gravel, and natural gas, with limited mining of peat, gold, and silver. In 2012, the California Geological Survey assessed the Stockton-Lodi Production-Consumption (P-C) Region mineral resources, with a focus on aggregate resources. Mineral resources in the region are classified based on whether the aggregate meets the specifications for use in PCC. This aggregate is termed “PCC-grade aggregate.” The material quality specifications for PCC-grade aggregate are more restrictive than the specifications for aggregate for other applications. As a result of the strict specifications, PCC-grade aggregate deposits are scarcer and more valuable than other aggregate resources.

To be considered significant for the purpose of mineral land classification, a mineral deposit or group of deposits, must meet criteria adopted by the State Mining and Geology Board. These criteria include marketability and threshold values. The threshold value is approximately $17.375 million for a construction aggregate deposit. PCC-grade aggregate sells for about $13 per ton in the Stockton-Lodi P-C Region; therefore, $17,375,000 equates to about 1.3 million tons of PCC-grade aggregate material.

Approximately 232 million tons of PCC-grade aggregate reserves are permitted for production in the County (CGS, 2012). There are 34 active and inactive aggregate mines within San Joaquin County (San Joaquin County, 2009).

## Planning Area

Figure 5.6-1: Mineral Resource Zones shows mineral resources within and near the Planning Area. As shown on Figure 5.6-1, the southwestern portion of the planning area near Oakwood Lake is located in Resource Sector D, which consists of a large PCC-grade sand deposit situated along the San Joaquin River west of Manteca and south of Lathrop near the middle of the valley. This sector covers approximately 878 acres. Subsector D-9 is located within the Planning Area. This subsector is designated by the State Mining and Geology Board as containing regionally significant PCC-grade aggregate resources. This sector is classified as MRZ-2 (PCC sand), which contains a high likelihood of fine sand aggregate and is located at the southwestern corner of the planning area. The planning area also contains areas that are designated as MRZ-3 “areas containing mineral deposits

the significance of which cannot be evaluated from available data." These areas are located in the southwest portion of the Planning Area adjacent to the areas south and west of Oakwood Lake designated MRZ-2. Another portion of area designated as MRZ-3 currently extends through the southern/central portion of the City in an east/west direction, then extends southeast to undeveloped land.

The City of Manteca has identified lands near the San Joaquin River as areas of significant mineral resources. In particular, sand deposits in these areas are considered to be of regional significance. Brown Sand and Gravel, Incorporated, has produced processed sand at Oakwood Lake Pit, located within the Study Area. These mining operations have ceased, and the former quarry site has been developed with Oakwood Shores, a residential project.

## 3.11.2 REGULATORY SETTING

### STATE

#### Surface Mining and Reclamation Act of 1975

The California Department of Conservation Surface Mining and Reclamation Act of 1975 (§ 2710), also known as SMARA, provides a comprehensive surface mining and reclamation policy that permits the continued mining of minerals, as well as the protection and subsequent beneficial use of the mined and reclaimed land. The purpose of SMARA is to ensure that adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition and are readily adaptable for alternative land uses. The production and conservation of minerals are encouraged, while also giving consideration to values relating to recreation, wildlife, range, and forage, as well as aesthetic enjoyment. Residual hazards to public health and safety are eliminated. These goals are achieved through land use planning by allowing a jurisdiction to balance the economic benefits of resource reclamation with the need to provide other land uses.

If a use is proposed that might threaten the potential recovery of minerals from an area that has been classified MRZ-2, SMARA would require the jurisdiction to prepare a statement specifying its reasons for permitting the proposed use, provide public notice of these reasons, and forward a copy of the statement to the State Geologist and the State Mining and Geology Board (Cal. Pub. Res. Code Section 2762). Lands classified MRZ-2 are areas that contain identified mineral resources.

### THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project may have a significant impact on the environment associated with mineral resources if it would:

1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or
2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

## IMPACTS AND MITIGATION MEASURES

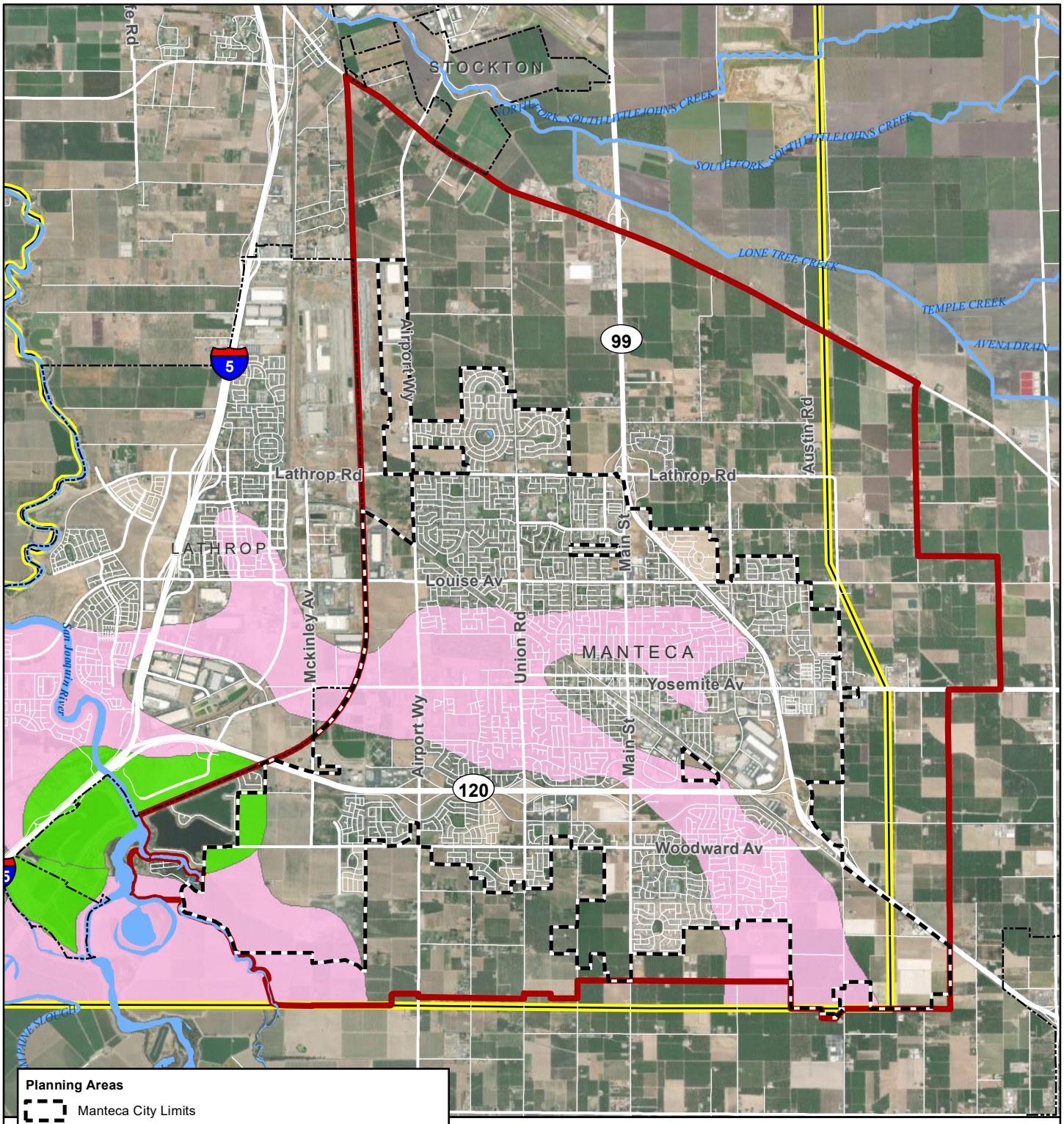
### Impact 3.11-1: General Plan implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state (Less than Significant)

Within the Planning Area, mineral resources include sand and gravel. The western portion of the planning area near Oakwood Lake is designated as MRZ-2, which consists of a large PCC-grade sand deposit situated along the San Joaquin River west of Manteca and south of Lathrop near the middle of the valley. The area is classified as an important MRZ for PCC grade aggregate by the DOC. PCC-grade aggregate is valuable in centeral California where it used for a variety of construction purposes. However, mining operations at the Oakwood Lake Mine have ceased. Oakwood Lake Resort was created from these reclaimed mined lands and the Oakwood Shores residential project was subsequently developed on the site of this former quarry. A portion of MRZ-2 (PCC-1) land currently exists on and east of the Oakwood Shores residential project. However, this land is currently designated as LDR and is expected to be developed with residential uses. In addition, a large area designated MRZ-3 is located in the southwest portion of the Planning Area within zones designated as LDR and agricultural by the City of Manteca. Another portion of area designated as MRZ-3 currently extends through the southern/central portion of the City in an east/west direction, then extends southeast to undeveloped land primarily designated as LDR. These areas identified as MRZ-3, which consist of areas containing mineral deposits; the significance of which cannot be evaluated. However, the majority of the area designated as MRZ-3 runs through the center of the City of Manteca and is currently developed and is no longer available for mining.

Given that the only known MRZ-2 area in Manteca has already been mined and then subsequently developed, no significant potential for extraction remains from this known MRZ. There are no other known mineral deposits or resources within Manteca that are of significant value to the region or the state. As such, implementation of the proposed General Plan would have a **less than significant** impact on this environmental topic, and no mitigation is required.

### 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 (Less than Significant)

The current General Plan indicates that san deposits near the San Joaquin River are considered to be of regional significance. As previously described, Brown Sand and Gravel, Incorporated, has produced processed sand at Oakwood Lake Pit, located within the area designated as resources of regional significance. However, as noted above, these mining operations have ceased, and Oakwood Shores has been developed on the former quarry site. Therefore, the regional resource is no longer available for extraction and the proposed project would not result in loss of availability of a designated locally important mineral resource recovery site. Therefore, this impact is considered **less than significant** and no additional mitigation is necessary.




**Planning Areas**

- Manteca City Limits
- Surrounding Cities
- Manteca Planning Area
- Stockton-Lodi Production-Consumption Region Boundary

**Mineral Resource Zones**

- MRZ-2 - Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presences exists
- MRZ-3 - Areas containing mineral deposits the significance of which cannot be evaluated from available data

**CITY OF MANTECA GENERAL PLAN**

Figure 3.11-1. Mineral Resource Zones

0 ½ 1
Miles

*Sources: California Geological Survey, Updated Mineral Land Classification Map for Portland Cement Concrete-Grade Aggregate in the Stockton-Lodi Production-Consumption Region, San Joaquin and Stanislaus Counties, CA, Special Report 199-Plate 1, 2012; City of Manteca; San Joaquin County GIS. Map date:December 13, 2016. Revisions: January 6, 2020; December 14 2020.*

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This section provides a discussion of the regulatory setting and a general description of existing noise sources in the City of Manteca. The analysis in this section was prepared with assistance from Saxelby Acoustics.

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

## 3.12.1 ENVIRONMENTAL SETTING

### KEY TERMS

| | |
|---|---|
| **Acoustics** | The science of sound. |
| **Ambient Noise** | The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study. |
| **Attenuation** | The reduction of noise. |
| **A-Weighting** | A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response. |
| **Decibel or dB** | Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared. |
| **CNEL** | Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging. |
| **Frequency** | The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz. |
| **Impulsive** | Sound of short duration, usually less than one second, with an abrupt onset and rapid decay. |
| **Ldn** | Day/Night Average Sound Level. Similar to CNEL but with no evening weighting. |
| **Leq** | Equivalent or energy-averaged sound level. |
| **Lmax** | The highest root-mean-square (RMS) sound level measured over a given period of time. |
| **L(n)** | The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50 percent of the time during the one hour period. |
| **Loudness** | A subjective term for the sensation of the magnitude of sound. |
| **Noise** | Unwanted sound. |
| **SEL** | A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event |

## FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

The day/night average level (Ldn) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to Ldn, but includes a +3 dB penalty for evening noise. Table 3.12-1 lists several examples of the noise levels associated with common situations.

***TABLE 3.12-1: TYPICAL NOISE LEVELS***

| *COMMON OUTDOOR ACTIVITIES* | *NOISE LEVEL (DBA)* | *COMMON INDOOR ACTIVITIES* |
|---|---|---|
| | --110-- | Rock Band |
| Jet Fly-over at 300 m (1,000 ft) | --100-- | |
| Gas Lawn Mower at 1 m (3 ft) | --90-- | |
| Diesel Truck at 15 m (50 ft),<br>at 80 km/hr (50 mph) | --80-- | Food Blender at 1 m (3 ft)<br>Garbage Disposal at 1 m (3 ft) |
| Noisy Urban Area, Daytime<br>Gas Lawn Mower, 30 m (100 ft) | --70-- | Vacuum Cleaner at 3 m (10 ft) |
| Commercial Area<br>Heavy Traffic at 90 m (300 ft) | --60-- | Normal Speech at 1 m (3 ft) |
| Quiet Urban Daytime | --50-- | Large Business Office<br>Dishwasher in Next Room |
| Quiet Urban Nighttime | --40-- | Theater, Large Conference Room<br>(Background) |
| Quiet Suburban Nighttime | --30-- | Library |
| Quiet Rural Nighttime | --20-- | Bedroom at Night, Concert Hall<br>(Background) |
| | --10-- | Broadcast/Recording Studio |
| Lowest Threshold of Human Hearing | --0-- | Lowest Threshold of Human Hearing |

*SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.*

## EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;

- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

## EXISTING NOISE LEVELS

### Traffic Noise Levels

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop Ldn (24-hour average) noise contours for all highways and major roadways in the General Plan study area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver and the acoustical characteristics of the site. The FHWA Model predicts hourly Leq values for free-flowing traffic conditions and is generally considered to be accurate within 1.5 dB. To predict Ldn values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period.

Existing traffic volumes were obtained from the traffic modeling performed for the General Plan study area. Day/night traffic distributions were based upon continuous hourly noise measurement data. Caltrans vehicle truck counts were obtained for CA-99 and CA-120. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing (2019) conditions. Table 3.12-2 shows the results of this analysis.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segments. In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers. The distances reported in Table 3.12-2 are generally considered to be conservative estimates of noise exposure along roadways in the City of Manteca. Figure 3.12-1 shows existing citywide traffic noise contours.

***TABLE 3.12-2: PREDICTED EXISTING TRAFFIC NOISE LEVELS***

| ROADWAY | NOISE LEVEL AT CLOSEST RECEPTORS (DB, LDN)1 | DISTANCES TO TRAFFIC NOISE CONTOURS, LDN (FEET) | | |
|---|---|---|---|---|
| | | 60 DB | 65 DB | 70 DB |
| Airport Way north of Crom Street | 63.7 | 302 | 140 | 65 |
| Airport Way north of Daisywood Drive | 67.6 | 447 | 208 | 96 |
| Airport Way north of Daniels Street | 65.6 | 332 | 154 | 72 |
| Airport Way south of Northgate Drive | 66.5 | 320 | 148 | 69 |
| Airport Way south of SR 120 EB ramps | 61.8 | 199 | 93 | 43 |
| Atherton Drive east of Main Street | 56.6 | 102 | 47 | 22 |
| Atherton Drive east of Union Road | 60.4 | 138 | 64 | 30 |
| Austin Road south of Moffat Boulevard | 64.3 | 135 | 63 | 29 |
| Austin Road south of Yosemite Avenue | 65.8 | 121 | 56 | 26 |
| Cottage Avenue south of Aldwina Lane | 65.4 | 92 | 43 | 20 |
| Daniels Street west of Airport Way | 63.4 | 169 | 78 | 36 |
| French Camp Rd east of SR 99 | 63.0 | 277 | 129 | 60 |
| French Camp Rd west of SR 99 | 72.8 | 431 | 200 | 93 |
| Lathrop Avenue west of Airport Way | 72.5 | 341 | 158 | 73 |
| Lathrop Avenue west of Madison Grove Drive | 68.7 | 448 | 208 | 97 |
| Lathrop Avenue west of Sherwood Avenue | 68.9 | 462 | 215 | 100 |
| Louise Avenue east of Marguerite Avenue | 63.7 | 172 | 80 | 37 |
| Louise Avenue east of Tulip Place | 64.0 | 159 | 74 | 34 |
| Louise Avenue west of Airport Way | 70.0 | 232 | 108 | 50 |
| Louise Avenue west of Austin Road | 61.4 | 75 | 35 | 16 |
| Louise Avenue west of Cottage Avenue | 61.1 | 154 | 71 | 33 |
| Louise Avenue west of Yvonne Avenue | 64.1 | 202 | 94 | 43 |
| Lovelace Rd east of Union Rd | 0.0 | 0 | 0 | 0 |
| Lovelace Road east of Airport Way | 63.3 | 92 | 43 | 20 |
| Lovelace Road west of SR 99 | 0.0 | 0 | 0 | 0 |
| Main Street (Manteca Rd) north of Sedan Avenue | 68.5 | 184 | 85 | 40 |
| Main Street north of Northgate Drive | 61.7 | 196 | 91 | 42 |
| Main Street north of SR 120 WB ramps | 72.3 | 428 | 199 | 92 |
| Main Street south of Alameda Street | 71.3 | 226 | 105 | 49 |
| Main Street south of Quintal Road | 62.7 | 195 | 91 | 42 |
| Moffat Boulevard east of Powers Avenue | 63.6 | 140 | 65 | 30 |
| Moffat Boulevard north of Woodward Avenue | 55.1 | 233 | 108 | 50 |
| Raymus Parkway east of Austin Road | 0.0 | 0 | 0 | 0 |
| Raymus Parkway east of Main Street | 0.0 | 0 | 0 | 0 |

| ROADWAY | NOISE LEVEL AT CLOSEST RECEPTORS (DB, LDN)1 | DISTANCES TO TRAFFIC NOISE CONTOURS, LDN (FEET) | | |
|---|---|---|---|---|
| | | 60 DB | 65 DB | 70 DB |
| Raymus Parkway east of Union Road | 0.0 | 0 | 0 | 0 |
| Raymus Parkway west of Airport Way | 0.0 | 0 | 0 | 0 |
| Roth Rd east of Airport Way | 67.6 | 345 | 160 | 74 |
| Roth Rd west of Airport Way | 67.6 | 345 | 160 | 74 |
| Spreckels Avenue south of Phoenix Drive | 61.0 | 352 | 163 | 76 |
| SR 120 EB between McKinley Ave and Airport Way | 66.5 | 1109 | 515 | 239 |
| SR 120 total between McKinley Ave and Airport Way | 69.7 | 1808 | 839 | 390 |
| SR 120 WB between McKinley Ave and Airport Way | 63.9 | 1169 | 543 | 252 |
| SR 99 NB north of Lovelace Rd | 76.3 | 1230 | 571 | 265 |
| SR 99 NB north of Yosemite Ave | 71.7 | 1192 | 553 | 257 |
| SR 99 SB north of Lovelace Rd | 75.5 | 1240 | 575 | 267 |
| SR 99 SB north of Yosemite Ave | 74.2 | 1233 | 572 | 266 |
| SR 99 total north of Lovelace Rd | 79.4 | 1960 | 910 | 422 |
| SR 99 total north of Yosemite Ave | 77.1 | 1924 | 893 | 415 |
| Union Rd north of Lovelace Rd | 63.5 | 94 | 44 | 20 |
| Union Road north of Crom Street | 63.4 | 180 | 84 | 39 |
| Union Road north of Del Webb Boulevard | 60.6 | 129 | 60 | 28 |
| Union Road south of Mission Ridge Drive | 66.4 | 201 | 93 | 43 |
| Union Road south of Northgate Drive | 64.2 | 164 | 76 | 35 |
| Union Road south of SR 120 EB ramps | 60.5 | 173 | 80 | 37 |
| Union Road south of Woodward Avenue | 63.8 | 135 | 63 | 29 |
| Van Ryn Avenue north of Atherton Drive | 64.1 | 94 | 44 | 20 |
| Woodward Avenue west of Airport Way | 58.2 | 53 | 25 | 11 |
| Woodward Avenue west of Laurie Avenue | 63.0 | 110 | 51 | 24 |
| Woodward Avenue west of Moffat Boulevard | 66.2 | 130 | 60 | 28 |
| Yosemite Avenue east of Cottage Avenue | 70.8 | 449 | 208 | 97 |
| Yosemite Avenue west of Airport Way | 69.3 | 312 | 145 | 67 |
| Yosemite Avenue west of Almond Avenue | 64.8 | 104 | 48 | 22 |
| Yosemite Avenue west of El Rancho Drive | 68.3 | 384 | 178 | 83 |
| Yosemite Avenue west of Pacific Road | 54.7 | 284 | 132 | 61 |
| Yosemite Avenue west of Washington Avenue | 65.3 | 101 | 47 | 22 |

*NOTES: DISTANCES TO TRAFFIC NOISE CONTOURS ARE MEASURED IN FEET FROM THE CENTERLINES OF THE ROADWAYS.*
*[1] TRAFFIC NOISE LEVELS ARE PREDICTED AT THE CLOSEST SENSITIVE RECEPTORS*
*SOURCE: FEHR & PEERS AND SAXELBY ACOUSTICS, 2020.*

## Railroad Noise Levels

In order to quantify noise exposure from existing train operations, two continuous (24-hour) noise level measurement surveys were conducted along the two Union Pacific (UP) railroad lines which run through the City. In addition to freight, the westernmost line also carries commuter trains for the Altamont Corridor Express (ACE) service which provides passenger transportation between Stockton and San Jose.

The purpose of the noise level measurements was to determine typical sound exposure levels (SEL) for railroad line operations, while accounting for the effects of travel speed, warning horns and other factors which may affect noise generation. In addition, the noise measurement equipment was programmed to identify individual train events, so that the typical number of train operations could be determined.

Table 3.12-3 shows a summary of the continuous noise measurement results for railroad activity within the City.

***TABLE 3.12-3: RAILROAD NOISE MEASUREMENT RESULTS***

| *MEASUREMENT LOCATION* | *RAILROAD TRACK* | *GRADE CROSSING /WARNING HORN* | *TRAIN EVENTS PER 24-HR PERIOD* | *AVERAGE SEL AT 50'* |
|---|---|---|---|---|
| Site A | U.P. and A.C.E. | Yes | 13 | 109 dBA |
| Site B | U.P. | Yes | 26 | 108 dBA |

*SOURCE: J.C. BRENNAN & ASSOCIATES, INC - 2017*

Noise measurement equipment consisted of Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters equipped with LDL ½" microphones. The measurement systems were calibrated using a LDL Model CAL200 acoustical calibrator before and after testing. The measurement equipment meets all of the pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

To determine the distances to the day/night average (Ldn) railroad contours, it is necessary to calculate the Ldn for typical train operations. This was done using the SEL values and above-described number and distribution of daily train operations. The Ldn may be calculated as follows:

$$Ldn = SEL + 10 \log N_{eq} - 49.4 \text{ dB, where:}$$

SEL is the mean Sound Exposure Level of the event, $N_{eq}$ is the sum of the number of daytime events (7 a.m. to 10 p.m.) per day, plus 10 times the number of nighttime events (10 p.m. to 7 a.m.) per day, and 49.4 is ten times the logarithm of the number of seconds per day. Based upon the above-described noise level data, number of operations and methods of calculation, the Ldn value for railroad line operations have been calculated, and the distances to the $L_{dn}$ noise level contours are shown in Table 3.12-4.

***TABLE 3.12-4: APPROXIMATE DISTANCES TO THE RAILROAD NOISE CONTOURS***

| EXTERIOR NOISE LEVEL AT 50 FEET, LDN | DISTANCE TO EXTERIOR NOISE LEVEL CONTOURS, FEET | | |
|---|---|---|---|
| | 60 DB LDN | 65 DB LDN | 70 DB LDN |
| U.P. AND A.C.E LINE WITH WARNING HORNS | | | |
| 77 dB | 642’ | 298’ | 138’ |
| UPRR – WITH WARNING HORNS | | | |
| 78 dB | 833’ | 387’ | 179’ |

*SOURCE: SAXELBY ACOUSTICS, 2020.*

## Fixed Noise Sources

The production of noise is a result of many industrial processes, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by federal and state employee health and safety regulations (OSHA and Cal-OSHA), but exterior noise levels may exceed locally acceptable standards. Commercial, recreational and public service facility activities can also produce noise which affects adjacent sensitive land uses. These noise sources can be continuous and may contain tonal components which have a potential to annoy individuals who live nearby. In addition, noise generation from fixed noise sources may vary based upon climatic conditions, time of day and existing ambient noise levels.

In the City of Manteca, fixed noise sources typically include parking lots, loading docks, parks, schools, and other commercial/retail use noise sources (HVAC, exhaust fans, etc.)

From a land use planning perspective, fixed-source noise control issues focus upon two goals:

1. To prevent the introduction of new noise-producing uses in noise-sensitive areas, and
2. To prevent encroachment of noise sensitive uses upon existing noise-producing facilities.

The first goal can be achieved by applying noise level performance standards to proposed new noise-producing uses. The second goal can be met by requiring that new noise-sensitive uses in near proximity to noise-producing facilities include mitigation measures that would ensure compliance with noise performance standards.

Fixed noise sources which are typically of concern include but are not limited to the following:

- HVAC Systems
- Pump Stations
- Steam Valves
- Generators
- Air Compressors
- Conveyor Systems
- Pile Drivers
- Drill Rigs
- Welders
- Outdoor Speakers
- Chippers
- Loading Docks
- Cooling Towers/Evaporative Condensers
- Lift Stations
- Steam Turbines
- Fans
- Heavy Equipment
- Transformers
- Grinders
- Gas or Diesel Motors
- Cutting Equipment
- Blowers
- Amplified music and voice

The types of uses which may typically produce the noise sources described above, include, but are not limited to: wood processing facilities, pump stations, industrial/agricultural facilities, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, special events such as concerts, and athletic fields. Typical noise levels associated with various types of stationary noise sources are shown in Table 3.12-5.

***TABLE 3.12-5: TYPICAL STATIONARY SOURCE NOISE LEVELS***

| *USE* | *NOISE LEVEL AT 100 FEET, LEQ 1* | *DISTANCE TO NOISE CONTOURS, FEET* | | | |
|---|---|---|---|---|---|
| | | *50 DB LEQ (NO SHIELDING)* | *45 DB LEQ (NO SHIELDING)* | *50 DB LEQ (WITH 5 DB SHIELDING)* | *45 DB LEQ (WITH 5 DB SHIELDING)* |
| Auto Body Shop | 56 dB | 200 | 355 | 112 | 200 |
| Auto Repair (Light) | 53 dB | 141 | 251 | 79 | 141 |
| Busy Parking Lot | 54 dB | 158 | 281 | 89 | 158 |
| Cabinet Shop | 62 dB | 398 | 708 | 224 | 398 |
| Car Wash | 63 dB | 446 | 792 | 251 | 446 |
| Cooling Tower | 69 dB | 889 | 1,581 | 500 | 889 |
| Loading Dock | 66 dB | 596 | 1,059 | 335 | 596 |
| Lumber Yard | 68 dB | 794 | 1,413 | 447 | 794 |
| Maintenance Yard | 68 dB | 794 | 1,413 | 447 | 794 |
| Outdoor Music Venue | 90 dB | 10,000 | 17,783 | 5,623 | 10,000 |
| Paint Booth Exhaust | 61 dB | 355 | 631 | 200 | 355 |
| Skate Park | 60 dB | 316 | 562 | 178 | 316 |
| School Playground / Neighborhood Park | 54 dB | 158 | 281 | 89 | 158 |
| Truck Circulation | 48 dB | 84 | 149 | 47 | 84 |
| Vendor Deliveries | 58 dB | 251 | 446 | 141 | 251 |

*[1] ANALYSIS ASSUMES A SOURCE-RECEIVER DISTANCE OF APPROXIMATELY 100 FEET, NO SHIELDING, AND FLAT TOPOGRAPHY. ACTUAL NOISE LEVELS WILL VARY DEPENDING ON SITE CONDITIONS AND INTENSITY OF THE USE. THIS INFORMATION IS INTENDED AS A GENERAL RULE ONLY, AND IS NOT SUITABLE FOR FINAL SITE-SPECIFIC NOISE STUDIES.*

*SOURCE: SAXELBY ACOUSTICS. – 2020*

## COMMUNITY NOISE SURVEY

A community noise survey was conducted to document ambient noise levels at various locations throughout the City. Short-term noise measurements were conducted at seven locations throughout the City on November 23, 2020. In addition, ten continuous 24-hour noise monitoring sites were also conducted to record day-night statistical noise level trends. The data collected included the hourly average (Leq), median (L50), and the maximum level (Lmax) during the measurement period. Noise

monitoring sites and the measured noise levels at each site are summarized in Table 3.12-6 and Table 3.12-7. Figure 3.12-2 shows the locations of the noise monitoring sites.

Community noise monitoring equipment included Larson Davis Laboratories (LDL) Model 820 precision integrating sound level meters equipped with LDL ½" microphones. The measurement systems were calibrated using a LDL Model CAL200 acoustical calibrator before and after testing. The measurement equipment meets all of the pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

***TABLE 3.12-6: EXISTING CONTINUOUS 24-HOUR AMBIENT NOISE MONITORING RESULTS***

| *SITE* | *LOCATION* | *LDN (DBA)* | *MEASURED HOURLY NOISE LEVELS, DBA LOW-HIGH (AVERAGE)* | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | *DAYTIME (7:00 AM - 10:00 PM)* | | | *NIGHTTIME (10:00 PM – 7:00 AM)* | | |
| | | | *LEQ* | *L50* | *LMAX* | *LEQ* | *L50* | *LMAX* |
| A | ACE Lathrop/Manteca Station | 79 | 65-77 (72) | 60-71 (67) | 78-108 (85) | 59-81 (73) | 48-67 (57) | 76-110 (85) |
| B | Manteca Skateboard Park | 76 | 50-76 (71) | 47-51 (49) | 66-103 (87) | 43-77 (70) | 41-48 (45) | 59-104 (82) |
| C | French Camp Road at S. Austin Rd. | 66 | 57-67 (63) | 61-68 (65) | 76-95 (85) | 51-65 (59) | 55-67 (60) | 69-85 (77) |
| D | North of CA-99 at Cottage Avenue | 82 | 75-79 (78) | 73-78 (77) | 86-98 (90) | 73-79 (76) | 65-78 (71) | 86-95 (89) |
| E | CA-120 | 71 | 65-68 (67) | 63-67 (66) | 74-86 (80) | 61-67 (64) | 58-66 (61) | 73-83 (77) |
| F | South Airport Way abandoned buildings | 72 | 64-69 (67) | 55-68 (63) | 77-90 (81) | 61-68 (65) | 51-65 (57) | 76-93 (79) |
| G | Airport Way and West Louisa Avenue | 69 | 61-67 (66) | 56-66 (63) | 74-89 (80) | 57-65 (66) | 48-63 (63) | 74-80 (76) |
| H | CA-99 access road, north of Lathrop Road | 78 | 73-75 (74) | 71-74 (73) | 81-98 (88) | 69-75 (72) | 65-74 (69) | 80-92 (85) |
| I | North Main Street and Northgate Drive | 69 | 61-69 (65) | 58-65 (62) | 72-92 (82) | 56-67 (62) | 55-63 (59) | 70-90 (78) |
| J | South of CA-120, west of Hart Ln. | 71 | 63-69 (68) | 55-68 (65) | 78-90 (85) | 60-68 (65) | 47-66 (55) | 77-85 (81) |

*SOURCE – SAXELBY ACOUSTICS. – 2020.*

***TABLE 3.12-7: EXISTING SHORT-TERM COMMUNITY NOISE MONITORING RESULTS***

| SITE | LOCATION | TIME[1] | MEASURED SOUND LEVEL, DB | | | NOTES |
|---|---|---|---|---|---|---|
| | | | LEQ | L50 | LMAX | |
| 1 | BMX Park on Spreckles Avenue | 1:05 p.m. | 64 | 63 | 77 | Primary noise source is Spreckles Ave., with train horn and crossing bells causing Lmax. |
| 2 | West of CA-99 | 10:53 a.m. | 76 | 75 | 84 | CA-99 is the primary noise source, with some from Frontage Rd. traffic |
| 3 | Raymus Village Park | 11:24 a.m. | 57 | 57 | 63 | CA-99 is the primary noise source. |
| 4 | North Segment of South Airport Way | 3:32 p.m. | 74 | 71 | 87 | South Airport Way is the primary noise source. Some audible noise from truck depot. |
| 5 | Intersection of Airport Way and Almondwood Drive | 1:32 a.m. | 65 | 55 | 80 | Primary source is South Airport Way. |
| 6 | Intersection of Austin Rd. and Palm Ave. | 10:05 a.m. | 71 | 62 | 85 | Austin Rd. is primary noise source. Secondary noise source is traffic on Palm Ave. |
| 7 | Dead end of Vasconcellos Ave, adjacent to El Rancho Mobile Home Park. | 12:24p.m. | 57 | 54 | 71 | CA-99 is primary noise source. Secondary source is SR-120 and Yosemite Ave. |

*1 - ALL COMMUNITY NOISE MEASUREMENT SITES HAVE A TEST DURATION OF 10:00 MINUTES.*

*SOURCE – SAXELBY ACOUSTICS. – 2020.*

The results of the community noise survey shown in Table 3.12-6 and 3.11-7 indicate that existing transportation (traffic) noise sources were the major contributor of noise observed during daytime hours, especially during vehicle pass-bys.

## 3.12.2 REGULATORY FRAMEWORK

### FEDERAL

#### Federal Highway Administration (FHWA)

The FHWA has developed noise abatement criteria that are used for federally funded roadway projects or projects that require federal review. These criteria are discussed in detail in Title 23 Part 772 of the Federal Code of Regulations (23CFR772).

#### Environmental Protection Agency (EPA)

The EPA has identified the relationship between noise levels and human response. The EPA has determined that over a 24-hour period, an Leq of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at an Leq of 55 dBA and interior

levels at or below 45 dBA. Although these levels are relevant for planning and design and useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community.

The EPA has set 55 dBA Ldn as the basic goal for residential environments. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA Ldn, have generally agreed on the 65 dBA Ldn level as being appropriate for residential uses. At 65 dBA Ldn activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

The Department of Housing and Urban Development (HUD) was established in response to the Urban Development Act of 1965 (Public Law 90-448). HUD was tasked by the Housing and Urban Development Act of 1965 (Public Law 89-117) "to determine feasible methods of reducing the economic loss and hardships suffered by homeowners as a result of the depreciation in the value of their properties following the construction of airports in the vicinity of their homes."

HUD first issued formal requirements related specifically to noise in 1971 (HUD Circular 1390.2). These requirements contained standards for exterior noise levels along with policies for approving HUD-supported or assisted housing projects in high noise areas. In general, these requirements established the following three zones:

- 65 dBA Ldn or less - an acceptable zone where all projects could be approved.
- Exceeding 65 dBA Ldn but not exceeding 75 dBA Ldn - a normally unacceptable zone where mitigation measures would be required and each project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA Ldn area and 10 dBA of attenuation in a 70 to 75 dBA Ldn area.
- Exceeding 75 dBA Ldn - an unacceptable zone in which projects would not, as a rule, be approved.

HUD's regulations do not include interior noise standards. Rather a goal of 45 dBA Ldn is set forth and attenuation requirements are geared towards achieving that goal. HUD assumes that using standard construction techniques, any building will provide sufficient attenuation so that if the exterior level is 65 dBA Ldn or less, the interior level will be 45 dBA Ldn or less. Thus, structural attenuation is assumed at 20 dBA. However, HUD regulations were promulgated solely for residential development requiring government funding and are not related to the operation of schools or churches.

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the EPA. Noise exposure of this type is dependent on work conditions and is addressed through a facility's or construction contractor's health and safety plan. With the exception of construction workers involved in facility construction, occupational noise is irrelevant to this study and is not addressed further in this document.

## STATE

### California Department of Transportation (Caltrans)

Caltrans has adopted policy and guidelines relating to traffic noise as outlined in the Traffic Noise Analysis Protocol (Caltrans 2011). The noise abatement criteria specified in the protocol are the same as those specified by FHWA.

### Governor's Office of Planning and Research (OPR)

OPR has developed guidelines for the preparation of general plans (Office of Planning and Research, 2003). The guidelines include land use compatibility guidelines for noise exposure.

## LOCAL

### Existing City Noise Thresholds

The City of Manteca General Plan Noise Element contains goals, policies, and implementation measures for assessing noise impacts within the City. Listed below are the noise goals, policies, and implementation measures that are applicable to the proposed Project (City of Manteca as amended through 2016):

#### GOALS: NOISE

- N-1. Protect the residents of Manteca from the harmful and annoying effects of exposure to excessive noise.
- N-3. Ensure that the downtown core noise levels remain acceptable and compatible with commercial and higher density residential land uses.
- N-4. Protect public health and welfare by eliminating existing noise problems where feasible, by establishing standards for acceptable indoor and outdoor noise, and by preventing significant increases in noise levels.
- N-5. Incorporate noise considerations into land use planning decisions, and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

#### POLICIES: NOISE

- N-P-2. New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to satisfy the performance standards in Table 9-1 [Table 3.12-8].

***TABLE 3.12-8: MAXIMUM ALLOWABLE NOISE EXPOSURE MOBILE NOISE SOURCES***

| *LAND USE*[4] | *OUTDOOR ACTIVITY AREAS*[1] | *INTERIOR SPACES* | |
|---|---|---|---|
| | | *LDN/CNEL, DB* | *LEQ/CNEL, DB*[3] |
| Residential | 60[2] | 45 | -- |
| Transient Lodging | 60[2] | 45 | -- |
| Hospitals, Nursing Homes | 60[2] | 45 | -- |
| Theatres, Auditoriums, Music Halls | -- | -- | 35 |
| Churches, Music Halls | 60[2] | -- | 40 |

| LAND USE[4] | OUTDOOR ACTIVITY AREAS[1] | INTERIOR SPACES | |
|---|---|---|---|
| | | LDN/CNEL, DB | LEQ/CNEL, DB[3] |
| Office Buildings | 65 | -- | 45 |
| Schools, Libraries, Museums | -- | -- | 45 |
| Playgrounds, Neighborhood Parks | 70 | -- | -- |

*NOTES: [1] OUTDOOR ACTIVITY AREAS FOR RESIDENTIAL DEVELOPMENT ARE CONSIDERED TO BE BACKYARD PATIOS OR DECKS OF SINGLE FAMILY DWELLINGS, AND THE COMMON AREAS WHERE PEOPLE GENERALLY CONGREGATE FOR MULTI-FAMILY DEVELOPMENTS. OUTDOOR ACTIVITY AREAS FOR NON-RESIDENTIAL DEVELOPMENTS ARE CONSIDERED TO BE THOSE COMMON AREAS WHERE PEOPLE GENERALLY CONGREGATE, INCLUDING PEDESTRIAN PLAZAS, SEATING AREAS, AND OUTSIDE LUNCH FACILITIES. WHERE THE LOCATION OF OUTDOOR ACTIVITY AREAS IS UNKNOWN, THE EXTERIOR NOISE LEVEL STANDARD SHALL BE APPLIED TO THE PROPERTY LINE OF THE RECEIVING LAND USE.*
*[2] IN AREAS WHERE IT IS NOT POSSIBLE TO REDUCE EXTERIOR NOISE LEVELS TO 60 DB $L_{DN}$ OR BELOW USING A PRACTICAL APPLICATION OF THE BEST NOISE-REDUCTION TECHNOLOGY, AN EXTERIOR NOISE LEVEL OF UP TO 65 $L_{DN}$ WILL BE ALLOWED.*
*[3] DETERMINED FOR A TYPICAL WORST-CASE HOUR DURING PERIODS OF USE.*
*[4] WHERE A PROPOSED USE IS NOT SPECIFICALLY LISTED ON THE TABLE, THE USE SHALL COMPLY WITH THE NOISE EXPOSURE STANDARDS FOR THE NEAREST SIMILAR USE AS DETERMINED BY THE CITY.*
*SOURCE: CITY OF MANTECA GENERAL PLAN, NOISE ELEMENT, TABLE 9-1.*

- N-P-3. The City may permit the development of new noise-sensitive uses only where the noise level due to fixed (non-transportation) noise sources satisfies the noise level standards of Table 9-2 [Table 3.12-9]. Noise mitigation may be required to meet Table 9-2 [Table 3.12-9] performance standards.

***TABLE 3.12-9: PERFORMANCE STANDARDS FOR STATIONARY NOISE SOURCES OR PROJECTS AFFECTED BY STATIONARY NOISE SOURCES***

| NOISE LEVEL DESCRIPTOR | DAYTIME (7 AM – 10 PM) | NIGHTTIME (10 PM – 7 AM) |
|---|---|---|
| Hourly $L_{eq}$, dB | 50 | 45 |
| Maximum Level, dB | 70 | 65 |

*NOTES: [1] EACH OF THE NOISE LEVELS SPECIFIED ABOVE SHOULD BE LOWERED BY FIVE (5) DB FOR SIMPLE NOISE TONES, NOISES CONSISTING PRIMARILY OF SPEECH OR MUSIC, OR RECURRING IMPULSIVE NOISES. SUCH NOISES ARE GENERALLY CONSIDERED BY RESIDENTS TO BE PARTICULARLY ANNOYING AND ARE A PRIMARY SOURCE OF NOISE COMPLAINTS.*
*[2] NO STANDARDS HAVE BEEN INCLUDED FOR INTERIOR NOISE LEVELS. STANDARD CONSTRUCTION PRACTICES SHOULD, WITH THE EXTERIOR NOISE LEVELS IDENTIFIED, RESULT IN ACCEPTABLE INTERIOR NOISE LEVELS.*
*SOURCE: CITY OF MANTECA GENERAL PLAN, NOISE ELEMENT, TABLE 9-1.*

- N-P-5. In accord with the Table 9-2 [Table 3.12-9] standards, the City shall regulate construction-related noise impacts on adjacent uses.

### IMPLEMENTATION MEASURES: NOISE

- N-I-1. New development in residential areas with an actual or projected exterior noise level of greater than 60 dB $L_{dn}$ will be conditioned to use mitigation measures to reduce exterior noise levels to less than or equal to 60 dB $L_{dn}$.
- N-I-3. In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:

  - the resulting noise levels
  - the duration and frequency of the noise
  - the number of people affected
  - the land use designation of the affected receptor sites
  - public reactions or controversy as demonstrated at workshops or hearings, or by correspondence
  - prior CEQA determinations by other agencies specific to the project
- N-I-4. Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours and other techniques. Use noise barriers to attenuate noise to acceptable levels.

### City of Manteca Municipal Code Noise Ordinance

Section 9.52.030 of the City of Manteca Municipal Code prohibits excessive or annoying noise or vibration to residential and commercial properties in the City. The following general rules are outline in the ordinance:

#### 9.52.030 PROHIBITED NOISES—GENERAL STANDARD

No person shall make, or cause to suffer, or permit to be made upon any public property, public right-of-way or private property, any unnecessary and unreasonable noises, sounds or vibrations which are physically annoying to reasonable persons of ordinary sensitivity or which are so harsh or so prolonged or unnatural or unusual in their use, time or place as to cause or contribute to the unnecessary and unreasonable discomfort of any persons within the neighborhood from which said noises emanate or which interfere with the peace and comfort of residents or their guests, or the operators or customers in places of business in the vicinity, or which may detrimentally or adversely affect such residences or places of business. (Ord. 1374 § 1(part), 2007)

#### 17.58.050 D. EXEMPT ACTIVITIES

8. Construction activities when conducted as part of an approved Building Permit, except as prohibited in Subsection 17.58.050(E)(1) (Prohibited Activities) below.

#### 17.58.050 E. PROHIBITED ACTIVITIES

1. Construction Noise. Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work daily between the hours of 7:00 p.m. and 7:00 a.m., so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities.

## 3.12.3 IMPACTS AND MITIGATION MEASURES

### THRESHOLDS OF SIGNIFICANCE

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

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generate excessive groundborne vibration or groundborne noise levels; or
- Expose people residing or working in the project area to excessive noise levels, for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport.

NOISE LEVEL INCREASE CRITERIA FOR LONG-TERM PROJECT-RELATED NOISE LEVEL INCREASES

CEQA guidelines define a significant impact of a project if it "*Generate[s] a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance*". Implementation Measure N-I-3 of the City of Manteca General Plan Noise Element provides specific guidance for assessing increases in ambient noise, as follows:

> *In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are increased by 10 dB or more. An increase from 5-10 dB may be substantial. Factors to be considered in determining the significance of increases from 5-10 dB include:*
>
> - *the resulting noise levels*
> - *the duration and frequency of the noise*
> - *the number of people affected*
> - *the land use designation of the affected receptor sites*
> - *public reactions/controversy as demonstrated at workshops/hearings, or by correspondence*
> - *prior CEQA determinations by other agencies specific to the project*

## Vibration Standards

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City does not have specific policies pertaining to vibration levels. However, vibration levels associated with construction activities and railroad operations are addressed as potential noise impacts associated with project implementation.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.12-10 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v).

***TABLE 3.12-10: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS***

| *PEAK PARTICLE VELOCITY* | | *HUMAN REACTION* | *EFFECT ON BUILDINGS* |
|---|---|---|---|
| *MM/SEC.* | *IN./SEC.* | | |
| 0.15-0.30 | 0.006-0.019 | Threshold of perception; possibility of intrusion | Vibrations unlikely to cause damage of any type |
| 2.0 | 0.08 | Vibrations readily perceptible | Recommended upper level of the vibration to which ruins and ancient monuments should be subjected |
| 2.5 | 0.10 | Level at which continuous vibrations begin to annoy people | Virtually no risk of "architectural" damage to normal buildings |
| 5.0 | 0.20 | Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations) | Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage |
| 10-15 | 0.4-0.6 | Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges | Vibrations at a greater level than normally expected from traffic but would cause "architectural" damage and possibly minor structural damage. |

*SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBORN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.*

Construction activities may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams, pile drivers) are used. Construction activities often include demolition of existing structures, excavation, site preparation work, foundation work, and new building framing and finishing.

For structural damage, the California Department of Transportation uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV) for buildings structurally sound and designed to modern engineering standards.

Table 3.12-11 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Construction activities such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet.

***TABLE 3.12-11: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT***

| *EQUIPMENT* | | *PPV AT 25 FT. (IN/SEC)* | *APPROXIMATE LV AT 25 FT. (VDB)* |
|---|---|---|---|
| Pile Driver (Impact) | upper range | 1.158 | 112 |
| | typical | 0.644 | 104 |
| Pile Driver (Sonic) | upper range | 0.734 | 105 |
| | typical | 0.170 | 93 |
| Clam shovel drop | | 0.202 | 94 |
| Hydromill (slurry wall) | in soil | 0.008 | 66 |
| | in rock | 0.017 | 75 |
| Vibratory Roller | | 0.210 | 94 |
| Hoe ram | | 0.089 | 87 |
| Large bulldozer | | 0.089 | 87 |
| Caisson drilling | | 0.089 | 87 |
| Loaded trucks | | 0.076 | 86 |
| Jackhammer | | 0.035 | 79 |
| Small bulldozer | | 0.003 | 58 |

*SOURCE: TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT, UNITED STATES DEPARTMENT OF TRANSPORTATION, OFFICE OF PLANNING AND ENVIRONMENT, FEDERAL TRANSIT ADMINISTRATION, MAY 2006.*

## IMPACTS AND MITIGATION MEASURES

### Impact 3.11-1: Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of applicable standards (Significant and Unavoidable)

#### TRAFFIC NOISE

Implementation of the proposed General Plan would result in the introduction of additional development, roadways, and a truck route, as described in Chapter 2.0, that would result in additional traffic and associated traffic noise.

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop Ldn (24-hour average) noise contours for all highways and major roadways in the General Plan study area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model predicts hourly Leq values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict Ldn values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period. It should be noted that the newer FHWA traffic noise model (TNM 3.0) is required for use on federally funded highway projects. However, the FHWA RD-77-108 model is still widely used in the industry for planning-level projects involving many roadway segments. The model typically results in slight over-predictions in traffic

noise levels at typical receptor setback distances and is therefore considered to result in conservative traffic noise level predictions.

Traffic and heavy truck volumes were obtained from the traffic engineer (Fehr & Peers, 2020). Day/night traffic distributions were based upon continuous hourly noise measurement data. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing conditions. Table 3.12-12 shows the results of this analysis.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. Where sound walls were noted to be prevalent along a roadway segment, a conservative offset of -5 dB was applied to the noise model. In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience varying degrees of shielding from intervening barriers or sound walls. However, the traffic noise analysis is representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

Table 3.12-12 shows the existing and future noise levels and the increase in noise levels associated with traffic on the local roadway network under the proposed General Plan. Figure 3.12-3 shows future citywide traffic noise contours with implementation of the proposed General Plan. Buildout of the General Plan may contribute to an exceedance of the City's transportation noise standards and/or result in significant increases in traffic noise levels at existing sensitive receptors. As indicated by Table 3.12-12, the related traffic noise level increases under the proposed General Plan are predicted to increase between 0.3 to 11.1 dB versus Existing (2019) conditions and would result in significant increases.

***TABLE 3.12-12: EXISTING (2019) VS PROPOSED GENERAL PLAN***

| ROADWAY | NOISE LEVELS ($L_{DN}$, dB) AT NEAREST SENSITIVE RECEPTORS | | | | |
|---|---|---|---|---|---|
| | EXISTING (2019) | PROPOSED GP | CHANGE | CRITERIA[1] | SIGNIFICANT? |
| Airport Way north of Crom Street | 63.7 | 68.4 | 4.7 | +5-10 dB | No |
| Airport Way north of Daisywood Drive | 67.6 | 71.7 | 4.1 | +5-10 dB | No |
| Airport Way north of Daniels Street | 65.6 | 69.3 | 3.7 | +5-10 dB | No |
| Airport Way south of Northgate Drive | 66.5 | 72.3 | 5.8 | +5-10 dB | Yes |
| Airport Way south of SR 120 EB ramps | 61.8 | 66.6 | 4.8 | +5-10 dB | No |
| Atherton Drive east of Main Street | 56.6 | 60.6 | 4.0 | +5-10 dB | No |
| Atherton Drive east of Union Road | 60.4 | 65.4 | 4.9 | +5-10 dB | No |
| Austin Road south of Moffat Boulevard | 64.3 | 66.2 | 1.9 | +5-10 dB | No |
| Austin Road south of Yosemite Avenue | 65.8 | 67.2 | 1.4 | +5-10 dB | No |
| Cottage Avenue south of Aldwina Lane | 65.4 | 66.9 | 1.5 | +5-10 dB | No |
| Daniels Street west of Airport Way | 63.4 | 65.7 | 2.3 | +5-10 dB | No |
| French Camp Rd east of SR 99 | 63.0 | 65.7 | 2.7 | +5-10 dB | No |
| French Camp Rd west of SR 99 | 72.8 | 76.6 | 3.7 | +5-10 dB | No |
| Lathrop Avenue west of Airport Way | 72.5 | 77.0 | 4.5 | +5-10 dB | No |
| Lathrop Avenue west of Madison Grove Drive | 68.7 | 71.3 | 2.6 | +5-10 dB | No |
| Lathrop Avenue west of Sherwood Avenue | 68.9 | 71.6 | 2.7 | +5-10 dB | No |

| ROADWAY | NOISE LEVELS ($L_{DN}$, dB) AT NEAREST SENSITIVE RECEPTORS | | | | |
|---|---|---|---|---|---|
| | EXISTING (2019) | PROPOSED GP | CHANGE | CRITERIA[1] | SIGNIFICANT? |
| Louise Avenue east of Marguerite Avenue | 63.7 | 67.3 | 3.5 | +5-10 dB | No |
| Louise Avenue east of Tulip Place | 64.0 | 67.2 | 3.2 | +5-10 dB | No |
| Louise Avenue west of Airport Way | 70.0 | 76.2 | 6.2 | +5-10 dB | Yes |
| Louise Avenue west of Austin Road | 61.4 | 66.5 | 5.1 | +5-10 dB | Yes |
| Louise Avenue west of Cottage Avenue | 61.1 | 64.3 | 3.2 | +5-10 dB | No |
| Louise Avenue west of Yvonne Avenue | 64.1 | 66.7 | 2.7 | +5-10 dB | No |
| Lovelace Rd east of Union Rd | 0.0 | 72.5 | N/A | +5-10 dB | Yes |
| Lovelace Road east of Airport Way | 63.3 | 74.4 | 11.1 | +5-10 dB | Yes |
| Lovelace Road west of SR 99 | 0.0 | 72.8 | N/A | +5-10 dB | No |
| Main Street (Manteca Rd) north of Sedan Avenue | 68.5 | 71.5 | 3.0 | +5-10 dB | No |
| Main Street north of Northgate Drive | 61.7 | 63.9 | 2.1 | +5-10 dB | No |
| Main Street north of SR 120 WB ramps | 72.3 | 72.8 | 0.6 | +5-10 dB | No |
| Main Street south of Alameda Street | 71.3 | 72.5 | 1.3 | +5-10 dB | No |
| Main Street south of Quintal Road | 62.7 | 66.4 | 3.7 | +5-10 dB | No |
| Moffat Boulevard east of Powers Avenue | 63.6 | 65.4 | 1.7 | +5-10 dB | No |
| Moffat Boulevard north of Woodward Avenue | 55.1 | 57.5 | 2.4 | +5-10 dB | No |
| Raymus Parkway east of Austin Road | 0.0 | 66.5 | N/A | +5-10 dB | No |
| Raymus Parkway east of Main Street | 0.0 | 64.9 | N/A | +5-10 dB | No |
| Raymus Parkway east of Union Road | 0.0 | 63.9 | N/A | +5-10 dB | No |
| Raymus Parkway west of Airport Way | 0.0 | 0.0 | N/A | +5-10 dB | No |
| Roth Rd east of Airport Way | 0.0 | 70.0 | N/A | +5-10 dB | No |
| Roth Rd west of Airport Way | 69.5 | 72.4 | 4.8 | +5-10 dB | No |
| Spreckels Avenue south of Phoenix Drive | 62.4 | 61.7 | 0.7 | +5-10 dB | No |
| SR 120 EB between McKinley Ave and Airport Way | 70.7 | 70.3 | 3.8 | +5-10 dB | No |
| SR 120 total between McKinley Ave and Airport Way | 73.7 | 73.4 | 3.7 | +5-10 dB | No |
| SR 120 WB between McKinley Ave and Airport Way | 67.7 | 67.5 | 3.6 | +5-10 dB | No |
| SR 99 NB north of Lovelace Rd | 78.2 | 77.7 | 1.3 | +5-10 dB | No |
| SR 99 NB north of Yosemite Ave | 73.7 | 73.6 | 1.9 | +5-10 dB | No |
| SR 99 SB north of Lovelace Rd | 77.3 | 76.8 | 1.3 | +5-10 dB | No |
| SR 99 SB north of Yosemite Ave | 76.1 | 76.0 | 1.9 | +5-10 dB | No |
| SR 99 total north of Lovelace Rd | 81.2 | 80.7 | 1.3 | +5-10 dB | No |
| SR 99 total north of Yosemite Ave | 79.1 | 78.9 | 1.9 | +5-10 dB | No |
| Union Rd north of Lovelace Rd | 72.0 | 72.4 | 8.8 | +5-10 dB | Yes |
| Union Road north of Crom Street | 66.6 | 67.3 | 3.9 | +5-10 dB | No |
| Union Road north of Del Webb Boulevard | 65.0 | 65.1 | 4.5 | +5-10 dB | No |
| Union Road south of Mission Ridge Drive | 68.1 | 68.3 | 1.9 | +5-10 dB | No |
| Union Road south of Northgate Drive | 67.1 | 68.0 | 3.8 | +5-10 dB | No |
| Union Road south of SR 120 EB ramps | 65.5 | 65.3 | 4.9 | +5-10 dB | No |
| Union Road south of Woodward Avenue | 69.1 | 69.8 | 6.0 | +5-10 dB | Yes |
| Van Ryn Avenue north of Atherton Drive | 65.2 | 66.4 | 2.2 | +5-10 dB | No |

| ROADWAY | NOISE LEVELS ($L_{DN}$, dB) AT NEAREST SENSITIVE RECEPTORS | | | | |
|---|---|---|---|---|---|
| | EXISTING (2019) | PROPOSED GP | CHANGE | CRITERIA[1] | SIGNIFICANT? |
| Woodward Avenue west of Airport Way | 61.9 | 63.0 | 4.8 | +5-10 dB | No |
| Woodward Avenue west of Laurie Avenue | 67.6 | 68.1 | 5.1 | +5-10 dB | Yes |
| Woodward Avenue west of Moffat Boulevard | 0.0 | 0.0 | N/A | +5-10 dB | No |
| Yosemite Avenue east of Cottage Avenue | 72.0 | 71.7 | 0.8 | +5-10 dB | No |
| Yosemite Avenue west of Airport Way | 72.2 | 73.3 | 4.0 | +5-10 dB | No |
| Yosemite Avenue west of Almond Avenue | 65.6 | 65.8 | 1.0 | +5-10 dB | No |
| Yosemite Avenue west of El Rancho Drive | 71.7 | 72.0 | 3.8 | +5-10 dB | No |
| Yosemite Avenue west of Pacific Road | 57.7 | 57.9 | 3.3 | +5-10 dB | No |
| Yosemite Avenue west of Washington Avenue | 65.6 | 65.8 | 0.5 | +5-10 dB | No |

[1] *THE CITY DEFINES A SIGNIFICANT INCREASE AS A 10 DB INCREASE, WITH THE POSSIBILITY OF SIGNIFICANCE WITH INCREASES BETWEEN 5-10 DB. FOR THE PURPOSE OF THIS REPORT, A 5 DB INCREASE IS CONSIDERED SIGNIFICANT.*

*SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2020.*

It is noted that many roadways in the City would experience in increase in noise levels due to development of pending projects. As indicated by Table 3.12-13, the related traffic noise level increases under the proposed General Plan are predicted to increase between 0.1 to 9.7 dB versus Existing (2019) Plus Approved conditions.

***TABLE 3.12-13: EXISTING (2019) PLUS APPROVED VS PROPOSED GENERAL PLAN***

| ROADWAY | NOISE LEVELS ($L_{DN}$, dB) AT NEAREST SENSITIVE RECEPTORS | | | | |
|---|---|---|---|---|---|
| | EXISTING PLUS APPROVED | PROPOSED GP | CHANGE | CRITERIA[1] | CRITERIA MET? |
| Airport Way north of Crom Street | 67.4 | 68.4 | 1.0 | +5-10 dB | No |
| Airport Way north of Daisywood Drive | 71.1 | 71.7 | 0.6 | +5-10 dB | No |
| Airport Way north of Daniels Street | 69.1 | 69.3 | 0.2 | +5-10 dB | No |
| Airport Way south of Northgate Drive | 70.1 | 72.3 | 2.1 | +5-10 dB | No |
| Airport Way south of SR 120 EB ramps | 65.5 | 66.6 | 1.1 | +5-10 dB | No |
| Atherton Drive east of Main Street | 58.1 | 60.6 | 2.5 | +5-10 dB | No |
| Atherton Drive east of Union Road | 62.1 | 65.4 | 3.2 | +5-10 dB | No |
| Austin Road south of Moffat Boulevard | 65.0 | 66.2 | 1.2 | +5-10 dB | No |
| Austin Road south of Yosemite Avenue | 65.8 | 67.2 | 1.4 | +5-10 dB | No |
| Cottage Avenue south of Aldwina Lane | 65.9 | 66.9 | 1.0 | +5-10 dB | No |
| Daniels Street west of Airport Way | 67.9 | 65.7 | -2.2 | +5-10 dB | No |
| French Camp Rd east of SR 99 | 63.2 | 65.7 | 2.5 | +5-10 dB | No |
| French Camp Rd west of SR 99 | 73.0 | 76.6 | 3.6 | +5-10 dB | No |
| Lathrop Avenue west of Airport Way | 73.4 | 77.0 | 3.7 | +5-10 dB | No |
| Lathrop Avenue west of Madison Grove Drive | 69.8 | 71.3 | 1.5 | +5-10 dB | No |
| Lathrop Avenue west of Sherwood Avenue | 69.7 | 71.6 | 1.9 | +5-10 dB | No |
| Louise Avenue east of Marguerite Avenue | 65.6 | 67.3 | 1.7 | +5-10 dB | No |
| Louise Avenue east of Tulip Place | 64.2 | 67.2 | 3.0 | +5-10 dB | No |
| Louise Avenue west of Airport Way | 71.9 | 76.2 | 4.3 | +5-10 dB | No |
| Louise Avenue west of Austin Road | 61.9 | 66.5 | 4.6 | +5-10 dB | No |

| Roadway | Noise Levels ($L_{DN}$, dB) at Nearest Sensitive Receptors | | | | |
|---|---|---|---|---|---|
| | Existing Plus Approved | Proposed GP | Change | Criteria[1] | Criteria Met? |
| Louise Avenue west of Cottage Avenue | 61.3 | 64.3 | 3.0 | +5-10 dB | No |
| Louise Avenue west of Yvonne Avenue | 65.7 | 66.7 | 1.1 | +5-10 dB | No |
| Lovelace Rd east of Union Rd | 0.0 | 72.5 | N/A | +5-10 dB | No |
| Lovelace Road east of Airport Way | 64.7 | 74.4 | 9.7 | +5-10 dB | Yes |
| Lovelace Road west of SR 99 | 0.0 | 72.8 | N/A | +5-10 dB | No |
| Main Street (Manteca Rd) north of Sedan Avenue | 68.6 | 71.5 | 2.9 | +5-10 dB | No |
| Main Street north of Northgate Drive | 63.1 | 63.9 | 0.8 | +5-10 dB | No |
| Main Street north of SR 120 WB ramps | 72.9 | 72.8 | -0.1 | +5-10 dB | No |
| Main Street south of Alameda Street | 71.6 | 72.5 | 0.9 | +5-10 dB | No |
| Main Street south of Quintal Road | 64.0 | 66.4 | 2.5 | +5-10 dB | No |
| Moffat Boulevard east of Powers Avenue | 64.2 | 65.4 | 1.1 | +5-10 dB | No |
| Moffat Boulevard north of Woodward Avenue | 55.8 | 57.5 | 1.7 | +5-10 dB | No |
| Raymus Parkway east of Austin Road | 0.0 | 66.5 | N/A | +5-10 dB | No |
| Raymus Parkway east of Main Street | 0.0 | 64.9 | N/A | +5-10 dB | No |
| Raymus Parkway east of Union Road | 0.0 | 63.9 | N/A | +5-10 dB | No |
| Raymus Parkway west of Airport Way | 0.0 | 0.0 | N/A | +5-10 dB | No |
| Roth Rd east of Airport Way | 0.0 | 70.0 | N/A | +5-10 dB | No |
| Roth Rd west of Airport Way | 68.1 | 72.4 | 4.3 | +5-10 dB | No |
| Spreckels Avenue south of Phoenix Drive | 61.8 | 61.7 | -0.1 | +5-10 dB | No |
| SR 120 EB between McKinley Ave and Airport Way | 66.9 | 70.3 | 3.4 | +5-10 dB | No |
| SR 120 total between McKinley Ave and Airport Way | 70.1 | 73.4 | 3.3 | +5-10 dB | No |
| SR 120 WB between McKinley Ave and Airport Way | 64.2 | 67.5 | 3.2 | +5-10 dB | No |
| SR 99 NB north of Lovelace Rd | 76.7 | 77.7 | 1.0 | +5-10 dB | No |
| SR 99 NB north of Yosemite Ave | 72.0 | 73.6 | 1.5 | +5-10 dB | No |
| SR 99 SB north of Lovelace Rd | 75.8 | 76.8 | 1.0 | +5-10 dB | No |
| SR 99 SB north of Yosemite Ave | 74.5 | 76.0 | 1.5 | +5-10 dB | No |
| SR 99 total north of Lovelace Rd | 79.7 | 80.7 | 1.0 | +5-10 dB | No |
| SR 99 total north of Yosemite Ave | 77.4 | 78.9 | 1.5 | +5-10 dB | No |
| Union Rd north of Lovelace Rd | 64.0 | 72.4 | 8.4 | +5-10 dB | Yes |
| Union Road north of Crom Street | 64.9 | 67.3 | 2.4 | +5-10 dB | No |
| Union Road north of Del Webb Boulevard | 61.5 | 65.1 | 3.6 | +5-10 dB | No |
| Union Road south of Mission Ridge Drive | 66.8 | 68.3 | 1.5 | +5-10 dB | No |
| Union Road south of Northgate Drive | 65.5 | 68.0 | 2.5 | +5-10 dB | No |
| Union Road south of SR 120 EB ramps | 62.8 | 65.3 | 2.5 | +5-10 dB | No |
| Union Road south of Woodward Avenue | 64.0 | 69.8 | 5.8 | +5-10 dB | Yes |
| Van Ryn Avenue north of Atherton Drive | 65.6 | 66.4 | 0.7 | +5-10 dB | No |
| Woodward Avenue west of Airport Way | 64.6 | 63.0 | -1.6 | +5-10 dB | No |
| Woodward Avenue west of Laurie Avenue | 65.6 | 68.1 | 2.5 | +5-10 dB | No |
| Woodward Avenue west of Moffat Boulevard | 67.6 | 0.0 | N/A | +5-10 dB | No |
| Yosemite Avenue east of Cottage Avenue | 71.8 | 71.7 | -0.1 | +5-10 dB | No |
| Yosemite Avenue west of Airport Way | 71.2 | 73.3 | 2.2 | +5-10 dB | No |

| ROADWAY | NOISE LEVELS ($L_{DN}$, dB) AT NEAREST SENSITIVE RECEPTORS | | | | |
|---|---|---|---|---|---|
| | EXISTING PLUS APPROVED | PROPOSED GP | CHANGE | CRITERIA[1] | CRITERIA MET? |
| Yosemite Avenue west of Almond Avenue | 66.5 | 65.8 | -0.7 | +5-10 dB | No |
| Yosemite Avenue west of El Rancho Drive | 68.8 | 72.0 | 3.3 | +5-10 dB | No |
| Yosemite Avenue west of Pacific Road | 56.7 | 57.9 | 1.3 | +5-10 dB | No |
| Yosemite Avenue west of Washington Avenue | 65.7 | 65.8 | 0.1 | +5-10 dB | No |

[1] *THE CITY DEFINES A SIGNIFICANT INCREASE AS A 10 DB INCREASE, WITH THE POSSIBILITY OF SIGNIFICANCE WITH INCREASES BETWEEN 5-10 DB. FOR THE PURPOSE OF THIS REPORT, A 5 DB INCREASE IS CONSIDERED SIGNIFICANT.*

*SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2020.*

The City of Manteca has prepared the General Plan to include numerous policies and actions intended to minimize excessive traffic noise associated with future development and improvement projects. General Plan Policies S-5.1 through S-5.4, S-5.7 through S-5.12, S-5.15 and Implementation measure S-5 identified below, are intended to minimize exposure to excessive noise, including noise associated with traffic. Specifically, Policies S-5.1, S-5.2, S-5.4, and S5-7 support noise-compatible land uses in the vicinity of traffic noise sources and require that new development and infrastructure projects be reviewed for consistency with the noise standards established in Tables S-1. The proposed General Plan standards required under Policy S-5.4, for exposure to traffic noise shown in Tables 3.12-12 and 3.12-13, meet or exceed the noise level standards of the adopted General Plan shown in Table 3.12-8. Policy S-5.7 and Implementation measure S-5 would ensure that new development mitigates potential noise impacts through incorporating the noise control treatments necessary to achieve acceptable noise levels. Implementation measure S-5d sets criteria for evaluating future increases in traffic noise levels. Implementation measure S-5c would ensure that the Municipal Code, including the updated noise ordinance, is consistent with the noise standards established in the General Plan. Action S-5i would encourage working with Caltrans to ensure that adequate noise studies are prepared and that noise mitigation measures are considered in State transportation projects.

Implementation of the proposed policies and actions of the General Plan discussed above and listed below will reduce noise and land use compatibility impacts from vehicular traffic noise sources and would ensure that new development is designed to include noise-attenuating features. However, as shown in Table 3.12-12 and 3.12-13, the traffic noise increases associated with the proposed General Plan exceed the applicable noise exposure criteria. While the General Plan includes policies to reduce noise exposure and establishes more detailed policies and programs to identify and address potential noise impacts than the current General Plan, there will remain the potential for noise increases to exceed established standards. The universal use of noise attenuating features such as rubberized asphalt, soundwalls, berms, and improved building sound-insulation, could prevent transmission of excessive noise to the outdoor and indoor areas of sensitive land uses and/or could prevent projected increases in ambient noise levels. However, this approach would be infeasible in several situations. Specifically, rubberized asphalt reduces tire-pavement noise and when new, achieves a reduction of approximately 4 dB when compared to normal pavement surfaces. However, the noise reduction properties degrade over time, and the noise reduction would not be sufficient to reduce noise impacts in many areas of Manteca. In many cases, aesthetic concerns, costs, physical constraints, or other issues would prevent the universal implementation of adequate noise-attenuating features. In addition to their expense, soundwalls often block views and are regarded as unsightly. Moreover, the construction of soundwalls can result in reduced

pedestrian and vehicle connectivity, which would contravene other goals of the proposed General Plan. Therefore, the application of noise-attenuating features is not feasible in all circumstances. Therefore, the proposed General Plan would have a ***significant and unavoidable*** impact relative to the potential for traffic noise to generate substantial increases in ambient noise levels.

### RAILROAD NOISE

Table 3.12-4 indicates that the 60 dB Ldn railroad noise contours for railroad lines may extend up to 833 feet from railroad centerlines. Future development located along these railroad lines could therefore be exposed to unacceptable exterior noise levels associated with operation of the railroad lines.

Policies S-5.1 through S-5.4 and S-5.7 through S-5.9, S-5.12, S-5.16 and Implementation measure S-5 identified below, are intended to minimize exposure to excessive noise, including noise associated with railroad operations. Specifically, Policies S-5.1, S-5.2, S-5.4, and S5-7 support noise-compatible land uses in the vicinity of railroad noise sources and require that new development and infrastructure projects be reviewed for consistency with the noise standards established in Tables S-1. The proposed General Plan standards required under Policy S-5.4, for exposure to railroad noise shown in Table 3.12-4, meet or exceed the noise level standards of the adopted General Plan shown in Table 3.12-8. Policy S-5.7 and Implementation measure S-5 would ensure that new development mitigates potential noise impacts through incorporating the noise control treatments necessary to achieve acceptable noise levels.

Implementation of these General Plan policies and actions would ensure that development allowed under the proposed General Plan is not exposed to noise levels associated with railroad operations in excess of the City's established standards. This is a ***less than significant*** impact.

### STATIONARY NOISE

Implementation of the General Plan could result in the future development of land uses that generate temporary or permanent noise levels in excess of applicable City noise standards for non-transportation noise sources. Such land uses may include commercial area loading docks, industrial uses, HVAC equipment, car washes, daycare facilities, auto repair, and recreational uses. While the General Plan does not specifically propose any new noise generating uses, the Land Use Map includes industrial land use designations, which may result in new noise sources. Specific land uses that would be located in the city are not known at this time. Additionally, noise from existing stationary sources, as identified in the background section of this chapter, will continue to impact noise-sensitive land uses in the vicinity. New projects which may include stationary noise sources such as automotive and truck repair facilities, tire installation centers, car washes, loading docks, corporation yards, parks, and play fields may create noise levels in excess of the City's standards.

The General Plan includes policies and actions that are intended to reduce noise associated with stationary sources (listed below). Specifically, Policies S-5.4, S-5.5, S-5.7, S-5.8 and Implementation measure S-5 would reduce noise associated with stationary sources. Implementation of the proposed policies and actions of the General Plan will reduce noise impacts from stationary noise sources to a ***less than significant*** level.

## GENERAL PLAN POLICIES AND ACTIONS THAT MITIGATE POTENTIAL IMPACTS

### CIRCULATION ELEMENT POLICIES

*C-2.5: Include sound attenuation walls in the frontage improvements associated with Arterial roadways in accordance with City adopted Street Standards and Specifications, as amended.*

### SAFETY ELEMENT POLICIES

*S-5.1: Incorporate noise considerations into land use, transportation, and infrastructure planning decisions, and guide the location and design of noise-producing uses to minimize the effects of noise on adjacent noise-sensitive land uses, including residential uses and schools.*

*S-5.2: Ensure that Downtown noise levels remain acceptable and compatible with a pedestrian-oriented environment and higher density residential land uses.*

*S-5.3: Areas within Manteca exposed to existing or projected exterior noise levels from mobile noise sources exceeding the performance standards in Table S-1 shall be designated as noise-impacted areas.*

*S-5.4: Require residential and other noise-sensitive development projects to satisfy the noise level criteria in Tables S-1 and S-2.*

*S-5.5: Require new stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table S-2, or a substantial increase in noise levels established through a detailed ambient noise survey.*

*S-5.7: Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area or where the development of a stationary noise source is proposed in the vicinity of noise-sensitive uses, an acoustical analysis is required as part of the environmental review process so that noise mitigation may be considered in the project design. The acoustical analysis shall:*

- *Be the responsibility of the applicant.*
- *Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.*
- *Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.*
- *Estimate existing and projected (20 years) noise levels in terms of the standards of Table S-1 or Table S-2, and compare those levels to the adopted policies of the Noise Element.*
- *Recommend appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.*
- *Estimate noise exposure after the prescribed mitigation measures have been implemented.*
- *If necessary, describe a post-project assessment program to monitor the effectiveness of the proposed mitigation measures.*

*S-5.8: Apply noise level criteria applied to land uses other than residential or other noise-sensitive uses consistent with noise performance levels of Table S-1 and Table S-2.*

*S-5.12: For new residential development backing on to a freeway or railroad right-of-way, the developer shall be required to provide appropriate mitigation measures to satisfy the performance standards in Table S-1.*

*S-5.13: It is recognized that the City and surrounding areas are considered to be urban in nature and rely upon both the industrial and agricultural economy of the area. Therefore, it is recognized that noise sources of existing uses may exceed generally accepted standards.*

*S-5.14: Carefully review and give potentially affected residents an opportunity to fully review any proposals for the establishment of helipads or heliports.*

*S-5.15: Recognizing that existing noise-sensitive uses may be exposed to increase noise levels due to circulation improvement projects associated with development under the General Plan and that it may not be feasible to reduce increased traffic noise levels to the criteria identified in Table S-1, the following criteria may be used to determine the significance of noise impacts associated with circulation improvement projects:*

- *Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and*
- *Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and*
- *Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant.*

*S-5.16: Work with the Federal Railroad Administration and passenger and freight rail operators to reduce exposure to rail and train noise, including establishing train horn "quiet zones" consistent with the federal regulations.*

### SAFETY ELEMENT ACTIONS

*S-5a: Require an acoustical analysis that complies with the requirements of S-5.7 where:*

- *Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels exceeding the levels specified in Table S-1 or S-2.*
- *Proposed transportation projects are likely to produce noise levels exceeding the levels specified in Table S-1 or S-2 at existing or planned noise sensitive uses.*

*S-5b: Assist in enforcing compliance with noise emissions standards for all types of vehicles, established by the California Vehicle Code and by federal regulations, through coordination with the Manteca Police Department and the California Highway Patrol.*

*S-5c: Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in this Noise Element and proactively enforce the City's Noise Ordinance, including requiring the following measures for construction:*

- *Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.*
- *A Construction Noise Management Plan shall be submitted by the applicant for construction*

*projects, when determined necessary by the City. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.*

- *Noise reduction measures may include, but are not limited to, the following:*

  a. *Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.*

  b. *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.*

  c. *Temporary power poles shall be used instead of generators where feasible.*

  d. *Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City of provide equivalent noise reduction.*

  e. *The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.*

  f. *Delivery of materials shall observe the hours of operation described above.*

  g. *Truck traffic should avoid residential areas to the extent possible.*

*<u>S-5d:</u> In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels are have a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:*

- *When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;*
- *When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;*
- *When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.*

*Additional or alternative criteria can be used for determining a substantial increase in noise levels. For instance, if the overall increase in noise levels occurs where no noise-sensitive uses are located, then the*

*City may use their discretion in determining if there is any impact at all. In such a case, the following alternative factors may be used for determining a substantial increase in noise levels:*

- *the resulting noise levels;*
- *the duration and frequency of the noise;*
- *the number of people affected;*
- *conforming or non-conforming land uses;*
- *the land use designation of the affected receptor sites;*
- *public reactions or controversy as demonstrated at workshops or hearings, or by correspondence; and*
- *prior CEQA determinations by other agencies specific to the project.*

*S-5e: Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours, and similar techniques. Where such techniques would not meet acceptable levels, use noise barriers to attenuate noise associated with new noise sources to acceptable levels.*

*S-5f: Require that all noise-attenuating features are designed to be attractive and to minimize maintenance.*

*S-5g: Evaluate new transportation projects, such as truck routes, rail or public transit routes, and transit stations, using the standards contained in Table S-1. However, noise from these projects may be allowed to exceed the standards contained in Table S-1, if the City Council finds that there are special overriding circumstances.*

*S-5h: Work with the Federal Rail Authority and passenger and freight rail service providers to establish a Quiet Zone at at-grade crossings in the City. Where new development would be affected by the train and rail noise, require project applicants to fund a fair-share of: a) studies associated with the application for a Quiet Zone, and b) alternative safety measures associated with the Quiet Zone (including, but not limited to signage, gates, lights, etc.).*

*S-5i: Work in cooperation with Caltrans, the Union Pacific Railroad, San Joaquin Regional Rail Commission, and other agencies where appropriate to maintain noise level standards for both new and existing projects in compliance with Table S-1.*

## Impact 3.12-2: General Plan implementation may generate substantial temporary increases in ambient noise levels associated with construction activities in the vicinity of the project in excess of applicable standards (Less than Significant)

New development, maintenance of roadways, and installation of public utilities and infrastructure that would be accommodated by the project would generally require construction activities. These construction activities may include the use of heavy equipment and impact tools. Table 3.12-14 provides

a list of the types of equipment which may be associated with construction activities, and their associated noise levels.

***TABLE 3.12-14: CONSTRUCTION EQUIPMENT NOISE***

| TYPE OF EQUIPMENT | PREDICTED NOISE LEVELS, LMAX DB | | | | DISTANCES TO NOISE CONTOURS (FEET) | |
|---|---|---|---|---|---|---|
| | NOISE LEVEL AT 50' | NOISE LEVEL AT 100' | NOISE LEVEL AT 200' | NOISE LEVEL AT 400' | 70 DB LMAX CONTOUR | 65 DB LMAX CONTOUR |
| Backhoe | 78 | 72 | 66 | 60 | 126 | 223 |
| Compactor | 83 | 77 | 71 | 65 | 223 | 397 |
| Compressor (air) | 78 | 72 | 66 | 60 | 126 | 223 |
| Concrete Saw | 90 | 84 | 78 | 72 | 500 | 889 |
| Dozer | 82 | 76 | 70 | 64 | 199 | 354 |
| Dump Truck | 76 | 70 | 64 | 58 | 100 | 177 |
| Excavator | 81 | 75 | 69 | 63 | 177 | 315 |
| Generator | 81 | 75 | 69 | 63 | 177 | 315 |
| Jackhammer | 89 | 83 | 77 | 71 | 446 | 792 |
| Pneumatic Tools | 85 | 79 | 73 | 67 | 281 | 500 |

*SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006. SAXELBY ACOUSTICS 2020.*

Activities involved in construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction could result in periods of significant ambient noise level increases and the potential for annoyance. However, the proposed General Plan includes policies and actions that are intended to reduce noise associated with construction noise (listed below). Specifically, Policy S-5.6 and Implementation measure S-5c would reduce noise associated with construction activities. Implementation of the proposed policies and actions of the General Plan will reduce noise impacts from construction noise to a ***less than significant*** level.

## GENERAL PLAN POLICIES AND ACTIONS THAT MITIGATE POTENTIAL IMPACTS

### SAFETY ELEMENT POLICIES

*S-5.6: Regulate construction-related noise to reduce impacts on adjacent uses to the criteria identified in Table S-2 or, if the criteria in Table S-2 cannot be met, to the maximum level feasible using best management practices and complying with the MMC Chapter 9.52.*

### SAFETY ELEMENT ACTIONS

*S-5c: Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in this Noise Element and proactively enforce the City's Noise Ordinance, including requiring the following measures for construction:*

- *Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.*
- *A Construction Noise Management Plan shall be submitted by the applicant for construction projects, when determined necessary by the City. The Construction Noise Management Plan shall*

*include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.*

- *Noise reduction measures may include, but are not limited to, the following:*

  a. *Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.*

  b. *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.*

  c. *Temporary power poles shall be used instead of generators where feasible.*

  d. *Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City of provide equivalent noise reduction.*

  e. *The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.*

  f. *Delivery of materials shall observe the hours of operation described above.*

  g. *Truck traffic should avoid residential areas to the extent possible.*

## Impact 3.12-3: General Plan implementation may result in groundborne vibration or groundborne noise levels (Less than Significant)

Development and traffic patterns facilitated by the General Plan could expose persons to excessive groundborne vibration and groundborne noise levels attributable to construction activities, stationary sources, trains, or heavy trucks. Future uses accommodated by the General Plan may involve activities, such as truck deliveries, loading, and unloading that cause groundborne vibration and groundborne noise. The proposed types of uses, locations of buildings, and their specific sensitivity to vibration are not known at this time. Future uses located in close proximity to railroad tracks or truck routes could be exposed to ground vibration levels exceeding FTA guidelines.

Construction activities facilitated by the proposed General Plan may include demolition of existing structures, site preparation work, excavation of below grade levels, foundation work, pile driving, and new building erection. Demolition for an individual site may last several weeks and at times may produce substantial vibration. Excavation for underground levels may also occur on some project sites and

vibratory pile driving could be used to stabilize the walls of the excavated area. Piles or drilled caissons may also be used to support building foundations.

Heavy tracked vehicles (e.g., bulldozers or excavators) can generate distinctly perceptible groundborne vibration levels when this equipment operates within approximately 25 feet of sensitive land uses. Impact pile drivers can generate distinctly perceptible groundborne vibration levels at distances up to about 100 feet, and may exceed building damage thresholds within 25 feet of any building, and within 50-100 feet of a historical building, or building in poor condition. Other construction activities and activities involving use of heavy equipment, such as caisson drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may also potentially generate substantial vibration in the immediate vicinity.

Depending on the proximity of existing structures to each construction site, the structural soundness of the existing buildings, and the methods of construction used, vibration levels may be high enough to damage existing structures. Given the scope of the General Plan and the close proximity of many existing structures, groundborne vibration impacts would be potentially significant.

As with any type of construction, groundborne vibration and noise levels may at times be perceptible. However, construction phases that have the highest potential of producing vibration (pile driving and use of jackhammers and other high power tools) would be intermittent and would only occur for short periods of time for any individual project site.

General Plan implementation measure S-5a requires an acoustical analysis, which would address noise and groundborne vibration, to be prepared for development and transportation projects that may produce noise in excess of the City's standards or expose sensitive receptors to noise and vibration levels in excess of City standards. Implementation measure S-5c would ensure administrative controls such as notifying neighbors of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration to hours with the least potential to affect nearby businesses, in order to ensure that perceptible vibration can be kept to a minimum, and as such would not result in a significant impact with respect to perception. Implementation measure S-5j would require that individual development projects address potential vibration impacts associated with railroad or trucking operations. Therefore, the potential for excessive groundborne noise or groundborne vibration impacts associated with General Plan implementation is ***less than significant***.

### GENERAL PLAN POLICIES AND ACTIONS THAT MITIGATE POTENTIAL IMPACTS

#### SAFETY ELEMENT ACTIONS

*S-5c: Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in this Noise Element and proactively enforce the City's Noise Ordinance, including requiring the following measures for construction:*

- *Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.*

- *A Construction Noise Management Plan shall be submitted by the applicant for construction projects, when determined necessary by the City. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.*

- *Noise reduction measures may include, but are not limited to, the following:*

    a. *Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.*

    b. *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.*

    c. *Temporary power poles shall be used instead of generators where feasible.*

    d. *Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City of provide equivalent noise reduction.*

    e. *The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.*

    f. *Delivery of materials shall observe the hours of operation described above.*

    g. *Truck traffic should avoid residential areas to the extent possible.*

*S-5j: The City shall require new residential projects located adjacent to major freeways, truck routes, hard rail lines, or light rail lines to follow the FTA screening distance criteria to ensure that groundborne vibrations to do not exceed acceptable levels.*

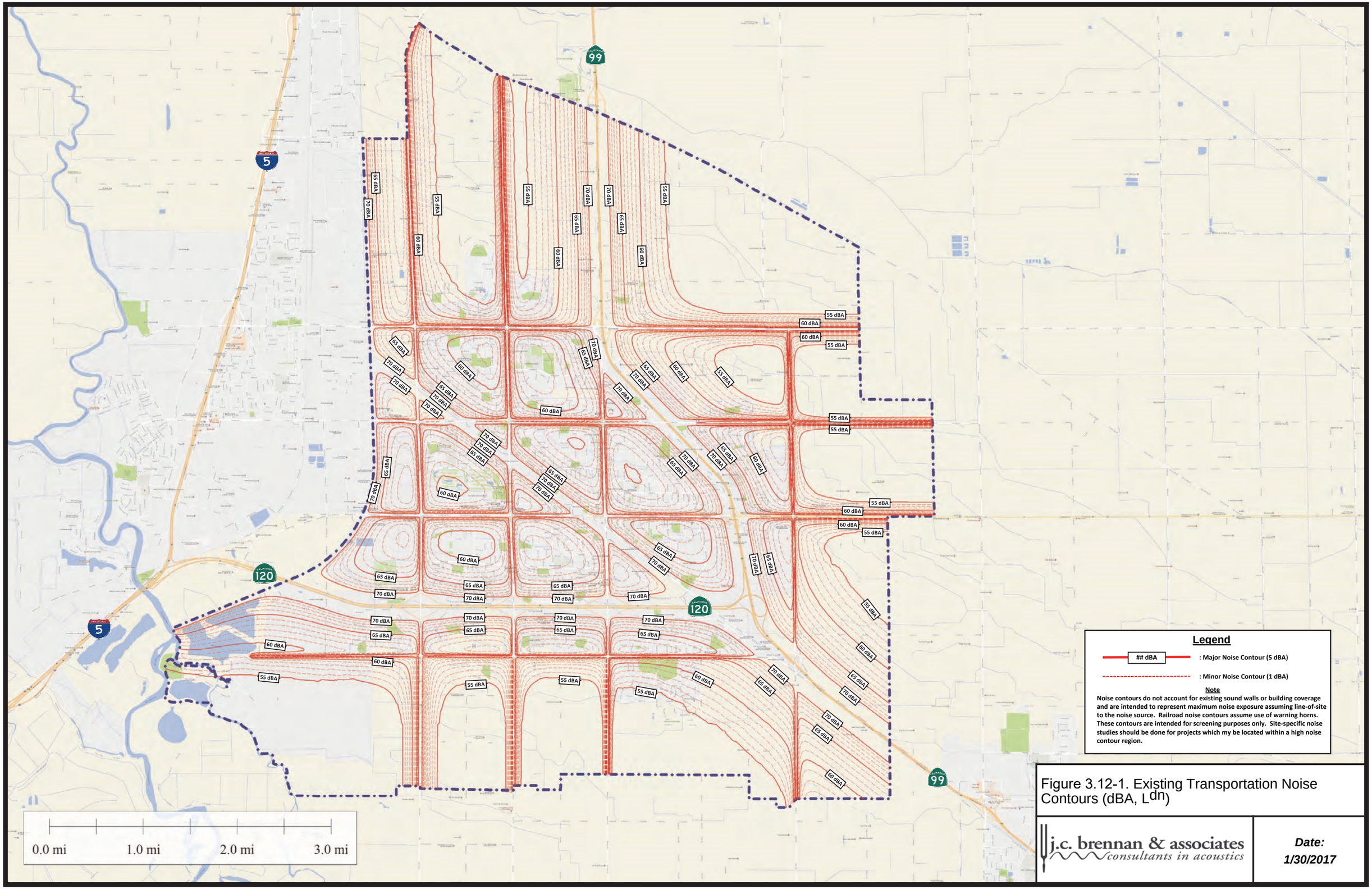


Figure 3.12-1. Existing Transportation Noise Contours (dBA, $L^{dn}$)

Date: 1/30/2017

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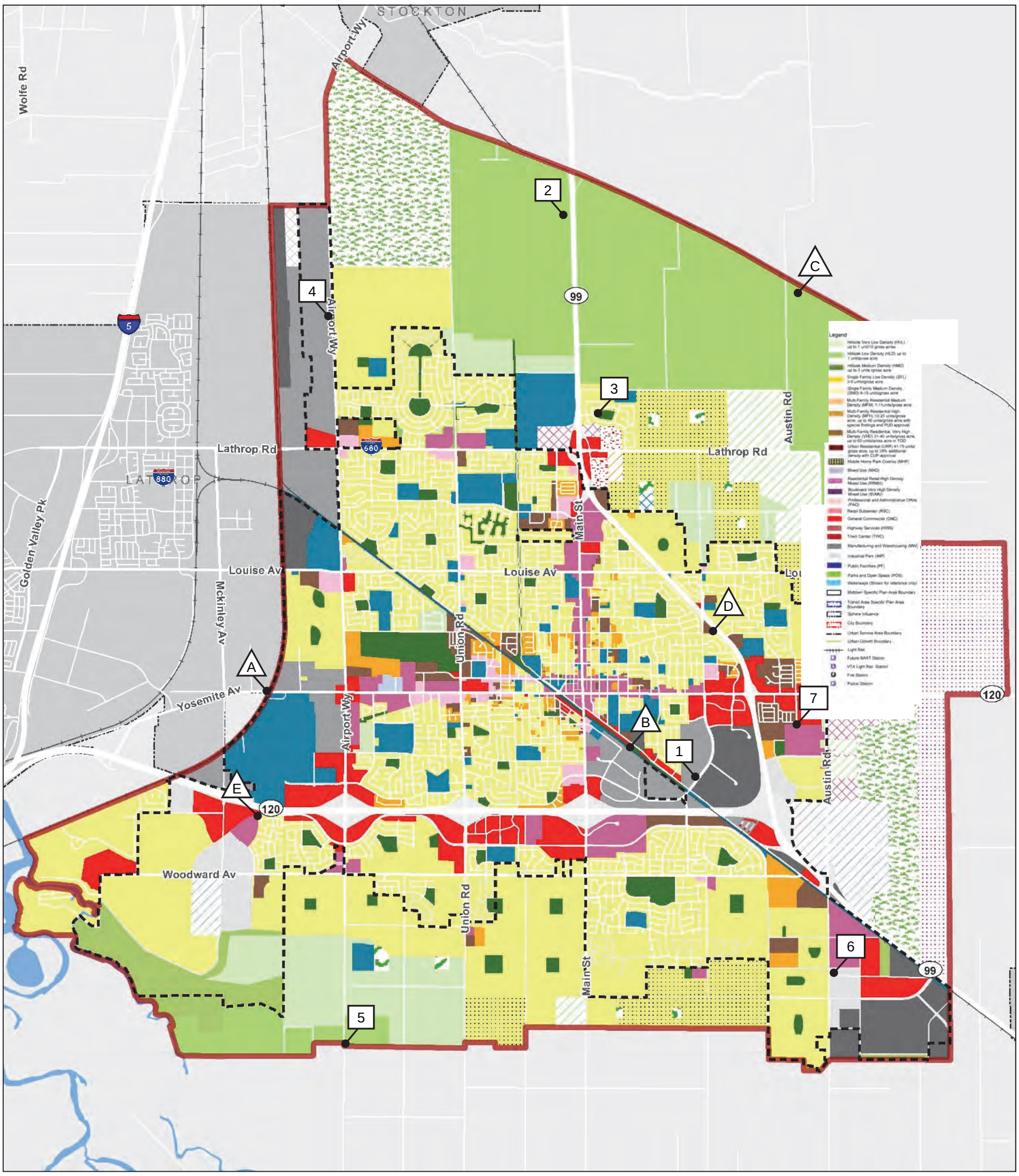


**Legend**

X : Continuous (24-hr) Noise Measurement Site

# : Short-Term Noise Measurement Site

Figure 3.12-2. Noise Measurement Locations

j.c. brennan & associates
consultants in acoustics

Date:
1/27/2017

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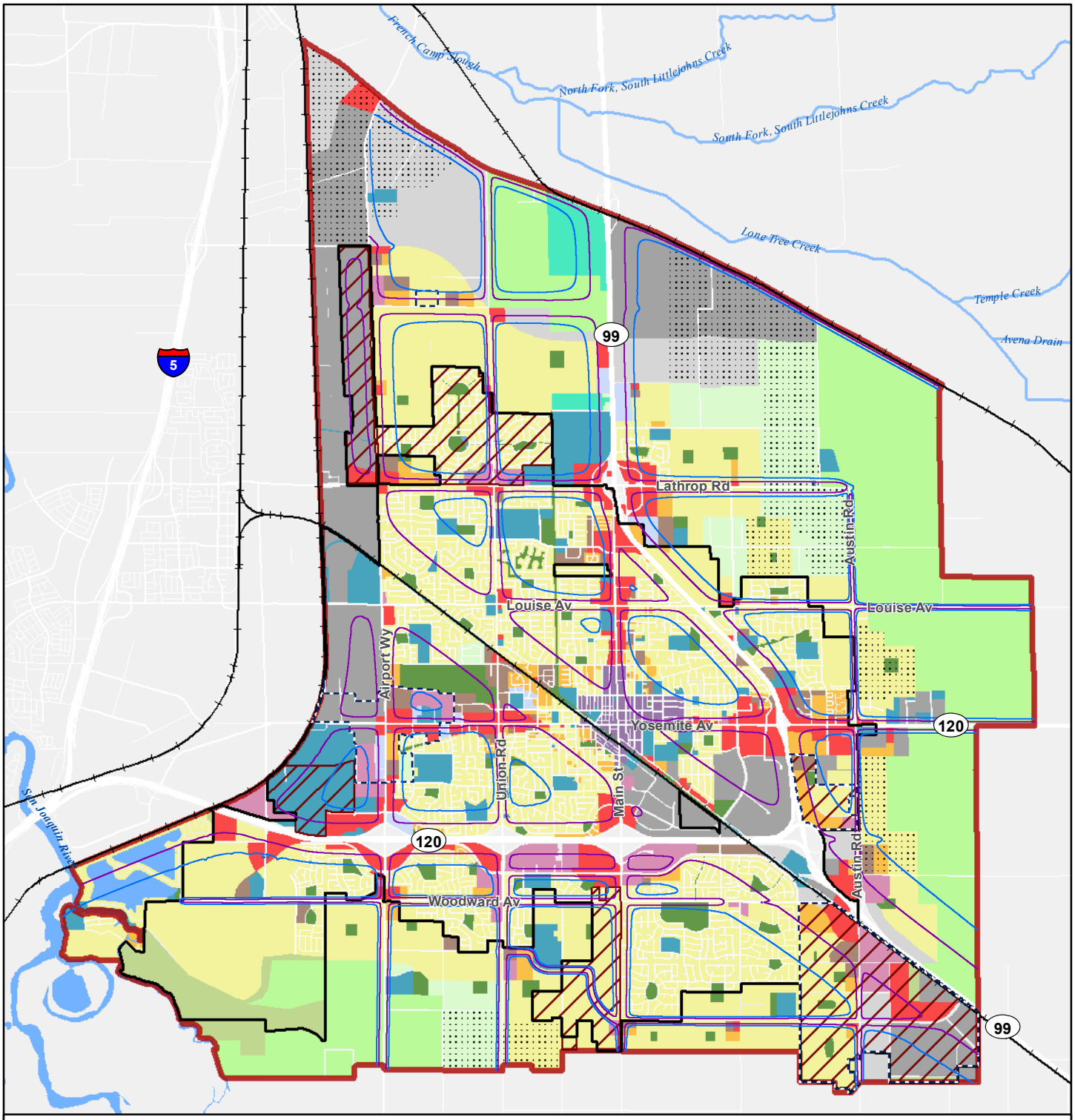


**Legend**

- City of Manteca
- Manteca Planning Area
- Master/Specific Plan Overlay
- Policy Area
- 60 dBA Noise Contour
- 65 dBA Noise Contour

**General Plan Designations**

- 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
- Urban Reserve Overlay

**CITY OF MANTECA GENERAL PLAN**

Figure 3.12-3. Future Noise Contours

N

0 ½ 1
Miles

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

*Sources: City of Manteca; San Joaquin County; JC Brennan & Associates. Map date: February 22, 2021.*

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Public services such as fire and police protection are vital to maintaining a safe and healthy community. Educational services serve as a foundation for providing citizens with the skills and resources to excel today and in the future. There are many other public services that are important to a community, such as parks and recreational opportunities, libraries, museums, hospitals, and other healthcare facilities.

This section provides a background discussion and analysis of fire protection services, police services, schools, parks and recreational facilities, libraries, and other community facilities and services. This section is organized with an existing setting, regulatory setting, and impact analysis.

Utilities services, including water, sewer, stormwater and drainage, and solid waste disposal, are addressed in Chapter 3.15 (Utilities and Service Systems) of this Draft EIR.

No comments were received during the NOP comment period regarding this environmental topic.

## 3.13.1 EXISTING CONDITIONS

### FIRE PROTECTION SERVICES

#### Manteca Fire Department

The Manteca Fire Department is responsible for the primary provision of fire service and emergency medical response for the City of Manteca and its residents. The Manteca Fire Department serves approximately 72,000 residents throughout over 17 square miles within the City limits (see Figure 3.13-1). The Manteca Fire Department operates out of five facilities that are strategically located in the City of Manteca. The Manteca Fire Department is headquartered in Station 242 located at 1154 S. Union Road. This building serves as the Fire Department headquarters and the Fire Prevention Bureau. Fire training and emergency medical services are managed out of Station 241. Apparatus includes three engines, three reserve engines, one ladder truck, one medium rescue unit, one USAR rescue trailer, eight staff vehicles, two pick-up trucks, and a public education trailer.

The Manteca Fire Department maintains a goal for the initial company of three firefighters to arrive on scene for fire and emergency medical service (EMS) incidents within five minutes 90% of the time (Response Effectiveness). In 2016, the Department averaged a response time for Code 3 emergencies such as fires, medical calls or auto accidents at 4:20 minutes City-wide. In 2017, the Department averaged a 4:22 response time City-wide. In 2017, the MFD on an average handled 7,579 emergency calls and 6,737 in 2016. The Department is currently meeting the Response Effectiveness goal.

##### ISO RATING

The Insurance Services Office (ISO) Public Protection Classification Program currently rates the Fire Department as a 2 on a scale of 1 to 10, with 1 being the highest possible protection rating and 10 being the lowest. The ISO rating measures individual fire protection agencies against a Fire

Suppression Rating Schedule, which includes such criteria as facilities and support for handling and dispatching fire alarms, first-alarm response and initial attack, and adequacy of local water supply for fire-suppression purposes. The recent construction and staffing of Fire Station No. 4 and Fire Station No. 5 will have a positive impact on the City's ISO rating. The ISO ratings are used to establish fire insurance premiums. The City plans to apply for ISO re-classification when Fire Station No. 5 is complete. In addition, upon completion the Fire Department will apply for Accreditation through the Commission of Fire Accreditation International (CFAI).

#### FIRE STATIONS

The Manteca Fire Department currently operates five fire stations within its service area, as shown on Figure 3.13-1 and listed below.

- Station 241 - 290 S. Powers Ave. Manteca CA 95336 (operational)
- Station 242 - 1154 S. Union Road Manteca CA 95337 (operational)
- Station 243 - 399 W. Louise Ave. Manteca CA 95336 (operational)
- Station 244 - 1465 W. Lathrop Rd. Manteca CA 95336 (operational)
- Station 245, 1675 E. Woodward Ave. Manteca CA 95337 (operational)

### Lathrop-Manteca Fire District

The Lathrop-Manteca Fire District provides fire protection services to the City of Lathrop and the surrounding rural area, as well as most of Manteca's SOI. The Lathrop-Manteca Fire District staffs four fire stations with career personnel as well as volunteer firefighters. As shown in Figure 3.13-1, three of these stations are located in the vicinity of the Planning Area. The District has developed into a proactive fire and emergency response organization that covers almost 100 square miles and over 30,000 residents.

### Ripon Consolidated Fire Department

The Ripon Consolidated Fire District provides fire protection and emergency medical services to the City of Ripon and surrounding area. The Ripon Consolidated Fire Department's service area includes the most southeastern portion of the City of Manteca and the eastern portions of Manteca's Planning Area (see Figure 3.13-1).

## POLICE PROTECTION SERVICES

### Manteca Police Department

The Manteca Police Department (MPD) provides law enforcement and police protection services throughout the city. The MPD operates out of its headquarters located at 1001 W. Center Street**.** In 2019, the MPD had 74 sworn officers. The Manteca Police Station is shown on Figure 3.13-1.

#### ORGANIZATION

The MPD is organized into two divisions: Operations and Services. Additionally, the MPD operates a Public Affairs Unit. For budgeting purposes, the MPD is organized into the following programs:

administration, patrol, investigations, support services, dispatch, code enforcement, jail services, and animal services.

### OPERATIONS DIVISION

The Operations Division is the largest division of the Department. It includes all uniformed officers and their support teams. The units included in the Operations Division are patrol, traffic, community service officers, SWAT, crisis response team, mounted patrol, canine, and bomb squad.

### SERVICES DIVISION

The Services Division includes all the teams and units that support the line police function of the MPD. These teams include Dispatch, Records, Property and Evidence, Crime Analysis, and Animal Services, as well as Detectives, School Resource Officers, Gang Unit, and Manteca's Street Crimes Unit (SCU), which is the department's proactive narcotic and street crime suppression unit.

The MPD also has several very active volunteer groups. The Police Explorers, Citizen's Police Academy graduates, Police Reserves, and the SHARPs allow members of the community of all ages and experience to give back to the community through volunteering.

### PUBLIC AFFAIRS UNIT

The MPD's Public Affairs Officer (PAO) works directly with the Chief of Police on issues that affect the MPD and community. In addition to being a community liaison, the PAO works with the public in providing current information regarding issues effecting Manteca. This is done by working with local news media outlets, issuing information bulletins and conducting neighborhood meetings, and by using the local government channel for a program called StreetBeat. In addition to assisting the Chief of Police, the PAO also coordinates several crime prevention programs to include the Citizen Police Academy, Drug Awareness Education, and various workplace-training programs such as Workplace Violence Prevention. The PAO also coordinates with other city offices special projects and does site plan reviews for new commercial and residential projects using a process called CPTED (Crime Prevention through Environmental Design).

## POLICE RESPONSE TIMES

Response times are an important benchmark of police service. Response times can vary greatly depending on the size of the city and department, geographical location, and levels of crime. Smaller cities usually have faster response times, due simply to the geography. Calls for service are prioritized into three general categories.

The department classifies calls for service as Priority 1, Priority 2 or Priority 3. Priority 1 calls are calls where a threat is posed to life or a crime of violence. Priority 2 calls are calls for service where there is an urgency or suspicious behavior. Priority 3 calls are calls for service where no emergency or serious problem is involved. In 2016, there were 217 Priority 1 calls, 18,080 Priority 2 calls, and 8,551 Priority 3 calls, totaling 26,841 calls. Calls for service increased to 46,256 total calls in 2018. The averages for the department's response times in 2016 for the 3 priorities are listed below.

- Priority 1 calls: 2016, 4 minutes and 27 seconds.
- Priority 2 calls: 2016, 27 minutes and 2 seconds.
- Priority 3 calls: 2016, 50 minutes and 22 seconds.

## CRIMES BY CATEGORY IN MANTECA

Statistics on the number of crimes by category of crime in Manteca during each year from 2016 to 2018, as reported by the Federal Bureau of Investigation (FBI) Criminal Justice Information Services Division, are shown in Table 3.13-1 below.

***TABLE 3.13-1: MANTECA POLICE DEPARTMENT CRIME STATISTICS (2016-2018)***

| *CATEGORY/CRIME* | *2016* | *2017* | *2018* |
|---|---|---|---|
| **Total Violent Crimes** | **244** | **256** | **256** |
| Homicide | 0 | 4 | 0 |
| Rape | 30 | 18 | 18 |
| Robbery | 91 | 89 | 97 |
| Assault | 123 | 145 | 141 |
| **Total Property Crimes** | **2,700** | **2,240** | **2,288** |
| Burglary | 315 | 302 | 386 |
| Motor Vehicle Theft | 365 | 322 | 380 |
| Larceny | 2,020 | 1,616 | 1,522 |
| Arson | 13 | 14 | 15 |

*SOURCE: FBI CRIME STATISTICS; HTTPS://UCR.FBI.GOV/.*

As shown in the table, the majority of crimes committed in Manteca consist of property crimes, primarily larceny. Additionally, in 2018, there were no homicides reported in Manteca.

## MISCELLANEOUS PUBLIC SAFETY

### Multi-Jurisdictional Local Government Emergency Response

The San Joaquin County Office of Emergency Services (OES) is the single coordinating center for major emergency activities. In cooperation with others, OES maintains and oversees the Multi-Hazard Functional Plan, which is the Countywide disaster preparedness program. OES also provides training for first responders, businesses, and other governmental agencies.

### Community Emergency Response Team

The Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Using the training learned in the classroom and during exercises, CERT members can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. CERT members also are encouraged to support emergency response agencies by taking a more active role in emergency preparedness projects in their community.

The Manteca Fire Department offers CERT training for those community members interested in this type of community service. The training covers many topics of preparedness including:

- Disaster preparedness;
- Disaster fire suppression;
- Disaster medical operations;
- Disaster psychology and team organization; and
- Disaster simulation.

## PARKS AND RECREATIONAL FACILITIES

The City of Manteca Parks and Recreation Department serves thousands of individuals, including toddlers, youth, teens, and adults throughout the greater Manteca area. The department offers programs and services that foster health, wellness, and human development, strengthen families, and provide recreational opportunities for the purpose of positively affecting the quality of life for all involved. The Department oversees more than 600 acres of neighborhood and community parks, maintenance districts, urban forest, the Tidewater Bikeway, skate park, swimming pool, senior center, library services, and an 18-hole golf course.

### Types of Parks

#### COMMUNITY PARKS

Community parks are generally 15 to 25 acres in size and include areas for active sports as well as space for family and group activities, such as picnicking. Community parks are larger in size than neighborhood parks and serve to fulfill the active and passive recreational needs of multiple neighborhoods. The community park serves the needs of local neighborhoods by providing a close to home site for more active recreation that is not typically suitable or physically possible in a neighborhood park (i.e., formal sports fields and courts with night lighting). Community parks and sports parks are where most organized activities provided by the Parks and Recreation Department and various league sports are intended to occur.

The City of Manteca has six developed Community Parks, totaling approximately 78 acres.

#### NEIGHBORHOOD PARKS

Neighborhood parks serve as the focal point of neighborhood communities, the hub for both physical and social activities in a recreational setting that should be primarily passive. Appropriately designed neighborhood parks act as “pulse points” within the city. They are spaces that develop a sense of place while at the same time evolve to reflect the neighborhood they represent. Neighborhood parks act as critical building blocks of the city’s image and assist in developing an overall sense of community and security. They also serve as critical nodes and access points in the city-wide green space network. Neighborhood parks are generally 5 to 7 acres. Amenities at neighborhood parks may include ball fields, basketball, volleyball, bocce ball, and tennis courts, small picnic areas, playground equipment, restroom facilities, water play features, and barbeques.

The City of Manteca has 50 Neighborhood Parks, totaling approximately 216 acres.

### SPECIAL USE PARKS

The Special Use Parks allow for flexibility in providing recreational resources throughout the city-wide park space network. This classification is intended to accommodate special circumstances, unique site characteristics, etc. in park, trail, and recreation resources. These types of resources add diversity to the park network and accommodate a variety of non-traditional recreation amenities beyond the standard neighborhood, and community, park classifications.

The City of Manteca has 10 Special Use Parks/Facilities totaling approximately 91 acres, including a major multi-use recreation trail that covers over 3.5 miles of terrain.

## City Parks

The City currently manages more than 483 acres of parks, facilities, trails and recreation lands, including 405 acres of community, neighborhood, and special use parks and the 101-acre Manteca Park Golf Course. The location of parks within the City is shown on Figure 3.13-2. Table 3.13-2 summarizes the City's park facilities by category.

***TABLE 3.13-2: SUMMARY OF PARKS AND RECREATION FACILITIES***

| *PARK TYPE* | *NUMBER* | *ACREAGE* | *GOAL (ACRES PER 1,000 RESIDENTS)* | *CURRENT RATIO (ACRES PER 1,000 RESIDENTS)* |
|---|---|---|---|---|
| Neighborhood Parks | 50 sites | 235.96 | 3 | 2.79 |
| Community Parks | 6 sites | 78.46 | 1 | 1.03 |
| Special Use Facilities | 10 sites | 90.94 | 1 | 1.19 |
| TOTAL | 66 sites | 405.36 | 5 | 5.01 |

*SOURCE: CITY OF MANTECA PARKS AND RECREATION MASTER PLAN, 2016*

When the acreage is broken down into functional categories, the City currently has 235.96 acres of Neighborhood Park land which exceeds the City's goal of 3 acres per 1,000 population. In the category of Community Park acreage, the current quantity of 78.46 acres exceeds the city's goal of one acre per 1,000 population. In the category of Special Use Facility/Parks, the City's 90.94 acres of park lands for special uses exceeds the City's goal of one acre per 1,000 population.

In addition, the City's Parks and Recreation Master Plan identified additional facility needs required by year 2035. A cumulative total of approximately 130 acres of Neighborhood Park land development would be required, as well as a total of approximately 38.5 acres of Community Park land, and 26 acres of Special Use Facility/Park lands. This amount is approximate and could be met by a combination of utilizing existing undeveloped parkland and acquiring new parkland to develop.

Parks and Recreation amenities include several baseball and softball diamonds, sports fields, picnic areas, barbecues, playgrounds and tot lots, over 3 miles of Class 1 bike and pedestrian path, lighted tennis courts, a BMX bicycle track, a skate park, an 18-hole municipal golf course, and a public swimming pool (with tot pool).

Existing rental facilities include:

- Northgate: Full Picnic Shelter; Half Picnic Shelter
- Lincoln Picnic Shelter
- Woodward: Full Picnic Shelter; Half Picnic Shelter
- Library Park Gazebo
- Lincoln Pool
- Sports Fields

On a regional scale, the City is located in the Sacramento-San Joaquin Delta (Delta), which contains several recreational areas and facilities, primarily for water-based recreation. Regional County parks near the City include the 9.85-acre Dos Reis Regional Park and the 3.7-acre Mossdale Crossing Regional Park, both located along the San Joaquin River. Mossdale Crossing Park is located on the west side of Interstate 5. Each of these parks includes boat launch ramps, picnic/barbeque areas, and children's play areas. Dos Reis Regional Park also has camping facilities. Also in the vicinity is the Haven Acres Marina, a private marina located on the San Joaquin River north of Dos Reis Regional Park. This facility provides river access to the San Joaquin River and includes parking areas, a boat ramp, and 10 boat berths.

## SCHOOLS

The Manteca Unified School District (MUSD) provides school services for grades K through 12 within the communities of Manteca, Lathrop, Stockton, and French Camp. The District is approximately 113 square miles and serves more than 23,500 students. Within the City of Manteca, there are 14 schools serving elementary age and middle school students (grades K-8), one K-6 school, four high schools (grades 9-12), one community day school (grades 7-12), and one vocational high school (grades 11-12). Table 3.13-3 lists MUSD schools in Manteca grades serves location and the most recent enrollment for each school.

A small portion of the southeast planning area is served by the Ripon Unified School District (RUSD). District-wide RUSD Schools has a total enrollment of 4,663 students for the 2019-2020 school year, with the majority of students served outside of the planning area. Figure 3.13-3 shows schools and school district boundaries within the City of the Manteca.

***TABLE 3.13-3: PUBLIC SCHOOLS SERVING MANTECA***

| *SCHOOL* | *GRADES SERVED* | *ADDRESS* | *ENROLLMENT 2019-2020 SCHOOL YEAR* |
|---|---|---|---|
| *ELEMENTARY AND MIDDLE SCHOOLS* | | | |
| George McParland Elementary School | K-8 | 1601 Northgate Dr | 1,163 |
| Stella Brockman Elementary School | K-8 | 763 Silverado Dr | 813 |
| Brock Elliott Elementary School | K-8 | 1110 Stonum Ln | 838 |
| French Camp Elementary | K-8 | 241 4th Street | 584 |
| Golden West Elementary School | K-8 | 1031 North Main St | 536 |
| Joshua Cowell Elementary School | K-8 | 740 Pestana Ave | 651 |
| Lincoln Elementary School | K-8 | 750 E Yosemite Ave | 651 |

| SCHOOL | GRADES SERVED | ADDRESS | ENROLLMENT 2019-2020 SCHOOL YEAR |
|---|---|---|---|
| Manteca Community Day | K-6 | 737 W Yosemite Ave | 15 |
| Neil Hafley Elementary School | K-8 | 849 Northgate Dr | 752 |
| New Haven Elementary School | K-8 | 14600 Austin Rd | 535 |
| Nile Garden Elementary School | K-8 | 5700 E Nile Rd | 726 |
| Sequoia Elementary School | K-8 | 710 Martha St | 815 |
| Shasta Elementary School | K-8 | 751 E Edison St | 772 |
| Veritas Elementary School | K-8 | 1600 Pagola Ave | 932 |
| Walter Woodward Elementary School | K-8 | 575 Tannehill Dr | 910 |
| HIGH SCHOOLS | | | |
| Calla High School | 9-12 | 130 S Austin Rd | 162 |
| East Union High School | 9-12 | 1700 N Union Rd | 1,614 |
| Manteca Community Day School | 7-12 | 737 W Yosemite Ave | 50 |
| Manteca High School | 9-12 | 450 E Yosemite Ave | 1,686 |
| Sierra High School | 9-12 | 1700 Thomas St | 1,471 |
| Manteca Unified Vocational Academy (be.tech) | 11-12 | 2271 W. Louise Ave | 127 |

*SOURCE: CALIFORNIA DEPARTMENT OF EDUCATION EDUCATIONAL DEMOGRAPHICS UNIT ENROLLMENT FOR 2018-19*

As shown in Table 3.13-3, the schools serving the City had a total enrollment of approximately 15,803 students, of which 10,693 were enrolled in elementary and middle school (grades K – 8) and 5,110 were enrolled in high school (grades 9 – 12).

District-wide MUSD Schools has a total enrollment of 23,834 students for the 2019-2020 school year. Table 3.13-4 provides a summary of the public school enrollment by grade within Manteca.

***TABLE 3.13-4: ENROLLMENT BY GRADE MUSD (2019-2020)***

| MANTECA UNIFIED | GRADE LEVEL | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | TOTAL 2019-2020 |
| **Total** | 1,931 | 1,645 | 1,692 | 1,740 | 1,740 | 1,716 | 1,811 | 1,883 | 2,002 | 2,002 | 1,859 | 1,907 | 1,931 | **23,834** |

*SOURCE: CALIFORNIA DEPARTMENT OF EDUCATION EDUCATIONAL DEMOGRAPHICS UNIT ENROLLMENT FOR 2019-2020*

## OTHER PUBLIC FACILITIES

### Library Services

The Manteca Branch Library, a branch library of the Stockton - San Joaquin County Library system, is located at 320 West Center Street. The library offers a circulating collection of books, magazines, CDs, and DVDs in both English and Spanish, and carries a number of local regional and national newspapers.

Computer workstations are available for general and Internet use. Free Wi-Fi is also available for patrons with laptops and mobile devices. The library offers black & white and color printing, as well as a copy machine and typewriter. A microfilm reader/printer is available, which includes an extensive collection of archives from the Manteca Bulletin. A non-circulating collection of reference materials is also available for help with research.

The Manteca Branch Library offers two weekly storytime programs beginning at 10:30 AM. On Tuesdays, a program geared for children aged 6 months to 2 years and on Thursdays the library has preschool storytime, primarily for children aged 2 to 4 years.

### Manteca Senior Center

The Manteca Senior Center located at 295 Cherry Lane is a 10,000-plus square-foot, multi-purpose Senior Center serving and involving adults and seniors age 50 and above throughout the greater Manteca area. There are no membership fees to participate at the center; however, some classes and activities have nominal fees.

### Manteca Hospital and Medical Facilites

Health care facilities within Manteca encompass Doctor's Hospital of Manteca, Kaiser Permanente Manteca Medical Center, residential care facilities, as well as private physicians and other medical practitioners.

Doctor's Hospital of Manteca, provides acute care service for Manteca and the surrounding community. The hospital is located at 1205 east North Street in the City of Manteca. Doctor's Hospital of Manteca offers Comprehensive diagnostic and surgical services, Intensive care unit, Breast healthcare, including mammography, behavioral health care, a 67-bed adult inpatient psychiatric treatment center, expanded imaging services, hip and knee surgery, back pain treatment and surgery, bariatric (weight-loss) surgery. Kaiser Permanente Manteca Medical Center also provides acute care service for Manteca and the surrounding community. The hospital is located at 1777 West Yosemite Avenue. Glenn General Hospital offers 24-hour emergency care, outpatient care, general surgical care, and outpatient surgical care. Residents typically travel to other facilities, for certain specialized services including severe trauma and psychiatric care.

The San Joaquin County Public Health Services provides maternal and child health care programming, California Children's Services, child health and disability programs, vaccinations and general public health nursing to the community. Alcohol & drug programs are also organized under the County Health Services and provide residential treatment, out-patient counseling, perinatal programs and community education and information.

## 3.13.2 REGULATORY SETTING

### FEDERAL

There are no Federal regulations applicable to the environmental topics of public services and recreation.

## STATE AND LOCAL

### Fire Protection and Emergency Response

#### CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all fire fighting and emergency medical equipment.

#### EMERGENCY RESPONSE/EVACUATION PLANS

The State passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

#### FIRE PROTECTION

The California Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. Topics addressed in the Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to protect and assist first responders, industrial processes, and many other general and specialized fire safety requirements for new existing buildings and premises.

#### CALIFORNIA FIRE CODE

The 2019 California Fire Code contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

#### CALIFORNIA HEALTH AND SAFETY CODE

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

### NFPA 1710

The National Fire Protection Association (NFPA) 1710 Standards are applicable to urban areas and where staffing is comprised of career Firefighters. According to these guidelines, a career fire department needs to respond within six minutes, 90 percent of the time with a response time measured from the 911 call to the time of arrival of the first responder.

The standards are divided as follows:

- Dispatch time of one minute or less for at least 90 percent of the alarms;
- Turnout time of one minute or less for EMS calls (80 seconds for fire and special operations response);
- Fire response travel time of four minutes or less for the arrival of the first arriving engine company at a fire incident and eight minutes or less travel time for the deployment of an initial full alarm assignment at a fire incident;
- Eight minutes or less travel time for the arrival of an advanced life support (ALS) (4 minutes or less if provided by the fire department.

### CITY OF MANTECA MUNICIPAL CODE

The City of Manteca Municipal Code, Fee Schedule VI Development Fee includes development impact fees to fund public facilities, including the San Joaquin County Facilities Fee to fund police services.

## Parks and Recreation

### QUIMBY ACT

The Quimby Act (California Government Code Section 66477) states that "the legislative body of a city or county may, by ordinance, require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative or parcel map." Requirements of the Quimby Act apply only to the acquisition of new parkland and do not apply to the physical development of new park facilities or associated operations and maintenance costs. The Quimby Act seeks to preserve open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreational facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development. The City has adopted park fees as allowed by the Quimby Act, as described in greater detail below.

### MANTECA MUNICIPAL CODE

The City of Manteca Municipal Code, Fee Schedule VI Development Fee includes development impact fees to fund public facilities, including parks.

### MANTECA PARKS AND RECREATION MASTER PLAN

The City of Manteca adopted a Parks and Recreation Master Plan in 2016. The Master Plan evaluates the parks and recreation needs of the community and develop strategies, policies, and

actions that reflect those needs to create better places to recreate within Manteca. This document provides the City's Parks and Recreation Department with precise direction and be a realistic guide for the next ten to twenty years.

## Schools

### CALIFORNIA CODE OF REGULATIONS

The California Code of Regulations, Chapter 4.9, Payment of Fees, Charges, Dedications, or Other Requirements Against a Development Project. *Section 65995-65998 (h)* The payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995 and, if applicable, any amounts specified in Section 65995.5 or 65995.7 are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities.

### CALIFORNIA DEPARTMENT OF EDUCATION

The California Department of Education (CDE) School Facilities Planning Division (SFPD) prepared a School Site Selection and Approval Guide that provides criteria for locating appropriate school sites in the State of California. School site and size recommendations were changed by the CDE in 2000 to reflect various changes in educational conditions, such as lowering of class sizes and use of advanced technology. The expanded use of school buildings and grounds for community and agency joint use and concern for the safety of the students and staff members also influenced the modification of the CDE recommendations.

Specific recommendations for school size are provided in the School Site Analysis and Development Guide. This document suggests a ratio of 1:2 between buildings and land. CDE is aware that in a number of cases, primarily in urban settings, smaller sites cannot accommodate this ratio. In such cases, the SFPD may approve an amount of acreage less than the recommended gross site size and building-to-ground ratio.

Certain health and safety requirements for school site selection are governed by state regulations and the policies of the SFPD relating to:

- Proximity to airports, high-voltage power transmission lines, railroads, and major roadways;
- Presence of toxic and hazardous substances;
- Hazardous facilities and hazardous air emissions within one-quarter mile;
- Proximity to high-pressure natural gas lines, propane storage facilities, gasoline lines, pressurized sewer lines, or high-pressure water pipelines;
- Noise;
- Results of geological studies or soil analyses; and
- Traffic and school bus safety issues.

### THE KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2002 (PROP 47)

This act was approved by California voters in November 2002 and provides for a bond issue of $13.05 billion to fund necessary education facilities to relieve overcrowding and to repair older schools. Funds will be targeted at areas of greatest need and must be spent according to strict accountability measures. Funds will also be used to upgrade and build new classrooms in the California Community Colleges, the California State University, and the University of California in order to provide adequate higher education facilities to accommodate growing student enrollment.

### LEROY F. GREENE SCHOOL FACILITIES ACT OF 1998 (SB 50)

The "Leroy F. Greene School Facilities Act of 1998," also known as Senate Bill 50 or SB 50 (Chapter 407, Statutes of 1998), governs a school district's authority to levy school impact fees. This comprehensive legislation, together with the $9.2 billion education bond act approved by the voters in November 1998 known as "Proposition 1A", reformed methods of school construction financing in California. SB 50 instituted a new school facility program by which school districts can apply for state construction and modernization funds. It imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provided the authority for school districts to levy fees at three different levels:

- Level I fees are the current statutory fees allowed under Education Code 17620. This code section provides the basic authority for school districts to levy a fee against residential and commercial construction for the purpose of funding school construction or reconstruction of facilities. These fees vary by district for residential construction and commercial construction and are increased biannually.

- Level II fees are outlined in Government Code Section 65995.5, allowing school districts to impose a higher fee on residential construction if certain conditions are met. These conditions include having a substantial percentage of students on multi-track year-round scheduling, having an assumed debt equal to 15–30 percent of the district's bonding capacity (percentage is based on revenue sources for repayment), having at least 20 percent of the district's teaching stations housed in relocatable classrooms, and having placed a local bond on the ballot in the past four years which received at least 50 percent plus one of the votes cast. A Facility Needs Assessment must demonstrate the need for new school facilities for unhoused pupils is attributable to projected enrollment growth from the construction of new residential units over the next five years.

- Level III fees are outlined in Government Code Section 655995.7. If State funding becomes unavailable, this code section authorizes a school district that has been approved to collect Level II fees to collect a higher fee on residential construction. This fee is equal to twice the amount of Level II fees. However, if a district eventually receives State funding, this excess fee may be reimbursed to the developers or subtracted from the amount of state funding.

## 3.13.3 IMPACTS AND MITIGATION MEASURES

### THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on public services and recreation if it would result in:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
    - Fire Protection;
    - Police Protection;
    - Schools;
    - Parks; and
    - Other public facilities.
- An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- If it includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

### IMPACTS AND MITIGATION MEASURES

#### Impact 3.13-1: General Plan implementation could 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 (Less than Significant)

Development accommodated under the General Plan would result in additional residents and businesses in the City, including new residential, industrial, office, and commercial uses. As described in Chapter 2.0, the General Plan is expected to accommodate up to 36,650 new residential dwelling units and up to 35,458,737 square feet of non-residential building space within the city limits at full buildout.

This new growth within the City limits would increase the City's population by up to 116,546 residents and would include approximately 37,969 new jobs. The full development of the new non-residential uses shown in Chapter 2.0 (Project Description), Table 2.0-2.

Development and growth facilitated by the General Plan would result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. The General Plan includes policies and actions to ensure that public services are provided at acceptable levels and that the City will maintain and implement

public facility master plans, in collaboration with appropriate outside service providers and other agencies, to ensure compliance with appropriate regional, state, and federal laws and to provide efficient public facilities and services to Manteca.

As the demand for services increases, there will likely be a need to address acceptable service ratios, response times, and other performance standards. New or expanded service structures (e.g., office, maintenance, and administrative buildings and facilities, schools, parks, fire facilities, libraries, etc.) will be needed to provide for adequate staffing, equipment, and appropriate facilities to serve growth in the city. This is considered a potentially significant impact, which would be mitigated to a less than significant level through the implementation of the policies and actions listed below.

Existing facilities may be expanded at their current location. New facilities may also be constructed. The Public/Quasi-Public, Park, and Open Space land use designations would accommodate the majority of new public facilities necessary to provide community services. There would likely be environmental impacts associated with the construction or expansion of the facilities needed to provide public services.

The General Plan does not propose or approve actual development projects, or the physical expansion of public facilities. As future development and infrastructure projects (including new governmental facilities) are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Such development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Any future expansion of public facilities required by growth in the City would be required to be reviewed for site-specific impacts.

As previously stated, new facilities will be needed to serve growth contemplated in the General Plan. The environmental effect of providing the public services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific projects for new or expanded public facilities. However, new and expanded facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.12, 3.14 through 3.16 and 4.0) of this Draft EIR. As discussed in Chapters 3.1 through 3.12 and 3.14 through 3.16 and 4.0, the proposed General Plan includes policies and actions that are specifically designed to reduce or avoid environmental impacts of construction and development, which includes public facilities. There are no additional significant impacts related to construction of governmental and public facilities, consistent with the General Plan land use designation and Land Use Map, beyond the impacts that are analyzed throughout this EIR. Any future development, including new and expanded governmental facilities, under the General Plan would be subject to project-level review, would be required to comply with regulations, policies, and standards included in the General Plan, and would be

reviewed for compliance with CEQA, including analysis of project-level impacts and mitigation measures as appropriate.

The General Plan includes a range of policies and actions (listed below) to ensure that public services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development funds its fair share of services. Therefore, impacts related to the provisions and need for public facilities are ***less than significant***.

### GENERAL PLAN POLICIES AND ACTIONS THAT MITIGATE POTENTIAL IMPACTS

#### COMMUNITY FACILITIES ELEMENT POLICIES

*CF-1.1: Encourage the implementation of new techniques and technologies to provide the best available level of community services in a cost-effective manner.*

*CF-1.2: Ensure that new growth and development participates in the provision and expansion of essential community services and facilities, including parks, fire and police facilities, schools, utilities, roads, and other needed infrastructure, does not exceed the City's ability to provide services, and does not place an economic burden on existing residents.*

*CF-1.3: Require new development to demonstrate that the City's existing or planned community services and facilities can accommodate the increased demand for said services and facilities prior to or at completion of the project.*

*CF-1.4: Require new development to offset or mitigate impacts to community services and facilities, including fair share contribution of all costs of required public infrastructure and services, to ensure that service levels for existing users are not degraded or impaired.*

*CF-1.5: Require public improvements and facilities to enhance, rather than degrade, the natural environment.*

*CF-1.6: Encourage comprehensive development of public facilities and services rather than incremental, single projects.*

*CF-1.7: Plan and develop public services and facilities to support economic development and residential growth.*

*CF-2.1:* Prioritize public safety through ensuring adequate staffing, implementing best available *technologies, capital investments in public safety, and organizing and utilizing community volunteers.*

*CF-2.2: Ensure that the Police Department has adequate funding, staff, and equipment to accommodate existing and future growth in Manteca.*

*CF-2.3: Strive to provide a police force level of a minimum of 1.00 officer per 1,000 population.*

*CF-2.4: Endeavor through adequate staffing and patrol arrangements to maintain the minimum feasible police response times for police calls.*

*CF-2.8: Promote coordination between land use planning and urban design through consultation and coordination with the Police Department during the review of new development applications.*

*CF-3.1: Through adequate staffing and station locations, maintain a maximum five-minute travel response time 90% of the time for fire and emergency calls and an overall fire insurance (ISO) rating of 3 or better for all developed areas within the City.*

*CF-3.2: Provide fire services to serve the existing and projected population.*

*CF-3.5: Ensure the water system and supply is adequate to meet the needs of existing and future development and is utilized in a sustainable manner.*

*CF-4.8: Consider the effects of new development on parks, trails, and recreation facilities, programs, and services, and condition new development appropriately to ensure that the City maintains an adequate inventory and network of facilities and resources.*

*CF-4.10: Actively promote and participate in regional coordination and planning efforts to provide quality parks, trails, and recreation facilities throughout Manteca and the surrounding areas. The City should emphasize regional coordination to leverage funding, maintenance, and/or resources to develop a diverse range of regional recreational opportunities.*

*CF-5.2: Continue to work with the local school districts to develop criteria for the designation of school sites and ensure that adequate sites are designated and facilities are planned to accommodate new residential development, with a focus on providing neighborhood schools. Criteria should address the following:*

- *School locations are encouraged to be sited to relate well to adjacent and nearby uses, including neighborhood focal areas and park sites.*
- *School sites and school enrollment sizes should contribute to the neighborhood character and provide opportunities for joint-use, including capacity to accommodate a broad range of programs and services and augment neighborhood parks and recreation facilities.*
- *School districts are encouraged to comply with City standards in the design and landscaping of school facilities.*

*CF-6.1: Ensure the water system and supply is adequate to meet the needs of existing and future development and is utilized in a sustainable manner.*

*CF-6.5: Prohibit extension of City water services to unincorporated areas except in extraordinary circumstances. Existing commitments for City water service outside the City limits shall continue to be honored.*

*CF-6.6: Limit development of private water wells to occur only if the City makes a finding that it cannot feasibly provide water service. Such systems shall only be allowed to be used until such time as City water service becomes available.*

*CF-6.7: Ensure that all new development provides for and funds a fair share of the costs for adequate water distribution, including line extensions, easements, and plant expansions.*

*CF-7.1: Ensure adequate wastewater collection and treatment infrastructure to serve existing and future development and the safe disposal of wastes.*

*CF-7.2: Develop new sewage treatment and trunk line capacity as necessary to serve new development. The City shall incorporate current technologies into the design and operation of these facilities.*

*CF-7.3: Only extend sewer services to unincorporated areas under extraordinary circumstances. Existing commitments for sewer service outside the city limits shall continue to be honored.*

*CF-7.4: Only allow the development of individual septic systems where it is not feasible to provide public sewer service. Such systems shall only be used until such time as City sewer service becomes available and meet the minimum standards of the San Joaquin County Health Department.*

### COMMUNITY FACILITIES ACTIONS

*CF-1a: Periodically review the fee schedules for water and sewer connections, city facilities and major equipment, and development impact fees and revise fees as necessary.*

*CF-1b: Cooperate with other jurisdictions, agencies, and utility providers where appropriate to achieve timely and cost-effective provision of public facilities and services.*

*CF-2c: As part of the development review process, consult with the Police Department in order to ensure that the project design facilitates adequate police services and that the project addresses its impacts on police services.*

*CF-6a: Update the Public Facilities Implementation Plan, regarding water supply and distribution, every five years. The update shall reflect the most recent adopted groundwater studies that establish a safe yield for the groundwater basin and/or establish maximum extraction from the basin. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-6c: Develop new water sources, storage facilities, and major distribution lines as necessary to serve new development.*

*CF-6e: Continue to assess a water development fee on all new commercial, industrial, and residential development sufficient to fund system-wide capacity improvements. The water development fee schedule shall be periodically reviewed and revised as necessary.*

*CF-6g: Require, as a condition of project approval, dedication of land and easements, or payment of appropriate fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.*

*CF-7a: Update the Public Facilities Implementation Plan regarding wastewater collection and treatment every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-7b: Require new development to provide for and fund a fair share of the costs for adequate sewer distribution, including line extensions, easements, and plant expansions.*

### LAND USE ELEMENT ACTIONS

*LU-2h: Coordinate with the cities of Lathrop and Ripon in implementing the respective Memorandums of Understanding regarding future land use and public services and facilities in mutually agreed upon areas of common interest.*

### Impact 3.13-2: General Plan implementation may result in adverse physical impacts associated with the deterioration of existing parks and recreation facilities or the construction of new parks and recreation facilities (Less than Significant)

Growth accommodated under the General Plan would include a range of uses that would increase the population of the City and also attract additional workers and tourists to the City. Such growth would result in increased demand for parks and recreation facilities. It is anticipated that over the life of the General Plan, use of parks, trails, and recreation facilities would increase, due to new residents and businesses. The additional demand on existing parks and recreational facilities would increase the need for maintenance and improvements. These improvements could have environmental impacts, although the exact impacts cannot be determined since the potential improvements are unknown.

The provision of new parks and recreation facilities would reduce the potential for adverse impacts and physical deterioration of existing parks and recreation facilities, by providing additional facilities to accommodate the demand for parks and recreation facilities. These new facilities would be provided at a pace and in locations appropriate to serve new development, as required to maintain the City adopted standard for park space acreage at 5.0 acres for every 1,000 residents (as required by General Plan Policy CF-4.4). Development under the General Plan would indirectly lead to the construction of new parks and recreation facilities to serve new growth and to meet existing parks and recreation needs. The General Plan supports the creation of new parks and recreation facilities, including new parks and trails, to accommodate a wide range of activities for all age groups. These new parks and recreation facilities would be spread throughout areas proximate to new development in and around existing neighborhoods. Neighborhood and community parks and trails would generally be accommodated in the Public/Quasi-Public, Park, and Open Space Land use designations.

General Plan Policy CF-4.4 establishes a citywide ratio of five acres of parkland per 1,000 residents. The City currently provides approximately 5.01 acres of parkland for every 1,000 people in addition to the recreational opportunities available in the Dos Reis Regional Park, Mossdale Crossing Park, private parks, and other nearby regional parks.

As shown in Table 2.0-2, the projected total buildout population (which includes existing plus projected population growth) is 116,546. At a ratio of five acres of parkland per 1,000 residents, buildout of the General Plan within the City limits would result in a demand for approximately 583 acres of developed parklands, if the City's population levels were to reach the buildout population potential of the proposed General Plan.

The projected additional population (which excludes existing population) as a result of buildout of the General Plan land use map (as detailed in Chapter 2.0) is 20,315. At a ratio of five acres of parkland per 1,000 residents, buildout of the General Plan within the City limits would result in a demand for approximately 102 acres of developed parkland. It should be noted that new development would be required to fund its fair share for required parkland but would not make up for existing system deficiencies.

The General Plan does not specifically propose any development projects, including parks. As a result, site-specific physical impacts of future park development and construction cannot be determined until future projects are brought forward for review. As future parks and recreation projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Parks and recreation projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

In addition to ensuring that new and expanded parks and recreation facilities are provided to accommodate new growth, the General Plan includes policies and actions to ensure that parks and recreation facilities are adequately maintained and improved to serve both existing and planned growth.

The General Plan does not propose or approve any development nor does it designate specific projects for new or expanded parks and recreational facilities. The General Plan includes a range of policies and actions (listed below) to ensure that parks and recreational facilities are adequately funded, and that new development funds its fair share of services needed to meet General Plan objectives. New development is required to participate in the provision and expansion of public services, recreational amenities, and facilities, and is also required to demonstrate that the City's public services and facilities can accommodate the increased demand for said services and facilities associated with future projects during the entitlement process.

The General Plan does not propose or approve the construction or expansion of parks or recreational facilities. Any new or expanded parks or recreational facilities that may be constructed in the future would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the parks and recreational facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.12, 3.14 through 3.16, and 4.0) of this Draft EIR. As discussed in Chapters 3.1 through 3.12 and 3.14 through 3.16 and 4.0, the proposed General Plan includes policies and actions that are specifically designed to reduce or avoid environmental impacts of construction and development, which includes parks and recreational facilities. There are no additional significant impacts related to construction of parks and recreational facilities, consistent with the General Plan land use designation and Land Use Map, beyond the impacts that are analyzed throughout this EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be reviewed for compliance with CEQA, including analysis of project-level impacts and mitigation measures as appropriate.

Therefore, impacts related to the provisions and need for park and recreational facilities are ***less than significant***.

## GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

### POLICIES

*CF-4.1: Ensure the provision of sufficient parks, trails, and recreation facilities that are well distributed and interconnected throughout the community.*

*CF-4.2: Expand, renovate, and maintain high quality parks, trails, and recreation facilities, programs, and services to accommodate existing and future needs that address traditional and non-traditional recreation, active and passive recreation, wellness, historical, cultural arts, environmental education, conservation, accessibility, inclusion, diversity, safety, and new technology.*

*CF-4.3: Uphold design, construction, implementation, and maintenance standards to ensure high quality parks, trails, and recreation facilities, programs, and services, now and into the future.*

*CF-4.4: Maintain an overall minimum ratio of 5 acres of developed neighborhood and community parkland per 1,000 residents within the city limits, requiring new development to contribute to its fair share of park and recreation needs. The distribution of land between park types and guidelines for park types shall be determined within the Parks and Recreation Master Plan.*

*CF-4.5: Develop new parks, trails, and recreation facilities through developer fees in areas which are accessible and convenient to the community, prioritizing areas that are lacking these facilities.*

*CF-4.6: Endeavor to develop one or more community parks as defined in the Parks and Recreation Master Plan, with a focus on accommodating community-wide events.*

*CF-4.7: As part of the next Parks and Recreation Master Plan update, address opportunities to create a nature-based park, with priority to a park developed as part of a conservation program for natural resource lands. Priority should be given to City-owned site that could provide opportunities for hiking and fishing.*

*CF-4.8: Consider the effects of new development on parks, trails, and recreation facilities, programs, and services, and condition new development appropriately to ensure that the City maintains an adequate inventory and network of facilities and resources.*

*CF-4.9: Cooperate with the school districts in opportunities for joint-use of school and park and recreational facilities.*

*CF-4.10: Actively promote and participate in regional coordination and planning efforts to provide quality parks, trails, and recreation facilities throughout Manteca and the surrounding areas. The City should emphasize regional coordination to leverage funding, maintenance, and/or resources to develop a diverse range of regional recreational opportunities.*

*CF-4.11: Emphasize and prioritize public outreach and educational programs that inform the community of available parks, trails, and recreation facilities, programs, and services available in order to increase and enhance community use of these facilities, programs, and services.*

*CF-4.12: Encourage the expansion of private commercial recreational facilities.*

*CF-4.13: Develop a convenient system of pedestrian sidewalks and pathways and multiuse trails, linking City parks, major open space areas, and the downtown core.*

*CF-4.14: Support recreational activities, events, organized sports leagues, and other programs that serve broad segments of the community.*

*CF-4.15: Allow parks as a permitted use in all residential land use designations.*

ACTIONS

*CF-4a: Continuously monitor the condition of parks, trails, and recreation facilities throughout the community and prioritize the rehabilitation of existing facilities that serve the greatest number of residents.*

*CF-4b: Periodically review the City's Parks and Recreation Master Plan to ensure that parks and recreation needs are adequately identified and prioritized, to update cost estimates for park acquisition and development and remaining development potential based on the General Plan and to ensure that the City maintains a minimum overall ratio of 5 acres of parkland for every 1,000 residents.*

*CF-4c: As part of the next Parks and Recreation Master Plan Update, consider the community needs identified during the General Plan process, including a community park and a combined or separate facility to accommodate community-wide events, a nature-based park, bicycle and pedestrian improvements necessary to improve access to park and recreation facilities, methods to increase physical activity opportunities in the community, and increased joint use of facilities with the school districts.*

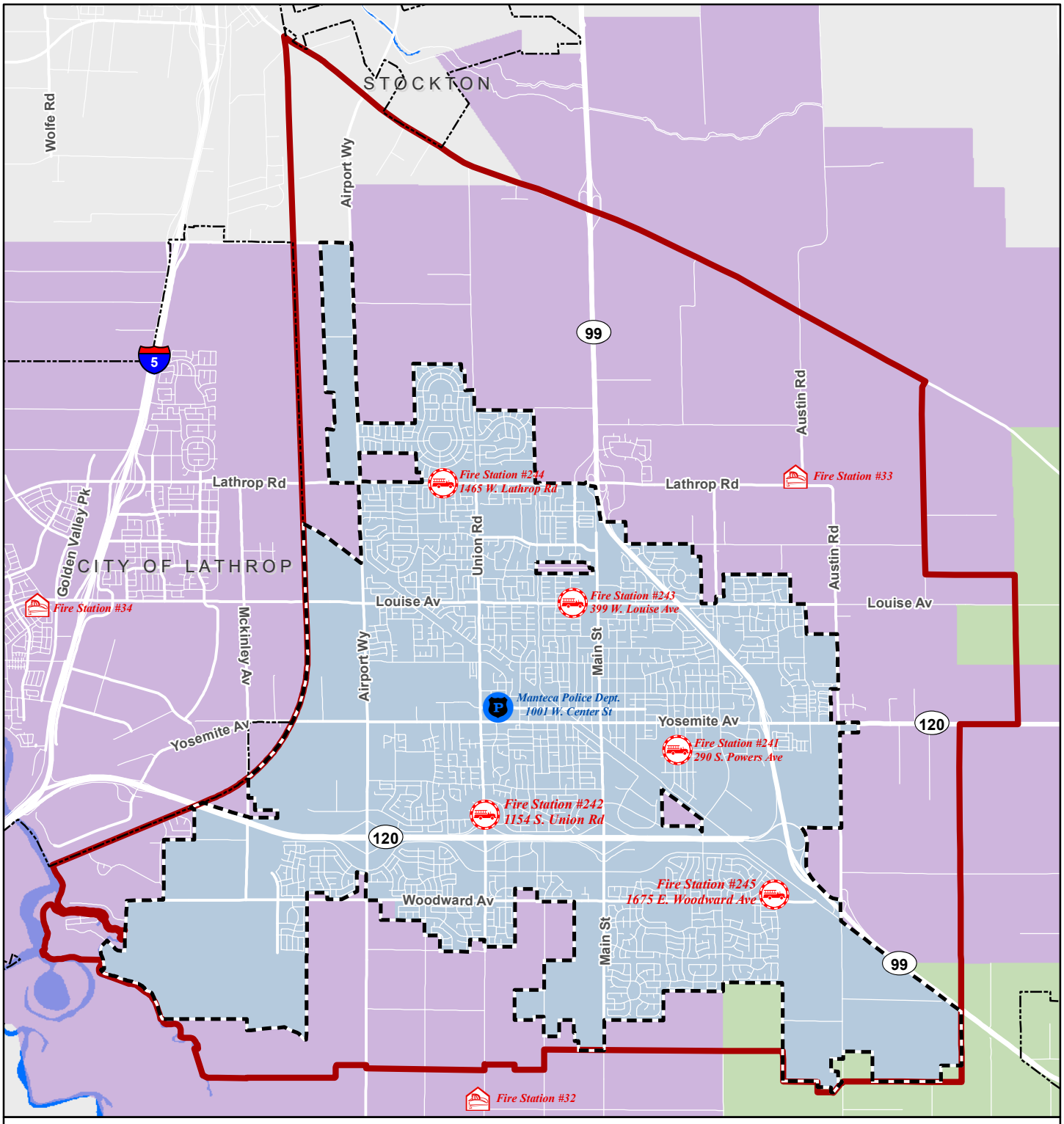
*CF-4d: Investigate and pursue a diverse range of funding opportunities for parks, trails, and recreation facilities, including but not limited to, grants, joint use/management strategies, user fees, private sector funding, assessment districts, homeowners' associations, non-profit organizations, funding mechanisms for the maintenance of older parks, and management assistance through Federal, State, and regional partnerships.*

*CF-4e: Periodically review, and if necessary, update the Parks and Recreation development impact fees in order to ensure that the City's parks and recreation needs are adequately identified and prioritized and that new development continues to provide a fair-share contribution towards parks, trails, and recreation facilities.*

*CF-4f: Implement a wide range of public outreach programs, including the City's website, newsletters, and other emerging communications technologies to keep the public informed about available parks, trails, and recreation facilities, programs, and services.*

*CF-4g: Continue to pursue joint-use of schools and detention facilities to supplement the parks, trails, and recreation needs of the community.*

*CF-4h: Through conditions of approval and/or development agreements, ensure that new development provides for its fair-share of park and recreation facilities, including connections to adjacent facilities, and that the development of new parks, trails, and recreation facilities occurs during the infrastructure construction phase of new development projects so that they are open and available to the public prior to completion of the project.*




## Legend

**Planning Areas**

- Manteca City Limits
- Surrounding Cities
- Manteca Planning Area

**Police and Fire Stations**

- Police Station - City of Manteca
- Fire Station- City of Manteca
- Fire Station - Lathrop-Manteca Fire Protection District

**Fire Service Areas**

- Manteca Fire Department
- Lathrop-Manteca Fire District
- Ripon Consolidated Fire District

**CITY OF MANTECA GENERAL PLAN**

Figure 3.13-1: Fire and Police Stations

0 ½ 1
Miles

*Sources: Google Maps; City of Manteca; San Joaquin County. Map date: October 4, 2017. Revised: December 14, 2020.*

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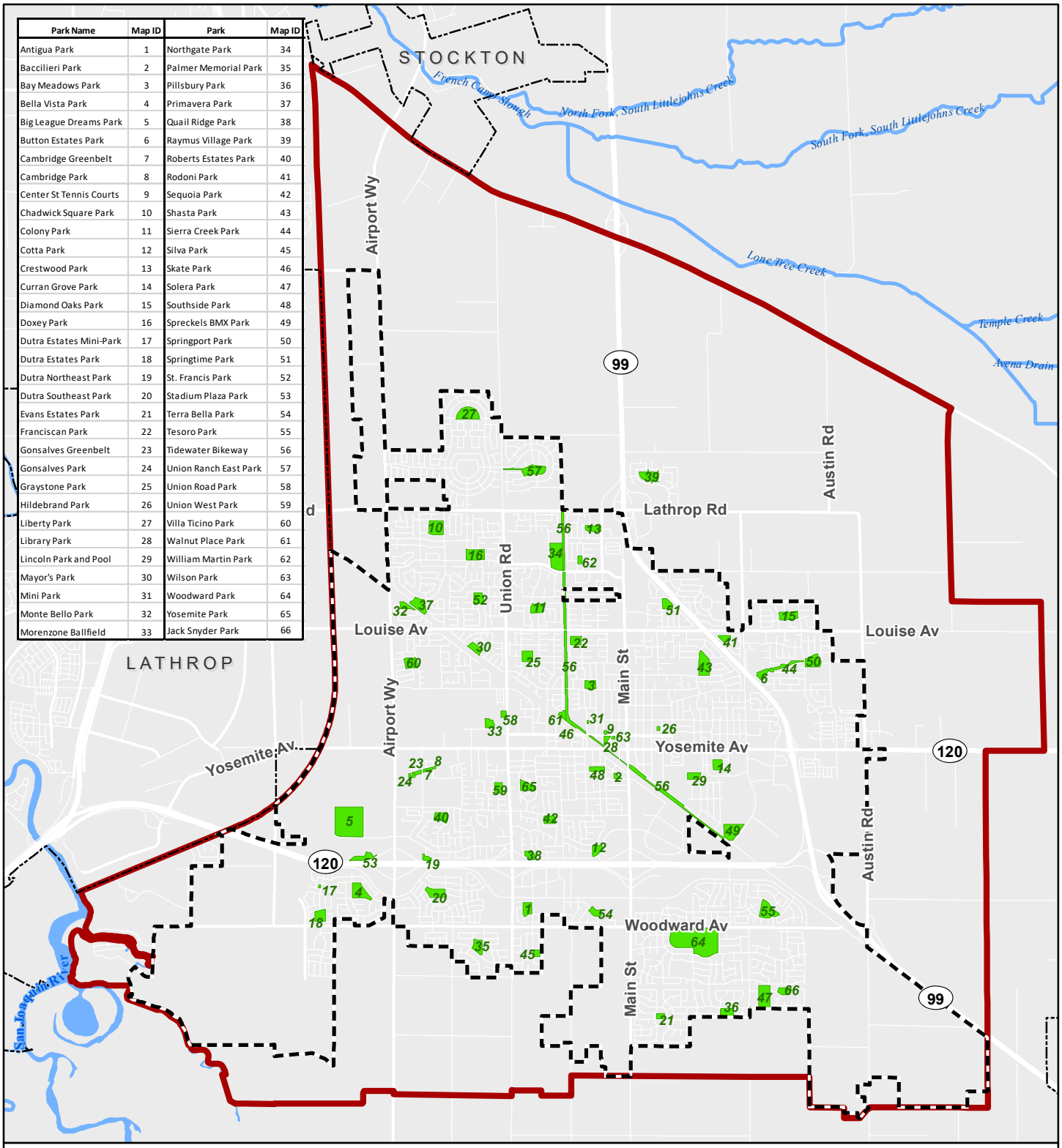
| Park Name | Map ID | Park | Map ID |
|---|---|---|---|
| Antigua Park | 1 | Northgate Park | 34 |
| Baccilieri Park | 2 | Palmer Memorial Park | 35 |
| Bay Meadows Park | 3 | Pillsbury Park | 36 |
| Bella Vista Park | 4 | Primavera Park | 37 |
| Big League Dreams Park | 5 | Quail Ridge Park | 38 |
| Button Estates Park | 6 | Raymus Village Park | 39 |
| Cambridge Greenbelt | 7 | Roberts Estates Park | 40 |
| Cambridge Park | 8 | Rodoni Park | 41 |
| Center St Tennis Courts | 9 | Sequoia Park | 42 |
| Chadwick Square Park | 10 | Shasta Park | 43 |
| Colony Park | 11 | Sierra Creek Park | 44 |
| Cotta Park | 12 | Silva Park | 45 |
| Crestwood Park | 13 | Skate Park | 46 |
| Curran Grove Park | 14 | Solera Park | 47 |
| Diamond Oaks Park | 15 | Southside Park | 48 |
| Doxey Park | 16 | Spreckels BMX Park | 49 |
| Dutra Estates Mini-Park | 17 | Springport Park | 50 |
| Dutra Estates Park | 18 | Springtime Park | 51 |
| Dutra Northeast Park | 19 | St. Francis Park | 52 |
| Dutra Southeast Park | 20 | Stadium Plaza Park | 53 |
| Evans Estates Park | 21 | Terra Bella Park | 54 |
| Franciscan Park | 22 | Tesoro Park | 55 |
| Gonsalves Greenbelt | 23 | Tidewater Bikeway | 56 |
| Gonsalves Park | 24 | Union Ranch East Park | 57 |
| Graystone Park | 25 | Union Road Park | 58 |
| Hildebrand Park | 26 | Union West Park | 59 |
| Liberty Park | 27 | Villa Ticino Park | 60 |
| Library Park | 28 | Walnut Place Park | 61 |
| Lincoln Park and Pool | 29 | William Martin Park | 62 |
| Mayor's Park | 30 | Wilson Park | 63 |
| Mini Park | 31 | Woodward Park | 64 |
| Monte Bello Park | 32 | Yosemite Park | 65 |
| Morenzone Ballfield | 33 | Jack Snyder Park | 66 |




**Legend**

- Manteca City Limits
- Surrounding Cities
- Manteca Sphere of Influence
- Park Site

**CITY OF MANTECA GENERAL PLAN**

Figure 3.13-2. Parks

0 ½ 1
Miles
1:75,000

*Source: City of Manteca; San Joaquin County. Map date: October 7, 2016. Revised: December 14, 2020.*

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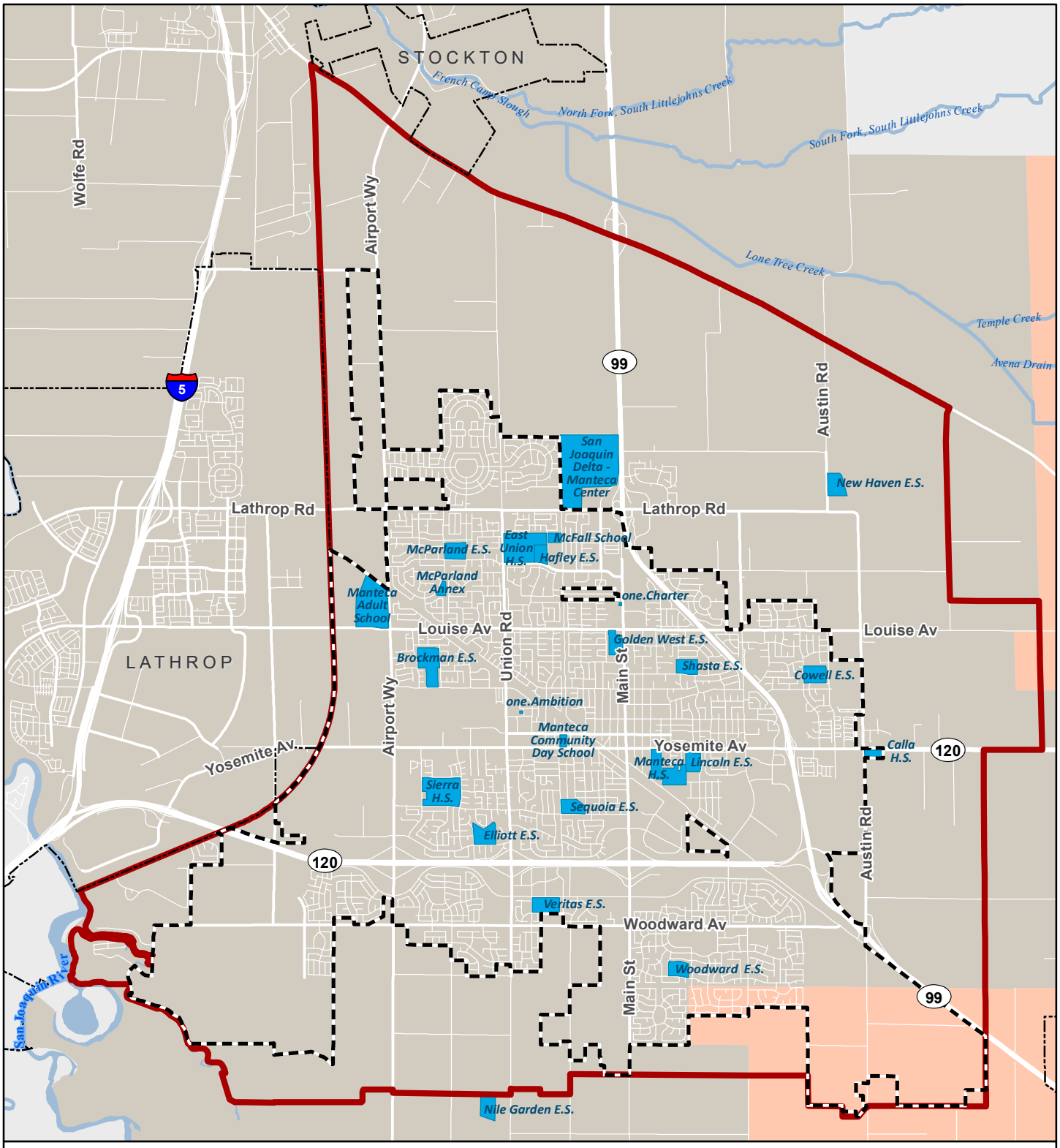


**Legend**

- Manteca City Limits
- Surrounding Cities
- Planning Area
- Public Educational Facility
- Manteca Unified School District
- Ripon Unified School District

**CITY OF MANTECA GENERAL PLAN**

Figure 3.13-3. Schools and School Districts

0 ½ 1
Miles

*Source:San Joaquin County GIS. Map date: December 14, 2020.*

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This chapter describes the potential impacts to the multi-modal transportation system associated with the proposed General Plan. The impact analysis examines the vehicular, transit, bicycle, and pedestrian components of the City's transportation system. To provide context for the impact analysis, this chapter begins with a discussion of the environmental setting, which is a description of the existing physical and operational conditions for the transportation system. Following the setting is the regulatory framework influencing the transportation system and providing the basis for impact significance thresholds used in the impact analysis. The chapter concludes with the impact analysis findings and recommended mitigation measures.

With the implementation of Senate Bill (SB) 743, local agencies may no longer rely on vehicular delay or capacity-based analyses for California Environmental Quality Act (CEQA) impact determination. Instead, agencies must analyze transportation impacts utilizing vehicle miles traveled (VMT), a measure of the total distance traveled by vehicles for trips beginning or ending in Manteca on a typical weekday. VMT impacts are calculated and assessed using an efficiency metric (e.g. VMT per household for residential projects or per employee for commercial projects). This is a change from the prior method of analyzing transportation impacts, which measured level of service (LOS) at intersections and roadway segments, using grades from LOS A to LOS F. While SB 743 does not allow LOS to be used to measure transportation impacts under CEQA, it may still be included in goals and policies in a local agency's general plan. Therefore, in addition to the transportation analysis conducted under the requirements of CEQA, roadway segment operations associated with General Plan implementation were analyzed to address the City's General Plan LOS policies, and results are provided in Appendix D.

Transportation-related comments were received during the public review period or scoping meeting for the Notice of Preparation (January 6, 2020) for an EIR from the California Department of Transportation (Caltrans) (January 27, 2020). Caltrans provided comments encouraging creation of a "safe, functional, interconnected multi-modal system integrated with 'smart growth' type planning" and "which is pedestrian-, bicycle-, and transit-friendly." The proposed General Plan Circulation Element policies support this objective. Full comments received are included in Appendix D.

## 3.14.1 ENVIRONMENTAL SETTING

This section provides a contextual background to the City's existing transportation system, representing conditions prior to the onset of the COVID-19 pandemic, which has had enormous impacts on travel behavior. The General Plan addresses the overall planning and development of the circulation system for residents and visitors in a multi-modal framework. Transportation system components include the roadway network, public transportation system, bicycle and pedestrian system, and goods movement.

The automobile is the most widely used mode of transportation in Manteca. According to the U.S. Census Bureau, 2018 American Community Survey 5-Year Estimate, about 91 percent of City of Manteca residents that work commute by car, truck, or van. About two percent of workers take public transportation to work, two percent walk to work, and less than one percent bicycle to work.

About one percent utilize a motorcycle, taxicab, or other means, and nearly five percent work at home.

Data from the 2018 American Community Survey 5-Year Estimate also shows the amount of time commuters take to get to work. Based on the data, about 55 percent of workers living in Manteca traveled to work in 29 minutes or less, 19 percent traveled to work in 30 to 59 minutes, and 26 percent traveled to work in 60 minutes or more. Average travel time to work was estimated to be 38 minutes. Commute times for Manteca workers are longer that for the state, where 57 percent travel to work in 29 minutes or less and the average travel time to work is 29 minutes.

## ROADWAY SYSTEM

This section describes the physical characteristics of Manteca's existing roadway network. Figure 3.14-1 shows the roadway classification system in Manteca. Figure 3.14-2 shows the number of lanes on arterials and collectors.

### State Highways

Two highways operated and maintained by Caltrans pass through Manteca, State Route (SR) 99 and SR 120.

**SR 99** is a six-lane north-south freeway running through the eastern portion of the City. SR 99 is a primary route, along with I-5, connecting the City of Manteca to the Cities of Stockton and Sacramento to the north. SR 99 is the primary route connecting the City of Manteca to the Cities of Modesto and Fresno to the south. SR 99 has interchanges at the following City streets:

- Lathrop Road
- Yosemite Avenue
- Austin Road

**SR 120** is an east-west freeway running through the southern and eastern portions of the City. SR 120 begins at I-5 in the City of Lathrop at its west terminus approximately 1.5 miles west of the city limit and extends six miles easterly to SR 99. It is coincidental with SR 99 for the short distance from the SR 99/120 interchange to the SR 99/Yosemite Avenue interchange, and then extends easterly beyond Manteca toward Yosemite National Park and the Sierra Nevada Mountains. SR 120 has interchanges at the following City of Manteca streets:

- Airport Way
- Union Road
- Main Street

### Arterials

Arterial streets are designed to serve through traffic and major local traffic generators such as residential, commercial, industrial, and institutional uses. (Traffic volumes provided for each segment below are based on counts collected by National Data and Surveying Services on October 25 and 26 or November 9 and 10, 2016, unless noted otherwise.)

Manteca's north-south arterials described below generally connect from Stockton to the north to rural San Joaquin County to the south:

**Airport Way** is primarily a two-lane road within the City. Outside Manteca, the facility operates as a two-lane rural highway, passing primarily through rural residential and agricultural uses. North of SR 120, Airport Way carries approximately 17,300 vehicles per day.

**Union Road** is primarily a four-lane street within the City. Outside Manteca, the facility operates as a two-lane rural highway, passing primarily through rural residential and agricultural uses. North of SR 120, Airport Way carries approximately 20,000 vehicles per day.

**Main Street** begins at Lathrop Road and continues south through the City into rural San Joaquin County. Main Street is primarily a four-lane street within the City, with sections of two-lane street near Lathrop Road, downtown, and SR 120. Outside Manteca, the facility operates as a two-lane rural highway, passing primarily through rural residential and agricultural uses. North of SR 120, Main Street carries approximately 26,600 vehicles per day.

**Spreckels Avenue** begins at Lathrop Road and continues south through the City until it becomes Industrial Park Drive at the intersection of Moffat Boulevard. Spreckels Avenue is a four-lane street north of Yosemite Avenue and a two-lane street south of Yosemite Avenue. Between Yosemite Avenue and Moffat Boulevard, Spreckels Avenue carries approximately 15,300 vehicles per day.

**Van Ryn Avenue** begins at Industrial Park Drive and continues south until it terminates at Woodward Avenue. The street has two lanes and carries approximately 7,700 vehicles per day.

**Austin Road** is primarily a two-lane road within the City. Outside Manteca, the facility operates as a two-lane rural highway, passing primarily through rural residential and agricultural uses. South of Yosemite Avenue, Austin Road carries approximately 3,900 vehicles per day.

Manteca's east-west arterials described below generally connect from Lathrop to the west to rural San Joaquin County to the east:

**Roth Road** is a two-lane road which extends west of Airport Way into Lathrop. At the City limit, Roth Road carries approximately 8,800 vehicles per day (based on April 2018 counts).

**Lathrop Road** is primarily a two-lane street, with sections of four-lane street west of Union Road and near Main Street. West of Union Road, Lathrop Road carries approximately 19,300 vehicles per day.

**Louise Avenue** is primarily a four-lane street, with some sections of two-lane street east of Main Street and other short sections throughout. Between Union Road and Main Street, Louise Avenue carries approximately 17,300 vehicles per day.

**Yosemite Avenue** is primarily a four-lane street, with some sections of two lanes near downtown and five lanes (three westbound and two eastbound) near SR 99. Between Airport Way and Union Road, Yosemite Avenue carries approximately 20,000 vehicles per day.

In addition to these arterials, McKinley Avenue is a collector which provides an important north-south link and Daniels Street, Atherton Drive, and Woodward Avenue are collectors which provide important east-west links in the City.

## Traffic Volumes

Count data was collected for 44 study segments identified as those most critical to Manteca's local circulation system and its connectivity to the regional transportation network. Data was collected on October 25 and 26 or November 9 and 10, 2016, while schools were in session. No unusual traffic conditions were observed, and weather conditions were generally dry.

Figure 3.14-3 shows the existing average daily traffic (ADT) volumes for roadways within the City. ADT represents the total volume passing a point or along a segment of roadway, in both directions, on an average weekday.

## Vehicle Miles Traveled

By definition, one vehicle mile traveled (VMT) occurs when one vehicle (regardless of number of occupants) is driven on a roadway for one mile. For the purposes of this EIR, VMT is estimated and projected for a typical weekday when schools are in session. VMT values in this analysis represent the full length of a given trip and are not truncated at jurisdiction boundaries. Additionally, these VMT values are for trips beginning or ending in the City (i.e., are associated with Manteca land uses). Trips passing through the City without stopping are not included in these VMT estimates, as the City has little or no control over such trips.

VMT is used to measure performance of the existing transportation network and to evaluate potential transportation impacts. Although the absolute amount of VMT is typically reported, impact analysis is typically based on VMT expressed as an efficiency metric. VMT efficiency metrics, such as VMT per resident, VMT per employee, or VMT per dwelling unit, allow the VMT performance of different-sized projects to be compared. Such metrics provide a measure of travel efficiency and help depict whether people are traveling by vehicle more or less over time, across different areas, or across different planning scenarios. A per-dwelling-unit or per-employee decline in VMT compared to a baseline condition indicates that the transportation network is operating more efficiently.

The Manteca travel forecasting model, a trip-based model, was used to estimate VMT in the General Plan planning area (Figure 2.0-2). Table 3.14-1 shows the major land uses in the model for the 2016

conditions that reflect initial data collection and the 2019 baseline, which reflects modeling to incorporate development through 2019.

***TABLE 3.14-1: EXISTING CONDITIONS MODEL MAJOR LAND USE***

| *LAND USE* | *UNITS* | *2019 BASELINE* | *2016 MODEL* |
|---|---|---|---|
| Single family | Dwelling Units | 21,226 | 19,356 |
| Multi family | Dwelling Units | 4,788 | 4,613 |
| Age restricted | Dwelling Units | 2,236 | 1,905 |
| Restaurant | Employees | 730 | 726 |
| Industrial | Employees | 4,721 | 3,886 |
| Office | Employees | 1,291 | 1,246 |
| Retail | Employees | 4,831 | 4,801 |

*SOURCE: FEHR & PEERS, 2020*

It is noted that inherent potential limitations exist when using a future year travel demand model is applied for purpose as changes in travel behavior and transportation systems are expected to occur in response to emerging trends, new technologies, and evolving user preferences. Some of these new travel options and technologies are discussed below. Additionally, information about how technology is affecting travel is accumulating over time. Some of these emergent changes that could influence future travel forecasts include:

- Substitution of internet shopping and home delivery for some shopping or meal-related travel.
- Substitution of telework for commute travel.
- New travel modes and choices. Transportation networking companies (TNCs, such as Uber and Lyft), have increased the travel options available to travelers and have contributed to changes in traditional travel demand relationships. Additional options such as car share, bike share, scooter share, and on-demand micro transit are also emerging.
- Automated and connected vehicles.

Like most models, the Manteca travel demand model does not explicitly capture the above-mentioned new modes of travel and emerging trends in travel behavior. Significant uncertainties exist at the present time that prevent explicit modeling of these new modes and emerging trends for the analysis of the General Plan. However, since VMT is a “relative efficiency” metric, to the extent that these trends could cause systematic changes across the City and beyond, they effectively cancel each other out when comparing VMT efficiency for a given horizon period.

Two measures of VMT are used in this analysis:

- **VMT per dwelling unit, for residential land uses.** Includes VMT for trips produced by a dwelling unit’s residents, such as to work, school, or shop, and with one end of the trip at the home, on a typical weekday.
- **VMT per employee, for non-residential land uses.** Includes all trips with one end at the land use, including employees, customers, and deliveries, on a typical weekday. (Note that this

ratio is different that the VMT generated by each employee, as the latter only includes trips made by employees).

VMT per dwelling unit is used because the model uses dwelling units as an input. VMT per resident estimates can be made based on estimates of residents per household.

VMT estimates for the 2019 baseline and the 2016 modelled conditions are shown in Table 3.14-2. In addition to the two metrics presented above, additional metrics are reported for information.

With respect to the residential uses, it is reasonable to expect that multi-family would generate about three-quarters of the VMT as single-family, as the ratio of their daily trip generation rates is in that range. Additionally, socioeconomic characteristics likely play a role, with single-family units having a propensity for longer distance commute trips.

Regarding the non-residential uses, the most common use types are shown including retail, office, industrial, and restaurants. Although schools, churches, parks, etc. are also present within Manteca, proposals for new construction are relatively rare and should be evaluated on a case-by-case basis as is described later. The VMT per employee does not necessarily reflect the actual amount of travel by each employee but is rather a ratio of that land use's total amount of travel (by all users) divided by employees.

***TABLE 3.14-2: VMT, EXISTING CONDITIONS***

| *LAND USE* | *UNITS* | *2019 BASELINE* | *2016 EXISTING CONDITIONS* |
|---|---|---|---|
| Single family residential | VMT per dwelling unit | 103.8 | 97.6 |
| Multi-family residential | VMT per dwelling unit | 78.6 | 74.3 |
| Age restricted residential | VMT per dwelling unit | 44.1 | 41.8 |
| Restaurant | VMT per employee[1] | 186.0 | 186.1 |
| Industrial | VMT per employee | 75.3 | 76.2 |
| Office | VMT per employee | 32.4 | 32.3 |
| Retail | VMT per employee | 118.9 | 119.4 |
| All residential | VMT per dwelling unit | 94.8 | 89.4 |
| All residential | VMT per resident[2] | 29.8 | 28.1 |
| All employment | VMT per employee | 82.2 | 82.5 |
| All land uses | VMT per service population[2,3] | 36.7 | 36.7 |
| Total VMT | VMT | 3,755,100 | 3,337,400 |

*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*

## PUBLIC TRANSPORTATION SYSTEM

The public transportation system in Manteca includes bus transit, taxi and ride sharing services, and rail transit.

### Bus Transit Operations

Manteca Transit provides most bus service within the City. The San Joaquin Regional Transit District also provides connections from Manteca to Stockton and Ripon.

#### MANTECA TRANSIT

Manteca Transit is the primary transit provider in the City; it provides regularly scheduled fixed-route service to major activity centers and transit hubs within the City limits. Four routes provide hourly service weekdays from 6 AM to 7 PM and three of these routes also provide hourly service Saturday from 9 AM to 4 PM. An exhibit showing weekday bus routes is provided in Figure 3.14-4.

**Route 1** is primarily an east-west route traveling along Yosemite Avenue. Stops include Stadium Shopping Center, Kaiser Permanente Hospital, Save Mart, City Hall, the Senior Center, Manteca High School, Doctors Hospital, Target, and Laurel Glen Apartments.

**Route 2** serves a clockwise loop in the southern portion of the City, between Yosemite Avenue and Woodward Avenue. Stops include Mission Ridge Shopping Center, Woodward Community Park, Brock Elliot School, Sierra High School, Manteca Shopping Center, City Hall, and Mission Ridge Shopping Center.

**Route 3** serves a counterclockwise loop around the norther portion of the City, between Lathrop Road and Yosemite Avenue. Stops include Boy's and Girl's Club of Manteca, Prestige Assisted Living, Save Mart, Vista Verde Apartments, East Union High School, Raley's, McParland School, Stella Brockman School, and City Hall.

**Route 4**, operating weekdays only, serves a clockwise loop around the western portion of the City between Airport Way and Main Street. Stops include Mission Ridge Shopping Center, Sierra High School, Stella Brockman School, McParland School, East Union High School, Vista Verde Apartments, Walgreens, and Boy's and Girl's Club of Manteca.

Front loading bicycle racks, which typically accommodate two bicycles, are provided on all fixed route transit buses. Bicycle rack spaces are available on a first come, first served basis.

The City has a multimodal transit center near downtown Manteca at the corner of Main Street and Moffat Boulevard. All Manteca Transit routes serve this center, which also connects to the Tidewater Bike Path. The transit center could also serve future passenger rail service along the adjacent Union Pacific Railroad corridor if such service is developed.

#### SAN JOAQUIN REGIONAL TRANSIT DISTRICT

**Route 91** connects Manteca to Stockton and Ripon with service weekdays between 6 AM and 8:30 PM. The Manteca stop is at the Manteca Transit Center.

**Route 95** connects Manteca to Stockton and Escalon with service weekdays between 7:15 AM and 6:30 PM. Manteca stops are at the Manteca Transit Center and Main Street at Northgate Drive.

**Route 97** connects Manteca to Lathrop and Tracy with service weekdays between 5:40 AM and 9:00 PM. The Manteca stop is at the Manteca Transit Center.

The San Joaquin Regional Transit District has mounted exterior bicycle racks on all fixed route interregional buses.

#### DIAL-A-RIDE AND ADA PARATRANSIT SERVICES

Manteca Transit provides paratransit services for people who are unable to independently use the transit system due to a physical or mental disability. Paratransit operators are required by the ADA to service areas within three-quarters of a mile of their respective, public fixed-route service. Service hours are Monday through Friday from 6 AM to 7 PM and Saturday from 9 AM to 4 PM. Ride reservations can be scheduled daily.

### Taxi Services

Taxi service in Manteca is provided by private operators that serve the City and the greater San Joaquin County area. Taxi service is available 24 hours a day, seven days a week by calling in a service request.

### Ride Sharing Services

Lyft and Uber provide connections to local and regional destinations. Availability varies depending on driver availability, and service may always not be available. Service is requested by smartphone apps for each provider.

### Altamont Corridor Express Rail Transit

The Altamont Corridor Express (ACE) rail service connects Manteca to San Jose and the Bay Area and connects Stockton to Manteca. Weekdays, two westbound train serve Manteca at 4:39 AM and 5:54 AM and two eastbound trains serve Manteca between 5:23 PM and 723 PM. The Lathrop/Manteca station is located on Shideler Parkway just north of Yosemite Avenue west of the city limit. ACE trains allow bicycles in bike cars and regular coach cars.

The Amtrak Thruway Bus service also provides connections weekdays from the ACE station to the Stockton Amtrak station. Most buses require storing the bicycle in the baggage storage compartment underneath the bus.

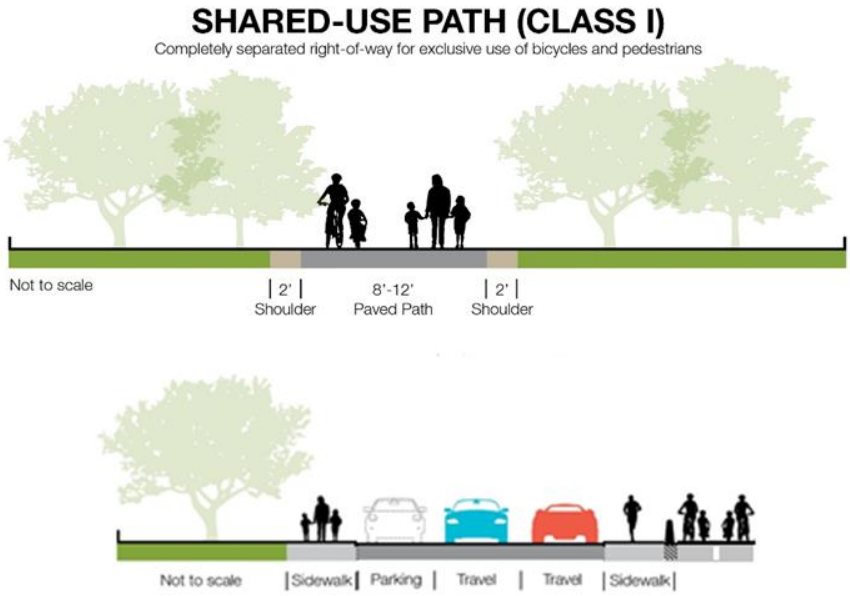
## BICYCLE AND PEDESTRIAN SYSTEM

This section describes the bicycle and pedestrian network in Manteca.

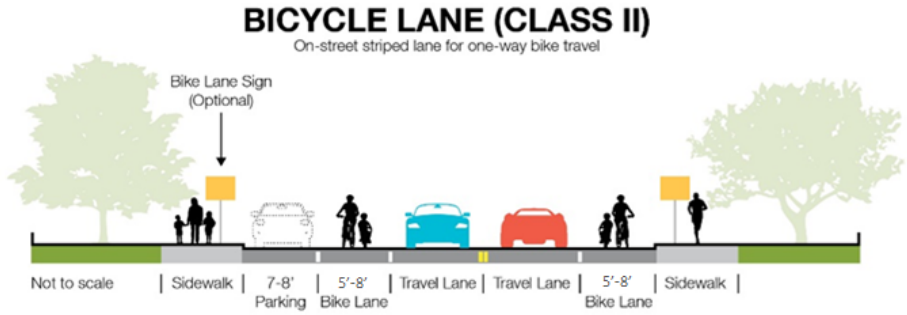
### Bicycle Facilities

Bicycle facilities are categorized into four types as described and depicted in illustrations below. Note that while the graphics include typical widths for the various facilities, the exact configuration of a bike facility may vary depending on its location.

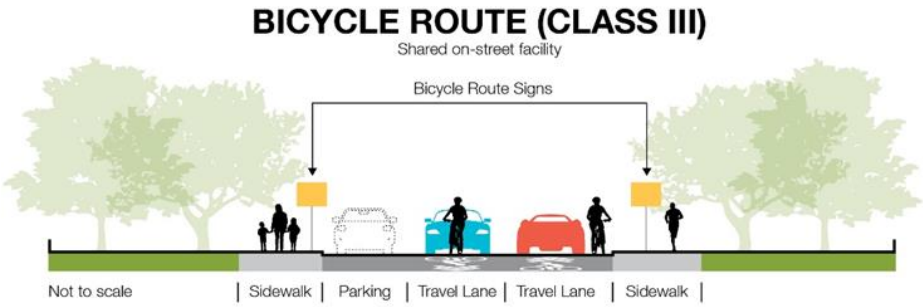
- **Class I Bikeway (Bike Path):** Also known as a shared-use path or multi-use path, a bike path is a paved right-of-way for bicycle travel that is completely separate from any street or highway.




- **Class II Bikeway (Bike Lane):** A striped and stenciled lane for one-way bicycle travel on a street or highway. This facility could include a buffered space between the bike lane and vehicle lane and the bike lane could be adjacent to on-street parking.

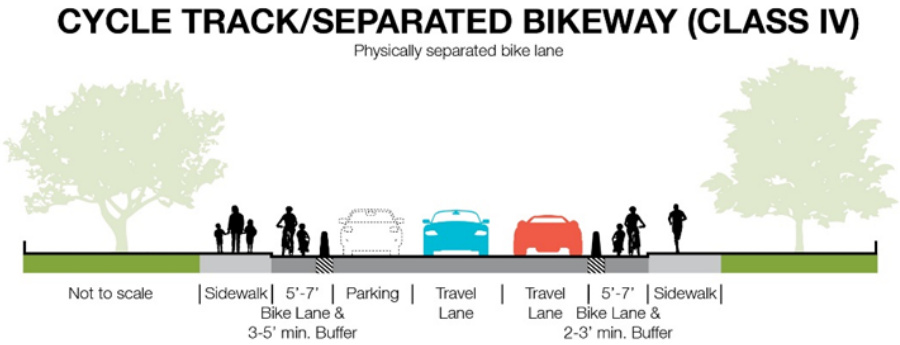



- **Class III Bikeway (Bike Route):** A signed route along a street where the bicyclist shares the right-of-way with motor vehicles. This facility can also be designated using a shared-lane marking (sharrow).




- **Class IV Bikeway (Separated Bikeway or Cycle Track):** A bikeway for the exclusive use of bicycles including a separation required between the separated bikeway and the through

vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.




Bicycle circulation in Manteca is supported by an existing network of multi-use off-street (Class I) paths, on-street (Class II) bike lanes, and bicycle routes (Class III). The most notable City bicycle facility is the Tidewater Bikeway (Class I), which serves as the backbone of Manteca's bicycle network. The Tidewater Bikeway begins north of Lathrop Road and continues south to the Union Pacific Railroad corridor, where it turns southeast and continues to Spreckels Avenue where it meets the Spreckels Bike Path (Class I). The Spreckels Bike Path connects from Yosemite Avenue south to Atherton Drive where it ends at the Atherton Bike Path. Additional multi-use paths, bike lanes, and bike routes connect to destinations around the City. The City's existing bikeways from the City's 2020 Active Transportation Plan (ATP) are shown in Figure 3.14-5.

In general, most Manteca schools, parks, and public buildings are equipped with bike racks for short-term bicycle parking. City of Manteca Municipal Code Section 17.52.110 specifies bicycle parking requirements, including number of spaces and locations.

## Pedestrian Facilities

Pedestrian facilities include multi-use off-street (Class I) paths, sidewalks, crosswalks, pedestrian signal infrastructure, curb ramps, and streetscape amenities. Most developed arterial streets in Manteca provide sidewalk coverage, accessible curb ramps, and marked crosswalks.

Sidewalks and a variety of pedestrian amenities are provided throughout the downtown including accessible pedestrian ramps, decorative paving and crosswalk treatments, curb extensions, benches, and street trees. Sidewalks are also provided in most of Manteca's single-family residential neighborhoods, in multi-family residential developments, and in commercial developments.

The existing pedestrian facilities from the ATP are shown in Figure 3.14-6. While the pedestrian network is generally well developed in Manteca, there are some locations where gaps in the sidewalk network can be found. In general, facilities along developing arterials vary depending on the level of development along the street. In some locations where adjacent parcels have not been developed, the street is not fully built-out and hence sidewalks have not been constructed.

## GOODS MOVEMENT

The Surface Transportation Assistance Act (STAA) of 1982 defines a network of state facilities as truck routes which accommodate large trucks. STAA routes have specific signage and are designed with street widths, curb return radii, and other features to accommodate STAA trucks, which have longer wheelbases than other trucks. The Manteca STAA route starts on Main Street at SR 120, continues onto Industrial Park Drive then Spreckels Avenue, then continues onto Yosemite Avenue to Vasconcellos Avenue, then continues south to the end of Vasconcellos Avenue.

Additionally, goods movement in Manteca and the region is supported by the Union Pacific Railroad which passes through the City and has an intermodal facility within the planning area, between Roth Road and Lathrop Road just west of the City limit.

# 3.14.2 REGULATORY SETTING

The General Plan, along with a variety of City, regional, State, and Federal plans, legislation, and policy directives provide guidelines for the safe operation of streets and transportation facilities in Manteca. While the City has primary responsibility for the maintenance and operation of local transportation facilities in its jurisdiction, Manteca staff works on a continual basis with responsible regional, State, and Federal agencies including County of San Joaquin, the San Joaquin Council of Governments, the California Department of Transportation (Caltrans), the Federal Highway Administration, and others to maintain, improve, and balance the competing transportation needs of the community and the region.

## FEDERAL

### Americans With Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency. To implement this goal, the United States Access Board has created accessibility guidelines for public rights-of-way. The guidelines address various issues, including roadway design practices, slope and terrain issues, pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

## STATE

### OPR General Plan Guidelines

The Governor's Office of Planning and Research (OPR) publishes General Plan Guidelines as for cities and counties developing their general plans. OPR released its updated guidelines in 2017, which includes legislative changes, new guidance, policy recommendations, external links to resource documents, and additional resources. For each general plan element, the guidelines discuss statutory requirements in detail, provide recommended policy language, and include examples of city and county general plans that have adopted similar policies.

## Assembly Bill 32, Senate Bill 32, and Senate Bill 375

Assembly Bill (AB) 32, also known as the Global Warming Solutions Act of 2006, committed California to reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. In 2016, Senate Bill (SB) 32 added a new target: reducing statewide emissions to 40 percent below 1990 levels by 2030.

SB 375 provides guidance for curbing emissions from cars and light trucks to help California comply with AB 32. There are five major components to SB 375:

- ARB will guide the adoption of GHG emission targets to be met by each Metropolitan Planning Organization (MPO) in the state. The MPO for Manteca is the San Joaquin Council of Governments (SJCOG).
- MPOs are required to create a Sustainable Communities Strategy (SCS) that provides a plan for meeting these regional targets. The SCS must be consistent with the Regional Transportation Plan (RTP).
- Regional housing elements and transportation plans must be synchronized on eight-year schedules. Also, the SCS and Regional Housing Needs Assessment (RHNA) must be consistent with each other.
- CEQA is streamlined for preferred development types such as mixed-use projects and transit-oriented developments (TODs) if they meet specific requirements.
- MPOs must use transportation and air emission modeling methodologies consistent with California Transportation Commission (CTC) guidelines.

## Senate Bill 743

SB 743, passed in 2013, resulted in several statewide CEQA changes. It required the California Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the metrics beyond TPAs. OPR selected VMT as the preferred transportation impact metric and applied their discretion to require its use statewide. This legislation also established that aesthetic and parking effects of a residential, mixed-use residential, or employment center projects on an infill site within a TPA are not significant impacts on the environment. The revised CEQA Guidelines that implement this legislation became effective on December 28, 2018, and state that vehicle LOS and similar measures related to delay shall not be used as the sole basis for determining the significance of transportation impacts for land use projects, and that as of July 1, 2020, this requirement shall apply statewide, but that until that date, lead agencies may elect to rely on VMT rather than LOS to analyze transportation impacts.

The OPR "Technical Advisory on Evaluating Transportation Impacts in CEQA" (December 2018) includes specifications for VMT methodology and recommendations for significance thresholds, screening of project that may be presumed to have less than significant impacts, and mitigation.

Screening criteria include:

- **Small projects**: The Technical Advisory concludes that, absent any information to the contrary, projects that generate 110 trips per day or less may be assumed to cause a less-than-significant transportation impact.
- **Projects near transit stations**: Projects located within ½ mile of an "existing major transit stop" or an "existing stop along a high-quality transit corridor" would have a less-than-significant impact on VMT.
- **Affordable residential development**: Projects consisting of a high percentage of affordable housing may be assumed to cause a less-than-significant transportation impact on VMT because they may improve jobs-housing balance and/or otherwise generate less VMT than market-based units.
- **Redevelopment projects**: If a proposed redevelopment project leads to a net overall decrease in VMT (when compared against the VMT of the existing land uses), the project would lead to a less-than-significant transportation impact.
- **Local-serving retail**: Trip lengths may be shortened and VMT reduced by adding "local-serving" retail opportunities that improve retail destination proximity. Page 17 of the Technical Advisory generally describes retail development including stores less than 50,000 square feet as local-serving. In May 2020, OPR staff indicated during online webinars that any retail building that is 50,000 square feet or less may be considered local-serving.

Other key guidance includes:

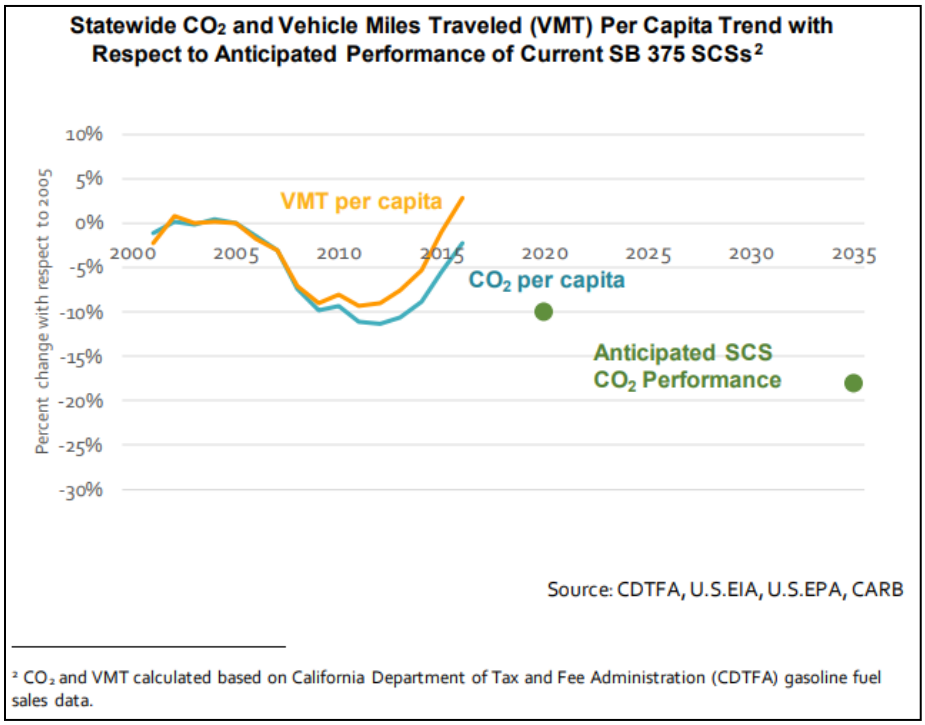
- VMT is the most appropriate metric to evaluate a project's transportation impact.
- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- OPR recommends measuring VMT for residential and office projects on a "per rate" basis. Specifically, OPR recommends VMT per capita for residential projects and VMT per employee for office projects.
- OPR recommends that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold (page 10). In other words, an office project that generates VMT per employee that is more than 85 percent of the regional VMT per employee could result in a significant impact. OPR notes that this threshold is supported by evidence that connects this level of reduction to the State's emissions goals (pages 10-11).
- For retail projects, OPR recommends measuring the net decrease or increase in VMT in the planning area with and without the project. The recommended impact threshold is any increase in total VMT.
- Lead agencies ultimately have the discretion to set or apply their own significance thresholds, provided they are based on significant evidence.
- Cities and counties still have the ability to use measures of delay such as LOS for other plans, studies, or network monitoring. However, according to CEQA section 15064.3, Determining the Significance of Transportation Impacts, "effect on automobile delay shall not constitute a significant environmental impact."

## California Air Resources Board Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals

ARB has specific guidance for VMT thresholds in the ARB 2017 "Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals" (January 2019). This document provides recommendations for VMT reduction thresholds that would be necessary to achieve the state's GHG reduction goals and acknowledges that the SCS targets alone are not sufficient to meet climate goals. ARB concluded that a 14.3-percent reduction in total VMT per capita and a 16.8 percent reduction in light-duty VMT per capita (over current conditions; 2015-2018) was needed to meet these goals. The Manteca travel forecasting model is trip-based and includes all vehicle trips, thus the total VMT per capita metric is applicable. Additionally, the OPR "Technical Advisory" cites this document as support for the 15-percent reduction threshold.

## California Air Resources Board 2018 Progress Report, California's Sustainable Communities and Climate Protection Act, California Air Resources Board

In the "2018 Progress Report, California's Sustainable Communities and Climate Protection Act" (November 2018), ARB charts recent VMT per capita trends and shows VMT per capita increasing in recent years. This trend is inconsistent with RTP/SCS projections across the state forecasting declines.




*SOURCE: 2018 PROGRESS REPORT CALIFORNIA'S SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT, CALIFORNIA AIR RESOURCES BOARD, 2018*

## Assembly Bill 417

In October 2013, AB 417 created a statutory CEQA exemption for bicycle plans in urbanized areas. Before the passage of this bill, cities and counties that prepared bicycle plans were required to carry out a CEQA review. AB 417 exempts the following types of bicycle projects in an urbanized area:

- Restriping of streets and highways
- Bicycle parking and storage
- Signal timing to improve intersection operations
- Signage for bicycles, pedestrians, and vehicles

However, not all bicycle plans are exempt if certain conditions are met (e.g., a new Class I bicycle trail through a sensitive natural area).

## Caltrans Vehicle Miles Traveled-Focused Transportation Impact Study Guide

The Caltrans "Vehicle Miles Traveled-Focused Transportation Impact Study Guide" (TISG), dated May 20, 2020, was prepared to provide guidance to Caltrans districts, lead agencies, tribal governments, developers, and consultants regarding Caltrans' review of VMT impact analysis for land use projects and land use plans. Caltrans seeks to reduce single occupancy vehicle trips, provide a safe transportation system, reduce per capita VMT, increase accessibility to destinations via cycling, walking, carpooling, and transit, and reduce greenhouse gas (GHG) emissions. The TISG notes that, for land use projects and plans, automobile delay is no longer considered a significant impact on the environment under CEQA. Caltrans' primary review focus for a land use project's transportation impacts is now VMT. The TISG generally endorses the OPR "Technical Advisory," including the thresholds in that document. Caltrans may review VMT thresholds, methodology, and mitigations.

## Caltrans Interim Land Development and Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance

The Interim LDIGR Safety Review Practitioners Guidance (July 2020) was developed to provide immediate direction about the safety review while final guidance is being developed. This interim guidance does not establish thresholds of significance for determining safety impacts under CEQA. The guidance notes that the significance of impacts should be determined with careful judgment on the part of a public agency and based, to the greatest extent possible, on scientific and factual data consistent with Caltrans' CEQA guidance contained in Caltrans' Standard Environmental Reference. The guidance notes that District traffic safety staff will use available data to determine if the proposed project may influence or contribute to locations identified by traffic safety Investigations generated by network screening or initiated by the district.

## Caltrans Deputy Directive 64-R1: Complete Streets – Integrating the Transportation System and Assembly Bill 1358: Complete Streets Act of 2008

In 2001, Caltrans adopted Deputy Directive (DD) 64, a policy directive related to non-motorized travel throughout the state. In October 2008, DD 64 was strengthened to reflect changing priorities and challenges. DD 64-R1 states:

> *The Department views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.*
>
> *The Department develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian, and transit travel is facilitated by creating "complete streets" beginning early in system planning and continuing through project delivery and maintenance and operations. Developing a network of "complete streets" requires collaboration among all Department functional units and stakeholders to establish effective partnerships.*

Providing safe mobility for all users, including motorists, bicyclists, pedestrians, and transit riders, contributes to the Department's vision: "Improving Mobility Across California."

Successful long-term implementation of this policy is intended to result in more options for people to go from one place to another, less traffic congestion and greenhouse gas emissions, more walkable communities (with healthier, more active people), and fewer barriers for older adults, children, and people with disabilities.

Economically, complete streets can help revitalize communities, and they can give families the option to lower transportation costs by using transit, walking, or bicycling rather than driving to reach their destinations. The Department is actively engaged in implementing its complete streets policy in all planning, programming, design, construction, operations, and maintenance activities and products on the State Highway System.

In 2008, the State of California enacted Assembly Bill 1358, the Complete Streets Act of 2008. This law requires cities and counties, when updating their general plans, to ensure that local streets and roads meet the needs of all users, including bicyclists, pedestrians, transit riders, children, seniors, persons with disabilities and motorists. The law took effect in January 2011, when the OPR issued new proposed General Plan guidelines that reflect Complete Streets planning principles. As described by OPR, complete streets should be designed and constructed to serve all users of streets, roads, and highways, regardless of their age or ability, or whether they are driving, walking, bicycling, or taking transit.

## Caltrans Director's Policy 22 (DP-22), Director's Policy on Context Sensitive Solutions

Director's Policy 22, a policy regarding the use of "Context Sensitive Solutions" on all state highways, was adopted by Caltrans in November of 2001. The policy reads:

*The Department uses "Context Sensitive Solutions" as an approach to plan, design, construct, maintain, and operate its transportation system. These solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. Context sensitive solutions are reached through a collaborative, interdisciplinary approach involving all stakeholders.*

*The context of all projects and activities is a key factor in reaching decisions. It is considered for all State transportation and support facilities when defining, developing, and evaluating options. When considering the context, issues such as funding feasibility, maintenance feasibility, traffic demand, impact on alternate routes, impact on safety, and relevant laws, rules, and regulations must be addressed.*

The policy recognizes that "in towns and cities across California, the State highway may be the only through street or may function as a local street," that "these communities desire that their main street be an economic, social, and cultural asset as well as provide for the safe and efficient movement of people and goods," and that "communities want transportation projects to provide opportunities for enhanced non-motorized travel and visual quality." The policy acknowledges that addressing these needs will assure that transportation solutions meet more than just traffic and operational objectives.

## REGIONAL

### San Joaquin Council of Governments Regional Transportation Plan and Sustainable Community Strategy

The current Regional Transportation Plan and Sustainable Community Strategy (RTP/SCS) produced by SJCOG was adopted in 2018. The RTP/SCS sets forth regional transportation policy and provides capital program planning for all regional, state, and federally funded projects. The RTP/SCS also demonstrates how land use development and transportation can work together to meet greenhouse gas emission reduction targets for cars and light trucks. The RTP can be considered the San Joaquin region's "statement of priorities" for the future transportation system. The RTP/SCS states that it "recognizes the significant impact the transportation network has on the region's public health, mobility, and economic vitality" and "serves as a guide for achieving public policy decisions that will result in balanced investments for a wide range of multimodal transportation improvements."

### San Joaquin County Regional Congestion Management Program

As the designated Congestion Management Agency (CMA) for San Joaquin County, the San Joaquin Council of Governments (SJCOG) is responsible for updating County's Regional Congestion Management Program (RCMP) and monitoring its implementation. The RCMP network includes the following roadways in the City:

- SR 99
- SR 120
- Airport Way

- Roth Road
- Lathrop Road
- Yosemite Avenue

The network also includes the following intersections in the City:

- SR 99 and Lathrop Road ramps
- SR 99 and Yosemite Avenue ramps
- SR 120 and Airport Way ramps
- Airport Way and Roth Road
- Airport Way and Lathrop Road
- Airport Way and Yosemite Avenue

### San Joaquin Valley Air Pollution Control District (SJVAPCD)

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.

### Measure K: San Joaquin County Local Transportation Improvement Plan

Measure K, the San Joaquin County Local Transportation Improvement Plan, was passed by San Joaquin County voters in November 1990 and renewed in November 2006. Measure K assesses a half-cent sales tax on purchases made throughout the County to provide direct funding for local transportation projects. The funds are dedicated to the specific programs and projects specified in the Measure K expenditure plan, including improved highways and local streets, new passenger rail service, regional and interregional bus routes, park-and-ride lots, new bicycle facilities, and railroad crossings. The renewal of Measure K is estimated to generate $2.552 billion for these transportation programs. Funding from Measure K has been used to construct the Lathrop Road overcrossing of the Union Pacific railroad, among other projects.

## LOCAL

### Manteca General Plan

The Manteca General Plan is a long-range comprehensive planning document required by state law to set policy and guide future growth, development, and conservation of resources. The Plan was

adopted by the City in 2003 and amended most recently in 2016. The following 2011 General Plan Circulation Element are particularly relevant.

### GOALS

*Goal C-1. Provide for a circulation system that allows for the efficient movement of people, goods, and services within and through Manteca while minimizing public costs to build and maintain the system.*

*Goal C-2. Provide complete streets designed to serve a broad spectrum of travel modes, including automobiles, public transit, walking, and bicycling.*

*Goal C-3. Develop attractive streetscapes that include landscaping, street trees, planted berms, and landscaped medians.*

*Goal C-4. Support the development of a Downtown area that is highly accessible to all modes of travel, focusing primarily on pedestrians, bicyclists, and transit riders.*

*Goal C-5. Balance the level of service for all modes so that residents and visitors have a variety of transportation choices.*

*Goal C-6. Maintain a safe transportation system for all modes.*

*Goal C-7. Accommodate truck and freight movements by developing city-wide truck routes and encouraging the development of freight and warehousing centers near existing rail lines and spurs.*

*Goal C-8. Establish reasonable parking requirements (minimum and maximum rates for uses) that limit parking encroachment while minimizing the amount of land consumed by parking lots.*

*Goal C-9. Provide a safe, secure, and convenient bicycle route system that connects to retail, employment centers, public facilities, and parks.*

*Goal C-10. Provide for safe and convenient pedestrian circulation.*

*Goal C-11. Maintain a coordinated, efficient bus service that provides both an effective alternative to automobile use and serves members of the community that cannot drive.*

*Goal C-12. Support and encourage regional transit connections that link Manteca to other cities.*

### POLICIES

Policies in the Circulation Element are organized by topic. Policies for each topic most relevant to this report are summarized below.

*Level of Service:* Policies C-P-1 through CP-3 promote balanced levels of service (LOS) across all modes and vehicular LOS of D or better, except in downtown and certain other locations where other goals predominate.

*Street System:* Policies C-P-8 through C-P-11 and C-P-17 promote access and connectivity for all modes. Policy C-P-12 promotes use of roundabouts.

*Transportation Safety:* Policies C-P-20 through C-P-22 promote hazard reduction, maintenance of sight distances, and development of landscape separated sidewalks, respectively.

*Parking:* Policy C-P-23 notes that future growth in traffic volumes may require removal of on-street parking.

*Bikeways and Pedestrian Facilities:* Policies C-P-29 through C-P-40 promote development of safe and complete bicycle and pedestrian networks across the city.

*Public Transportation:* Policies C-P-41 through C-P-43 promote interregional bus and rail connections. Policy C-P-44 promotes intermodal connectivity. Policy C-P-45 and C-P-46 promote ridesharing. Policy C-P-48 promotes inclusion of transit on future roadways.

*Goods Movement:* Policies C-P-50 and C-P-52 promote truck access where appropriate. Policy C-P-51 promotes rail access within the City.

*Transportation Demand Management:* Policies C-P-53 through C-P-56 support programs which encourage alternatives to reduce the number and length of automobile trips.

## Manteca Public Facilities Implementation Plan

The 2013 Manteca Public Facilities Implementation Plan (PFIP), with 2018 Transportation Element update, is the implementing program for public infrastructure policies identified in the City's General Plan Policy Document. The purpose of the PFIP is to ensure that water, wastewater, storm drainage, and transportation facilities within the City are sufficient to support the City's growth in accordance with its General Plan. The PFIP also helps ensure that infrastructure is constructed in a timely manner and financed equitably, in proportion to the demands placed on the new facilities. In most cases, developers pay their proportionate share to reimburse the City for the cost to finance and construct the infrastructure.

## Manteca Active Transportation Plan

The 2020 Manteca Active Transportation Plan (ATP) was developed as a blueprint for the future bicycle and pedestrian networks in the City. The envisioned system builds upon existing on-street and off-street facilities throughout the City with enhancements to overall connectivity, support facilities, safety, and education programs. The Plan establishes bicycle goals, objectives, and policies; identifies future infrastructure projects; and promotes support and educational programs.

The plan includes the following goals.

1. Allow all users to move safely on City bicycle and pedestrian networks.
2. Develop convenient, low-stress bicycle and pedestrian networks that connect Manteca residents and visitors to destinations in the city and other jurisdictions.
3. Ensure bicycle and pedestrian networks are well-maintained.
4. Increase bicycling and walking in Manteca to support improved public health and reduced chronic diseases related to inactivity, increased economic activity along commercial corridors, improved air quality, and reduced greenhouse gas production.

The ATP includes important bicycle facility improvements such as extension of the Atherton Bike Path from the west city limit to the east city limit, connections across SR 99 and SR 120, and Class II bike lanes and Class III bike routes on other major connector roads in the city. The plan also includes a new separated bikeway (Class IV) along Yosemite Avenue. It also includes plans to complete missing sidewalks and to add crossing improvements such as new marked crosswalks, rectangular rapid flashing beacons, and pedestrian hybrid beacons at locations across the City. The City's existing and planned bikeways and pedestrian facilities from the ATP are shown in Figure 3.14-7 and Figure 3.14-8, respectively.

### Manteca Transit Short Range Transit Plan

The Short-Range Transit Plan (SRTP), April 2019, presents a blueprint for short-term operational, financial, and capital improvements for Manteca Transit. The SRTP, covering a ten-year horizon, includes strategies to increase service efficiency and effectiveness as well as how to finance implementation of those strategies. These strategies reflect findings from passengers and non-passengers (community) input as well as a review of transit system performance.

### City of Manteca Proposed Truck Routes

The City conducted a study of truck routes and circulation from 2018 to 2020. This study included an assessment of truck patterns and routes, and it included five meetings (four in-person and one via video conference) for the public to provide input. In July 2020, the City developed a proposed truck route map including new STAA truck routes and California Legal truck routes. This map is shown in Figure 3.14-9.

### Manteca Design and Construction Standards

The City's design and construction standards and specifications provide for coordinated and standardized development of City facilities, including roadways. The standards apply to, regulate, and guide the design and preparation of plans, and the construction of streets, highways, alleys, drainage, traffic signals, site access, and related public improvements. All public roadway infrastructure improvements must be designed and constructed in accordance with the city standards and Caltrans' Standard Specifications (Caltrans 2018). These standards and specifications relevant to transportation include (as of November 2020):

- Engineering Standard Plan
- Standard Specifications
- Streets Standard Plan

## 3.14.3 IMPACTS AND MITIGATION MEASURES

### METHODS OF ANALYSIS

The transportation impact analysis assesses how the planning area's transportation system would operate with the implementation of the proposed General Plan. The potential impacts were identified based on a set of significance criteria based on the CEQA Guidelines. The transportation impact analysis methodology includes a combination of quantitative and qualitative evaluations of the roadway, bicycle, pedestrian, and transit components of the transportation system. All analysis presumes that future background travel options and behaviors remain similar to current conditions

and do not explicitly account for potential changes associated with disruptive trends, emerging technologies, and changes in travel choices, which were discussed in 3.14.1.

Because SB 743 eliminated the use of LOS for CEQA impact analysis purposes, it is not included in this chapter. However, results of LOS analysis are provided in Appendix A for informational purposes.

## Analysis Scenarios

The following scenarios were analyzed using the Manteca travel demand model. Table 3.14-3 summarizes the major land use in each scenario. Buildout of the existing General Plan was also analyzed in a separate scenario, as discussed in Chapter 5.0 and Appendix D.

- **2019 Baseline Plus Development Projects**. This scenario is provided for informational purposes to identify transportation changes that are anticipated to occur with implementation of various development projects.
- **Proposed General Plan Buildout**. Buildout of the land use development in the proposed General Plan.

***TABLE 3.14-3: SCENARIO MAJOR LAND USE***

| *LAND USE* | *UNITS* | *2019 BASELINE* | *BASELINE PLUS APPROVED PROJECTS* | *PROPOSED GENERAL PLAN BUILDOUT* | *INCREASE (PROPOSED GENERAL PLAN VS. 2019 BASELINE)* |
|---|---|---|---|---|---|
| Single family | Dwelling units | 21,226 | 28,060 | 47,360 | 123% |
| Multi family | Dwelling units | 4,788 | 6,035 | 14,829 | 210% |
| Age restricted | Dwelling units | 2,236 | 2,741 | 2,741 | 23% |
| Restaurant | Employees | 730 | 1,125 | 2,433 | 233% |
| Industrial | Employees | 4,721 | 7,972 | 18,764 | 297% |
| Office | Employees | 1,291 | 3,631 | 12,370 | 858% |
| Retail | Employees | 4,831 | 7,421 | 15,728 | 226% |

*SOURCE: FEHR & PEERS, 2020*

The City is expected to grow to approximately 22,417 acres from 2019 to buildout. Growth during this period is expected to comprise 11.1 million square feet of commercial (retail and restaurant) development, 18.3 million square feet of industrial development, and 4.9 million square feet of office development, as described in Chapter 2.0, Project Description. Planned growth in the City is mostly on the periphery, specifically north of Lathrop Road, south of SR 120, east of SR 99, and west of Airport Way. The growth results in a change in the balance between jobs and housing in Manteca. In the future, fewer residents are expected to leave the City for employment, but more employees and customers are expected to travel to employment centers. The ratio of employment (all land uses, including major land uses above) to households dwelling units is expected to increase from 0.58 in the 2019 baseline scenario to 0.87 in the proposed General Plan buildout, a 50 percent increase. The ratio of commercial (retail and restaurant) employment to households dwelling units is expected to increase from 0.20 to 0.28, a 42 percent increase.

Reasonably foreseeable development surrounding the planning area was also assumed for general plan scenarios modeled as part of this effort. Namely, development in the City of Lathrop and the City of Ripon per their general plans was assumed.

The proposed General Plan Circulation Element's circulation map is shown in Figure 3.14-10. It includes roadways serving new development and financially constrained roadway projects from the City PFIP and 2018 SJCOG RTP/SCS. Key additions include:

- New roadways including Raymus Parkway, completion of Atherton Drive, extension of Roth Road, and extension of Daniels Street
- New interchanges at SR 99 and Roth Road, SR 99 and Raymus Parkway, and SR 120 and McKinley Avenue
- Additional lanes on Airport Avenue and sections of other arterials
- New freeway general purpose lanes on SR 120 and HOV lanes on I-5 and SR 99

### Vehicle Miles Traveled

The Manteca travel demand model was used to estimate VMT for the City. Two measures of VMT are used in this analysis:

- **VMT per dwelling unit, for residential land uses.** Includes VMT for trips produced by a dwelling unit's residents, such as to work, school, or shop, and with one end of the trip at the home, on a typical weekday.
- **VMT per employee, for non-residential land uses.** Includes all trips with one end at the land use, including trips by both employees, customers, and deliveries, on a typical weekday.

Additional VMT-related measures are also provided for informational purposes:

- **Total VMT.** Includes all trips with at least one end in the planning area on a typical weekday.
- **VMT per resident.** Calculated based on the VMT per dwelling unit described above and the January 1, 2020 California Department of Finance estimate of residents per household.
- **VMT per service population.** Includes all trips with at least one end in the planning area. The service population consists of residents (based on the number of households and the January 1, 2020 California Department of Finance estimate of residents per household) and employees.

Note that the number of residents per household will likely vary in the future due to changes in the demographics of City residents and the mix of housing types. Thus, these estimates are provided for informational purposes only.

## THRESHOLDS OF SIGNIFICANCE

For the purposes of this EIR, adoption and/or implementation of the proposed General Plan would result in significant impacts under CEQA, if any of the following would occur:

- Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)
- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities

- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access

## Vehicle Miles Traveled

Based on Appendix G of the CEQA Guidelines, the General Plan would result in a significant transportation impact if it would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)(1), which states for land use projects, "Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact." CEQA Guidelines § 15064.3, subdivision (b)(4) states, "A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence."

The City has selected to measure VMT by land use type:

- VMT per single-family dwelling unit
- VMT per multi-family dwelling unit
- VMT per age-restricted dwelling unit
- VMT per office employee
- VMT per industrial employee
- VMT per retail employee
- VMT per restaurant employee

The 14.3 percent reduction in total VMT per capita identified as necessary to meet State goals in the ARB 2017 "Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals" is supported by substantial evidence. Additionally, this document updated data used to develop the OPR "Technical Advisory." The "Technical Advisory" supports "per rate" reductions of 15 percent compared to existing conditions (page 10). The "Technical Advisory" has been endorsed by Caltrans in their TISG.

With these considerations, the City has selected a threshold of 15 percent below City-wide baseline VMT per dwelling unit (for residential land uses) or employee (employment-related land uses) by land use type. Therefore, if any of the VMT metrics above under General Plan conditions exceeded 85 percent of the same value under 2019 Baseline Conditions, VMT impacts on transportation may be considered significant. VMT thresholds by land use type are shown in Table 3.14-4.

***TABLE 3.14-4: VMT THRESHOLD DEVELOPMENT***

| *LAND USE* | *UNITS* | *2019 BASELINE* | *85 PERCENT OF BASELINE* |
|---|---|---|---|
| Single family | VMT per dwelling unit | 103.8 | 88.2 |
| Multi family | VMT per dwelling unit | 78.6 | 66.8 |
| Age restricted | VMT per dwelling unit | 44.1 | 88.2 |
| Restaurant | VMT per employee | 186.0 | 158.1 |
| Industrial | VMT per employee | 75.3 | 64.0 |
| Office | VMT per employee | 32.4 | 27.5 |
| Retail | VMT per employee | 118.9 | 101.1 |

*NOTE: VMT PER EMPLOYEE RATIOS INCLUDE ALL TRIPS BY EMPLOYEES, CUSTOMERS, AND DELIVERIES.*
*SOURCE: FEHR & PEERS, 2020*

### Transit, Bicycles, and Pedestrians

Appendix G of the CEQA Guidelines indicates that impacts may be significant if a project conflicts with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The proposed General Plan would have a significant impact on transit, bicycles, or pedestrians if it would conflict with adopted policies, plans, or programs regarding these systems, or create or exacerbate disruptions to the performance or safety of these systems.

### Hazards and Emergency Access

Appendix G of the CEQA Guidelines indicates that impacts may be significant if a project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Impacts may also be significant if a project results in inadequate emergency access. The proposed General Plan would have a significant impact on the transportation system if it would increase hazards due to a design feature, incompatible uses, or inadequate emergency access.

### Roadway System Level of Service

The existing General Plan includes a policy within the Transportation Element which requires maintenance of a level of service (LOS) D standard on City roadways, with some exceptions. Because LOS is no longer a CEQA significance metric, an analysis of LOS is provided in Appendix A.

## IMPACTS AND MITIGATION MEASURES

### Impact 3.14-1: General Plan implementation may result in VMT increases that are greater than 85 percent of Baseline conditions (Significant and Unavoidable)

Table 3.14-5 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 increased VMT for employment-generating land uses and would also result in an increase in total VMT in

comparison to the existing condition as well as in comparison to the baseline plus development projects scenario.

***TABLE 3.14-5: VMT PER DWELLING UNIT AND PER EMPLOYEE FOR EXISTING CONDITION, BASELINE PLUS PROJECTS, AND PROPOSED GENERAL PLAN***

| *LAND USE* | *UNITS* | *EXISTING CONDITION (2019 BASELINE)* | *THRESHOLD (85 PERCENT OF BASELINE)* | *BASELINE PLUS DEVELOPMENT PROJECTS* | *PROPOSED GENERAL PLAN* |
|---|---|---|---|---|---|
| Single family | VMT per dwelling unit | 103.8 | 88.2 | **100.2** | 75.4 |
| Multi family | VMT per dwelling unit | 78.6 | 66.8 | **74.7** | 57.2 |
| Age restricted | VMT per dwelling unit | 44.1 | 37.5 | **40.5** | 28.4 |
| Restaurant | VMT per employee[1] | 186.0 | 158.1 | **179.5** | **228.6** |
| Industrial | VMT per employee | 75.3 | 64.0 | 62.8 | **74.9** |
| Office | VMT per employee | 32.4 | 27.5 | **35.0** | **43.1** |
| Retail | VMT per employee | 118.9 | 101.1 | **130.0** | **211.5** |
| All residential | VMT per dwelling unit | 94.8 | NA[5] | 91.6 | 69.3 |
| All residential | VMT per resident[2] | 29.8 | NA | 28.8 | 21.8 |
| All employment | VMT per employee | 82.2 | NA | 82.5 | 112.8 |
| All land uses | VMT per service population[2,3] | 36.7 | NA | 38.3 | 41.4 |
| Total VMT | VMT | 3,755,100 | NA | 4,957,000 | 9,921,000 |

*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*
*[1]BASED ON 3.18 [5]NA = NOT APPLICABLE, METRIC FOR INFORMATIONAL PURPOSES ONLY*
*SOURCE: FEHR & PEERS, 2020*

Table 3.14-6 compares the VMT per dwelling unit and VMT per employee associated with proposed General Plan implementation with the threshold. As shown in the table, the proposed General Plan would exceed VMT thresholds. While the proposed General Plan is not expected to result in VMT per dwelling unit exceeding 85 percent of baseline for residential-related land uses, the proposed General Plan is expected to result in VMT per employee exceeding 85 percent of baseline for employment-related land uses

***TABLE 3.14-6: VMT ANALYSIS***

| *LAND USE* | *UNITS* | *THRESHOLD* | *PROPOSED GENERAL PLAN*[1] | *REDUCTION NEEDED TO ACHIEVE THRESHOLD* |
|---|---|---|---|---|
| Single family | VMT per dwelling unit | 88.2 | 75.4 | - |
| Multi family | VMT per dwelling unit | 66.8 | 57.2 | - |
| Age restricted | VMT per dwelling unit | 37.5 | 28.4 | - |
| Restaurant | VMT per employee | 158.1 | **228.6** | 31% |
| Industrial | VMT per employee | 64.0 | **74.9** | 15% |
| Office | VMT per employee | 27.5 | **43.1** | 36% |
| Retail | VMT per employee | 101.1 | **211.5** | 52% |

*NOTES:* [1]***BOLD*** *= EXCEEDS THRESHOLD*
[2]*VMT PER EMPLOYEE RATIOS INCLUDE ALL TRIPS BY EMPLOYEES, CUSTOMERS, AND DELIVERIES.*
*SOURCE: FEHR & PEERS, 2020*

This result is due to the change in the balance between jobs and housing in Manteca, which is based upon the large increases in employment shown in Table 3.14-3. In the future, fewer residents are expected to leave the City for employment, reducing VMT per dwelling unit, but more employees and customers are expected to travel to employment centers, increasing VMT per employee. If such employment growth does not occur, actual VMT per dwelling unit could be higher, and VMT per employee could be lower, than estimated for General Plan buildout conditions.

As shown in Table 3.14-6, the proposed General Plan would result in VMT increases that exceeding the threshold for employment-related land uses. Therefore, this impact is **significant**. As previously described, this result is due to the change in the balance between jobs and housing in Manteca, which is based upon the large increases in employment shown in Table 3.14-3. In the future, more employees and customers are expected to travel to employment centers, increasing VMT per employee.

The updated General Plan includes policies designed to reduce vehicle travel and vehicle miles traveled. The Circulation Element addresses providing adequate pedestrian, bicycle, and transit facilities and opportunities, promoting non-vehicle travel modes, requiring employers with 50 or more employees to implement TDM programs, and ensuring regional coordination on trip and VMT reduction efforts. General Plan policies and actions that contribute to VMT reductions are identified below.

## GENERAL PLAN POLICIES AND ACTIONS THAT REDUCE POTENTIAL IMPACTS

### CIRCULATION ELEMENT POLICIES

*C-2.1 Promote development of a future roadway system as shown in the Major Streets Master Plan, Figure CI-1, with streets designed in accordance with the City's standard plans to provide multiple, direct, and convenient routes for all modes and to provide high-volume, multi-lane facilities with access controls, as needed, to preserve the through traffic carrying capacity of the facility.*

*C-2.4 Design street improvements to provide multiple, direct, and convenient routes for all modes.*

*C-6.3 Support regional freight planning efforts including regional improvement of logically networked STAA truck route such as Roth Road, Airport Way, SR 99 Frontage Roads, and French Camp Road.*

*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 transportation demand management (TDM) programs.*

*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.*

### CIRCULATION ELEMENT ACTIONS

*C-2b When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for 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 provided through walls and berms to minimize travel distances and increase the viability walking and bicycling.*

*C-2g To support the City's goals of reducing VMT, minimizing maintenance costs, and encouraging active transportation, any new or substantially modified roadway shall be as narrow as feasible while being consistent with LOS standards, goods movement policies, and safety best practices. In general,*

*this implementation measure can be achieved by constructing narrower traffic lanes, although wider lanes may be necessary on certain truck routes.*

*C-4a Periodically update the Active Transportation Plan 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-5a Periodically review transit needs in the city 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-7a Provide information about transit services, ridesharing, vanpools, and other transportation alternatives to single occupancy vehicles at City Hall, the library, and on the City website.*

*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-1c. 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 should consider the list of potential measures 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)*
- *Encourage telecommuting and alternative work schedules (up to 4.5 percent)*
- *Implement car-sharing programs (up to 5 percent)*
- *Implement parking management and pricing (up to 0.7 percent)*
- *Implement subsidized or discounted transit program (up to 3 percent)*
- *Implement commute trip reduction marketing and launch targeted behavioral interventions (up to 3 percent)*

**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.*

*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).*

### RESOURCE CONSERVATION ELEMENT POLICIES

*RC-5.1 Ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicle trips.*

*RC-6.1 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 economy clean fuel for city vehicle fleets, when feasible.*
- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*

### RESOURCE CONSERVATION ELEMENT ACTIONS

*RC-6b 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.*

*RC-6d 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.*

CONCLUSION

The VMT generated by buildout of the proposed General Plan would exceed the VMT threshold of 85 percent of baseline. Implementing the proposed General Plan policies and actions will help to reduce VMT through encouraging non-vehicle transportation modes, expanded transit services, and developing TDM program requirements including measures to reduce VMT associated with new development. However, reductions in VMT per employee from 15 to 52 percent would be required to achieve thresholds as shown in Table 3.14-5. Additionally, the feasibility and effectiveness of a local or regional VMT impact bank or exchange is unknown at this time. The City cannot demonstrate definitively at this time that implementation of these policies would achieve VMT reductions to meet the VMT per employee thresholds. This impact is **significant**.

The General Plan goals, policies, and implementation measures listed above will achieve meaningful reductions in VMT generated by land uses within the City. However, reductions in VMT per employee from 15 to 52 percent would be required to achieve thresholds as shown in Table 3.14-5. The City at this time cannot demonstrate that VMT will be reduced to the degree that it meets these thresholds. VMT reduction also depends on factors such as demographic change, household preferences for housing types and locations, the cost of fuel, and the competitiveness of regional transit relative to driving, which relates to congestion along vehicular commute routes that are not under the City's jurisdiction, as well as transit provided by agencies other than the City. The feasibility and effectiveness of a local or regional VMT impact bank or exchange is unknown at this time. Therefore, this impact is considered ***significant and unavoidable***.

## 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 (Less than Significant)

Implementation of the General Plan could lead to increases in the city's population and employment that would increase the demand for pedestrian and bicycle facilities and transit facilities and services.

The City adopted an ATP that establishes the City's goals and objectives for pedestrian and bicycle travel. The ATP establishes standards for bicycle and pedestrian facilities and identifies planned bicycle and pedestrian network facilities to address the City's bicycle and pedestrian needs. The Circulation Element developed as part of the proposed General Plan contains Policies C-4.1 and C-4.5 which support bicycle and pedestrian routes and facilities that are consistent with the Active Transportation Plan. The proposed General Plan contains additional policies and implementing actions that support access to and the performance of transit, bicycle, and pedestrian facilities. These applicable policies and implementing actions are listed below. Further, the Plan includes mixed-use development that is supportive of non-automotive modes. The proposed General Plan includes policies and actions that support implementation of applicable bicycle and pedestrian plans and ensure new transportation infrastructure includes adequate bicycle and pedestrian facilities.

The City's PFIP is also developed and periodically updated to provide funding for local roadway expansion and improvements, which include bicycle and pedestrian facilities.

While there are no established standards regarding transit levels of service that have been adopted by the City or transit agencies, including offered by Manteca Transit or the San Joaquin Regional Transit District, the proposed General Plan Policy C-5.1 states, "Encourage and plan for the expansion of regional bus service in the Manteca area." Policy C-5.11 also states, "As new areas and neighborhoods of the City are developed, fund transit expansion (including capital, operations, and maintenance) to provide service levels consistent with existing development.". The General Plan includes implementation actions to plan for transit services, including reviewing transit needs and adjusting bus routes to serve changing land use and transit demand patterns, to identify improvements to increase access to local transit centers and stations, to work with the school districts to identify opportunities for shared transit systems, and to review and update the City's funding programs to ensure that adequate transit services are provided.

The proposed General Plan would not conflict with adopted programs, plans, policies, or ordinances that address the circulation system, including transit, bicycle, and pedestrian facilities. As previously described, the General Plan Update includes policies and actions that ensure that the circulation system, including transit, bicycle, and pedestrian facilities, are consistent with applicable programs, plans, policies, and ordinances and address the needs of growth accommodated by the proposed General Plan. Therefore, this impact is ***less than significant***.

### GENERAL PLAN POLICIES AND ACTIONS THAT REDUCE POTENTIAL IMPACTS

#### CIRCULATION ELEMENT POLICIES

*C-4.1 Through regular updates to the City's Active Transportation Plan, establish a safe and 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 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 lanes 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.*

*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 expansion (including capital, operations, and maintenance) to provide service levels consistent with existing development.*

### CIRCULATION ELEMENT ACTIONS

*C-2b When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for 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-2c Review and update the City's standard plans to ensure that the plans reflect the City's goals and policies for the circulation system, including cross-sections that provide for landscape-separated sidewalks along arterials and non-residential streets, best practices for traffic safety, and accommodate all users.*

*C-2f Ensure that bicycle and pedestrian access is provided through walls and berms 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 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-4c Increase bicycle safety by:*

- *Providing bicycle paths and lanes that promote bicycle travel.*
- *Sweeping, repairing, and maintaining vegetation along bicycle lanes and paths on a continuing, regular basis.*
- *Ensuring that bikeways are delineated and signed in accordance with the latest editions of the California MUTCD and AASHTO standards and lighting is provided, where feasible.*

- *Ensuring that all new and improved streets have bicycle-safe drainage grates and eliminate uneven pavement, gravel, encroaching vegetation, and other conditions that may impede user safety, expectations, and convenience.*

*C-4d Add bicycle facilities whenever possible in conjunction with road rehabilitation, reconstruction, or re-striping projects.*

*C-5a Periodically review transit needs in the city 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-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-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, and on the City website.*

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

Implementation of the proposed General Plan would result in increased development, which would result in new roadways and would increase the number of users on the city's transportation system. As shown in Appendix A, at General Plan buildout ADT would increase on all but one of 44 studied roadway segments within the City, and level of service would worsen on 28 of 44 segments. There will be a need to ensure that hazards are not increased and that adequate emergency access provisions are made to accommodate increased population and growth.

It is noted that the Plan is a programmatic-level document, and hazards are typically assessed at the project-level. Potential associated with future development projects would be analyzed and evaluated in detail through the environmental review process. The City's design and construction standards and specifications provide for coordinated and standardized development of City facilities, including roadways. The standards apply to, regulate, and guide the design and preparation of plans, and the construction of streets, highways, alleys, drainage, traffic signals, site access, and related public improvements.

However, new development will increase traffic at at-grade rail crossings, potentially increasing collisions, and funds have not been identified to implement grade separations. Additionally, the increased level of traffic and delays may increase emergency response times. New development will

also result in more people living and working at greater distance from existing fire and police facilities, with potentially longer response times.

The Circulation Element developed as part of the proposed General Plan contains policies and actions in support of safe circulation by all modes, including requirements that roadways are designed consistent with City standards, designed to provide adequate emergency access and address safety concerns. The Circulation Element includes policies to pursue funding for grade separation and to update the PFIP Program to include funding for grade-separated crossings at existing roadways. These applicable policies are listed below.

With implementation of the General Plan policies and actions related to circulation, hazards, and emergency access, impacts to emergency circulation and access associated with implementation of the General Plan Update would be ***less than significant***.

### GENERAL PLAN POLICIES AND ACTIONS THAT REDUCE POTENTIAL IMPACTS

#### CIRCULATION ELEMENT POLICIES

*C-1.1 Strive to balance levels of service (LOS) for all modes (vehicle, transit, bicycle, and pedestrian) to maintain a high level of access and mobility, while developing a safe, complete, and efficient circulation system. The impact of new development and land use proposals on VMT, LOS and accessibility for all modes should be considered in the review process.*

*C-2.3 Require new development to pay a fair share of the costs of street and other transportation improvements based on impacts to LOS and other modes in conformance with the goals and policies established in this Circulation Element and the Public Facilities Implementation Program (PFIP).*

*C-2.5 Include sound attenuation walls in the frontage improvements associated with Arterial roadways in accordance with City adopted Street Standards and Specifications, as amended.*

*C-2.6 Align residential and collector street intersections with collector and arterial streets with other residential and collector streets, where feasible, to maintain a high degree of connectivity between neighborhoods, minimize circuitous travel, and to allow bicyclists and pedestrians to travel conveniently and safely from one neighborhood to another without using major streets.*

*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 techniques shall be applied appropriately at residential and collector street intersections with collector and arterial streets in order to allow bicyclists and pedestrians to travel conveniently and safely from one neighborhood to another.*

*C-2.9 Where traffic congestion, pedestrian travel, collision history, or other factors warrant the installation of a traffic signal, the feasibility of a roundabout shall also be evaluated on a whole life cycle cost basis. In general, a roundabout should be installed at these locations unless right of way,*

*cost, operational concerns, design limitations, or other issues preclude the installation of a roundabout.*

*C-2.10 Development of private streets may be allowed in new residential projects that demonstrate the ability to facilitate police patrol, emergency access, and solid waste collection as well as fund on-going maintenance.*

*C-2.11* Promote infill development that closes gaps and bottlenecks in the circulation system.

*C-2.12 Require new development to establish joint-use driveways and/or cross access easements to provide access when feasible and/or if: 1) located on street segments identified in C-1.2, 2) located on streets with intersections approaching not meeting LOS D, or 3) the shared access will reduce vehicle miles traveled as determined by the City's Community Development Department. The requirement is intended to preserve the movement function of the major thoroughfare system by requiring development of parallel roads or cross access easements to connect developments as they are permitted along major roads, providing more efficient connections to destinations, and reducing air emissions.*

*C-2.13 Require development projects to arrange streets in an interconnected block pattern, so that pedestrians, bicyclists, and drivers are not forced onto arterial streets for inter- or intra-neighborhood travel. This approach will also ensure safe and efficient movement of emergency responders and ensure that vehicle miles traveled are minimized within the community. The street pattern shall include measures to provide a high level of connectivity and decrease vehicle miles traveled.*

*C-2.14 Residential subdivisions with lots fronting on an existing arterial street shall provide for separate roadway access to the maximum extent feasible, with access to residential lots provided from residential or collector streets. For those properties that currently front arterial streets, consideration should be given to providing separate roadway access as a condition of approval for any redevelopment or subdivision of the property.*

*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-2.16 Aggressively pursue state and federal funding to augment the PFIP and implement the City's Circulation Element.*

*C-2.17 Coordinate with neighboring jurisdictions, including Caltrans, San Joaquin Council of Governments (SJCOG), San Joaquin County, the City of Lathrop, and the City of Ripon to pursue funding for the following regional facilities:*

- *A new interchange at McKinley Avenue and SR 120;*
- *A new interchange at Austin Road/McKinley Avenue and SR 99;*
- *A new interchange on SR 99 between Lathrop Road and French Camp Road;*

- *An easterly extension of the SR 120 freeway towards Oakdale;*
- *Grade separated crossings of the Union Pacific Railroad line at Roth Road, Louise Avenue, Yosemite Avenue, and McKinley Avenue; and*
- *Regional bicycle lanes and bicycle paths.*

*C-2.18 Prohibit the creation of traffic, bicycle, and pedestrian hazards and conflicts with vehicular traffic movements in new development, infill development, and redevelopment areas and pursue opportunities to improve conditions where there are existing conflicts to ensure that the pedestrian and bicycle network provides a direct and convenient route equal to or greater than vehicular routes in new development, infill, and redevelopment areas.*

*C-2.19 In the development of new projects, give special attention to maintaining/ensuring adequate corner-sight distances appropriate for the speed and type of facility, including intersections of city streets and private access drives and roadways.*

*C-2.20 Encourage the development of landscape-separated sidewalks along roadways (particularly arterials and non-residential streets) when feasible to discourage pedestrian/vehicle conflicts and be consistent with complete streets concepts.*

*C-2.21 Pursue funding for grade separation of the remaining at-grade railroad crossings within the City.*

*C-2.22 Incorporate mountable medians, shoulders to bypass queued vehicles, emergency signal preemption, and other features to improve emergency response times as appropriate and feasible on new roadways and on existing roadways.*

*C-2.23 Construct new facilities for emergency services as new areas of the City are developed to maintain response time consistent with existing development.*

*C-4.1 Through regular updates to the City's Bicycle Master Plan and/or development of an Active Transportation Plan, establish a safe and 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 (figure to be developed based on the Bicycle Master Plan following selection of the preferred land use map by the City Council). 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 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.*

### CIRCULATION ELEMENT ACTIONS

*C-2a Maintain the Major Street Master Plan (Figure CI-1) showing the existing and proposed ultimate right-of-way and street width for each road segment within the City's Sphere of Influence and Area of Interest. The Major Street Master Plan shall also indicate the necessary right-of-way to be acquired or dedicated and the expected method of financing roadway improvements (i.e., City-*

*funded or property owner/developer- funded). The Major Street Master Plan shall be regularly updated.*

*C-2b When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for 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-2c Review and update the City's standard plans to ensure that the plans reflect the City's goals and policies for the circulation system, including cross-sections that provide for landscape-separated sidewalks along arterials and non-residential streets, best practices for traffic safety, and accommodate all users.*

*C-2d Require new development to participate in the implementation of transportation improvements identified in the Major Street Master Plan. Participation could include the construction of roadways, improvements to roadways, payment into the PFIP program, payment into other fee programs, or fair-share payments. In general, the infrastructure needs and methods of participation will be determined through an environmental impact report or transportation impact analysis.*

*C-2n Update the PFIP program and other applicable programs to implement additional grade separations at existing at-grade rail crossings in Manteca and to provide features to improve response time on new roadways and existing roadways.*

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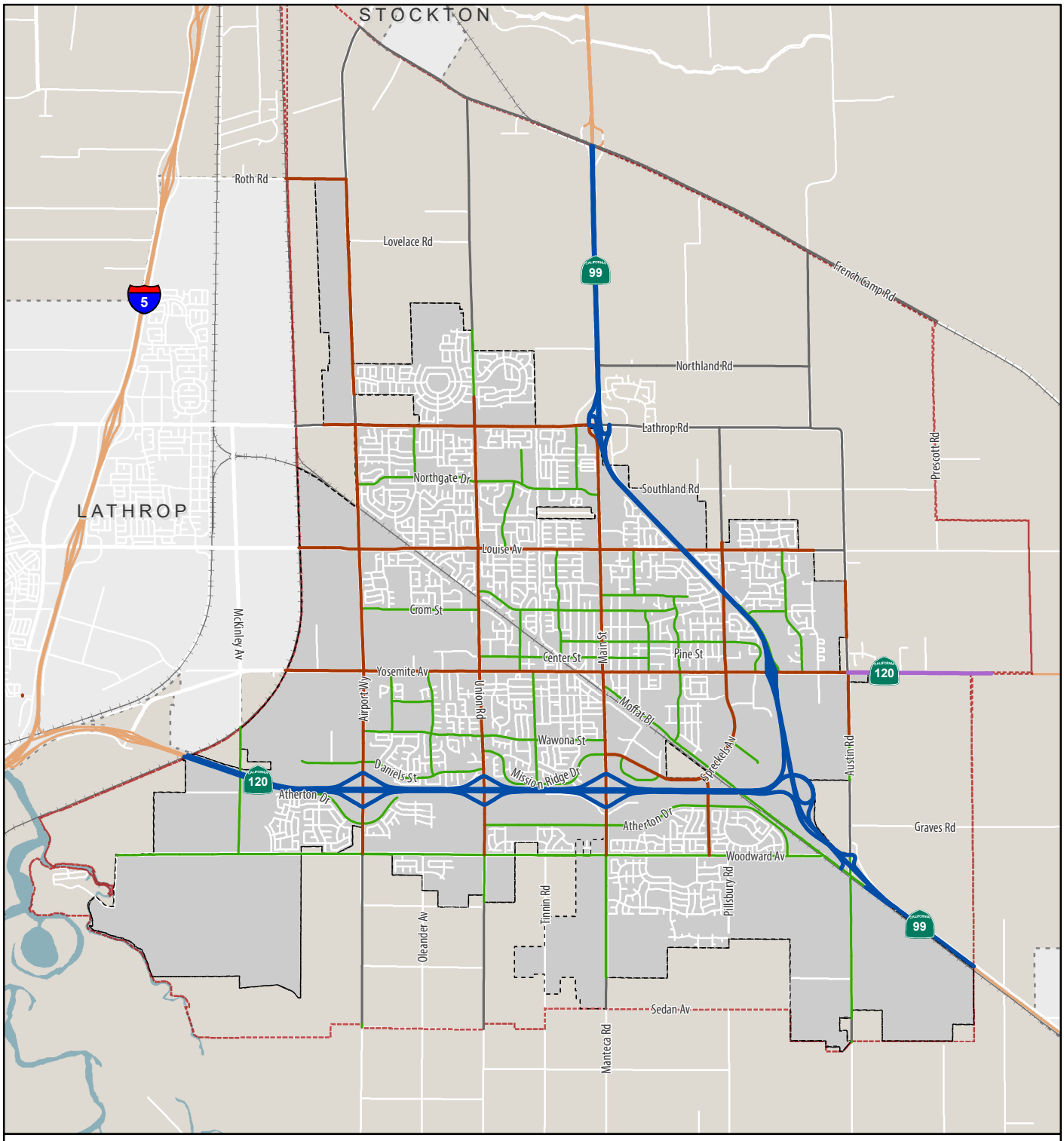


**Functional Classification**

- Freeway/Ramps
- Expressway
- Arterial
- Collector
- Rural Road
- Manteca City Limits
- Planning Area

**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-1: Roadway Network Functional Classification

0 ½ 1

Miles

1:75,000

*Sources: City of Manteca; San Joaquin County*
*Map date: 11/18/2020*

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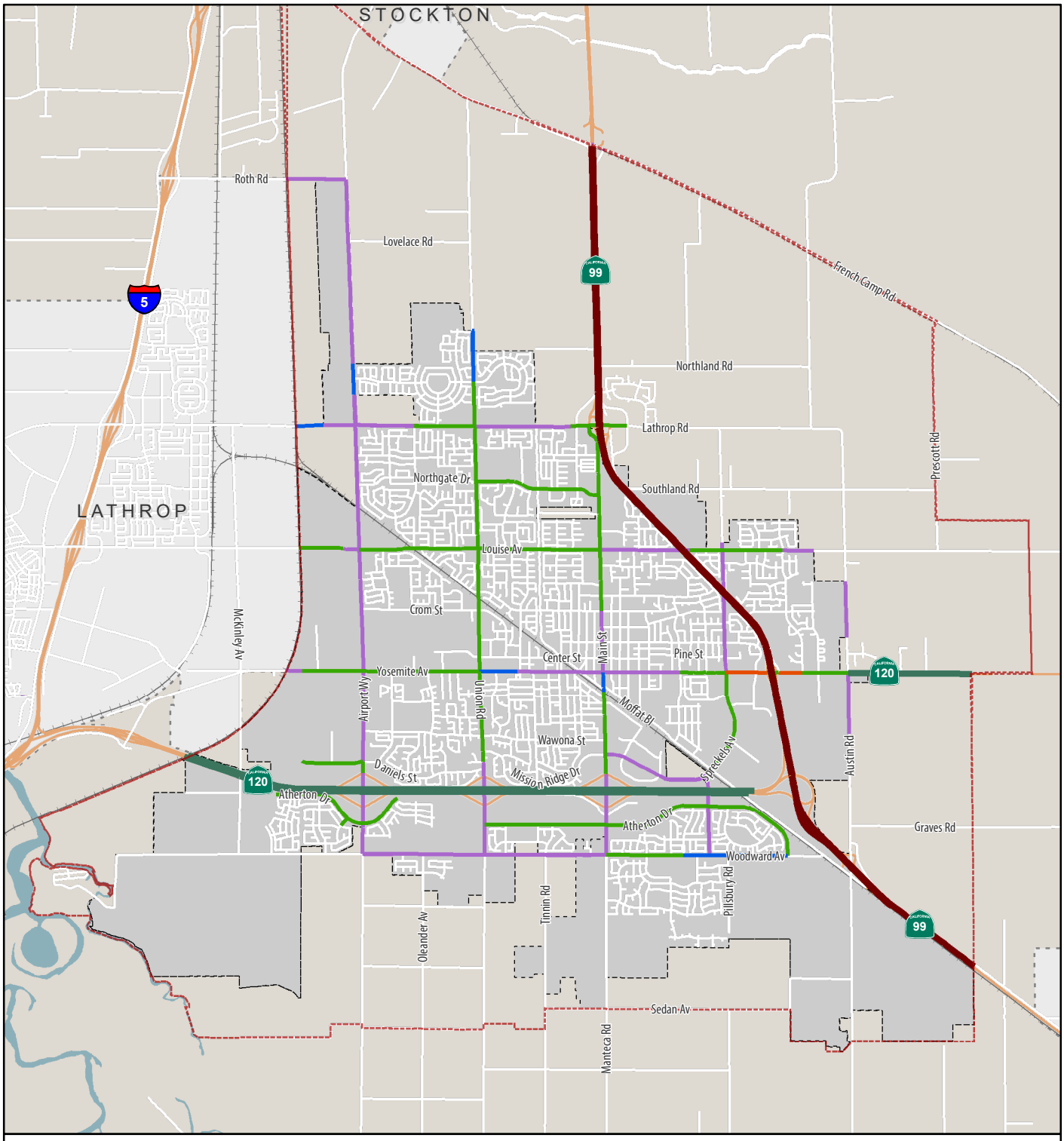


**Number of Lanes**

- 2
- 3
- 4
- 5
- 4-lane Freeway/Expressway
- 6-lane Freeway

- Manteca City Limits
- Planning Area

Note: Streets shown in white primarily residential.

**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-2: Number of Lanes

N

0 ½ 1

Miles

1:75,000

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*Sources: City of Manteca; San Joaquin County*
*Map date: 11/18/2020*

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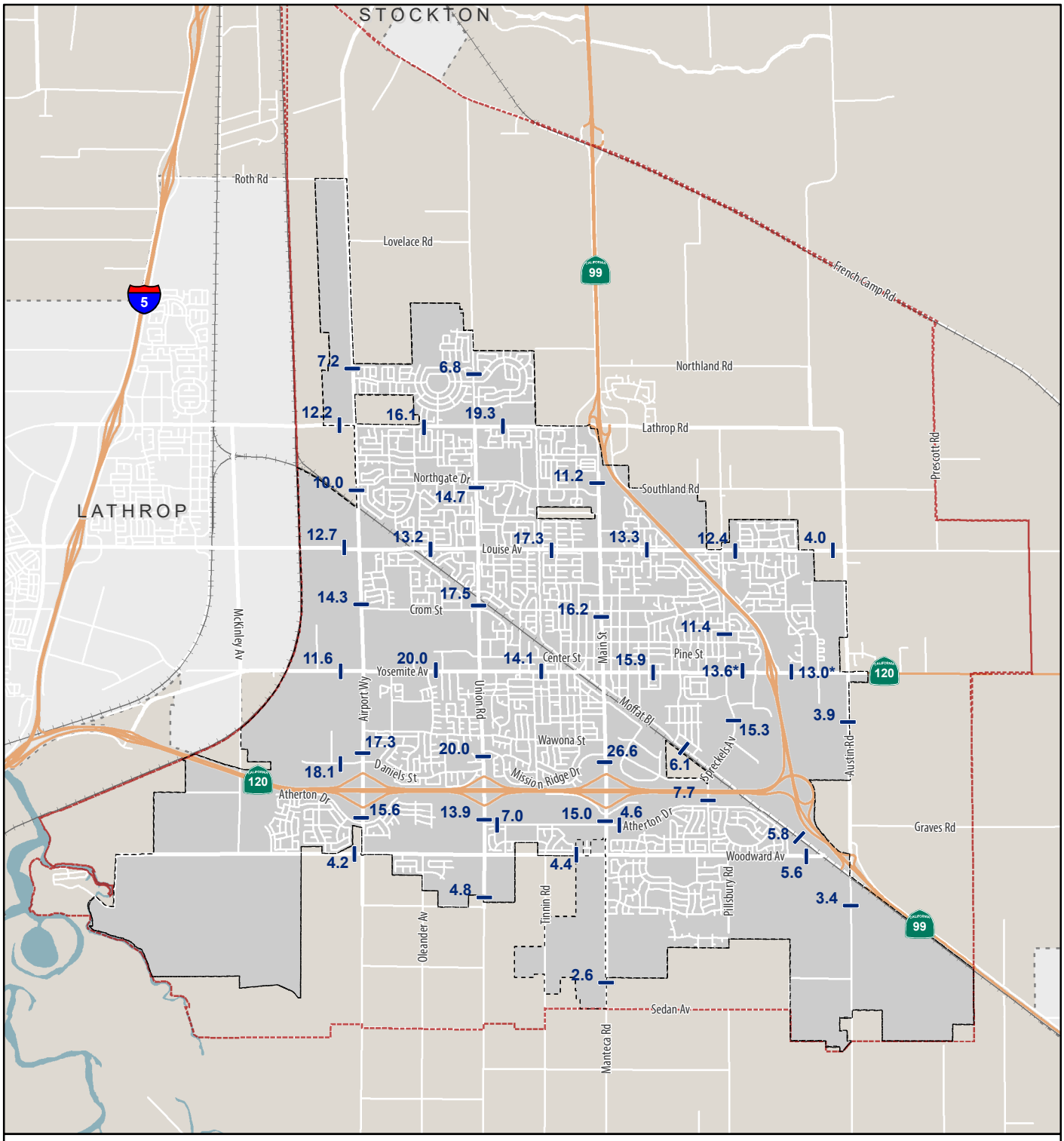


**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-3: Average Daily Traffic

Manteca City Limits

Planning Area

X.X Average Daily Traffic Volume (x 1,000) Rounded to nearest 100

* Volumes for 3 eastbound lanes and 2 westbound lanes provided separately.

N

0 ½ 1

Miles

1:75,000

Note: Counts conducted on October 25th and 26th, and November 9th and 10th, 2016.

*Sources: City of Manteca; San Joaquin County, Fehr & Peers*
*Map date: 11/30/2020*

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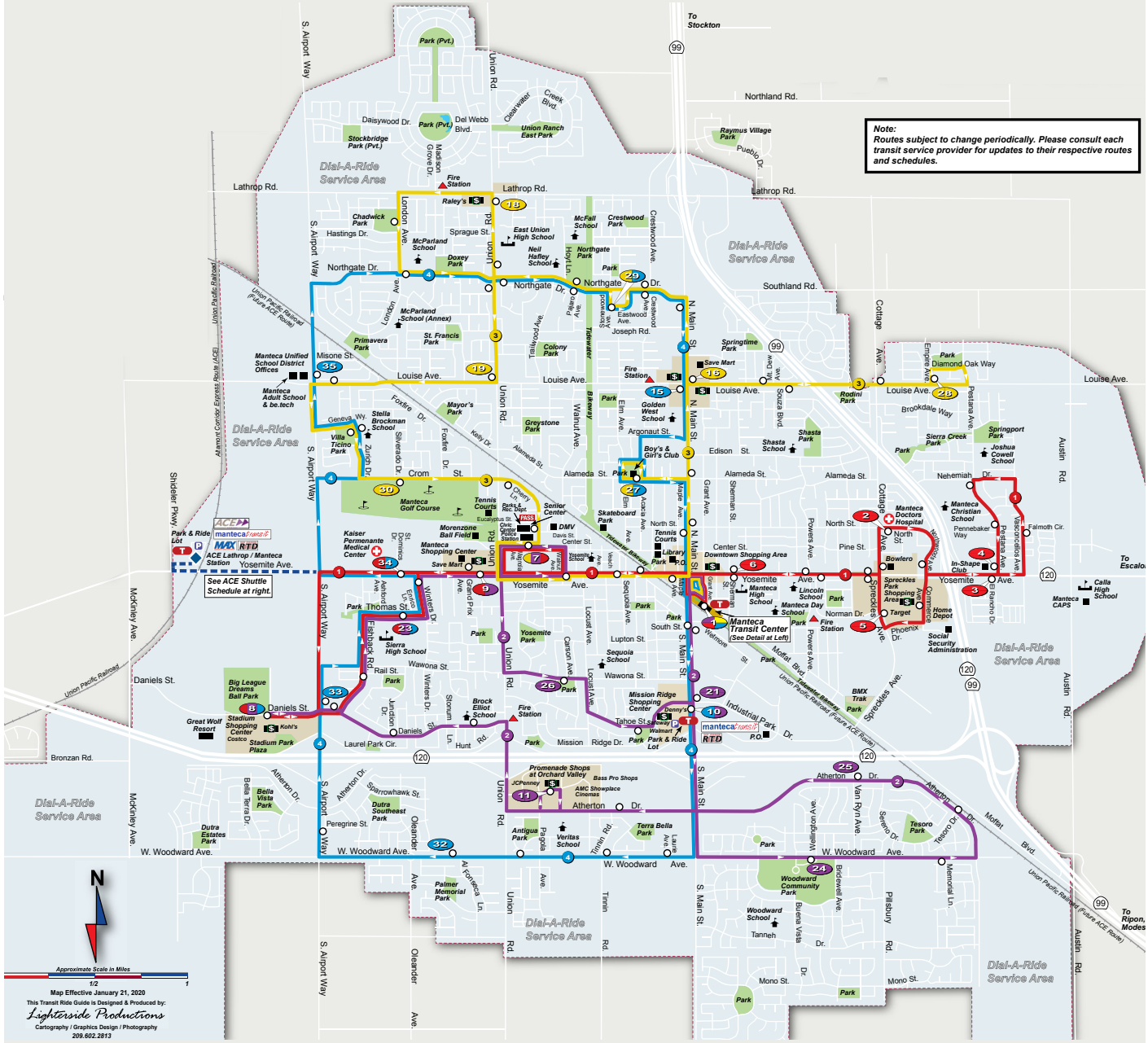

**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-4: Manteca Transit System Map

*Source: City of Manteca*
*Map date: 11/17/2020*

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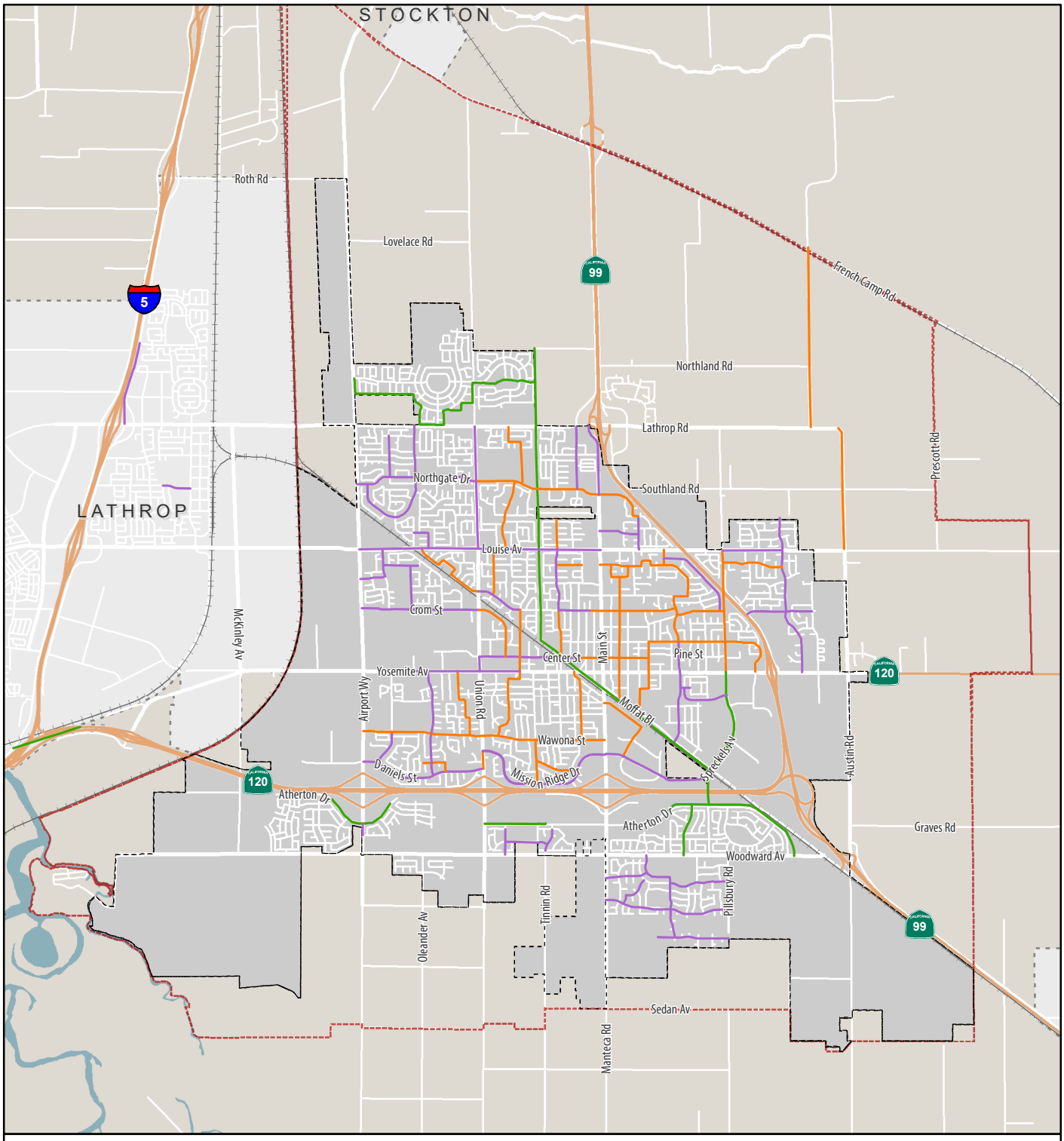


Class I - Multi-Use Path

Class II - Bicycle Lane

Class III - Bicycle Route

Manteca City Limits

Planning Area

**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-5: Bicycle Network

0 ½ 1

Miles

1:75,000

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*Source: Fehr & Peers*

*Map date: 11/18/2020*

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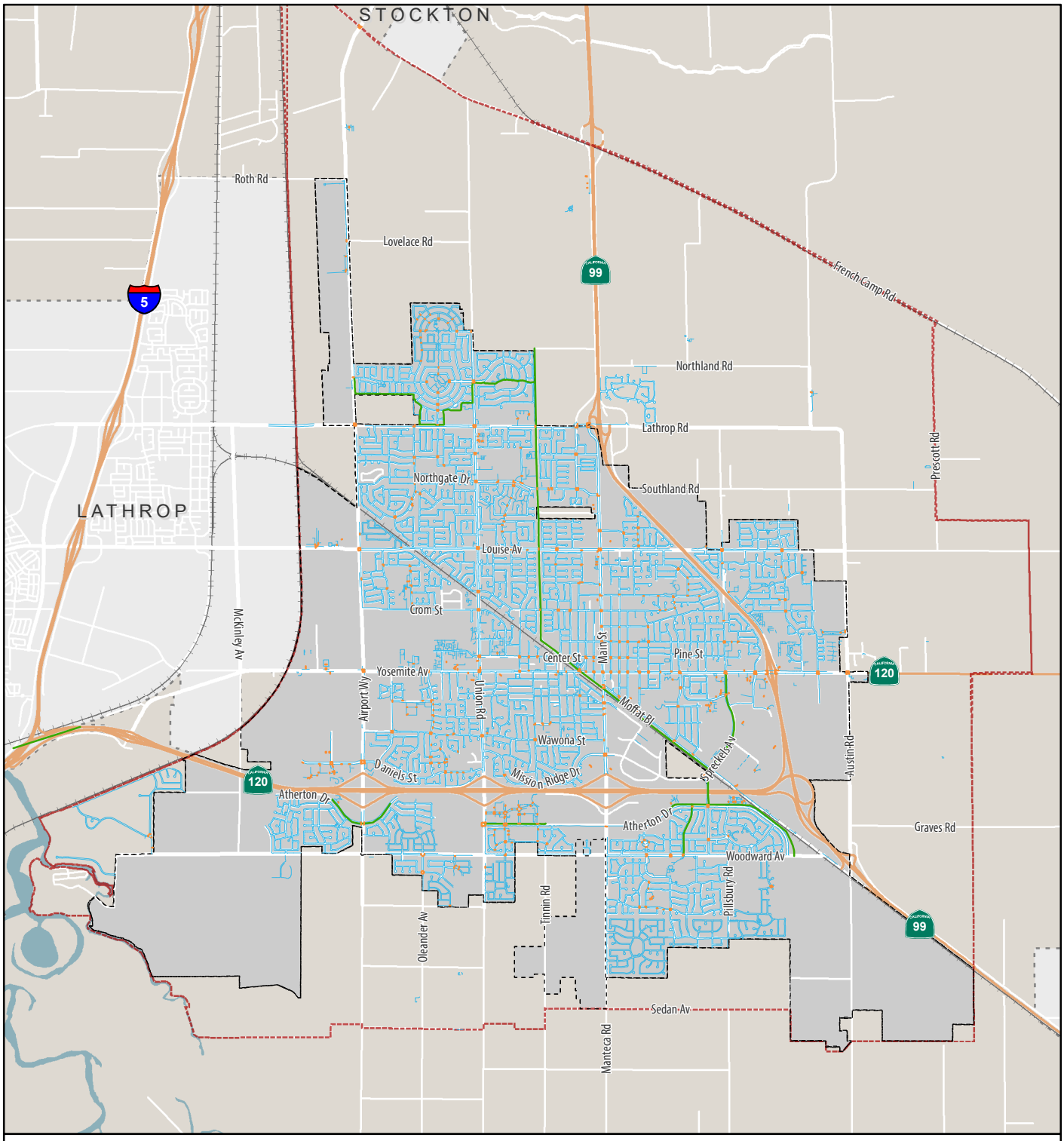


Existing Crosswalk

Existing Sidewalk

Class I - Multi-Use Path

Manteca City Limits

Planning Area

**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-6: Pedestrian Network

N

0 ½ 1

Miles

1:75,000

*Source: Fehr & Peers*
*Map date: 11/18/2020*

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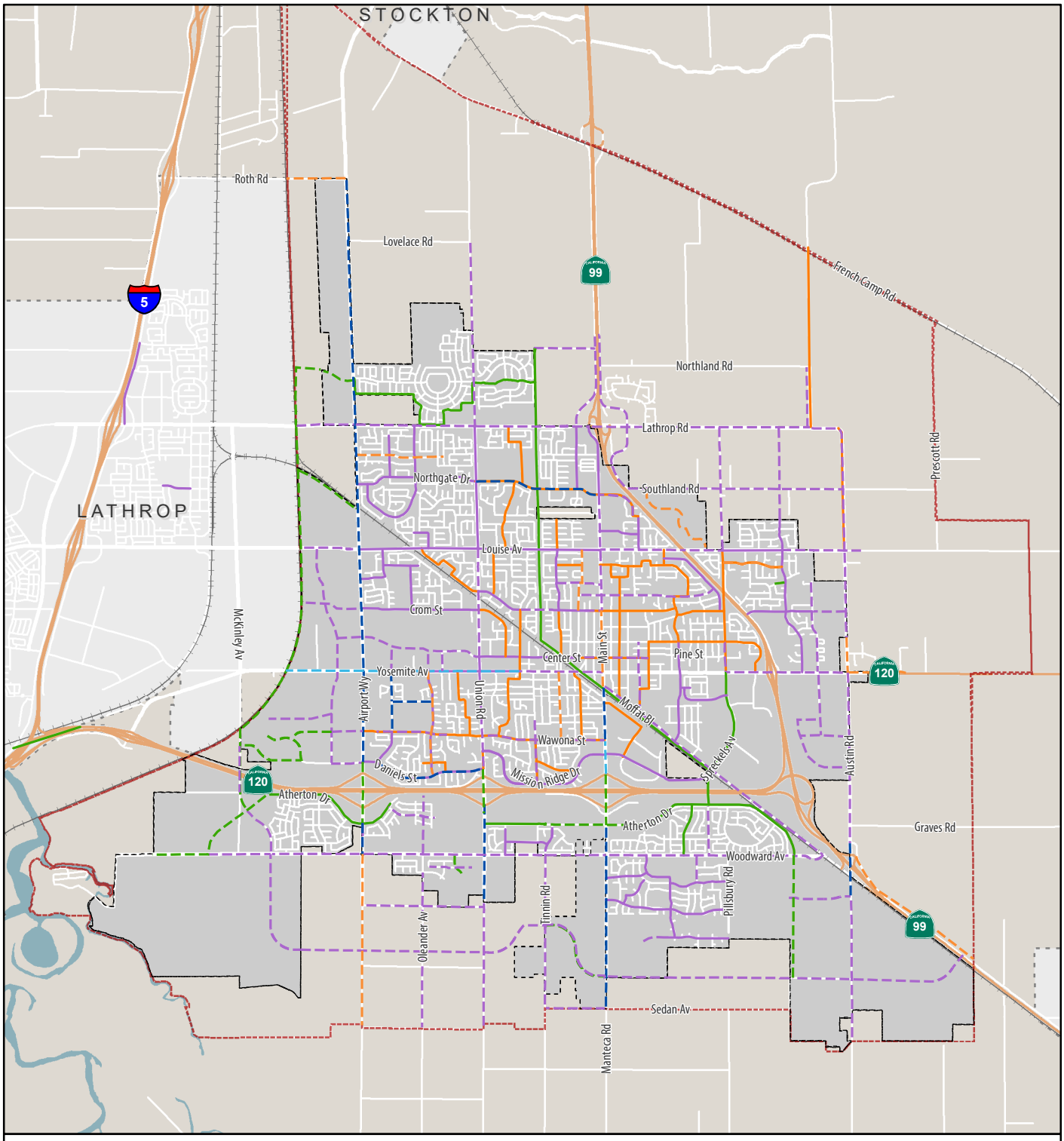


Existing Bicycle Facilities

- Class I - Multi-Use Path
- Class II - Bicycle Lane
- Class III - Bicycle Route

Planned Bicycle Facilities

- Class I Bike Path
- Class II Bike Lanes
- Class II Buffered Bike Lanes
- Class III Bike Route
- Class IV Separated Bikeway

- Manteca City Limits
- Planning Area

**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-7: Planned Bicycle Network

N

0 ½ 1

Miles

1:75,000

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

*Source: Fehr & Peers*

*Map date: 11/18/2020*

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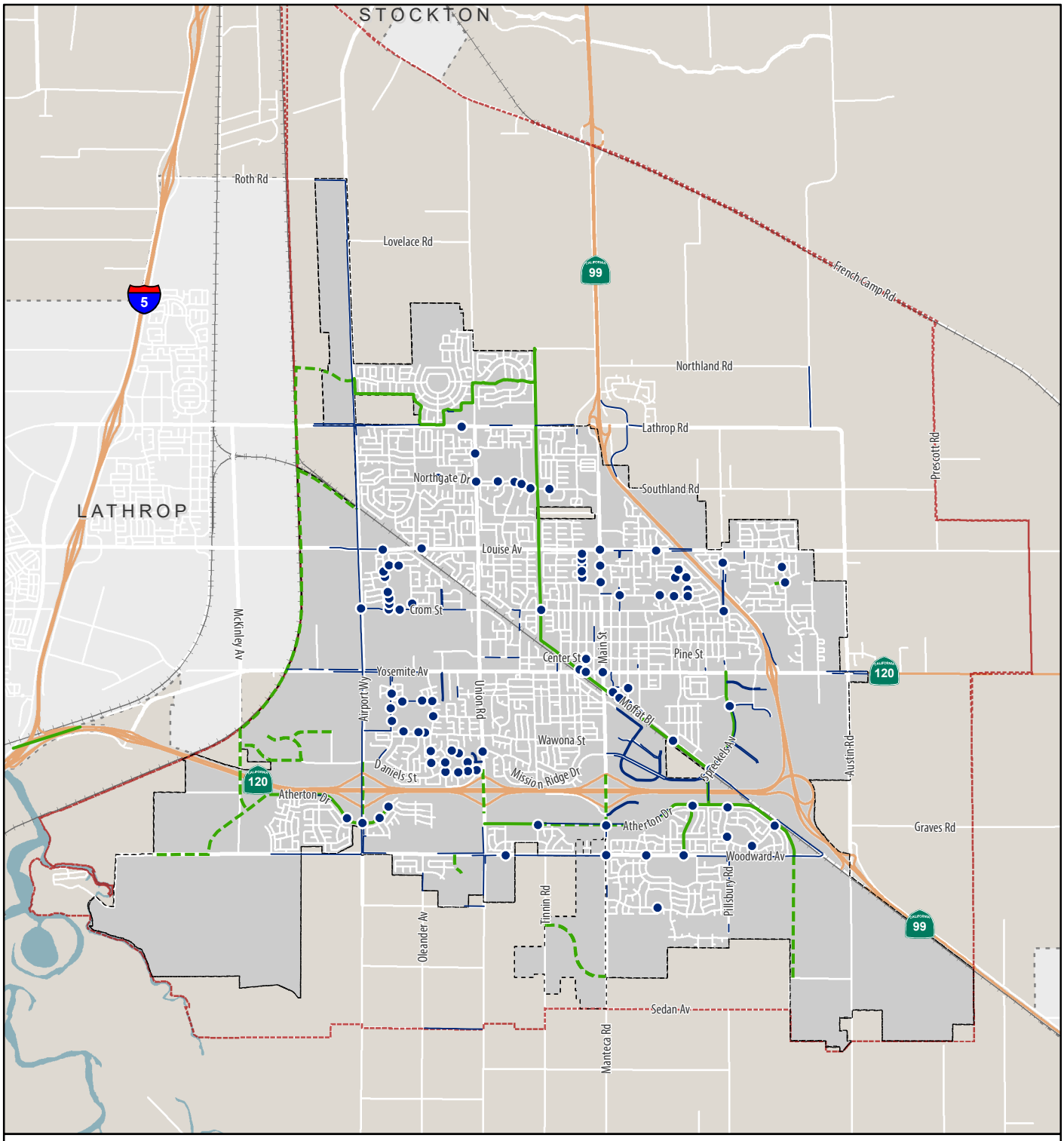


Planned Crossing Improvement

Planned Sidewalk

Planned Class I Bike Path

Existing Class I Bike Path

Manteca City Limits

Planning Area

**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-8: Planned Pedestrian Network

N

0 ½ 1

Miles

1:75,000

*Source: Fehr & Peers*
*Map date: 11/18/2020*

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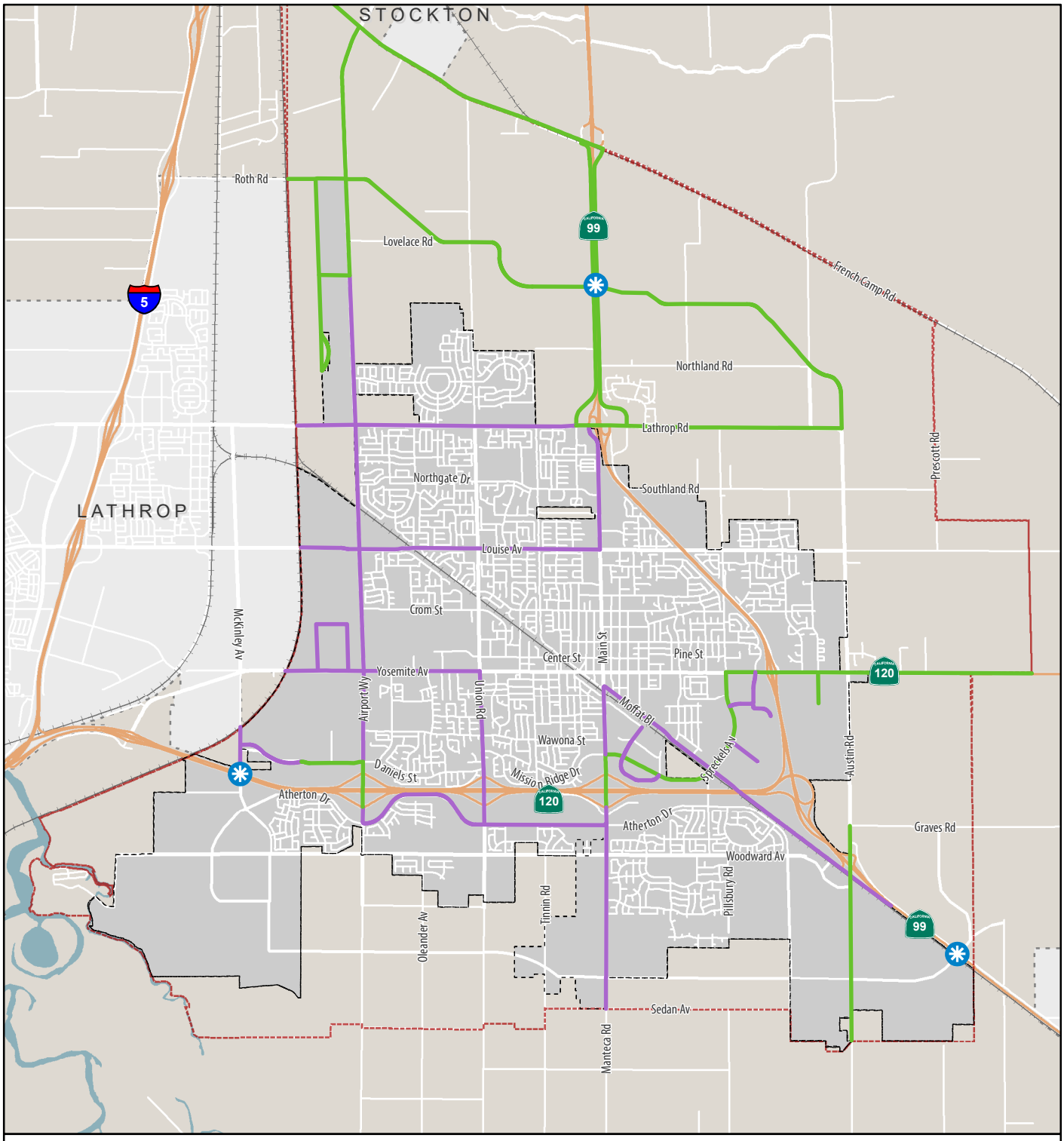


**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-9: Proposed Truck Routes

- Future Interchange
- S.T.A.A. Route
- CA Legal Truck Route
- Manteca City Limits
- Planning Area

N

0 ½ 1
Miles
1:75,000

De Novo Planning Group
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*Sources: City of Manteca; San Joaquin County, Fehr & Peers*
*Map date: 2/19/2021*

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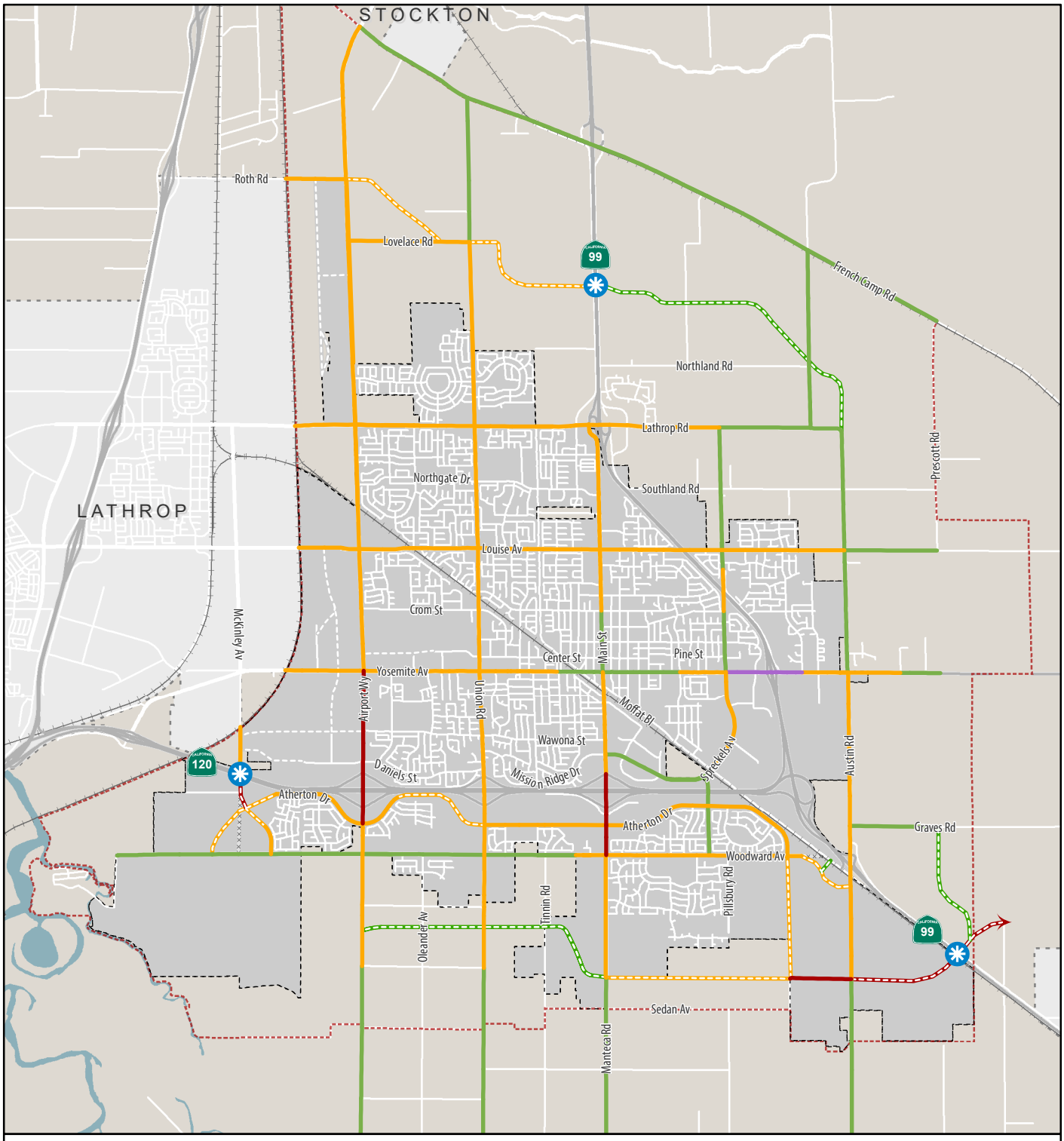


Future Interchange

Future Road (Dashed)

Roads to be Removed

**Future Lanes**

2-lane

4-lane

5-lane

6-lane

Manteca City Limits

Planning Area

**CITY OF MANTECA GENERAL PLAN**

Figure 3.14-10: Manteca Major Streets Master Plan Future Lanes

N

0 ½ 1

Miles

1:75,000

Note:
SR 120/McKinley Avenue interchange is fully funded with right-of-way acquired. Funding for SR 99/Raymus Parkway and SR 99/Lovelace Road interchanges is to be determined.

*Sources: Fehr & Peers*
*Map date: 2/24/2021*

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Utilities are critical to providing safe drinking water, disposal and treatment of wastewater, stormwater drainage, and solid waste disposal. This section provides a background discussion of the utility systems in Manteca including water supplies, wastewater, storm drainage, and solid waste. This section is organized with an existing setting, regulatory setting, and impact analysis.

Comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the Centeral Valley Regional Water Control Board (CVRWQCB) and Pacific Gas & Electric (PG&E) Company. Each of the comments related to this topic are addressed within this section. Full comments received are included in Appendix A.

## 3.15.1 WATER SUPPLIES

### KEY TERMS

**Acre feet:** The volume of one acre of water to a depth of one foot. Each acre-foot of water is equal to approximately 325,851.4 gallons.

**BGS:** Below ground surface.

**GPD:** Gallons per day.

**GPM:** Gallons per minute.

**Groundwater:** Water that is underground and below the water table, as opposed to surface water, which flows across the ground surface. Water beneath the earth's surface fills the spaces in soil, gravel, or rock formations. Pockets of groundwater are often called "aquifers" and are the source of drinking water for a large percentage of the population in the United States. Groundwater is often extracted using wells which pump the water out of the ground and up to the surface. Groundwater is naturally replenished by surface water from precipitation, streams, and rivers when this recharge reaches the water table.

**MG:** Million gallons

**MGD:** Million gallons per day

**Surface water:** Water collected on the ground or from a stream, river, lake, wetland, or ocean. Surface water is replenished naturally through precipitation, but is lost naturally through evaporation and seepage into soil.

### POTABLE WATER SYSTEM

The City's water service area is contiguous with City limits. In 2015, the City served approximately 21,400 connections, and the City's annual potable water use was 11,235 acre-feet/year (AFY), which equates to an average daily use of 10 million gallons per day (mgd) (Kennedy/Jenks Consultants, 2016).

The City's potable water distribution water system is shown on Figure 3.15-1. The City' distribution system is supplied by surface water from South San Joaquin Irrigation District's (SSJID's) South County Water Supply Program (SCWSP) and groundwater wells. Four turnouts deliver surface water from SSJID to the City system, designated M1, M2, M3 and M4. Fifteen potable groundwater wells supply the distribution system, and 32 irrigation wells provide non-potable irrigation supply to parks and other irrigated areas (Manteca, 2017). The system has a single pressure zone with approximately 250 miles of water system pipeline. There are three ground-level storage tanks: the tank at the SSJID M2 turnout on Lathrop Road (1 MG), the tank at the SSJID M3 turnout on West Yosemite Avenue (1 MG), and the Atherton Drive water storage tank (3.7 MG). The M2 and M3 tanks are used to balance the difference between SSJID deliveries and City use, while the Atherton Drive tank balances the difference between City supply and demand.

The 2015 UWMP projected the City's potable water demand to range from 12,844 in 2015 to 20,7530 in 2040, as shown in Table 3.15-1 below. The 2015 demand of 12,844 AFY was adjusted to reflect demand of 388 AFY from development occurring from 2016 through 2019 (see Table 3.15-2), resulting in an estimate of potable water demand in Manteca of approximately 13,232 AFY.

***TABLE 3.15-1: EXISTING AND PROJECTED TOTAL WATER DEMAND IN NORMAL YEARS, AFY***

| | *2015 (ACTUAL)* | *2025* | *2030* | *2035* | *2040* |
|---|---|---|---|---|---|
| Potable and Raw Water Demand | 12,844 | 19,350 | 23,880 | 25,960 | 27,530 |
| Recycled Water Demand[(a)] | 1,463 | 900 | 290 | 740 | 2,240 |
| **Total Water Demand** | **14,307** | **20,250** | **24,170** | **26,700** | **29,770** |

*SOURCE: CITY OF MANTECA 2015 UWMP, TABLE 4-3 TOTAL WATER DEMANDS*

*(A) CURRENT RECYCLED WATER USE IS LIMITED TO UNDISINFECTED SECONDARY EFFLUENT USED TO IRRIGATE FODDER CROPS ON LANDS ADJACENT TO THE CITY'S WASTEWATER TREATMENT PLANT.*

***TABLE 3.15-2: WATER DEMAND FOR DEVELOPMENT FROM 2016 THROUGH 2019***

| *PROPOSED LAND USE* | *AREA, ACRES(A)* | *WATER DEMAND FACTOR, GPD PER ACRE* | *WATER DEMAND, AFY* |
|---|---|---|---|
| Low Density Residential | 129 | 2,240 | 323 |
| Medium Density Residential | 0.3 | 2,800 | 1 |
| Industrial | 108 | 240 | 29 |
| Business Professional[(b)] | 1 | 1,760 | 2 |
| Commercial | 8 | 1,200 | |
| *Subtotal* | *246* | - | *366* |
| Unaccounted-for Water[(d)] | - | - | 22 |
| **Total** | **246** | | **388** |

*SOURCE: WEST YOST, 2020*

*(A) LAND USE FROM DE NOVO PLANNING GROUP, MANTECA PROJECTIONS - LU MAP, SEPTEMBER 2020.*

*(B) ASSUMED BASED ON SIMILAR LAND USE TYPES.*

*(C) ASSUMED TO NOT BE IRRIGATED FROM CITY WATER SUPPLIES.*

*(D) 6 PERCENT OF WATER DEMAND PER 2015 UWMP.*

## WATER SYSTEM SUPPLIES

As noted above, the City's two primary supply sources are surface water, purchased from the SSSJID's SCWSP, and local groundwater. The City also uses recycled water for irrigation, and dust control. On an annual basis, the City's 2015 UWMP indicates that the City's goal is to limit groundwater use to between 47 to 53 percent of total water supply (West Yost 2021).

### Surface Water Supply

In 2005, the SSJID commissioned the Nick C. DeGroot Water Treatment Plant (WTP) for the SCWSP to provide treated surface water from the Stanislaus River to several cities in South San Joaquin County. The cities of Manteca, Lathrop, Escalon, and Tracy have agreements to purchase treated surface water from the SCWSP, but only Manteca, Lathrop and Tracy currently receive treated surface water (Provost & Pritchard Consulting Group, 2016).

The SCWSP provides treated surface water from the Stanislaus River under a 300,000 AFY entitlement. However, the entitlement is dependent on New Melones Reservoir inflow and is subject to curtailment in dry years. Normal water deliveries are provided when the New Melones inflows exceed 600,000 AFY. When inflows are less than 600,000 AFY, the supply is shared equally between SSJID and Oakdale Irrigation District, which also holds a 300,000 AFY entitlement. The SCWSP participants' agreement with SSJID requires that municipal and agricultural users share surface water reductions equally.

An examination of estimated New Melones Inflow from 1885 to 2010, included in SSJID's 2015 Urban Water Management Plan, indicates the full entitlement to SSJID has been available about 80 percent of the time. The average reduction in dry years between 1885 and 2010 was 11 percent. The lowest supply on record was 225,000 AF in both 2014 and 2015 (Provost & Pritchard Consulting Group, 2016)

The City of Manteca has a current Phase 1 allotment of 11,500 AFY, but has not historically used its full allotment of surface water, due to system constraints and, State and SSJID supply limits in response to drought conditions. In 2015, the City purchased 5,596 acre-feet (AF) of supply from SSJID (Kennedy/Jenks Consultants, 2016).

Future expansion of the SCWSP will increase the City's maximum Phase 2 allotment to 18,500 AFY, but there are currently no plans to bring additional capacity online (Kennedy/Jenks Consultants, 2016). It is noted that the recent Bay Delta Water Quality Control Plan may impact the availability of SSJID water supply reliability in dry years and updated projections of SSJID water supply reliability are being developed in the City's 2020 UWMP.

The projected surface water deliveries available to the City, as documented in the City's 2015 UWMP, are presented in Table 3.15-3. It is noted that the recent Bay Delta Water Quality Control Plan may have negative impacts on the availability of SSJID water supply reliability in dry years and updated projections of SSJID water supply reliability are being developed but updates to the SSJID and Manteca UWMP have not yet been prepared that address potential changes in water supply reliability.

***TABLE 3.15-3: SCWSP SURFACE WATER DELIVERIES TO THE CITY OF MANTECA DURING HYDROLOGIC NORMAL, SINGLE-DRY, AND MULTIPLE-DRY YEARS IN 2040***

| *HYDROLOGIC CONDITION* | *PERCENT OF NORMAL SUPPLY* | *PROJECTED WATER DELIVERY, AFY* |
|---|---|---|
| Normal Year | 100 | 18,500 |
| Single Dry Year | 75 | 13,875 |
| Multiple Dry year 1 | 87 | 16,095 |
| Multiple Dry year 2 | 89 | 16,465 |
| Multiple Dry year 3 | 84 | 15,540 |

*SOURCES: 2015 URBAN WATER MANAGEMENT PLAN, TABLE 6-11 PROJECT WATER SUPPLIES*

The SCWSP provides treated surface water from the Stanislaus River under a 300,000 AFY entitlement. However, the entitlement is dependent on New Melones Reservoir inflow and is subject to curtailment in dry years. Normal water deliveries are provided when the New Melones inflows exceed 600,000 AFY. When inflows are less than 600,000 AFY, the supply is shared equally between SSJID and Oakdale Irrigation District, which also holds a 300,000 AFY entitlement. The SCWSP participants' agreement with SSJID requires that municipal and agricultural users share surface water reductions equally.

An examination of estimated New Melones Inflow from 1885 to 2010, included in SSJID's 2015 Urban Water Management Plan, indicates the full entitlement to SSJID has been available about 80 percent of the time. The average reduction in dry years between 1885 and 2010 was 11 percent. The lowest supply on record was 225,000 AF in both 2014 and 2015 (Provost & Pritchard Consulting Group, 2016).

## Groundwater Supply

The City owns and operates 15 potable groundwater wells and 32 irrigation wells. The wells range in depth from 190 feet to 400 feet. Shallower wells have more nitrogen contamination and are thus typically used for irrigation. The City currently plans to construct two additional potable water wells, Wells 28 and 29 (City of Manteca, 2016).

The City's annual potable groundwater production increased with demand until 2005, reaching a peak of 14,900 AFY in 2004. Commissioning of the WTP in 2005 decreased groundwater use considerably. In addition, the City has shifted from potable water use to irrigation water use wherever possible, to reduce potable water demand and groundwater treatment costs. In 2015, the City's annual groundwater production was 7,249 AFY, of which 5,639 AFY was for potable use and 1,610 AFY for irrigation use (Kennedy/Jenks Consultants, 2016).

The City's 2015 UWMP indicates that the City's goal is to limit groundwater use to between 47 to 53 percent of total water supply. West Yost assumes the City will limit groundwater use to approximately 18,500 AFY, equal to the City's Normal Year surface water supply (West Yost, 2021). The estimated safe yield of the groundwater basin is 1 AFY/acre. The City's total maximum "available" groundwater supply is shown in Table 3.15-4.

***TABLE 3.15-4: PROJECTED GROUNDWATER PRODUCTION DURING HYDROLOGIC NORMAL, SINGLE-DRY AND MULTIPLE-DRY YEARS IN 2040 (AFY)*** [(A)]

| *PLANNING AREA* | *PROJECTED GROUNDWATER PRODUCTION, AFY* |
|---|---|
| City Limits | 11,577 |
| Planning Area | 13,300 |
| Maximum Total Supply | 24,877 |
| Assumed Groundwater Supply[(b)] | 18,500 |

*SOURCE: WEST YOST, 2021*
*(A) BASED ON ASSUMPTION THAT 1 AFY OF GROUNDWATER IS AVAILABLE PER ACRE OF CITY SURFACE AREA FROM SECTION 6.2 OF THE CITY'S 2015 UWMP.*
*CITY SURFACE AREA IS FROM CHAPTER 2.0, PROJECT DESCRIPTION.*
*(B) ASSUMES THE CITY WILL LIMIT GROUNDWATER USE TO APPROXIMATELY 18,500 AFY, EQUAL TO THE CITY'S NORMAL YEAR SURFACE WATER SUPPLY (SEE TABLE 3.15-2). THIS ASSUMPTION IS BASED ON THE CITY'S GOAL IS TO LIMIT GROUNDWATER USE TO BETWEEN 47 TO 53 PERCENT OF TOTAL WATER SUPPLY.*
*THE ASSUMED GROUNDWATER SUPPLY IS APPROXIMATELY 0.74 AF/ACRE.*

It is important to note that the City's 2015 UWMP did not assume any increase in groundwater pumping through 2040. Table 6-11 of the City's 2015 UWMP indicates the City was planning on pumping approximately 10,060 acre-feet of groundwater through 2040. The value of 10,060 AFY accounts for the area within the City limits and then subtracts out other estimated groundwater uses within City limits. As development continues, the largest groundwater usage inside City limits, agricultural use, would decrease. The groundwater pumping shown in Table 7 assumes the City would increase groundwater pumping as land is incorporated and removed from agricultural production.

Wells currently in operation within the City service area, but not owned by the City, include private domestic wells, agricultural wells, wells for school irrigation owned by the Manteca Unified School District and irrigation wells owned by SSJID, among others. California Department of Water Resources (DWR) well completion reports cited in the City's 2015 UWMP indicate that approximately 1,000 water wells have been constructed within the General Plan area since recordkeeping began in the 1960's, but it is not clear whether these continue to be in service (Kennedy/Jenks Consultants, 2016).

Groundwater within the City's service area is supplied from the Eastern San Joaquin County Groundwater Sub-basin (ESJCGB) of the San Joaquin Valley Groundwater Basin. According to DWR, the groundwater basin is in overdraft, with historical declines averaging 1.7 feet per year. Past estimates of safe groundwater yield from the basin have indicated that pumping at or below one acre-foot per acre per year (AF/AC/YR) of City land is sustainable. The City targets this sustainable yield, but it is important to note that the total groundwater pumping occurring within City boundaries includes City-owned municipal wells, City-owned park irrigation wells, and irrigation and domestic wells owned and operated by others. While all of the City's municipal wells have historically been metered, the irrigation wells were not all metered until 2015 and groundwater pumping data for other wells is incomplete. Therefore, the estimated safe yield for the City's wells includes some uncertainty. With the introduction of surface water supplies, as discussed above, and conservation measures, withdrawals have declined, stabilizing groundwater levels in the Manteca area (Kennedy/Jenks Consultants, 2016).

The 2014 Sustainable Groundwater Management Act (SGMA) enacted groundwater legislation in California that requires the formation of Groundwater Sustainability Agencies who will be responsible for developing Groundwater Sustainability Plans to manage groundwater basins.

### Recycled Water

Recycled water is produced at the City of Manteca's Wastewater Quality Control Facility (WQCF). The City currently uses undisinfected secondary effluent to irrigate fodder crops in the land adjacent to the City's wastewater treatment plant. However, there is no infrastructure in place to deliver tertiary treated recycled water to retail customers.

## PROJECTED WATER SUPPLIES

Available water supply projected at buildout of the General Plan is shown in in Table 3.15-5 (West Yost, 2021).

***TABLE 3.15-5: CITY OF MANTECA WATER PROJECTED SUPPLIES (AFY)***

| *HYDROLOGIC CONDITION* | | *SUPPLY AND DEMAND COMPARISON 2040, AFY* |
|---|---|---|
| | | *2040* |
| *NORMAL YEAR* | | |
| Available Potable and Raw Water Supply[(a)] | | 37,000 |
| *SINGLE DRY YEAR* | | |
| Available Potable and Raw Water Supply[(a)] | | 32,375 |
| *MULTIPLE DRY YEAR* | | |
| Multiple Dry Year 1 | Available Potable and Raw Water Supply[(a)] | 34,595 |
| Multiple Dry Year 2 | Available Potable and Raw Water Supply[(a)] | 34,965 |
| Multiple Dry Year 3 | Available Potable and Raw Water Supply[(a)] | 34,040 |

*(A) PROJECTED SUPPLIES FROM 2015 UWMP.*
*SOURCES: 2015 URBAN WATER MANAGEMENT PLAN; WEST YOST ASSOCIATES TECHNICAL MEMORANDUM FEBRUARY 22, 2021*

The City's UWMP used population estimates from the State of California Department of Finance, which indicates that the population of the City was just over 72,000 people in 2015. The population relying on the City's supply was projected to increase to over 127,700 people by 2040, with a corresponding estimated water use of 31,203 AFY in a normal hydrologic year.

Water supplies to meet future demands include surface water purchased from SSJID, City produced groundwater and recycled water. The City's water supply is projected to increase by about 37 percent from 2015 to 2040, primarily due to implementation of Phase 2 of the SCWSP. Future City groundwater pumping is estimated based on the safe yield for all groundwater pumping within the City's planning area, less estimated groundwater pumping by other users. Recycled water demand projections assumed decreased use over time of water for crop irrigation, and implementation of a tertiary-treated irrigation supply by 2040.

## REGULATORY SETTING – WATER SUPPLIES

### State

#### CALIFORNIA DEPARTMENT OF HEALTH SERVICES

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund ("SRF") and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for MTBE and other oxygenates.

#### CALIFORNIA CODE OF REGULATIONS

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminants levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

#### CONSUMER CONFIDENCE REPORT REQUIREMENTS

CCR Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminant levels set by regulation, violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

#### URBAN WATER MANAGEMENT PLANNING ACT

The Urban Water Management Planning Act has as its objectives the management of urban water demands and the efficient use of urban water. Under its provisions, every urban water supplier is required to prepare and adopt an urban water management plan. An "urban water supplier" is a public or private water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. The plan must identify and quantify the existing and planned sources of water available to the supplier, quantify the projected water use for a period of 20 years, and describe the supplier's water demand management measures. The urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Department of Water Resources must receive a copy of an adopted urban water management plan.

### SENATE BILL (SB) 610 AND ASSEMBLY BILL (AB) 901

The State Legislature passed SB 610 and AB 901 in 2001. Both measures modified the Urban Water Management Planning Act.

SB 610 requires additional information in an urban water management plan if groundwater is identified as a source of water available to an urban water supplier. It also requires that the plan include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 requires a city or county that determines a project is subject to CEQA to identify any public water system that may supply water to the project and to request identified public water systems to prepare a specified water supply assessment. The assessment must include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to these entitlements, rights, and contracts.

AB 901 requires an urban water management plan to include information, to the extent practicable, relating to the quality of existing sources of water available to an urban water supplier over given time periods. AB 901 also requires information on the manner in which water quality affects water management strategies and supply reliability. The bill requires a plan to describe plans to supplement a water source that may not be available at a consistent level of use, to the extent practicable. Additional findings and declarations relating to water quality are required.

### SENATE BILL (SB) 221

SB 221 adds Government Code Section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within five days of the subdivision application being accepted as complete for processing by the city or county. It also adds Government Code Section 66473.7, establishing detailed requirements for establishing whether a "sufficient water supply" exists to support any proposed residential subdivisions of more than 500 dwellings, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring availability of a sufficient water supply. The applicable public water system must provide proof of availability. If there is no public water system, the city or county must undertake the analysis described in Government Code Section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.

### EXECUTIVE ORDER B-37-16

In May 2016, Governor Edmund G. Brown, Junior, signed Executive Order B-37-16 (Executive Order), Making Water Conservation a California Way of Life. The Executive Order directed DWR to work with the State Water Resources Control Board (State Water Board) to develop new water use targets as part of a permanent conservation framework for urban water agencies. The targets will build upon requirements established in the 2009 Water Conservation Act, but will strengthen standards for indoor residential per capita water use, outdoor irrigation, commercial, industrial and institutional (CII) water use, and water lost through leaks. DWR will be establishing interim water use targets by 2018, with final standards to be published by 2021. Agencies will need to demonstrate progress towards achieving final compliance in 2025 (DWR, 2017).

### Local

#### CITY OF MANTECA URBAN WATER MANAGEMENT PLAN (2015)

The purpose of the 2015 Urban Water Management Plan is to ensure efficient use of urban water supplies in the City of Manteca and promote conservation. The UWMP discusses not only the availability of water but also water use, reclamation, and water conservation activities. The UWMP complies with the Urban Water Management Planning Act (UWMP Act) (California Water Code [CWC] Section 10610 et seq.).

#### CITY OF MANTECA WATER MASTER PLAN (2005)

The City's 2005 Water Master Plan includes a summary of the City's system-wide water demands, the planning criteria used to determine water system demands, the City's water distribution system model, an analysis of the City's water system, and a summary of existing and future water system facilities.

## THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the project will have a significant impact on the environment associated with Utilities and Service Systems if it will:

- Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects; and/or
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;

## IMPACTS AND MITIGATION MEASURES

### 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 (Less than Significant)

Implementation of the General Plan would result in increased population and employment growth within the Planning Area, and a corresponding increase in the demand for additional water supplies.

West Yost projected water demand associated with the proposed General Plan in the City of Manteca General Plan Update Water Supply Report memo dated February 22, 2021. As shown in Table 3.15-6, the increase in water demand associated with buildout of the General Plan is projected to be 17,971 AFY. This results in a total estimated water use of 31,203 AFY, based on the existing demand of 13,232 AFY plus additional demand at buildout of 17,971 AFY.

***TABLE 3.15-6. PROJECTED WATER DEMAND OF FUTURE LAND USES AT BUILDOUT OF THE GENERAL PLAN***

| *PROPOSED LAND USE* | *AREA, ACRES[(A)]* | *WATER DEMAND FACTOR, GPD PER ACRE* | *WATER DEMAND, ACRE-FEET* |
|---|---|---|---|
| Single Family Residential | 5,313 | 2,240 | 13,330 |
| Multi-Family Residential | 504 | 5,200 | 2,937 |
| Industrial | 440 | 240 | 118 |
| Office | 114 | 1,760 | 225 |
| General Commercial | 255 | 1,200 | 343 |
| Agricultural | 4 | - | - |
| *Subtotal* | *6,631* | - | *16,954* |
| Unaccounted-for Water(b) | - | - | 1,017 |
| **Total** | **-** | **-** | **17,971** |

*SOURCE: WEST YOST, 2021*
*(A) SEE TABLE 1.*
*(B) SIX PERCENT OF WATER DEMAND PER 2015 UWMP.*

Water supplies to meet the City's existing and future water demands include surface water purchased from SSJID, City produced groundwater, and recycled water. The City's water supply is projected to increase by about 37 percent from 2015 to 2040, primarily due to implementation of Phase 2 of the SCWSP. Future City groundwater pumping is estimated based on the safe yield for all groundwater pumping within the City's planning area, less estimated groundwater pumping by other users. Recycled water demand projections assumed decreased use over time of water for crop irrigation, and implementation of a tertiary-treated irrigation supply by 2040.

The City's 2015 UWMP documents 2015 and projected future water demands and supplies through 2040, as shown in Table 3.15-3 (West Yost, 2021). Table 3.15-7 below compares projected available City water supplies at 2040 to demand projected for General Plan buildout. As shown in Table 3.15-7, the City is anticipated to have adequate water to serve development under buildout conditions during normal year, single dry year, and multiple dry year conditions.

***TABLE 3.15-7: COMPARISON OF WATER SUPPLY AND DEMAND AT BUILDOUT***

| *HYDROLOGIC CONDITION* | *SUPPLY AND DEMAND COMPARISON 2040, AFY* |
|---|---|
| | *2040* |
| *NORMAL YEAR* | |
| Available Potable and Raw Water Supply[(a)] | 37,000 |
| Total Water Demand[(b)] | 31,203 |
| Potential Surplus (Deficit)[(c)] | 5,797 |
| Supply Shortfall, Percent of Demand | -- |
| *SINGLE DRY YEAR* | |
| Available Potable and Raw Water Supply[(a)] | 32,375 |
| Total Water Demand[(b)] | 31,203 |
| Potential Surplus (Deficit)[(c)] | 1,172 |
| Supply Shortfall, Percent of Demand | -- |

| HYDROLOGIC CONDITION | | SUPPLY AND DEMAND COMPARISON 2040, AFY |
|---|---|---|
| | | 2040 |
| MULTIPLE DRY YEAR | | |
| Multiple Dry Year 1 | Available Potable and Raw Water Supply[(a)] | 34,595 |
| | Total Water Demand[(b)] | 31,203 |
| | Potential Surplus (Deficit)[(c)] | 3,392 |
| | Supply Shortfall, Percent of Demand | -- |
| Multiple Dry Year 2 | Available Potable and Raw Water Supply[(a)] | 34,965 |
| | Total Water Demand[(b)] | 31,203 |
| | Potential Surplus (Deficit)[(c)] | 3,762 |
| | Supply Shortfall, Percent of Demand | -- |
| Multiple Dry Year 3 | Available Potable and Raw Water Supply[(a)] | 34,040 |
| | Total Water Demand[(b)] | 31,203 |
| | Potential Surplus (Deficit)[(c)] | 2,837 |
| | Supply Shortfall, Percent of Demand | -- |

*(A) PROJECTED SUPPLIES FROM 2015 UWMP.*
*(B) EXISTING DEMAND (TABLES 3.15-1 AND 315-2) PLUS PROJECTED DEMAND (TABLE 3.15-6).*
*(C) ANY POTENTIAL DEFICITS SHOWN IN THIS TABLE DO NOT TAKE INTO ACCOUNT DEMAND REDUCTIONS THAT WOULD OCCUR DURING DRY YEARS..*
*SOURCES: 2015 URBAN WATER MANAGEMENT PLAN; WEST YOST ASSOCIATES TECHNICAL MEMORANDUM FEBRUARY 22, 2021*

While the 2015 UWMP water use projections are the best available currently, water use projections will be re-evaluated in future UWMP updates, based on the new regulations. If the City's growth projections and/or allocation of land use are updated based on the current General Plan update, then the ability to serve new growth may need to be re-evaluated. The proposed General Plan includes a range of policies and actions (listed below) to ensure that the City's water supply plans are updated to address development and land use changes in order to ensure that future supply levels meet demands.

The proposed General Plan includes a range of policies designed to ensure an adequate water supply for development and to minimize the potential adverse effects of increased water use. Projected water demands associated with General Plan buildout would not exceed the projected available water supplies, and that the proposed General Plan includes a comprehensive set of goals, policies, and actions to ensure an adequate and reliable source of clean potable water. Therefore, impacts associated with sufficient water supplies to serve future development during normal, dry, and multiple dry years are **less than significant.** The policies and actions listed below would further assist in ensuring that adequate water supplies are available to serve new growth projected under the proposed General Plan.

### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### POLICIES

*CF-6.1: Ensure the water system and supply is adequate to meet the needs of existing and future development and is utilized in a sustainable manner.*

*CF-6.2: Ensure safe drinking water standards are met throughout the community.*

*CF-6.3: Pursue additional water supply agreements to supplement the City's existing system in order to meet projected demand and to reduce the City's reliance on groundwater resources.*

*CF-6.4: Ensure that the City's water supply provides for and supports a balance of jobs and housing in future development.*

*CF-6.5: Prohibit extension of City water services to unincorporated areas except in extraordinary circumstances. Existing commitments for City water service outside the City limits shall continue to be honored.*

*CF-6.6: Limit development of private water wells to occur only if the City makes a finding that it cannot feasibly provide water service. Such systems shall only be allowed to be used until such time as City water service becomes available.*

*CF-6.7: Ensure that all new development provides for and funds a fair share of the costs for adequate water distribution, including line extensions, easements, and plant expansions.*

*CF-6.8: Continue efforts to reduce potable water use and increase water conservation.*

*CF-6.9: Encourage the use of recycled water for industrial uses and landscape irrigation where feasible, within the parameters of State and County Health Codes and standards.*

*CF-6.10: Consider the effect of incremental increases in the demands on groundwater supply and water quality when reviewing development applications.*

#### ACTIONS

*CF-6a: Update the Public Facilities Implementation Plan, regarding water supply and distribution, every five years. The update shall reflect the most recent adopted groundwater studies that establish a safe yield for the groundwater basin and/or establish maximum extraction from the basin. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-6b: Continue to rely principally on groundwater resources in the near term, while participating in the regional improvements to deliver surface water to augment the City's groundwater supply in the mid and long term.*

*CF-6c: Develop new water sources, storage facilities, and major distribution lines as necessary to serve new development.*

*CF-6d: Regularly review and update the City's water conservation measures to be consistent with current best management practices for water conservation, considering measures recommended*

*by the State Department of Water Resources, the California Urban Water Conservation Council, and the San Joaquin County Flood Control and Water Conservation District.*

*CF-6e: Continue to assess a water development fee on all new commercial, industrial, and residential development sufficient to fund system-wide capacity improvements. The water development fee schedule shall be periodically reviewed and revised as necessary.*

*CF-6f: Continuously monitor water flows through the City's water system to identify areas of potential water loss and instances of under billing for water service and make improvements to the system and billing assessments as necessary.*

*CF-6g: Require, as a condition of project approval, dedication of land and easements, or payment of appropriate fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.*

*CF-6h: Retain a water conservation ordinance requiring the installation of low-flush toilets, low-flow showerheads, and similar features in all new development.*

*CF-6i: Institute a remote monitoring program for the city's water system and replace faulty meters in the system as necessary. The City will continue the practice of identifying and replacing faulty meters at service connections on an ongoing basis.*

*CF-6j: Regularly monitor water quality in the water system and wells and take necessary measures to prevent contamination and reduce known contaminants to acceptable levels.*

## 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 (Less than Significant)

Development and growth in the City under the proposed General Plan would result in increased demand for water supplies, including water conveyance and treatment infrastructure. The proposed General Plan includes policies and actions to ensure that water supplies are provided at acceptable levels and to ensure that development and growth does not outpace the provision of available water supplies.

As described under Impact 3.15-1, the projected 2040 water supplies are adequate to meet demand that would be generated by buildout of the General Plan. As such, implementation and buildout of the General Plan is not anticipated to result in the need to construct or expand water treatment facilities that have not already been described and accounted for in the Districts' relevant water master plans, which include the Water Master Plan and the UWMP.

It is anticipated that water supply infrastructure will need to be extended to serve future development. Future development in the Planning Area would be required to connect to existing water distribution infrastructure in the vicinity of each site, pay the applicable water system connection fees, and pay the applicable water usage rates. Future projects may be required to implement site specific and limited off-site improvements to the water distribution system in order to connect new project sites to the existing water infrastructure network.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. The specific impacts of providing new and expanded waster distribution infrastructure cannot be determined at this time, as the General Plan does not propose or authorize any specific development projects or include details on any future development projects.

However, any future improvements to the existing water distribution infrastructure would be primarily provided on sites with land use designations that allow for urbanized land uses, and the environmental impacts of constructing and operating the new water distribution infrastructure are anticipated to be similar to those associated with new development, redevelopment, and infrastructure projects under the proposed General Plan, as discussed in Chapters 3.1 through 3.14, 3.16, and 4.0 of this Draft EIR. Therefore, this impact is considered **less than significant** and no additional mitigation is necessary.

## 3.15.2 WASTEWATER

This section describes the City of Manteca's wastewater infrastructure, wastewater flows, treatment plant permit requirements, and previous infrastructure planning. Wastewater service is provided by the City of Manteca via their network of collection infrastructure and the Wastewater Quality Control Facility (WQCF), which is located at 2450 West Yosemite Avenue. The WQCF provides services to the City of Manteca, City of Lathrop, and Raymus Village in San Joaquin County.

### KEY TERMS

**Effluent:** Effluent is an outflowing of water from a natural body of water, or from a man-made structure. Effluent in the man-made sense is generally considered to be water pollution, such as the outflow from a sewage treatment facility or the wastewater discharge from industrial facilities. In the context of waste water treatment plants, effluent that has been treated is sometimes called secondary effluent, or treated effluent.

**NPDES:** Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

**WWTP:** Wastewater treatment plant. Treatment of wastewater may include the following processes: screening to remove large waste items; grit removal to allow sand, gravel, and sediment to settle out; primary sedimentation where sludge can settle out of the wastewater; secondary treatment to substantially degrade the biological content of the sewage; tertiary treatment to raise the quality of the effluent before it is discharged; and, discharge.

### WASTEWATER SYSTEM

The City's sewer service area is contiguous with City limits, and is divided into north, south and central sewer sheds. The municipal wastewater collection system includes 242 miles of sewer mains and 19 pump stations (City of Manteca, 2017). The collection system includes gravity flow pipes ranging from 6-inch to 60-inch diameter, and force mains from 6-inch to 24-inch diameter.

The existing collection system generally serves the developed portions of the City, with major trunk sewers located in the core of the City (the central sewer shed), approximately bounded by State Route 120 to the south, Austin Road to the east, Lathrop Road to the north, and Airport Way to the west. The City's sewer system is shown on Figure 3.15-2.

## WASTEWATER QUALITY CONTROL FACILITY

Municipal wastewater is treated at the City's Wastewater Quality Control Facility (WQCF), which treats municipal sanitary sewage from the City of Manteca, portions of Lathrop, and Raymus Village, just northeast of Manteca.

The WQCF is located southwest of downtown Manteca on 22 acres owned by the City. The WQCF treats municipal wastewater from the City of Manteca and the City of Lathrop, and seasonally accepts industrial food processing waste effluent from Eckert Cold Storage (Nolte, 2007). Per contractual agreement, 8.42 mgd of plant capacity is allocated to the City of Manteca and 1.45 mgd is allocated to the City of Lathrop (EDAW, 2007). The WQCF treats an average dry weather flow (ADWF) of about 6 mgd and has an average dry weather design capacity of 9.87 mgd. The facility's current NPDES permit is currently shared between the City and Dutra Farms, Inc. and is effective until May 2020 (CA RWQCB, 2015). The anticipated buildout ADWF within areas served by the WQCF is 27 mgd (EDAW, 2007).

The WQCF is an activated sludge tertiary treatment plant. The facility includes an influent pump station, and primary, secondary and tertiary treatment facilities. Primary treatment at the WQCF consists of aerated grit removal and primary sedimentation. Secondary treatment at the facility consists of nitrification and denitrification in activated sludge aeration basins and subsequent secondary sedimentation. Undisinfected secondary effluent is either stored for agricultural use in a 15-milliongallon pond or blended with food processing waste and applied directly on the agricultural fields owned by the City (190 acres) and Dutra Farms, Inc. (70 acres) (CA RWQCB, 2015).

Secondary effluent not used for crop demands undergoes tertiary treatment, including rapid mixing, flocculation, cloth media filtration, and ultraviolet light (UV) disinfection. Treated tertiary effluent is either pumped to a truck fill station for construction vehicles to receive recycled water for construction purposes or discharged year-round through a 36-inch diameter pipe into the San Joaquin River (CA RWQCB, 2015). As the practice of discharging to fields is gradually phased out due to land development, effluent will increasingly be diverted to the River (City of Manteca, 2016).

The City is planning to expand the facility from the currently permitted 9.87 mgd to 27 mgd by buildout. The various WQCF facilities are designed to be expanded in phases, based on future growth. Proposed treatment improvements identified in the 2007 WQCF Master Plan include expansion of the primary, secondary, and tertiary treatment facilities, expansion of the solids handling systems and expansion of the co-generation system to generate electricity from methane produced during the treatment process (EDAW, 2007).

The WQCF is currently undergoing expansions to the solids handling streams to provide increased capacity to meet permitted requirements and new State regulations. Improvements include new facilities for receiving Fats, Oils, and Greases (FOGs), and receiving food waste separated from the solid waste streams. The separation of these materials is required by State regulations and is

anticipated to provide additional energy generation in the form of biogas from the WQCF (City of Manteca, 2016).

## CURRENT AND PROJECTED WASTEWATER FLOWS

Historically, wastewater flows to the Manteca WQCF have increased as the population and commercial and industrial activity has grown. ADWF was 4 mgd in 1991, 5.81 mgd in 2003, and 6 mgd in December 2005 (EDAW, 2007). Since 2007, average daily influent flow to the WQCF has remained relatively constant, ranging from a low of 6.1 mgd (2008) to a high of 6.3 mgd (2011) (City of Manteca, 2017b). The highest daily discharge reported between June 2010 and April 2014 was 10.5 mgd (CA RWQCB, 2015).1

The 2007 WQCF Master Plan reported wastewater flow projections for the City of Manteca of 19.5 mgd by 2023 and 23 mgd by buildout (Nolte Associates, 2007). Projections were based on wastewater generation factors developed from historical studies, and developed based on different household densities for different residential land use categories. Assuming a similar level of development as anticipated in the 2007 WQCF Master Plan, future wastewater projections are anticipated to be lower than those estimated in the 2007 WQCF Master Plan because of existing and pending water use efficiency regulations that will reduce indoor water use and wastewater flows. According to the City's NPDES permit, current permitted average dry weather flow. at the WQCF is 9.87 million gallons per day (MGD). Upgraded facility average dry weather flow at the WQCF is permitted to be 17.5 MGD.

## REGULATORY SETTING - WASTEWATER

### Federal

#### CLEAN WATER ACT (CWA) / NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS

The CWA is the cornerstone of water quality protection in the United States. The statute employs a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters so that they can support "the protection and propagation of fish, shellfish, and wildlife and recreation in and on the water."

The CWA regulates discharges from "non-point source" and traditional "point source" facilities, such as municipal sewage plants and industrial facilities. Section 402 of the Act creates the NPDES regulatory program which makes it illegal to discharge pollutants from a point source to the waters of the United States without a permit. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than one acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

Permit requirements for treatment are expressed as end-of-pipe conditions. This set of numbers reflects levels of three key parameters: (1) biochemical oxygen demand (BOD), (2) total suspended solids (TSS), and (3) pH acid/base balance. These levels can be achieved by well-operated sewage plants employing "secondary" treatment. Primary treatment involves screening and settling, while secondary treatment uses biological treatment in the form of "activated sludge."

All so-called "indirect" dischargers are not required to obtain NPDES permits. An indirect discharger is one that sends its wastewater into a city sewer system, so it eventually goes to a sewage treatment plant. Although not regulated under NPDES, "indirect" discharges are covered by another CWA program called pretreatment. "Indirect" dischargers send their wastewater into a city sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering surface water.

## State

### STATE WATER RESOURCES CONTROL BOARD/REGIONAL WATER QUALITY CONTROL BOARD

In California, all wastewater treatment and disposal systems fall under the overall regulatory authority of the State Water Resources Control Board (SWRCB) and the nine California Regional Water Quality Control Boards (RWQCBs), who are charged with the responsibility of protecting beneficial uses of State waters (ground and surface) from a variety of waste discharges, including wastewater from individual and municipal systems. The City of Manteca falls within the jurisdiction of the Centeral Valley Regional Water Quality Control Board.

The RWQCB's regulatory role often involves the formation and implementation of basic water protection policies. These are reflected in the individual RWQCB's Basin Plan, generally in the form of guidelines, criteria and/or prohibitions related to the siting, design, construction, and maintenance of on-site sewage disposal systems. The RWQCB's role has historically been one of providing overall direction, organizational and technical assistance, and a communications link to the State legislature.

The RWQCBs may waive or delegate regulatory authority for on-site sewage disposal systems to counties, cities or special districts. Although not mandatory, it is commonly done and has proven to be administratively efficient. In some cases, this is accomplished through a Memorandum of Understanding (MOU), whereby the local agency commits to enforcing the Basin Plan requirements or other specified standards that may be more restrictive. The RWQCBs generally elect to retain permitting authority over large and/or commercial or industrial on-site sewage disposal systems, depending on the volume and character of the wastewater.

### PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Water Quality Control Act is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the State is required to adopt policies, plans, and objectives that will protect the State's waters for the use by and enjoyment of Californians. In California, the State Water Resources Control Board (SWRCB) has the authority and responsibility for establishing policy related to the State's water quality. Regional authority is delegated by the

SWRCB to a Regional Water Quality Control Board (RWQCB). The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits.

Under the Central Valley Regional Water Quality Control Board (CVRWQCB) NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge

## Local

### MANTECA MUNICIPAL CODE

The City of Manteca Municipal Code, Title 13 (Public Services) Chapter 13.12 (Sewer Connection Charges), Chapter 13.14 (Sewer Capacity Charges), and Chapter 13.16 (Sewer Service Charges) contain regulations associated with sewer management.

Title 13 (Public Services), Chapter 13.38 (Public Facilities Implementation Program Fees), Section 13.38.050 (Establishment of a Sewer Fee) requires developers of property to pay a sewer facility development fee.

### UTILITY MASTER PLANS

The City of Manteca maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. These include: *Wastewater Collection System Master Plan* (2012), *Wastewater Quality Control Facility Master Plan Update* (2006), and a *Sewer Rate Study* (2008).

### ORDER R5-2015-0026 NPDES NO. CA0081558

The NPDES permit program addresses water pollution by regulating point sources that discharge pollutants to waters of the United States. Created in 1972 by the Clean Water Act, the NPDES permit program is authorized to state governments by the EPA to perform many permitting, administrative, and enforcement aspects of the program. The City of Manteca WQCF is subject to waste discharge requirements under Order R5-2015-0026 NPDES NO. CA0081558 by the Regional Water Quality Control Board.

## THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities and Service Systems if it would:

- 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; and/or
- 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 providers existing commitments.

## IMPACTS AND MITIGATION MEASURES

### 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 (Less than Significant)

The City's sewer service area is contiguous with City limits, and is divided into north, south and central sewer sheds. The municipal wastewater collection system includes 242 miles of sewer mains and 19 pump stations (City of Manteca, 2017). The collection system includes gravity flow pipes ranging from 6-inch to 60-inch diameter, and force mains from 6-inch to 24-inch diameter (EDAW, 2007). Municipal wastewater is treated at the City's WQCF, which treats municipal sanitary sewage from the City of Manteca, portions of Lathrop, and Raymus Village, just northeast of Manteca. The WQCF treats an average dry weather flow (ADWF) of about 6 mgd and has an average dry weather design capacity of 9.87 mgd. Per contractual agreement, 8.42 mgd of plant capacity is allocated to the City of Manteca and 1.45 mgd is allocated to the City of Lathrop (EDAW, 2007).

As Manteca continues to develop in the future, there will be an increased need for water and wastewater services, including a reliable source of recycled water. These needs have been addressed in the WQCF master plan and will require that the city continue to implement phased improvements to some pump stations, sewer mains, and the various wastewater treatment plants when triggered by growth.

The Manteca WQCF is a 9.87 MGD average day dry weather (ADWF) rated, activated sludge plant with denitrification. The WQCF consists of an influent pump station, aerated grit tanks, primary sedimentation basins, fine-bubble activated sludge aeration basins, secondary clarifiers, secondary effluent equalization pond, tertiary filters, UV disinfection and effluent pumping station. Secondary effluent is land applied during the spring and summer. Tertiary filtered and UV disinfected water is discharged to the San Joaquin River during the winter.

The Wastewater Master Plan projects a capacity requirement of 27 mgd ADWF at buildout for the WQCF. Expansion of the WQCF to buildout will occur in two phases, which will increase the ADWF capacity to 17.5 mgd, then to 27 mgd. The Wastewater Master Plan projects a potential reclaimed water use of 3.28 mgd. The 2005 Urban Water Management Plan projects reclaimed water usage of 2 mgd by 2030.

It is anticipated that buildout of the General Plan would result in a total demand for approximately 18.9 mgd, as shown in Table 3.15-8. This total demand of 18.9 mgd, which includes demand associated with existing development, is well within the planned capacity of the WQCF.

***TABLE 3.15-8. PROJECTED WASTEWATER DEMAND AT BUILDOUT***

| *LAND USE TYPE* | *WASTEWATER GENERATION (GPD/AC)* | | | *TOTAL GENERAL PLAN ACRES* | *BUILDOUT DEMAND (APPLIED X TOTAL GENERAL PLAN ACRES)* |
|---|---|---|---|---|---|
| | *EXISTING[1]* | *NEW[1]* | *APPLIED[2]* | | |
| Residential Very Low | 320 | 530 | 425 | 446 | 189,550 |
| Residential Low | 808 | 1,338 | 1,073 | 8,495 | 9,115,135 |
| Residential Medium | 1,346 | 2,183 | 1,765 | 575 | 1,014,588 |
| Residential High | 2,337 | 3,789 | 3,063 | 418 | 1,280,334 |
| Commercial Mixed Use[3] | 2,473 | 2,473 | 2,473 | 730 | 1,805,290 |
| General Commercial[4] | 750 | 750 | 750 | 834 | 625,800 |
| Neighborhood Commercial4 | 1,120 | 1,120 | 1,120 | 358 | 400,512 |
| Industrial | 1,000 | 1,000 | 1,000 | 2,581 | 2,581,000 |
| Public/Quasi-Public | 425 | 425 | 425 | 1,399 | 594,575 |
| Park | 400 | 400 | 400 | 698 | 279,200 |
| Agriculture | 0 | 0 | 0 | 4,004 | - |
| Open Space | 0 | 0 | 0 | 447 | - |
| Business Industrial Park[5] | 1,200 | 1,200 | 1,200 | 840 | 1,008,000 |
| **TOTAL** | | | | | **18,893,984 (18.9 MGD)** |

*SOURCE: DE NOVO PLANNING GROUP, 2021*

*[1] CITY OF MANTECA 2012 WASTEWATER COLLECTION SYSTEM MASTER PLAN UPDATE, TABLE 3-1*

*[2]APPLIED RATE IS AN AVERAGE OF THE EXISTING AND NEW RATE. THIS ONLY APPLIES TO RESIDENTIAL DEVELOPMENT; THE EXISTING AND NEW RATES ARE THE SAME FOR NON-RESIDENTIAL USES.*

*[3]INCLUDES COMMERCIAL MIXED USE AND DOWNTOWN LAND USE DESIGNATIONS*

*[4]ASSUMES 30% OF THE COMMERCIAL LAND USE DESIGNATION IS DEVELOPED WITH NEIGHBORHOOD COMMERCIAL USES AND 70% IS DEVELOPED WITH GENERAL COMMERCIAL USES*

*[5]INCLUDES BUSINESS INDUSTRIAL PARK AND BUSINESS PROFESSIONAL LAND USE DESIGNATIONS*

The projected flows of the proposed General Plan for the WQCF are not expected to exceed the treatment capacity available for treatment. While full buildout of the development contemplated in the proposed General Plan would slightly increase the existing treatment demand at the districts' treatment plants, the proposed General Plan includes a range of policies designed to ensure an adequate wastewater treatment capacity for development. As described above, the City must also periodically review and update their WQCF Master Plans, and as growth continues to occur within the Planning Area, the City will identify necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development.

Given that projected wastewater generation volumes associated with General Plan buildout would not exceed the projected wastewater generation volumes described in the WQCF Master Plan, this impact would be **less than significant**, and no mitigation is required.

However, the proposed General Plan includes a comprehensive set of goals, policies, and actions to ensure an adequate and reliable wastewater collection and treatment system. The policies and actions listed below would further assist in ensuring that adequate wastewater treatment and

conveyance infrastructure is available to serve new growth projected under the proposed General Plan.

### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### POLICIES

*CF-7.1: Ensure adequate wastewater collection and treatment infrastructure to serve existing and future development and the safe disposal of wastes.*

*CF-7.2: Develop new sewage treatment and trunk line capacity as necessary to serve new development. The City shall incorporate current technologies into the design and operation of these facilities.*

*CF-7.3: Only extend sewer services to unincorporated areas under extraordinary circumstances. Existing commitments for sewer service outside the city limits shall continue to be honored.*

*CF-7.4: Only allow the development of individual septic systems where it is not feasible to provide public sewer service. Such systems shall only be used until such time as City sewer service becomes available and meet the minimum standards of the San Joaquin County Health Department.*

*CF-7.5: Maintain the ability to handle peak discharge flow while meeting State Regional Water Quality Control Board Standards as established in the current NPDES Permit.*

*CF-7.6: Maintain the existing wastewater system on a regular basis to increase the lifespan of the system and ensure public safety.*

#### ACTIONS

*CF-7a: Update the Public Facilities Implementation Plan regarding wastewater collection and treatment every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-7b: Require new development to provide for and fund a fair share of the costs for adequate sewer distribution, including line extensions, easements, and plant expansions.*

*CF-7c: Require all sewage generators within the City's service area to connect to the City's system, except those areas where on-site treatment and disposal facilities are deemed appropriate.*

*CF-7d: Encourage an industrial pretreatment program for business parks and other industrial uses in accordance with state and federal requirements.*

*CF-7e: Investigate methods of improving the quality of the effluent from the City wastewater treatment plant and options for reuse of treated wastewater. The recycled wastewater will be used for irrigation of public recreation lands, restoration of wetland areas, irrigation of landscaped areas, dust control, fire protection, and soil compaction.*

*CF-7f: Promote reduced wastewater system demand through efficient water use by:*

- *Requiring water conserving design and equipment in new construction,*

- *Encouraging retrofitting with water conserving devices,*
- *Designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and*
- *Maintaining a Citywide map of all sewer collection system components and monitoring the condition of the system on a regular basis.*

## 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 (Less than Significant)

Development contemplated under the proposed General Plan would result in increased wastewater flows, resulting in the need for additional or expanded wastewater treatment facilities and conveyance infrastructure.

The City has planned for expansion of the WQCF. The NPDES Permit Order R5-2015-0026 NPDES NO. CA0081558 allows an increase discharge flow of 7.63 mgd (an increase in discharge from 9.87 mgd to 17.5 mgd) conditional upon compliance with permit limitations and completion of the Facility expansion project. The City of Manteca developed and submitted an antidegradation analysis for proposed WQCF discharge modifications that provides a complete antidegradation analysis following the guidance provided by State Water Board APU 90-004. Pursuant to the guidelines, the Antidegradation Analysis evaluated whether changes in water quality resulting from the capacity increase (17.5 mgd year-round tertiary treated discharge) are consistent with the maximum benefit to the people of the state, will not unreasonably affect beneficial uses, will not cause water quality to be less than water quality objectives, and that the discharge provides protection for existing in-stream uses and water quality necessary to protect those uses.

During the Phase IV expansion, the City is proposing to increase the permitted wastewater discharge capacity of the WQCF from 9.87 mgd (ADWF) to 17.5 mgd (ADWF) and construct new trunk sewers to accommodate growth contained in the City's General Plan (City of Manteca, 2003). Subsequent phases are planned to increase the permitted discharge capacity to 27 mgd. The project includes treatment plant improvements for both river and land-based wastewater effluent disposal based on current and future probable water quality discharge requirements and projected flows. The City proposes to accommodate the increase in capacity by using the City's long-term effluent disposal strategy that includes land application, urban landscape irrigation, and river discharge. The proposed project would also include the incremental construction of three new trunk sewers and improvements to the existing collection system. Subsequent expansion of the

Wastewater treatment and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. As future

development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this impact would be less than significant, and no additional mitigation is required.

The proposed General Plan includes policies and actions designed to ensure adequate wastewater treatment capacity is available to serve development and to minimize the potential adverse effects of wastewater treatment. These policies and actions are listed below.

### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### POLICIES

*CF-7.1: Ensure adequate wastewater collection and treatment infrastructure to serve existing and future development and the safe disposal of wastes.*

*CF-7.2: Develop new sewage treatment and trunk line capacity as necessary to serve new development. The City shall incorporate current technologies into the design and operation of these facilities.*

*CF-7.3: Only extend sewer services to unincorporated areas under extraordinary circumstances. Existing commitments for sewer service outside the city limits shall continue to be honored.*

*CF-7.4: Only allow the development of individual septic systems where it is not feasible to provide public sewer service. Such systems shall only be used until such time as City sewer service becomes available and meet the minimum standards of the San Joaquin County Health Department.*

*CF-7.5: Maintain the ability to handle peak discharge flow while meeting State Regional Water Quality Control Board Standards as established in the current NPDES Permit.*

*CF-7.6: Maintain the existing wastewater system on a regular basis to increase the lifespan of the system and ensure public safety.*

#### ACTIONS

*CF-7a: Update the Public Facilities Implementation Plan regarding wastewater collection and treatment every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-7b: Require new development to provide for and fund a fair share of the costs for adequate sewer distribution, including line extensions, easements, and plant expansions.*

*CF-7c: Require all sewage generators within the City's service area to connect to the City's system, except those areas where on-site treatment and disposal facilities are deemed appropriate.*

*CF-7d: Encourage an industrial pretreatment program for business parks and other industrial uses in accordance with state and federal requirements.*

*CF-7e: Investigate methods of improving the quality of the effluent from the City wastewater treatment plant and options for reuse of treated wastewater. The recycled wastewater will be used for irrigation of public recreation lands, restoration of wetland areas, irrigation of landscaped areas, dust control, fire protection, and soil compaction.*

*CF-7f: Promote reduced wastewater system demand through efficient water use by:*

- *Requiring water conserving design and equipment in new construction,*
- *Encouraging retrofitting with water conserving devices,*
- *Designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and*
- *Maintaining a Citywide map of all sewer collection system components and monitoring the condition of the system on a regular basis.*

## 3.15.3 STORMWATER DRAINAGE

The information in this section focuses on the potential for the General Plan to result in the demand for new or expanded stormwater drainage facilities. Section 3.10 (Hydrology) includes an expanded analysis of water quality, flooding, and other stormwater related issues.

### STORMWATER AND FLOOD CONTROL

The City of Manteca operates and maintains a storm drain system to control stormwater and protect residents and business from flooding. The City system includes approximately 150 miles of pipelines, 52 pump stations and 54 detention basins (City of Manteca, 2017). SSJID owns a complex network of irrigation laterals and drains that run within the City limits to which the City pumps stormwater, which is conveyed to the San Joaquin River either directly or via the French Camp Outlet Canal. Figure 3.15-3 shows the City and SSJID systems.

An agreement between the City and SSJID requires that the City monitor stormwater discharges to SSJID facilities to make sure that facilities capacities are not exceeded. The City is also required to control stormwater quality to meet applicable regulations. The agreement has been in place since 1975, and was most recently amended in 2006 (City of Manteca, 2013).

The detention basins are used to detain stormwater to attenuate peak flows before pumping drainage flows into SSJID facilities. Where required, to meet NPDES permit requirements, stormwater is treated prior to release to natural water bodies within the area. Treatment is provided at detention basin sites, or by on-site source control. Most of the City's pump stations pump from detention basins into the SSJID laterals and drains. The City system also includes 10 water level monitoring stations that are used to obtain real-time water level measurements at critical low points in the system, to prevent flooding. The storm drain system is monitored and controlled remotely through SCADA (City of Manteca, 2013).

The City's stormwater detention basins are designed based on a 10-year, 48-hour duration storm for urbanized areas and a 10-year, 24-hour duration storm for rural areas. Detention basins are required to be emptied over a 96-hour period (City of Manteca, 2013).

### REGULATORY SETTING - STORMWATER DRAINAGE

#### Federal

##### CLEAN WATER ACT (CWA)

The Clean Water Act (CWA) regulates the water quality of all discharges into waters of the United States including wetlands, perennial and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters." Section 404, Title 33, Section 1344 of the CWA in part authorizes the U.S. Army Corps of Engineers to:

- Set requirements and standards pertaining to such discharges: subparagraph (e); Issue permits "for the discharge of dredged or fill material into the navigable waters at specified disposal sites": subparagraph (a);
- Specify the disposal sites for such permits: subparagraph (b);
- Deny or restrict the use of specified disposal sites if "the discharge of such materials into such area will have an unacceptable adverse effect on municipal water supplies and fishery areas": subparagraph (c);
- Specify type of and conditions for non-prohibited discharges: subparagraph (f);
- Provide for individual State or interstate compact administration of general permit programs: subparagraphs (g), (h), and (j);
- Withdraw approval of such State or interstate permit programs: subparagraph (i);
- Ensure public availability of permits and permit applications: subparagraph (o);
- Exempt certain Federal or State projects from regulation under this Section: subparagraph (r); and,
- Determine conditions and penalties for violation of permit conditions or limitations: subparagraph (s).
- Section 401 certification is required prior to final issuance of Section 404 permits from the U.S. Army Corps of Engineers.

The California State Water Resources Control Board and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the Federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters including the San Joaquin River, and other waters in the Manteca Planning Area. In the Manteca Planning Area the RWQCB is responsible for protecting surface and groundwater from both point and non-point sources of pollution. Water quality objectives for all of the water bodies within the Manteca Planning Area were established by the RWQCB and are listed in its Basin Plan.

### FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

San Joaquin County is a participant in the National Flood Insurance Program (NFIP), a Federal program administered by FEMA. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the Department of Water Resources to insure the proper implementation of FEMA floodplain management regulations.

### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands, and storm

sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the Environmental Protection Agency Regional Administrator. The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti- degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the SWRCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from industrial and construction sites statewide. Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

A new Phase II Small Municipal Separate Storm Sewer (MS4) General Permit was adopted by the State Water Resources Control Board on April 17, 2015 became effective June 1, 2015. The Permit has numerous new components and the City is required to implement these components in stages over the five-year period of the Permit.

## State

### DEPARTMENT OF WATER RESOURCES

The Department of Water Resources' (DWR) major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources, planning, designing, constructing, operating, and maintaining the State Water Resources Development System, protecting and restoring the Sacramento-San Joaquin Delta, regulating dams, providing flood protection, assisting in emergency management to safeguard life and property, educating the public, and serving local water needs by providing technical assistance. In addition, the DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

### CALIFORNIA WATER CODE

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (Basin Plan) for its region the regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

The Water Code Section 13260 requires all dischargers of waste that may affect water quality in waters of the state to prepare and provide a water quality discharge report to the RWQCB. Section 13260a-c is as follows:

(a) Each of the following persons shall file with the appropriate regional board a report of the discharge, containing the information that may be required by the regional board:

(1) A person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state, other than into a community sewer system.

(2) A person who is a citizen, domiciliary, or political agency or entity of this state discharging waste, or proposing to discharge waste, outside the boundaries of the state in a manner that could affect the quality of the waters of the state within any region.

(3) A person operating, or proposing to construct, an injection well.

(b) No report of waste discharge need be filed pursuant to subdivision (a) if the requirement is waived pursuant to Section 13269.

(c) Each person subject to subdivision (a) shall file with the appropriate regional board a report of waste discharge relative to any material change or proposed change in the character, location, or volume of the discharge.

### WATER QUALITY CONTROL PLAN (BASIN PLAN) FOR THE CENTRAL VALLEY REGION

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels

of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

#### STATE WATER RESOURCE CONTROL BOARD (STATE WATER BOARD) STORM WATER STRATEGY

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the State Water Board's role in storm water resources management. The Storm Water Strategy developed guiding principles to serve as the foundation of the storm water program; identified issues that support or inhibit the program from aligning with the guiding principles; and proposed and prioritized projects that the Water Boards could implement to address those issues. The State Water Board staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the Water Board's Storm Water Program.

### Local

#### MANTECA MUNICIPAL CODE

**Title 13 Chapter 13.28 Storm Water Management Discharges.** The purpose of this chapter is to establish minimum storm water management requirements and controls to protect and safeguard the general health, safety and welfare of the public residing in watersheds within the city of Manteca. This chapter seeks to meet that purpose through the following objectives:

A. Minimize increases in storm water runoff from any development in order to reduce flooding, siltation and stream bank erosion and maintain the integrity of drainage channels;

B. Minimize increases in non-point source pollution caused by storm water runoff from development that would otherwise degrade local water quality;

C. Minimize the total annual volume of surface water runoff that flows from any specific site during and following development to not exceed the pre-development hydrologic regime to the maximum extent practicable; and

D. Reduce storm water runoff rates and volumes, soil erosion and non-point source pollution wherever possible, through storm water management controls and to ensure that these

management controls are properly maintained and pose no threat to public safety. (Ord. 1253 § 1, 2004)

**Title 13 Chapter 13.28 Section 13.28.060 Discharges in violation of industrial or construction activity NPDES storm water discharge permit.**

A. Any person subject to an industrial NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the director upon inspection of the facility, during any enforcement proceeding or action or for any other reasonable cause.

B. Any person subject to a construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the director prior to or as a condition of a subdivision map, site plan, building permit or development or improvement plan; upon inspection of the facility; during any enforcement proceeding or action; or for any other reasonable cause. Prior to issuance of a construction permit a copy of the Notice of Intent (NOI) and the Storm Water Pollution Prevention Plan (SWPPP) shall be submitted to the city. (Ord. 1253 § 1, 2004).

### Utility Master Plans

The City of Manteca maintains a variety of Master Plan documents that guide the design, development, and maintenance of the utilities within the city limits. This includes the City's *Storm Drain Master Plan* (2013).

## THRESHOLDS OF SIGNIFICANCE

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

- 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.

## IMPACTS AND MITIGATION MEASURES

### 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 (Less than Significant)

Development under the proposed General Plan would result in increased areas of impervious surfaces throughout the Planning Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site within new

development projects, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way. The specific impacts of providing new and expanded drainage facilities cannot be determined at this time, as the General Plan does not propose or approve any specific development project nor does it designate specific sites for new or expanded public facilities.

Stormwater drainage and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan as discussed throughout this Draft EIR, including in Chapters 3.1 through 3.14 and 3.16 through 4.0.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this is a **less than significant** impact and no additional mitigation is required.

The policies and actions listed below would further ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under the General Plan, and would ensure that future drainage and flood control infrastructure projects do not result in adverse environmental impacts.

### GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

#### POLICIES

*CF-8.1: Maintain and improve Manteca's storm drainage facilities.*

*CF-8.2: Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.*

*CF-8.3: Continue to allow dual-use detention basins for parks, ball fields, and other uses where appropriate.*

*CF-8.4: Incorporate recreational trails and parkway vegetation design where open stormwater facilities are appropriate and ensure that vegetation does not reduce channel capacity.*

*CF-8.5: Maintain drainage channels in a naturalized condition where appropriate, incorporating recreational trails, parkway vegetation, and other amenities and ensuring that vegetation does not reduce channel capacity, and consistent with the Resource Conservation Element.*

*CF-8.6: Continue to work cooperatively with outside agencies such as the San Joaquin County Flood Control and Water Conservation District regarding storm drainage issues.*

ACTIONS

*CF-8a: Update the Storm Drainage Master Plan and Public Facilities Implementation Plan every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.*

*CF-8b: Continue to complete gaps in the drainage system in areas of existing development.*

*CF-8c: Identify which storm water and drainage facilities are in need of repair and address these needs through the City's Capital Improvement Program.*

*CF-8d: Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.*

## 3.15.4 SOLID WASTE

The City of Manteca Solid Waste Division (SWD) provides solid waste hauling service for the City of Manteca. SWD's services include residential and commercial trash pick-up, residential and commercial recycling pick-up, green waste pick-up, and hazardous waste collections. Solid waste from Manteca is primarily landfilled at the Forward Sanitary Landfill, located northeast of Manteca. Other landfills used include Foothill Sanitary and North County.

### KEY TERMS

**Class I landfill**: A landfill that accepts for disposal 20 tons or more of municipal solid waste daily (based on an annual average); or one that does not qualify as a Class II or Class III municipal solid waste landfill.

**Class II landfill:** A landfill that (1) accepts less than 20 tons daily of municipal solid waste (based on an annual average); (2) is located on a site where there is no evidence of groundwater pollution caused or contributed by the landfill; (3) is not connected by road to a Class I municipal solid waste landfill, or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill; and (4) serves a community that experiences (for at least three months each year) an interruption in access to surface transportation, preventing access to a Class I landfill, or a community with no practicable waste management alternative.

**Class III landfill:** A landfill that is not connected by road to a Class I landfill or a landfill that is located at least 50 miles from a Class I landfill. Class III landfills can accept no more than an average of one ton daily of ash from incinerated municipal solid waste or less than five tons daily of municipal solid waste.

**Transfer station:** A facility for the temporary deposition of some wastes. Transfer stations are often used as places where local waste collection vehicles will deposit their waste cargo prior to loading into larger vehicles. These larger vehicles will transport the waste to the end point of disposal or treatment.

**Waste Management Plan:** A Waste Management Plan (WMP) is a completed WMP form, approved by the City for the purpose of compliance with Chapter 8.40 of the Brentwood Municipal Code, submitted by the applicant for any covered project. Prior to project start, the WMP shall identify the types of construction and demolition (C&D) debris materials that will be generated for disposal and recycling. A completed WMP contains actual weight or volume of the material disposed recycled receipts.

### WASTE COLLECTION SERVICES

The City of Manteca Public Works Department, Solid Waste Division provides solid waste collection services for the Manteca area. The Solid Waste Department works to meet commercial and residential demands in a low cost and environmentally conscious manor. The Department's team of drivers, yard personnel, superintendent, and office staff helps residents and businesses reduce

waste generation and utilize diversion techniques. Manteca provides the following solid waste services:

- Residential recycling picked up on a bi-weekly schedule
- Residential bi-weekly curbside pickup of compost materials
- Residential weekly curbside pickup of trash
- Leaf and Christmas tree pick up
- Oil collection containers picked up on a weekly basis
- Commercial recycling
- Household Hazardous Waste collection

Residential trash is collected every week, while recycle and yard waste are collected every other week on an alternating basis. Residential collection service fees depend on the garbage cart size and customers can choose from 32 gallon, 64 gallon, or 96 gallon carts. The City will collect up to three 32-gallon bags of extra garbage in addition to the refuse cart if each bag has an "extra refuse" sticker. These stickers are available at the City's Solid Waste Office and Finance Office. Special collection for large amounts of waste can be arranged through the Solid Waste Department. Fees for this service are determined on site. Non-scheduled pickup services are available for an additional charge.

Commercial-size and drop-box containers are available for rental by residents and businesses. Commercial containers range from two to six cubic yards and drop-box containers range from ten to forty cubic yards. These containers can be located on-property or curbside.

After the waste is collected, Lovelace Transfer Station is used to process and ship the material to its final destination. The Lovelace Transfer Station is owned and operated by San Joaquin County and also serves most of south San Joaquin County. Recyclables are transported to a small Transfer Station adjacent to Forward Landfill where they are loaded onto larger trucks and taken to Sacramento Recycling. The majority of Manteca's solid waste is landfilled at the Forward Sanitary Landfill, located north of French Camp Road. Foothill Sanitary Landfill and North County landfill are also employed, but to a much lesser degree.

As part of a food to energy project, Manteca's food waste will soon be transported to a biogas conversion facility. A "turbo separator" will be installed at the Lovelace Transfer station to mechanically separate food waste from municipal solid waste. Trucks will ship the separated food waste to the Wastewater Quality Control Facility where it will be conveyed to digesters. The food waste will then be composted and the natural gas from the decomposition process will be used to power Manteca's solid waste collection trucks. This project is still in the planning phase but once completed, it is expected to increase diversion rates, decrease Manteca's diesel usage, and keep long term municipal service rates low).

## WASTE DISPOSAL FACILITIES

### Forward Sanitary Landfill

Forward Sanitary Landfill, owned by Forward Incorporated/Allied Waste North America, is located on a 567-acre property off of Austin Road. The current Forward Landfill was created in 2002 by joining the former Forward, Inc. Class II landfill with the adjacent Austin Road Class III Sanitary Landfill previously owned by the City of Stockton. Combining the two landfills was accomplished by filling in the air space between the landfills, employing lower base grades, and expanding the hours of operation.

The current Forward Landfill site includes a materials recovery facility and transfer station. The materials recovery composts food waste and process wood waste for diversion purposes. The transfer station receives Manteca's recycling and loads it onto larger trucks to be transported to Sacramento Recycling. Forward, Inc. also operates a landfill gas-to-energy (LFGTE) plant on the northwest portion of the site to control air pollution and mitigate fire hazard from the methane gas released by anaerobic microorganisms during the decomposition process. PG&E purchases 760 kilowatts per hour of electrical power generated by Forward Landfill under a long term contract.

The support facilities at Forward Landfill include scale houses, water production wells, a groundwater extraction and treatment system, sedimentation and detention ponds, and leachate evaporation basins.

Forward landfill is the only Class II facility in San Joaquin County designed to accept both designated wastes such as contaminated soil as well as inert municipal solid waste. The facility is closed to the general public and all waste deliveries are scheduled in advance and pre-screened. Accepted wastes include green materials, sludge (biosolids), asbestos, tires, industrial, and mixed municipal.

Although the total acreage of the site is 567, the allotted disposal footprint is 355 acres to allow for a boundary between the facility and surrounding developments. The current constructed Waste Management Unit scope is 288 acres and the remaining allotted land is used for other landfill activities such as soil borrow and storage until it is converted to Waste Management Units. Natural land elevations at the site are 30 to 40 feet above mean sea level and the landfill is permitted reach heights up to 210 feet above mean sea level.

Forward landfill is projected to close in 2020 at current acceptance rates due to reaching its permitted size parameters. To increase the lifespan of the landfill, Forward, Inc. is planning to expand its disposal footprint from about 355 acres to 366 acres. This expansion would involve the relocation of 3,200 feet of the South Branch of the South Fork of Little Johns Creek and increasing the current landfill capacity from about 20 million CY (as of February 2014) to about 27.7 million CY.

A 17.3-acre expansion was approved in January of 2020 inside the landfill's existing boundaries along Austin Road east of Stockton Metropolitan Airport. The lifespan of the landfill will extend

from 2030 to 2036 and an additional 8.2 million cubic yards of waste will be processed on two sites, an 8.7-acre parcel in the northeast corner and an 8.6-acre parcel on the south end of the property. The new operations will not infringe the adjacent 184-acre Brochinni parcel acquired by Republic Forward Services Inc. & Austin Road Landfills in 2011 and proposed in 2012.

## Lovelace Materials Recovery Facility and Transfer Station

Lovelace Materials Recovery Facility and Transfer Station is a 15-acre site in Manteca that is owned and operated by San Joaquin County. The waste received by Lovelace is transported to Foothill Sanitary Landfill on large trucks that can each hold up to 22 tons of material. Lovelace is permitted to receive 1,300 tons of waste per day and have a traffic volume of 1,280 vehicles per day but the average daily tonnage received is less than half of this amount.

This station accepts waste from the general public in the form of agricultural waste, cabover campers, camper shells, dismantled camper trailers less than 25 feet in length, commercial and household waste, construction/demolition waste, tires, and white goods such as refrigerators, freezers, and air conditioning units. The transfer station is not permitted to accept any liquid waste sludge, any waste requiring special handling, designated wastes, or hazardous wastes. These items must be taken to San Joaquin County Hazardous Waste Facility located at the Stockton Airport.

## San Joaquin County Hazardous Waste Facility

The San Joaquin County Hazardous Waste facility is located on a 2-acre site at 7850 R A Bridgeford Street in Stockton. The hazardous waste facility is available for public drop-off of hazardous wastes on Thursday through Sunday with the exception of conditionally exempt small quantity generators, which are accepted by appointment only. The facility is free of charge; however, some conditions do apply. Hazardous wastes accepted by this facility include paint, oil, antifreeze, pool chemicals, fertilizers, batteries, cleaning products, medical sharps, and medicines.

In February 2006, it became illegal for residents and small businesses to dispose of universal waste in the trash due to a decision by the Department of Toxic Substance Control and the California Integrated Waste Management Control. Universal waste is a type of hazardous waste containing mercury or other heavy metals that can release neurotoxins into the environment if not disposed of properly. Almost any product with a circuit board is considered universal waste. Other universal waste items include batteries, motor oil, mercury thermostats, fluorescent lights, cathode ray tube devices (computer monitors, televisions), and mercury thermometers. These items are banned from landfills and require special handling. Most of these items are accepted at both Lovelace Transfer Station and the County Hazardous waste facility. E-waste not accepted by these two facilities consists of computers, TVs, and printers, which must be taken to the City Of Manteca Solid Waste Office.

California limits the transportation of hazardous wastes to 15 gallons or 125 pounds per vehicle but the number of trips made per day is not regulated. Single containers cannot be over 5 gallons. Manteca provides residents with free 5-quart motor oil collection containers upon request. They can be left out curbside next to trash carts on collection days to be picked up for no extra charge.

## SOLID WASTE GENERATION RATES AND VOLUMES

The California Department of Resources Recycling and Recovery (CalRecycle) tracks and monitors solid waste generation rates on a per capita basis. Per capita solid waste generation rates and total annual solid waste disposal volumes for the City of Manteca between 2010 and 2014 are shown in Table 3.15-9.

***TABLE 3.15-9: SOLID WASTE GENERATION RATES***

| YEAR | WASTE GENERATION RATE (LBS/PERSON/DAY) | POPULATION | TOTAL DISPOSAL TONNAGE (TONS/YEAR) |
|---|---|---|---|
| 2010 | 4.9 | 66,749 | 59,206 |
| 2011 | 4.6 | 68,410 | 57,462 |
| 2012 | 4.5 | 69,815 | 57,467 |
| 2013 | 4.6 | 71,164 | 59,537 |
| 2014 | 4.7 | 72,880 | 61,696 |
| 2015 | 5.0 | 74,721 | 67,089 |
| 2016 | 5.4 | 76,692 | 73,050 |
| 2017 | 5.5 | 78,738 | 80,277 |
| 2018 | 5.9 | 80,829 | 87,478 |
| 2019 | -- | -- | -- |

*SOURCE: CAL RECYCLE. ACCESSED AUGUST 2019*
*NOTES: 2019 DATA NOT AVAILABLE*

As shown in the Table 3.15-9, the per capita waste generation rate increased from 4.9 to 5.9 lbs/person/day over the 8 year (2010-2018) period. In addition, the total annual disposal tonnage in Manteca increased by 28,272 tons over the 2010 to 2018 time span. With the passage of SB 1016, per capita disposal rate is used to determine the diversion progress of a city and not the jurisdictional diversion rates. Therefore, a population increase resulting in the generation of more overall city waste does not affect the jurisdiction's ability to meet its waste goals. The City's waste disposal rate targets are shown in Table 3.15-10.

***TABLE 3.15-10: CITY OF MANTECA WASTE DISPOSAL RATE TARGETS (POUNDS/DAY)***

| YEAR | POPULATION | | EMPLOYMENT | |
|---|---|---|---|---|
| | TARGET | ANNUAL | TARGET | ANNUAL |
| 2010 | 5.6 | 4.9 | 22.5 | 22.5 |
| 2011 | 5.6 | 4.6 | 21.1 | 20.6 |
| 2012 | 5.6 | 4.5 | 21.1 | 19.9 |
| 2013 | 5.6 | 4.6 | 21.1 | 19.6 |
| 2014 | 5.6 | 4.7 | 21.1 | 19.1 |
| 2015 | 5.6 | 5.0 | 21.1 | 19.7 |
| 2016 | 5.6 | 5.4 | 21.1 | 20.7 |
| 2017 | 5.6 | 5.5 | 21.1 | 21.8 |
| 2018 | 5.6 | 5.9 | 21.1 | 23.6 |
| 2019 | 5.6 | 6.0 | 21.1 | 24.1 |

*SOURCE: CAL RECYCLE. ACCESSED AUGUST 2019.*

The City's target rate on the above table represents a 50% diversion rate. In accordance with AB 939, which required municipalities to aggressively pursue MSW source reduction and recycling, the City continues to meet and exceed all AB 939 goals. The various solid waste management actions adopted by the City include, but are not limited to, recycling and yard waste programs for residents and businesses, public education and public outreach awareness events, and school recycling and composting.

## LANDFILL CAPACITY

Forward Landfill is permitted to accept 46,080 tons of solid waste per week, not to exceed 8,668 tons per day. The average daily disposal is 620 tons per day. The allotted disposal area is 354.5 acres, and it is designed to hold 51,040,000 cubic yards of inert or designated wastes. The maximum depth of the landfill is 7 feet below mean sea level and the permitted height is no greater than 210 feet above mean sea level. The remaining capacity is 23.7 million cubic yards, which is expected to be filled by 2020. At that time the City can utilize the Foothill Landfill as a location for solid waste disposal. The City's solid waste per capita generation has decreased since 2007 due to the waste diversion efforts of the City. The City of Manteca landfills are summarized in Table 3.15-11.

***TABLE 3.15-11: CITY OF MANTECA LANDFILL SUMMARY***

| *LANDFILL* | *LOCATION* | *MAXIMUM DAILY THROUGHPUT (TONS/DAY)* | *REMAINING CAPACITY (CUBIC YARDS)* | *ANTICIPATED CLOSURE DATE* |
|---|---|---|---|---|
| Forward Sanitary | Manteca | 8,668 | 22.1 Million | 2036 |
| Foothill Sanitary | Linden | 1,500 | 125.0 Million | 2054 |
| North County | Victor | 825 | 35.4 Million | 2035 |

*SOURCE: CAL RECYCLE. ACCESSED FEBRUARY 2021.*

A 17.3-acre expansion was approved in January of 2020 inside the landfill's existing boundaries along Austin Road east of Stockton Metropolitan Airport. The lifespan of the landfill will extend from 2030 to 2036 and an additional 8.2 million cubic yards of waste will be processed on two sites, an 8.7-acre parcel in the northeast corner and an 8.6-acre parcel on the south end of the property.

## FUNDING

The City's solid waste collection services operate as an enterprise fund. An enterprise fund establishes a separate accounting and financial reporting mechanism for municipal services for which a fee is charged in exchange for goods or services. Under enterprise accounting, the revenues and expenditures of services are separated into funds with their own financial statements, rather than commingled with the revenues and expenses of all other government activities. The City's General Fund is not used for solid waste collection service costs. The revenues generated from service collection fees adequately fund the operation of the City's transfer station and Solid Waste Division operations, including solid waste collections. The General Plan contains policies requiring that new developments pay an equal proportion of municipal service costs so that the economic burden is not placed on existing residents.

## REGULATORY SETTING – SOLID WASTE

### Federal

#### RESOURCE CONSERVATION AND RECOVERY ACT

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the current Act governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA was an amendment to the Solid Waste Disposal Act of 1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the Environmental Protection Agency (EPA) to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the Federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the Federal program.

### State

#### CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT (AB 939 AND SB 1322)

The California Integrated Waste Management Act of 1989 (AB 939 and SB 1322) requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25% by 1995 and 50% by 2000. The purpose of AB 939 and SB 1322 is to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established a waste management hierarchy, as follows: Source Reduction; Recycling; Composting; Transformation; and Disposal.

#### CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD MODEL ORDINANCE

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Re-use and Recycling Access Act of 1991 (§42900-42911 of the Public Resources Code) directs the California Integrated Waste Management Board (CIWMB) to draft a "model ordinance" relating to adequate areas for collecting and loading recyclable materials in development projects. The model ordinance requires that any new development project, for which an application is submitted on or after September 1, 1994, include "adequate, accessible, and convenient areas for collecting and loading recyclable materials." For subdivisions of single family detached homes, recycling areas are required to serve only the needs of the homes within that subdivision.

#### CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN)

CALGreen requires the diversion of at least 50 percent of the construction waste generated during most new construction projects (CALGreen Sections 4.408 and 5.408) and some additions and alterations to nonresidential building projects.

### CALIFORNIA MANDATORY COMMERCIAL RECYCLING LAW (AB 341)

Assembly Bill (AB) 341 directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. The purpose of AB 341 is to reduce GHG emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California.

Beginning on July 1, 2012, businesses have been required to recycle, and each jurisdiction has implemented programs that include education, outreach, and monitoring. Jurisdictions were required to start reporting on their 2012 Electronic Annual Report (due August 1, 2013) on their initial education, outreach, and monitoring efforts, and, if applicable, on any enforcement activities or exemptions implemented by the jurisdiction.

In addition to Mandatory Commercial Recycling, AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020. This is not written as a 75 percent diversion mandate for each jurisdiction. The 50 percent disposal reduction mandate still stands for cities, counties, and State agencies (including community colleges) under AB 939. CalRecycle continues to evaluate program implementation as it has in the past through the Annual Report review process for entities subject to either AB 939.

### ASSEMBLY BILL 1826 MANDATORY COMMERCIAL ORGANICS RECYCLING

In October 2014 Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units (please note, however, that multi-family dwellings are not required to have a food waste diversion program). Organic waste (also referred to as organics) means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. This law phases in the mandatory recycling of commercial organics over time, while also offering an exemption process for rural counties. In particular, the minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

Starting on January 1, 2019, businesses that generate 4 cubic yards or more of commercial solid waste per week shall arrange for organic waste recycling services. By Summer/Fall 2021, if CalRecycle determines that the statewide disposal of organic waste in 2020 has not been reduced by 50 percent of the level of disposal during 2014, the organic recycling requirements on businesses will expand to cover businesses that generate 2 cubic yards or more of commercial solid waste per week. Additionally, certain exemptions may no longer be available if this target is not met.

### SB 1374 (CONSTRUCTION AND DEMOLITION WASTE MATERIALS DIVERSION)

Senate Bill 1374 (SB 1374), Construction and Demolition Waste Materials Diversion Requirements, requires that jurisdictions summarize their progress realized in diverting construction and demolition waste from the waste stream in their annual AB 939 reports. SB 1374 required the CIWMB to adopt a model construction and demolition ordinance for voluntary implementation by local jurisdictions.

### AB 2176 (MONTANEZ, CHAPTER 879, STATUES OF 2004)

This law requires the largest venue facilities and events (as defined) in each city and county to plan and implement solid waste diversion programs, and annually report the progress of those upon the request of their local government. In turn, local jurisdictions must report to the CIWMB waste diversion information for the top 10 percent of venues and events by waste generation.

A large event is defined as:

1. Serves an average of more than 2,000 individuals per day of operation (both people attending the event and those working at it—including volunteers—are included in this number); and

2. Charges an admission price or is run by a local agency.

The bill specifically includes public, nonprofit, or privately owned parks, parking lots, golf courses, street systems, or other open space when being used for an event, including, but not limited to, a sporting event or a flea market in addition to events that meet both of the above.

A large venue is defined as:

- A permanent facility that annually seats or serves an average of more than 2,000 individuals within the grounds of the facility per day of operation (both people attending the event and those working at it—including volunteers too—are included in this number).

Venues include, but are not limited to airports, amphitheaters, amusement parks, aquariums, arenas, conference or civic centers, fairgrounds, museums, halls, horse tracks, performing arts centers, racetracks, stadiums, theaters, zoos, and other public attraction facilities.

### SENATE BILL 1383 SHORT-LIVED CLIMATE POLLUTANTS: ORGANIC WASTE METHANE EMISSIONS REDUCTIONS

In September 2016, Governor Brown signed SB 1383, establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants (SLCP) in various sectors of California's economy. The bill codifies the California Air Resources Board's Short-Lived Climate Pollutant Reduction Strategy, established pursuant to SB 605, in order to achieve reductions in the statewide emissions of short-lived climate pollutants. Actions to reduce short-lived climate pollutants are essential to address the many impacts of climate change on human health, especially in California's most at-risk communities, and on the environment.

As it pertains to solid waste, SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

### Local

#### MANTECA MUNICIPAL CODE, CHAPTER 13.02: SOLID WASTE COLLECTION AND DISPOSAL

Chapter 8.12 of the Municipal Code regulates the management of garbage, recyclables, and other wastes. Chapter 8.12 sets forth solid waste collection, disposal, and diversion requirements for residential, commercial, industrial, and other uses and addresses yard waste, hazardous materials, recyclables, and other forms of solid waste.

#### MANTECA MUNICIPAL CODE, CHAPTER 13.02.090: MANDATORY MULTIFAMILY RECYCLING

Owners of multifamily complexes are obligated to utilize Manteca's recycling service and allow for the convenient location of recycling containers. The location of recycling containers must be approved by the Office of the Director of Public Works and the containers must remain in the agreed upon location excluding scheduled waste collection dates.

#### MANTECA MUNICIPAL CODE, CHAPTER 13.02.100: COMMERCIAL BUSINESS RECYCLING

Commercial businesses that produce two or more cubic yards of recyclable or green waste items per week must utilize Manteca's waste collection services. The placement of recycle and green waste containers require approval by the Office of the Director of Public Works.

#### MANTECA MUNICIPAL CODE, CHAPTER 13.02.120: CONSTRUCTION AND DEMOLITION RECYCLING

The Manteca Municipal Code Construction and Demolition Recycling Section applies to all contractors on all city construction and demolition projects. It mandates that all concrete, clean wood waste, brick, asphalt, and scrap metal be recycled when the total area of the project surpasses five thousand square feet. The recyclable items must be separated on site and stored in recycling containers to be retrieved by the City of Manteca Solid Waste Division or a permitted resource recovery collector. Construction recycling containers must only contain recyclable material. Failing to properly separate wastes at the source is unlawful and could result in a misdemeanor. All resource recovery collectors providing waste transfer services for construction or demolition related projects within Manteca must claim the types and quantity of materials transported to landfills or transfer stations as well as provide certified weigh-master receipts.

## THRESHOLDS OF SIGNIFICANCE

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

- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; and/or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

## IMPACTS AND MITIGATION MEASURES

### 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 (Less than Significant)

The development of future land uses under the proposed General Plan would increase solid waste disposal needs and could have the potential to require the construction of new landfill facilities, or expansion of existing facilities.

Future development of projects as contemplated under the proposed General Plan may increase the population within the Planning Area to approximately 116,546 persons. As described above, the City of Manteca has achieved a disposal rate of 4.7 PPD per resident in 2014. Assuming these disposal rates remain constant throughout the life of the General Plan, the new growth under General Plan buildout would result in an increase of approximately 95,481 pounds per day of solid waste, which equals 47.7 tons per day or 17,410 tons of solid waste per year.

Forward Landfill was projected to close in 2020 at current acceptance rates due to reaching its permitted size parameters. To increase the lifespan of the landfill, Forward, Inc. is planning to expand its disposal footprint The City's projected increase in solid waste generation associated with future buildout of the proposed General Plan is within the permitted capacity of the Forward Sanitary Landfill expansion. As noted previously, the vast majority of landfill disposed from the City of Manteca went to Forward Sanitary Landfill.[1] Other landfills that received waste from the City of Manteca include:

- Lovelace Materials Recovery Facility and Transfer Station
- San Joaquin County Hazardous Waste
- Foothill Sanitary Landfill
- North County

Forward Sanitary Landfill has a remaining capacity of 23,700,000 cubic yards, and has a current maximum permitted throughput of 8,668 tons per day. This landfill originally had a cease operation date in the year 2020. A 17.3-acre expansion was approved in January of 2020 inside the landfill's existing boundaries along Austin Road east of Stockton Metropolitan Airport. The

[1] Note: data provided by CalRecycle, based on information provided by County disposal reports.

lifespan of the landfill will extend from 2030 to 2036 and an additional 8.2 million cubic yards of waste will be processed on two sites, an 8.7-acre parcel in the northeast corner and an 8.6-acre parcel on the south end of the property.

The City's solid waste per capita generation has decreased since 2007 due to the waste diversion efforts of the City. The additional solid waste generation associated with the proposed General Plan, approximately 47.7 tons per day at total buildout, to the Forward Landfill would not exceed the landfill's remaining and additional capacity until landfill closure in 2036.The City will need to secure a new location or expand existing facilities when the Forward Landfill is ultimately closed. There are several options that the City will have to consider for solid waste disposal at that time which is estimated to be 2036, including the construction of new facilities or expansion of existing facilities.

At the closure of the Forward Landfill, the City can potentially utilize the Foothill Landfill and the North County Landfill as locations for solid waste disposal. The permitted maximum disposal at the Foothill Landfill is 1,500 tons per day and the North County Landfill is 825 tons per day. The remaining capacity of these landfills include 125 million cubic yards of solid waste at the Foothill Landfill, with an estimated cease operation date of 2054, and 35.4 million cubic yards of solid waste at the North County Landfill, which has an estimated cease operation date of 2035. The addition of solid waste associated with the proposed project to the Foothill Landfill and North County Landfill would not exceed the combined landfills' remaining capacity of 160.4 cubic yards. While there are no plans for landfill construction or expansion associated with the proposed General Plan, development of new solid waste disposal facilities could result in environmental effects in areas such as traffic, hydrology, biology, air quality, greenhouse gases, and noise. Any future construction projects in would be required to conduct environmental review pursuant to CEQA prior to approval. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations associated with solid waste. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this impact would be less than significant, and no additional mitigation is required.

The proposed General Plan includes actions to further reduce the project's impact on solid waste services, as identified below. With the implementation of the following policies and payment of a solid waste connection fees for project within the Planning Area, potential solid waste impacts would be reduced to ***less than significant*** impact.

### GENERAL PLAN POLICIES AND ACTIONS THAT MITIGATE POTENTIAL IMPACTS

#### POLICIES

*CF-11.1: Continue to require mandatory refuse collection throughout the city.*

*CF-11.2: 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-11.3: 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.*

*CF-11.4: Encourage residential, commercial, and industrial recycling and reuse programs and techniques.*

*CF-11.5: 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.*

*CF-11.6: Support the continued use of the Lovelace Transfer Station on Lovelace Road, between Union Road and Airport Way, for the processing and shipping of solid waste materials.*

ACTIONS

*CF-11a: Regularly monitory the level of service provided by garbage and recycling collection contractors to ensure that service levels are adequate.*

*CF-11b: Implement recycling and waste reduction education programs for City employees. The education program will disseminate information on what and how much is recycled by the City.*

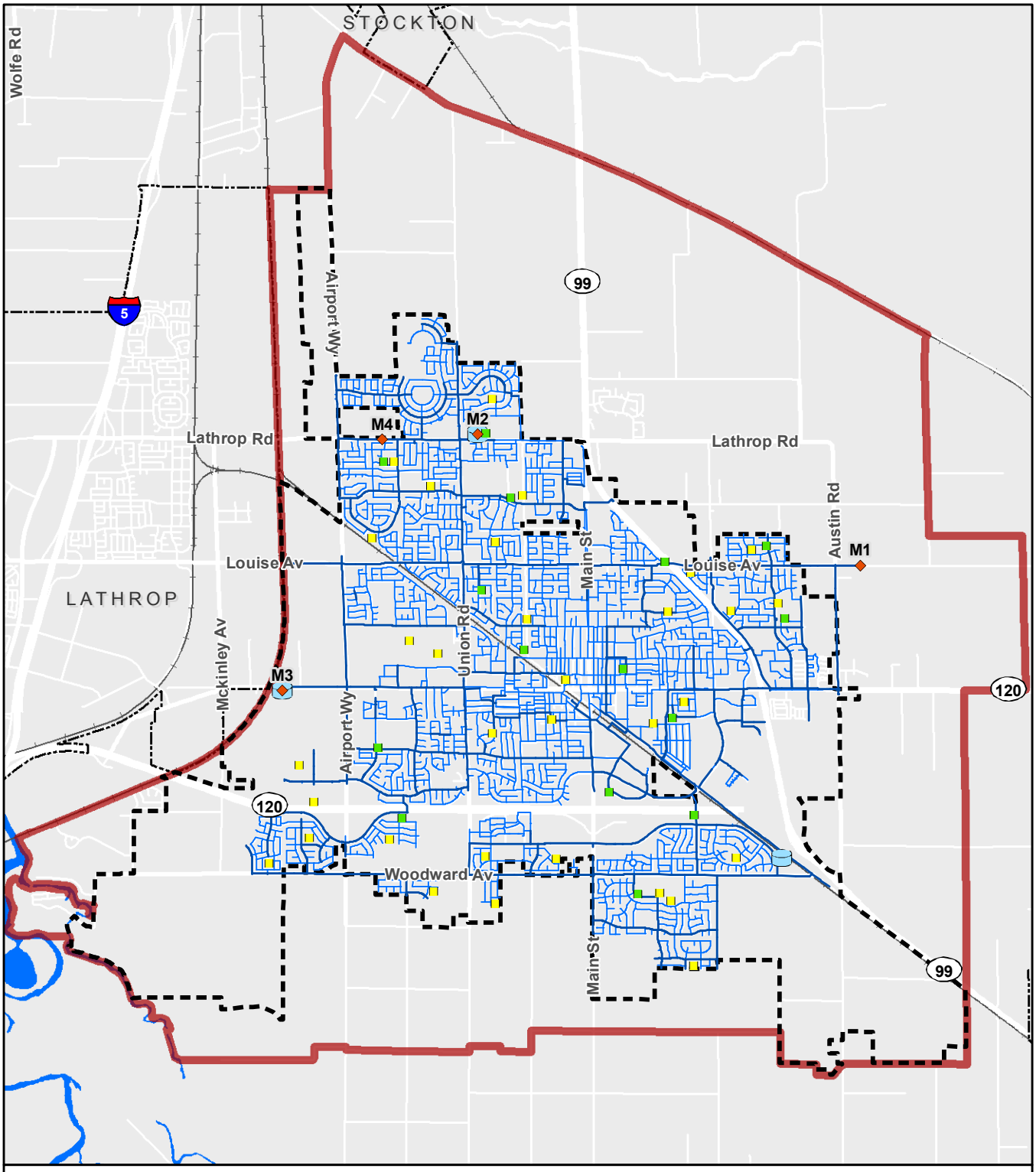
*CF-11c: Expand the provision of recycling collection containers and services to all City facilities, including parks.*

*CF-11d: Include standard language in requests for services and in City agreements requiring contractors to use best management practices to maximize diversion of waste from the landfill.*

*CF-11e: Coordinate with San Joaquin County concerning the City's use of the Lovelace Landfill and its capacity projections.*

*CF-11f: Encourage recycling, reuse, and appropriate disposal of hazardous materials, including the following:*

- *Increased participation in single family and multifamily residential curbside recycling programs;*
- *Increased participation in commercial and industrial recycling programs for paper, cardboard, and plastics;*
- *Reduce yard and landscaping waste through methods such as composting, grass recycling, and using resource efficient landscaping techniques; and*
- *Encourage local businesses to provide electronic waste (e-waste) drop-off services and encourage residents and businesses to properly dispose of, or recycle, e-waste.*




**Existing City Water Infrastructure**

- Potable Water Well
- Irrigation Water Well
- Turnout
- Water Tank

**Water Main**

- 8-inch and Smaller
- 10-inch and Larger

**Planning Area**

- Manteca City Limits
- Manteca Sphere of Influence

**CITY OF MANTECA GENERAL PLAN**

Figure 3.15-1: Existing Water System Facilities

0 ½ 1
Miles
1:75,000

*Source: City of Manteca GIS.*
*Notes: Turnout locations are approximate. Only active facilities are shown.*
*Map date: July 17, 2017.*

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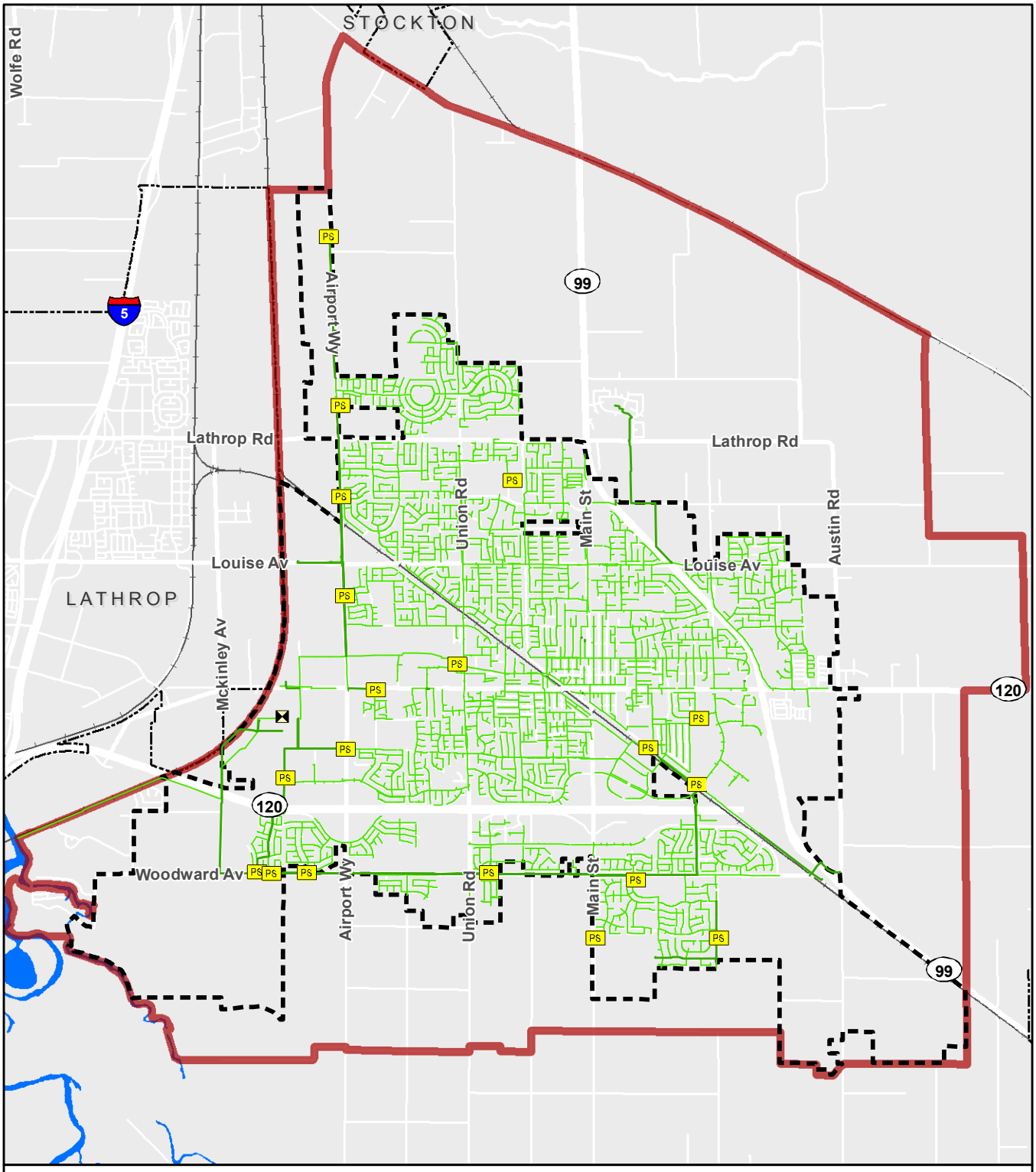


**Existing Sewer Collection System Infrastructure**

- Water Pollution Control Facility
- Pump Station
- Gravity Main
- Force Main

**Planning Area**

- Manteca City Limits
- Manteca Sphere of Influence

**CITY OF MANTECA GENERAL PLAN**

Figure 3.15-2: Existing Sewer Collection System Facilities

N

0 ½ 1

Miles

1:75,000

*Source: City of Manteca GIS.*
*Map date: July 11, 2017.*

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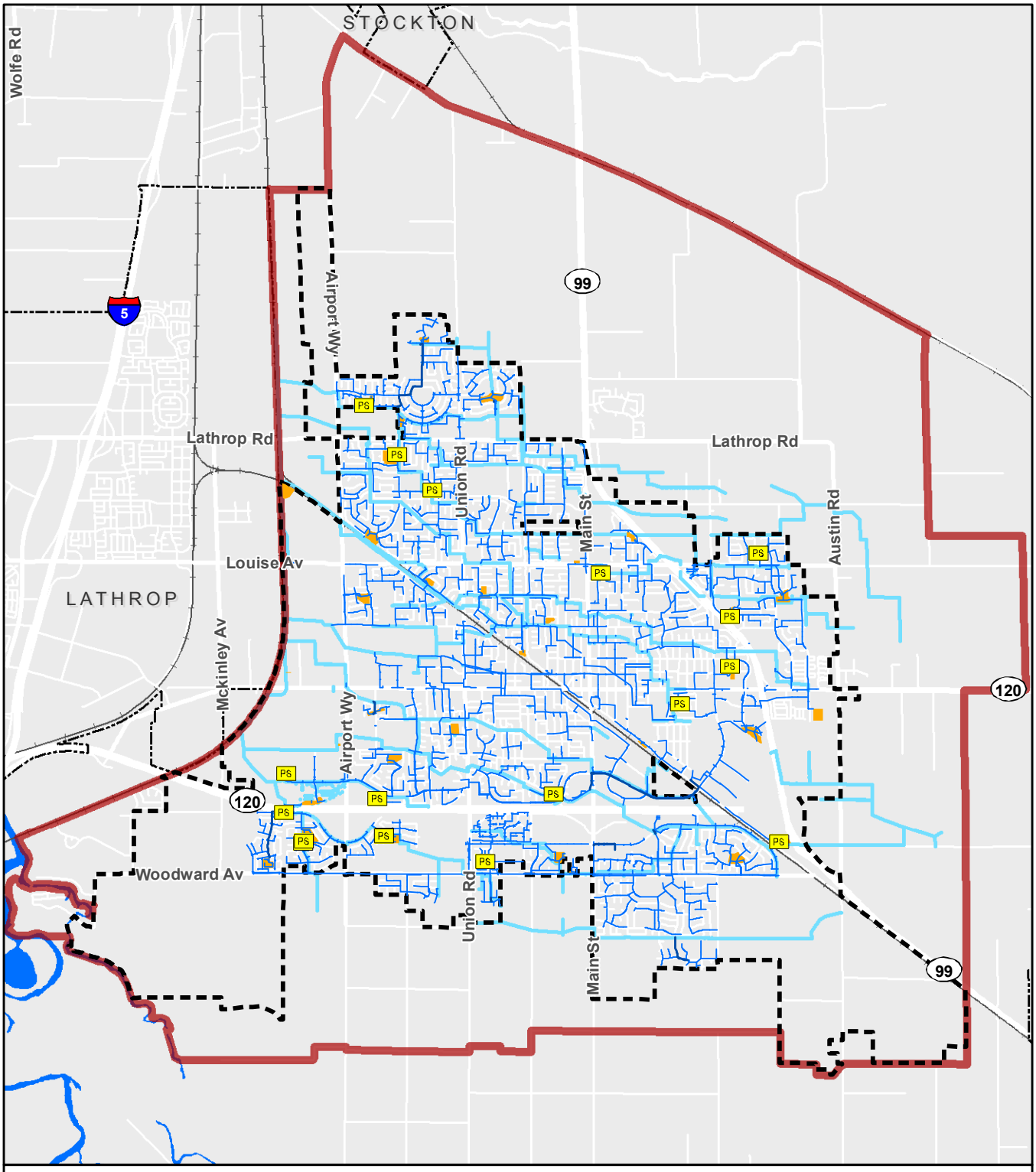


**Existing City Stormwater Infrastructure**

- PS Pump Station
- Gravity Main
- Force Main
- Detention Basin

**Other Existing Storm Water Infrastructure**

- South San Joaquin Irrigation District Conveyance

**Planning Area**

- Manteca City Limits
- Manteca Sphere of Influence

**CITY OF MANTECA GENERAL PLAN**

Figure 3.15-3: Existing Stormwater System Facilities

N

0 ½ 1

Miles

1:75,000

*Source: City of Manteca GIS.*
*Map date: July 11, 2017.*

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This section provides a background discussion of the hazards associated with wildfires in the Planning Area. The discussion of fire suppression resources is located within Chapter 3.13, Public Services and Recreation, of this report.

No comments were received during the NOP comment period regrading this environmental topic.

## 3.16.1 ENVIRONMENTAL SETTING

### FIRE HAZARD SEVERITY ZONES

The state has charged the California Department of Forestry and Fire Protection (CalFire)with the identification of Fire Hazard Severity Zones (FHSZ) within State Responsibility Areas (SRAs). In addition, CalFire must recommend Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas (LRAs). The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards.

The Planning Area includes only LRAs with State Responsibility Areas to the north, outside city boundaries. Included in Chapter 3.8, Hazards and Hazardous Materials, Figure 3.8-3 shows Fire Hazard Severity Zones within Manteca, and Figure 3.8-4 shows the corresponding fire threat to people.

#### Local Responsibility Areas

The majority of the Planning Area is not located within a LRA. Three portions of the Planning Area are located in an LRA: a developed area near Airport Way and W. Yosemite Avenue, a developed area near E. Yosemite Avenue and Austin Road, and a developed area near W. Louise Avenue and S. Airport Way. Manteca is an LRA that is served by the Manteca Fire Department. The Manteca Fire Department serves approximately 83,781 residents throughout approximately 17.2 square miles within the City limits. The City of Manteca is not categorized as a "Very High" FHSZ by CalFire. No cities or communities within San Joaquin County are categorized as a "Very High" FHSZ by CalFire.

#### State Responsibility Areas

There are no SRAs within the vicinity of the Planning Area.

#### Federal Responsibility Areas

There are no Federal Responsibility Areas (FRAs) within the vicinity of the Planning Area.

### IDENTIFYING FIRE HAZARDS

#### Fuel Rank

Fuel rank is a ranking system developed by CalFire that incorporates four wildfire factors: fuel model, slope, ladder index, and crown index.

The U.S. Forest Service has developed a series of fuel models, which categorize fuels based on burn characteristics. These fuel models help predict fire behavior. In addition to fuel characteristics, slope is an important contributor to fire hazard levels. A surface ranking system has been developed by CalFire, which incorporates the applicable fuel models and slope data. The model categorizes slope into six ranges: 0-10%, 11-25%, 26-40%, 41-55%, 56-75% and >75%. The combined fuel model and slope data are organized into three categories, referred to as surface rank. Thus, surface rank is a reflection of the quantity and burn characteristics of the fuels and the topography in a given area.

The ladder index is a reflection of the distance from the ground to the lowest leafy vegetation for tree and plant species. The crown index is a reflection of the quantity of leafy vegetation present within individual specimens of a given species.

The surface rank, ladder index, and crown index for a given area are combined in order to establish a fuel rank of medium, high, or very high. Fuel rank is used by CalFire to identify areas in the California Fire Plan where large, catastrophic fires are most likely.

The areas warranting “moderate” fuel ranks possess combustible material in sufficient quantities combined with topographic characteristics that pose a wildfire risk. The Planning Area contains areas with “moderate” and “non-wildland fuel” ranks. Within the City, the core area is primarily classified as “Local: Urban Unzoned” and surrounding areas are generally identified as “Local: Non-Wildland/Non-Urban.” There are limited areas designated as “Local: Moderate” in the City; these are relatively small, localized areas, including an area on both sides of Airport Way south of Yosemite Avenue, an area on both sides of Yosemite Avenue west of Austin Road, and an area along the UPRR line at the City’s boundary with Lathrop. In the Planning Area, there are only two areas designated “Local: Moderate”, an area around the E. Southland Road and Cottage Avenue intersection and an area located along and south of the Turtle Beach RV Resort adjacent to the San Joaquin River.

## Fire Threat to People

As shown in Figure 3.8-4, there are no areas within the City or Planning Area classified as Very High or Extreme Fire Hazards. The majority of the City is classified as Not Mapped, with areas of Moderate Fire Hazards located in the southeast corner of the City, along the SR 120 interchanges, along and in the vicinity of the San Joaquin River, and scattered throughout the City and Planning Area. There are small areas of High Fire Hazard mapped, including areas in the vicinity of the Lathrop Rd/SR 99 interchange, in the vicinity of the SR 120/Union Road and SR 99/SR 120 interchanges, and in other limited locations in the Planning Area.

## 3.16.2 REGULATORY SETTING

### FEDERAL

#### FY 2001 Appropriations Act

Title IV of the Appropriations Act required the identification of "Urban Wildland Interface Communities in the Vicinity of Federal Lands that are at High Risk from Wildfire" by the U.S. Departments of the Interior and Agriculture.

#### Disaster Mitigation Act (2000)

Section 104 of the Disaster Mitigation Act of 2000 (Public Law 106-390) enacted Section 322, Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, which created incentives for state and local entities to coordinate hazard mitigation planning and implementation efforts, and is an important source of funding for fuels mitigation efforts through hazard mitigation grants.

#### National Incident Management System

The City adopted the National Incident Management System (NIMS), which provides a systematic, proactive approach to guide government agencies, nongovernmental organizations, and the private sector to work together to prevent, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment. NIMS improves the City's ability to prepare for and respond to potential incidents and hazard scenarios.

#### National Fire Plan 2000

The summer of 2000 marked a historic milestone in wildland fire records for the United States. Dry conditions (across the western United States), led to destructive wildfire events on an estimated 7.2 million acres, nearly double the 10-year average. Costs in damages including fire suppression activities were approximately 2.1 billion dollars. Congressional direction called for substantial new appropriations for wildland fire management. This resulted in action plans, interagency strategies, and the Western Governor's Association's "A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment - A 10-Year Comprehensive Strategy - Implementation Plan", which collectively became known as the National Fire Plan. This plan places a priority on collaborative work within communities to reduce their risk from large-scale wildfires.

#### Healthy Forest Initiative 2002/Healthy Forest Restoration ACT 2003

In August 2002, the Healthy Forests Initiative (HFI) was launched with the intent to reduce the severe wildfires risks that threaten people, communities, and the environment. Congress then passed the Healthy Forests Restoration Act (HFRA) on December 3, 2003 to provide the additional administrative tools needed to implement the HFI. The HFRA strengthened efforts to restore healthy forest conditions near communities by authorizing measures such as expedited environmental assessments for hazardous fuels projects on federal land. This Act emphasized the

need for federal agencies to work collaboratively with communities in developing hazardous fuel reduction projects and places priority on fuel treatments identified by communities themselves in their Community Wildfire Protection Plans.

### Department of the Interior Department Manual Part 620

Wildland Fire Management. Part 620 of the Department of the Interior Departmental Manual pertains to wildland fire management policies, with the goal of providing an integrated approach to wildland fire management. The guiding principles of the plan emphasize the need for public health and safety considerations, risk management protocols, inter-agency collaboration, and economic feasibility of wildfire management practices, as well as the ecological role of wildfires.

## STATE

### California Strategic Fire Plan

This statewide plan is a strategic document, which guides fire policy for much of California. The plan is aimed at reducing wildfire risk through pre-fire mitigation efforts tailored to local areas through assessments of fuels, hazards, and risks.

### California State Multi-Hazard Mitigation Plan

The purpose of the State Multi-Hazard Mitigation Plan (SHMP) is to significantly reduce deaths, injuries, and other losses attributed to natural- and human-caused hazards in California. The SHMP provides guidance for hazard mitigation activities emphasizing partnerships among local, state, and federal agencies as well as the private sector.

### California Government Code

California Government Code Section 65302.5 requires the State Board of Forestry and Fire Protection to provide recommendations for a local jurisdiction's General Plan fire safety element when the jurisdiction amends its general plan. While not a direct and binding fire prevention requirement for individuals, general plans that adopt the Board's recommendations will include goals and policies that provide for contemporary fire prevention standards for the jurisdiction. While the State Board of Forestry and Fire Protection has not specifically commented on the Proposed General Plan at the time that this EIR was written, the Proposed General Plan has been developed to include best practices to ensure contemporary fire prevention standards, as described in greater detail under the impact discussions below.

California Government Code Section 51175 defines Very High Fire Hazard Severity Zones and designates lands considered by the State to be a very high fire hazard.

California Government Code Section 51189 directs the Office of the State Fire Marshal to create building standards for wildland fire resistance. The code includes measures that increase the likelihood of a structure withstanding intrusion by fire (such as building design and construction requirements that use fire-resistant building materials) and provides protection of structure

projections (such as porches, decks, balconies and eaves), and structure openings (such as attics, eave vents, and windows).

## California Public Resource Code

The State's Fire Safe Regulations are set forth in Public Resources Code Section 4290, which include the establishment of SRAs.

Public Resources Code Section 4291 sets forth defensible space requirements, which are applicable to anyone that …owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material (§4291(a)).

Public Resources Code Sections 4292-4296 and 14 CCR 1256, Fire Prevention for Electrical Utilities, address the vegetation clearance standards for electrical utilities. They include the standards for clearing around energy lines and conductors such as power-line hardware and power poles. These regulations are critical to wildland fire safety because of the substantial number of power lines in wildlands, the historic source of fire ignitions associated with power lines, and the extensive damage that results from power line caused wildfires in severe wind conditions.

## Assembly Bill 337

Per Assembly Bill 337, local fire prevention authorities and CalFire are required to identify VHFHSZs in LRAs. Standards related to brush clearance and the use of fire resistant materials in fire hazard severity zones are also established.

## Uniform Fire Code

The Uniform Fire Code (UFC) establishes standards related to the design, construction, and maintenance of buildings. The standards set forth in the UFC range from designing for access by firefighters and equipment and minimum requirements for automatic sprinklers and fire hydrants to the appropriate storage and use of combustible materials.

## Senate Bill No. 1241

California Senate Bill No. 1241 requires that the Safety Element component of city or county general plans to incorporate fire risk related to SRAs and Very High Fire Hazard Severity Zones.

## Code of Regulations Title 8 (Cal/OSHA)

In accordance with CCR, Title 8, Section 1270 and Section 6773 (Fire Prevention and Fire Protection and Fire Equipment), the Occupational Safety and Health Administration (Cal OSHA) establishes fire suppression service standards. The standards range from fire hose size requirements to the design of emergency access roads.

## Code of Regulations Title 14 (Natural Resources)

Division 1.5 (Department of Forestry and Fire Protection), Title 14 of the CCR establishes a variety of wildfire preparedness, prevention, and response regulations.

### Code of Regulations Title 19 (Public Safety)

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

## LOCAL

### San Joaquin Office of Emergency Services

The mission of the Office of Emergency Services (OES) is to minimize or reduce injury, loss of life, environmental and property damage from emergencies within San Joaquin County. OES is the key disaster preparedness office of the County, and has direct responsibility to support and coordinate the efforts of County departments carrying out their functions in the field. To ensure a coordinated response to their disaster needs, OES also provides disaster information, logistical support, facilitates mutual aid requests, and facilitates inter-jurisdictional coordination with agencies from 7 cities, 120 special districts, and locally-based State and Federal agencies.

### City of Manteca Municipal Code

The City of Manteca's Municipal Code addresses wildfires and associated fire protection in Titles 8, 15, 16, and 17.

Title 8 – Health and Safety (8.08 Fireworks); this section covers sale, use, storage, public firework displays, and requiring permits from the Fire Marshal.

Title 15 - Buildings and Construction (15.24.070 Fire Code); this section includes the adoption of the 2016 California Fire code and additional amendments.

Title 16 - Subdivisions (16.23.030 Improvements Required); this section discusses the requirements for subdivisions including providing appropriate fire protection and fire protection facilities.

Title 17 – Zoning (17.58.040 Hazardous Materials); this section discusses hazardous materials, including disclosure to the Fire Department and San Joaquin County Health Department.

# 3.16.3 IMPACTS AND MITIGATION MEASURES

## THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact related to wildfires if:

- Located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, the project would:
  - Substantially impair an adopted emergency response plan or emergency evacuation plan.
  - Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

## IMPACTS AND MITIGATION MEASURES

### Impact 3.16-1: 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 (No Impact)

The Planning Area is not located in or near any State Responsibility Areas and there are no lands classified as very high fire hazard severity zones within or near the Planning Area. Therefore, the General Plan would have ***no impact*** related to wildfire risks associated with lands in or near State Responsibility Areas or lands classified as very high fire hazard severity zones.

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CEQA requires an EIR to evaluate a project's effects in relationship to broader changes that are occurring or that may foreseeably occur, in the surrounding environment. Accordingly, this chapter presents discussion of CEQA-mandated analysis for cumulative impacts, irreversible impacts, and growth inducement associated with the proposed General Plan.

## 4.1 CUMULATIVE SETTING AND IMPACT ANALYSIS

### INTRODUCTION

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the General Plan. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable," as defined in section 15065(a)(3), means that "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

> *…the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

1) Either:

> (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,
>
> (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

## CUMULATIVE SETTING

Under CEQA, the discussion of cumulative impacts should focus on the severity of the impacts and the likelihood of their occurrence. The geographic scope for the cumulative analysis covers the entire Manteca Planning Area, which for the purposes of the General Plan includes 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 City Limits and the City's SOI, as shown on Figure 2.0-2 (see Chapter 2.0: Project Description). It should be noted that, for some environmental topics, the geographic scope for the cumulative analysis also covers the boundaries of San Joaquin County, the San Joaquin Valley Air Basin, and/or other jurisdictional boundaries that are relevant to the particular environmental topic.

In most cases in this EIR, the buildout analysis utilizes a 20-year horizon, and 2040 is assumed to be the buildout year of the General Plan. The year 2040 is used as the benchmark year for the cumulative analysis contained in this EIR. This year was chosen based on the fact that the General Plan was developed as a 20-year plan for Manteca, and the General Plan is scheduled for adoption in 2020.

### Land Use/Growth Projections

The San Joaquin County Assessor's office maintains a database of existing land uses on individual parcels, including the number of dwelling units and related improvements such as non-residential building square footage. This information is used as the basis for property tax assessments and is summarized in Table 4.0-1. Table 4.0-2 identifies existing housing units, population, non-residential square footage, and jobs existing in the City.

***TABLE 4.0-1: ASSESSED LAND USES – PLANNING AREA***

| *LAND USE* | *CITY LIMITS* | *PLANNING AREA (OUTSIDE OF CITY)* | *TOTAL ACRES* |
|---|---|---|---|
| Single Family Residential | 4,384.73 | 2,141.52 | 6,526.25 |
| Multifamily Residential | 313.72 | 16.01 | 329.73 |
| Commercial | 1,108.06 | 35.78 | 1,143.85 |
| Industrial Manufacturing | 448.57 | 19.73 | 468.31 |
| Industrial Non-Manufacturing | 336.32 | 57.10 | 393.42 |
| Institutional | 1,300.78 | 685.28 | 1,986.07 |
| Office | 50.34 | 8.36 | 58.69 |
| Open Space | 0 | 176.14 | 176.14 |
| Parks and Recreation Facilities | 199.38 | 19.80 | 219.18 |
| Agricultural | 2,896.06 | 9,956.05 | 12,852.11 |
| Communication/Utilities | 14.99 | 6.86 | 21.85 |
| Non-Taxable | 23.65 | 23.65 | 23.65 |
| No Use Code | 32.03 | 0 | 32.03 |
| **Total** | **11,108.65** | **13,122.62** | **24,231.27** |

*SOURCE: SAN JOAQUIN COUNTY ASSESSOR'S OFFICE, 2016; DE NOVO PLANNING GROUP, 2020.*

Table 4.0-2 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, with includes areas outside of the City but within the SOI and Planning Area identified for the General Plan Update. It is noted that the total growth estimates anticipate buildout of the entire Planning Area, with the exception of areas identified as Urban Reserve.

Table 4.0-3 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. See Chapter 2.0 for a detailed description of land uses projected for the Planning Area at buildout.

***TABLE 4.0-2: 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 | 4,5553 | 28,250 | 89,835 | N/A | 16,381 |
| Net Growth: City Limits | 11,737 | 6,703 | 18,440 | 58,639 | 16,002,227 | 17,924 |
| Net Growth: Planning Area (outside of City) | 14,827 | 3,383 | 18,210 | 57,907 | 19,456,210 | 20,045 |
| ***Total Net Growth*** | ***26,564*** | ***10,086*** | ***36,650*** | ***116,546*** | ***35,458,437*** | ***37,969*** |
| Total (Existing + Net Growth) | 50,261 | 14,639 | 64,900 | 206,381 | - | 54,530 |

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

*SOURCE: DE NOVO PLANNING GROUP, 2020*

***TABLE 4.0-3: 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 | 64,900 | 206,381 | 54,530 | 0.74 |
| *NEW GROWTH: CITY + PLANNING AREA* | | | | |
| Change from Current General Plan | 10,498 | 33,383 | 13,990 | 0.04 |

*SOURCE: DE NOVO PLANNING GROUP, 2020*

## CUMULATIVE EFFECTS OF THE PROJECT

### Method of Analysis

Although the environmental effects of an individual project may not be significant when that project is considered separately, the combined effects of several projects may be significant when considered collectively. Section 15130 of the CEQA Guidelines requires a reasonable analysis of a project's cumulative impacts, which are defined as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." The cumulative impact that results from several closely related projects is: the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (State CEQA Guidelines 15355[b]). Cumulative impact analysis may be less detailed than the analysis of the project's individual effects (State CEQA Guidelines 15130[b]).

In order to assess cumulative impacts, an EIR must analyze either a list of past, present, and probable future projects (referred to as the “list approach”) or a summary of projections contained in an adopted general plan or related planning document (referred to as the “projection method”). Because of the programmatic nature of the Manteca General Plan, this Draft EIR uses the **projection method** for the cumulative analysis and considers buildout of the proposed General Plan in addition to buildout of the other General Plans within San Joaquin County, as summarized and addressed in the 2018 Regional Transportation Plan/Sustainable Communities Strategy (2018 RTP/SCS). Development of the 2018 RTP/SCS included review of land use plans for each jurisdiction within San Joaquin County, including:

- County of San Joaquin
- City of Manteca
- City of Stockton
- City of Tracy
- City of Lodi
- City of Lathrop
- City of Escalon

- City of Ripon

Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency for that specific project.

The 2018 RTP/SCS projects that growth Countywide would result in 343,170 households, 360,328 employees, and a population of 1,094,253 in 2045 (see Figure 1 of the 2018 RTP/SCS). Appendix W of the 2018 RTP/SCS provides more detailed projections of regional growth, estimating a population of 1323,236, 411,589 households, and 432,168 housing units in 2060. Table 4.0-4 shows the population and housing forecasts between 2020 and 2045 in San Joaquin County.

***TABLE 4.0-4: POPULATION AND HOUSING PROJECTIONS***

| | *2020* | *2025* | *2030* | *2040* | *2045* |
|---|---|---|---|---|---|
| *POPULATION* | | | | | |
| City of Escalon | 7,612 | 7,889 | 8,186 | 8,878 | 9,257 |
| City of Lathrop | 28,896 | 35,475 | 42,109 | 58,969 | 67,976 |
| City of Lodi | 69,219 | 73,397 | 77,610 | 88,317 | 94,037 |
| City of Manteca | 77,018 | 82,912 | 88,855 | 103,958 | 112,027 |
| City of Ripon | 16,525 | 17,850 | 19,186 | 22,582 | 24,396 |
| City of Stockton | 329,729 | 352,239 | 374,939 | 432,627 | 463,445 |
| City of Tracy | 95,040 | 102,236 | 109,492 | 127,933 | 137,7884 |
| **County Total** | **775,819** | **829,426** | **883,484** | **1,020,862** | **1,094,253** |
| *HOUSING UNITS* | | | | | |
| City of Escalon | 2,674 | 2,771 | 2,866 | 3108 | 3,230 |
| City of Lathrop | 7,440 | 9,310 | 11,162 | 15,441 | 17,737 |
| City of Lodi | 24,756 | 26,206 | 27,782 | 31,406 | 33,375 |
| City of Manteca | 26,570 | 28,404 | 30,343 | 34,975 | 37,513 |
| City of Ripon | 5,702 | 6,174 | 6,638 | 7,745 | 8,344 |
| City of Stockton | 102,702 | 110,037 | 117,235 | 134,504 | 143,700 |
| City of Tracy | 27,767 | 29,920 | 32,357 | 37,539 | 40,247 |
| **County Total** | **246,715** | **263,876** | **280,716** | **321,379** | **343,170** |

*SOURCE: SJCOG RTP/SCS DRAFT PROGRAMMATIC EIR, TABLES 33 AND 34.*

The Projection Method serves as a guide to determine if the General Plan Update is consistent with the long-term population, employment, and household projections of the region. If the proposed General Plan Update is generally consistent with regional projections, then it would also generally be consistent with regional efforts to address environmental problems such as air quality and traffic.

## Cumulative Impacts

Cumulative impacts for most issue areas are not quantifiable and are therefore discussed in general qualitative terms as they pertain to development patterns in the surrounding region. An exception to this is a topic like traffic, which may be quantified by estimating future traffic patterns, pollutant emitters, etc. and determining the combined effects that may result. In

consideration of the cumulative scenario described above, the proposed project may result in the following cumulative impacts.

### AESTHETICS AND VISUAL RESOURCES

***Impact 4.1: Cumulative degradation of the existing visual character of the region (Less than Cumulatively Considerable)***

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.

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. 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.

Furthermore, buildout under the proposed General Plan and implementation of the General Plan Land Use Map has the potential to result in new and expanded development along highway corridors with scenic values, even though these corridors are not officially designated as State Scenic Highways.

While growth is anticipated to occur in the Manteca Planning Area and within the other cities within San Joaquin County, the majority of growth is anticipated to occur in and around existing urban development. Development of land uses and associated infrastructure is planned to occur in the future to accommodate growth envisioned in the general plans that are effective within the cumulative analysis area, including San Joaquin County and the cities of Stockton, Tracy, Lodi, Lathrop, Escalon, and Ripon.

Regional growth has and will continue to result in a cumulative aesthetic effect by converting undeveloped land into developed and occupied areas and increasing overall levels of nighttime lighting. Cumulative development entails grading/landform alteration, the development of structures, and the installation of roadways and other infrastructure that has altered and will continue to permanently alter the region's existing visual character. This is considered a potentially significant cumulative impact. Subsequent projects implemented under the proposed General Plan would be required to be consistent with the policies and actions of the proposed General Plan and adopted regulations pertaining to aesthetics and lighting in Manteca. With implementation of adopted policies and regulations provided in Section 3.1 (Aesthetics and Visual Resources), the proposed General Plan would not considerably contribute to permanent changes in visual character, such as obstruction of scenic views, conversion of existing visual character, and

increased lighting. The polices and actions included within the General Plan would fully reduce the cumulative effect of the General Plan on visual character, to mitigate the proposed project's contribution to a less-than-significant level. Therefore, the proposed General Plan's incremental contribution to this cumulative impact would be **less than cumulatively considerable**.

### AGRICULTURAL AND FOREST RESOURCES

***Impact 4.2: Cumulative impact to agricultural lands and resources (Considerable Contribution and Significant and Unavoidable)***

As shown in Table 3.2-4, there are approximately 4,943 acres of Important Farmlands located within the city, including approximately 1,095 acres of Prime Farmland, 3,291 acres of Statewide Important Farmland and 570 acres of locally important farmland. As shown on Figure 3.2-1, the Planning Area is designated as has Urban and Built-Up (approximately 8,948 acres), Prime Farmland (4,829 acres), Farmland of Statewide Importance (10,669 acres), Farmland of Local Importance (900 acres), Semi-Agricultural and Rural Commercial Land and Vacant or Disturbed Land and Rural Residential (454 acres).

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.

The General Plan has taken a proactive approach towards focusing new growth and development towards infill locations, and protecting open space areas and agricultural lands throughout the Planning Area to the greatest extent feasible. The applicable policies and actions that provide protection and preservation of agricultural lands are identified under Impact 3.2-2.

However, as described in greater detail under Impact 3.2-1, there is no feasible mitigation available to reduce this impact to a less than significant level. Other conversions of farmland within San Joaquin County over the buildout period is also likely to occur. The policies and actions identified in Section 3.2 would mitigate this impact to the greatest extent feasible, and other General Plans in San Joaquin County have also mitigated potential impacts to agricultural resources. Nevertheless, this is considered a **cumulatively considerable** and **significant and unavoidable** impact.

### AIR QUALITY

***Impact 4.3: Cumulative impact on the region's air quality (Less than Cumulatively Considerable)***

Construction of the growth anticipated by the proposed General Plan has the potential to temporarily emit criteria air pollutant emissions through the use of heavy-duty construction equipment, and through vehicle trips generated by workers and haul trucks. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Mobile source emissions, primarily NOx and PM emissions (i.e., $PM_{10}$ and $PM_{2.5}$), would result from the use of

diesel-powered on- and off-road vehicles and equipment. Construction emissions can vary substantially from day-to-day, depending on the level of activity and the specific type of construction activity.

Table 3.3-4 in Section 3.3 shows the combined population and jobs growth generated by the proposed project, compared to existing levels within the city. Table 3.3-5 shows the existing baseline VMT and projected VMT following buildout of the proposed project. As shown in the two tables, implementation of the proposed project would result in an approximately 146% increase in citywide VMT, similar to the projected 146% increase in combined population and jobs. Therefore, the growth rate associated with the proposed General Plan is comparable to the VMT increase associated with it. Therefore, the proposed project is not anticipated to result in VMT increases on a per service population basis.

Table 3.3-8 in Section 3.3 displays the residential cancer risk and acute and chronic incidence rate results at nearest receptors at each of the four Truck Route segments analyzed (including the cumulative impacts associated with the combined impact of proposed segments and interacting segments together). As shown, 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. Additionally, the highest maximum risk projected for the worst-case truck route segments is well below the threshold of significance.

Lastly, with respect to other emissions, future development under the proposed General Plan would be required to comply with Air Quality Management Plan (AQMP), State Implementation Plan (SIP), California Air Resources Board (CARB), San Joaquin Valley Air Pollution Control District (SJVAPCD) regulations, Title 24 energy efficiency standards, and the proposed General Plan policies and actions. Overall, this impact is considered a **less than cumulatively considerable**.

### BIOLOGICAL RESOURCES

#### *Impact 4.4: Cumulative loss of biological resources, including habitats and special status species (Less than Cumulatively Considerable)*

Cumulative development anticipated throughout the greater San Joaquin County region will result in impacts to biological resources, including the permanent loss of habitat for special status species, corridor fragmentation, direct and indirect impacts to special status species, and reduction and degradation of sensitive habitat. Biological resources are a limited resource and the cumulative loss is considered significant.

Subsequent projects implemented under the proposed General Plan would be required to be consistent with the policies and actions of the proposed 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 movement corridors, special-status species, and sensitive habitat on a given project site. If movement corridors, special-status species, or sensitive habitat 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. However, as provided under Section 3.4 (Biological Resources), with implementation of the policies and actions included within the General Plan, implementation of the General Plan would not generate a significant impact on biological resources.

Additionally, implementation of the General Plan would not conflict with the provisions of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), or other approved local, regional, or State habitat conservation plan. 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". 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). The San Joaquin Council of Government uses the collected SJMSCP fees 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. Compliance with the SJMSCP addresses impacts to biological resources, including special-status species, on a local and regional level. Therefore, the proposed General Plan's incremental contribution to this cumulative impact would be **less than cumulatively considerable**.

### CULTURAL AND TRIBAL RESOURCES

#### *Impact 4.5: Cumulative impacts on known and undiscovered cultural resources (Less than Cumulatively Considerable)*

Construction of the individual development projects allowed under the land use designations of the proposed General Plan may result in the discovery and removal of cultural resources, including archaeological, paleontological, historical, and Native American resources and human remains. The proposed General Plan policies and actions, as well as State and Federal regulations, will reduce the risk to resources in the region. As discussed in Section 3.5 (Cultural and Tribal Cultural Resources), each project would require specific surveys for potential resources and the evaluation of any resources discovered during construction activities. Other policies and actions designed to reduce impacts to cultural and tribal cultural resources within the Planning Area and the the region as a whole are also provided in Section 3.5 (Cultural and Tribal Cultural Resources). Adherence to these policies, actions, and regulations will avoid and/or minimize a cumulative loss of these important resources if they are found during project-specific surveys or construction. Therefore, the proposed General Plan's incremental contribution to cumulative cultural resource impacts would be **less than cumulatively considerable**.

### GEOLOGY AND SOILS

***Impact 4.6: Cumulative impacts related to geology and soils (Less than Cumulatively Considerable)***

Construction of the individual development projects allowed under the land use designations of the proposed General Plan will result in risks associated with geology and soils. For example, there is an ongoing possibility that a fault located anywhere in the state (or region) could rupture and cause seismic ground shaking. Additionally, grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Other geologic risks such as liquefaction, landsliding, lateral spreading, and soil expansion are also geologic risks that are present.

Geologic impacts are site-specific and not additive in character. However, cumulative geologic impacts associated with erosion and sedimentation could occur in the County as each individual city and community continues to develop over the next 20 years. While some cumulative erosion-related impacts will occur in the region as individual projects are constructed, the proposed General Plan policies and actions, as well as State and Federal regulations, will reduce the project's contribution to the risk to people in the region. Considering the protection granted by local, State, and Federal agencies and their requirements for seismic design, as discussed in Section 3.6 (Geology and Soils), the overall cumulative impact would not be significant. As a result, the proposed General Plan's incremental contribution to cumulative geologic and soil impacts would be **less than cumulatively considerable**.

### GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY

***Impact 4.7: Cumulative impacts related to greenhouse gases, climate change, and energy (Less than Cumulatively Considerable)***

Implementation of the Manteca General Plan would not directly result in the creation of GHG emissions. However, subsequent development allowed under the General Plan would result in new projects that would increase GHG emissions in the Manteca Planning Area.

There are a variety of ways in which a general plan could contribute to climate change and result in the generation of GHGs. Sprawling land use patterns that place residences far from employment and retail centers can result in increased vehicle miles traveled (VMT), which increase GHG generation. The conversion of forest lands and open space areas into urbanized uses removes vegetation and trees that have positive carbon sequestration value. Imbalances between local jobs and housing can result in increased commute times and increased VMT associated with longer travel distances between home and work.

Cumulative impacts are the collective impacts of one or more past, present, and future projects that, when combined, result in adverse changes to the environment. GHG emissions are cumulative by nature, given that they spread throughout the atmosphere on a global scale. In determining the significance of a project's contribution to anticipated adverse future conditions, a lead agency should generally undertake a two-step analysis. The first question is whether the *combined* effects from *both* the proposed project *and* other projects would be cumulatively

significant. If the agency answers this inquiry in the affirmative, the second question is whether "the project's *incremental* effects are cumulatively considerable" and thus significant in and of themselves. The cumulative project list for this issue (climate change) comprises anthropogenic (i.e., human-made) GHG emissions sources across the globe and no project alone would reasonably be expected to contribute to a noticeable incremental change to the global climate. However, legislation and executive orders on the subject of climate change in California have established a statewide context and process for developing an enforceable statewide cap on GHG emissions. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that lead agencies consider evaluating the cumulative impacts of GHGs. Small contributions to this cumulative impact (from which significant effects are occurring and are expected to worsen over time) may be potentially considerable and, therefore, significant.

The CEQA Guidelines set forth a basic framework for developing a plan to reduce GHG emissions and acknowledges the role CEQA plays in ensuring the impacts of climate change are addressed. CEQA Guidelines Section 15183.5 provide a framework for the development of "Plans for the Reduction of Greenhouse Gas Emissions" for use in programmatic environmental review. Compliance with CEQA Guidelines section 15183.5 allows later project-specific environmental documents to tier from and/or incorporate by reference such existing programmatic review. CEQA Guidelines section 15183.5 (a) states that: "Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions." In this regard, Manteca has an adopted Climate Action Plan, which is a Qualified GHG Reduction Plan. The CAP is designed to streamline environmental review of future development projects in the City of Manteca consistent with CEQA Guidelines Section 15183.5(b), as identified within the CAP itself. The CAP identifies a strategy, reduction measures, and implementation strategies the City will use to achieve the State-recommended greenhouse gas (GHG) emissions reduction targets. The City uses the CAP to achieve GHG emissions reductions in a manner consistent with AB 32 within discretionary projects on a project-by-project basis and through ongoing planning activities and programs. The proposed General Plan is consistent with the existing 2013 CAP, ensuring consistency with a Qualified GHG Reduction Strategy. Therefore, the proposed project is consistent with the CEQA Guidelines Section 15183.5 framework for developing a plan to reduce GHG emissions.

As future development projects are received and reviewed by the City in subsequent years, those projects will be reviewed for consistency with the General Plan and all relevant State-level programs and requirements. All future projects must implement the most current version of the Title 24 energy efficiency requirements, as required by State law. Consistency with the General Plan and other mandatory State-level programs would ensure that future project-level contributions to global climate change would be less than significant. Moreover, as identified in Section 3.7 (Greenhouse Gases, Climate Change, and Energy), buildout of the General Plan would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

In general, expanded and new energy and natural gas infrastructure will be needed to serve growth contemplated in the General Plan. The environmental effect of providing the energy and natural gas services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific sites for new or expanded utilities facilities and infrastructure. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be subject to CEQA review as appropriate.

As a result, the proposed General Plan's incremental contribution to cumulative greenhouse gas, climate change, and energy impacts would be **less than cumulatively considerable**.

### HAZARDS AND HAZARDOUS MATERIALS

#### *Impact 4.8: Cumulative impacts related to hazardous materials and human health risks. (Less than Cumulatively Considerable)*

Construction of the individual development projects allowed under the land use designations of the proposed General Plan may involve the transportation, use, and/or disposal of hazardous materials, which may involve the use of equipment that contains hazardous materials (e.g., solvents and fuels or diesel-fueled equipment), or the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated. Furthermore, because of the regional nature of the General Plan, some future land uses will inevitably transport or use hazardous materials within ¼ mile of a school, or other sensitive receptors such as hospitals and residences.

New development would inevitably increase the use of some hazardous materials within the region, resulting in potential health and safety effects related to hazardous materials use. Any use of hazardous materials must be managed in accordance with federal, State, and local (including Sacramento County) regulations to minimize any risk.

Hazardous materials incidents, if any, are typically site-specific and involve accidental spills or inadvertent releases. Associated health and safety risks generally are limited to those individuals using the materials or to persons in the immediate vicinity of the materials. Hazard-related impacts tend to be site-specific and project-specific. While some cumulative impacts, such as those associated with increases in the use of hazardous materials in the City associated with additional development, will occur in the region as individual projects are constructed, the proposed General Plan policies and actions, as well as State and Federal regulations, will reduce the project's contribution to risks to people in the region. Considering the protection granted by local, State, and Federal agencies and their requirements for the use of hazardous materials in the region, as

discussed in Section 3.8 (Hazards and Hazardous Materials), the overall cumulative impact for most hazard impacts would not be significant. Therefore, this impact is considered **less than cumulatively considerable**.

### HYDROLOGY AND WATER QUALITY

***Impact 4.9: Cumulative impacts related to hydrology and water quality. (Less than Cumulatively Considerable)***

Construction of the individual development projects allowed under the land use designations of the proposed General Plan has the potential to result in construction-related water quality impacts, impacts to groundwater recharge, and cause flooding, erosion, or siltation from the alteration of drainage patterns. Further, impacts resulting from buildout of the General Plan and potential development of the Planning Area would include substantial grading, site preparation, and an increase in urbanized development. Increased development in the County, including the Planning Area, would contribute to cumulative water quality impacts.

While some cumulative impacts will occur in the region as individual projects are constructed, the proposed General Plan policies and actions, as well as State and Federal regulations, will substantially reduce the project's contribution to impacts. Considering the protection granted by local, State, and Federal agencies and their permit and monitoring requirements, as discussed in Section 3.9 (Hydrology and Water Quality), and with implementation of the policies and actions included within the General Plan, the overall cumulative impact would not be significant. As a result, the General Plan's incremental contribution to cumulative hydrology impacts would be **less than cumulatively considerable**.

### LAND USE, POPULATION, AND HOUSING

***Impact 4.10: Cumulative impacts related to local land use, population, and housing (Less than Cumulatively Considerable)***

Cumulative land use and planning impacts, such as the potential for conflicts with adjacent land uses and consistency with adopted plans and regulations, are typically site and project-specific. It may be determined in the project-specific design phase of a development project that an individual project may require removal of homes and result in the displacement of people and housing; however, these effects are not cumulatively considerable because there is adequate replacement housing available under the proposed General Plan. Additionally, any removal of homes would require adequate compensation to the homeowner in accordance with Federal and State laws.

The land uses allowed under the proposed General Plan provide opportunities for cohesive new growth at in-fill locations within existing urbanized areas, as well as limited new growth within the Planning Area, but would not create physical division within existing communities. New development and redevelopment projects would be designed to complement the character of existing neighborhoods and provide connectivity between existing development and new development within the cumulative analysis area. The proposed General Plan does not include any new roadways, infrastructure, or other features that would divide existing communities. Moreover,

with implementation of General Plan policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds. Lastly, General Plan implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere Therefore, the proposed General Plan's incremental contribution to cumulative land use and population impacts would be **less than cumulatively considerable**.

### MINERAL RESOURCES

***Impact 4.11: Cumulative impacts related to mineral resources (Less than Cumulatively Considerable)***

Within the Planning Area, mineral resources include sand and gravel. The western portion of the planning area near Oakwood Lake is designated as MRZ-2, which consists of a large PCC-grade sand deposit situated along the San Joaquin River west of Manteca and south of Lathrop near the middle of the valley. The area is classified as an important MRZ for PCC grade aggregate by the DOC. PCC-grade aggregate is valuable in central California where it used for a variety of construction purposes. However, mining operations at the Oakwood Lake Mine have ceased. Oakwood Lake Resort was created from these reclaimed mined lands and the Oakwood Shores residential project was subsequently developed on the site of this former quarry. A portion of MRZ-2 (PCC-1) land currently exists on and east of the Oakwood Shores residential project. However, this land is currently designated as LDR and is expected to be developed with residential uses. In addition, a large area designated MRZ-3 is located in the southwest portion of the Planning Area within zones designated as LDR and agricultural by the City of Manteca. Another portion of area designated as MRZ-3 currently extends through the southern/central portion of the City in an east/west direction, then extends southeast to undeveloped land primarily designated as LDR. These areas identified as MRZ-3, which consist of areas containing mineral deposits; the significance of which cannot be evaluated. However, the majority of the area designated as MRZ-3 runs through the center of the City of Manteca and is currently developed and is no longer available for mining.

Given that the only known MRZ in Manteca is currently developed and is no longer available for mining, there is no additional potential for resource extraction from this MRZ. There are no other known mineral deposits or resources within Manteca that are of significant value to the region or the state.

Separately, the Planning Area does not contain a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. The proposed project would not result in loss of a mineral resource. As a result, the General Plan's incremental contribution to cumulative mineral resource impacts would be **less than cumulatively considerable**.

## NOISE

### *Impact 4.12: Cumulative impacts related to noise (Considerable Contribution and Significant and Unavoidable)*

Table 3.12-12 shows the existing and future noise levels and the increase in noise levels associated with traffic on the local roadway network under the proposed General Plan. As indicated by Table 3.12-12, the related traffic noise level increases under the proposed General Plan are predicted to increase between 0.3 to 11.1 dB versus Existing (2019) conditions and would result in significant increases. As indicated by Table 3.12-13, the related traffic noise level increases under the proposed General Plan are predicted to increase between 0.1 to 9.7 dB versus Existing (2019) Plus Approved conditions. Cumulative conditions include traffic due to buildout of the General Plan in addition to pass-through traffic from other jurisdictions.

As shown in Table 3.12-12 and 3.12-13, the traffic noise increases associated with the proposed General Plan exceed the applicable noise exposure criteria. While the General Plan includes policies to reduce noise exposure and establishes more detailed policies and programs to identify and address potential noise impacts than the current General Plan, there will remain the potential for noise increases to exceed established standards. The universal use of noise attenuating features such as rubberized asphalt, soundwalls, berms, and improved building sound-insulation, could prevent transmission of excessive noise to the outdoor and indoor areas of sensitive land uses and/or could prevent projected increases in ambient noise levels. However, this approach would be infeasible in several situations. Specifically, rubberized asphalt reduces tire-pavement noise and when new, achieves a reduction of approximately 4 dB when compared to normal pavement surfaces. However, the noise reduction properties degrade over time, and the noise reduction would not be sufficient to reduce noise impacts in many areas of Manteca. In many cases, aesthetic concerns, costs, physical constraints, or other issues would prevent the universal implementation of adequate noise-attenuating features. In addition to their expense, soundwalls often block views and are regarded as unsightly. Moreover, the construction of soundwalls can result in reduced pedestrian and vehicle connectivity, which would contravene other goals of the proposed General Plan. Therefore, the application of noise-attenuating features is not feasible in all circumstances. Therefore, this is considered a **cumulatively considerable** and **significant and unavoidable** impact.

## PUBLIC SERVICES AND RECREATION

### *Impact 4.13: Cumulative impacts to public services and recreation (Less than Cumulatively Considerable)*

Development accommodated under the General Plan would result in additional residents and businesses in the City, including new residential, industrial, office, and commercial uses. As described in Chapter 2.0, the General Plan is expected to accommodate up to 36,650 new residential dwelling units and up to 35,458,737 square feet of non-residential building space within the city limits at full buildout.

This new growth within the City limits would increase the City's population by up to 116,546 residents and would include approximately 37,969 new jobs. The full development of the new non-residential uses shown in Chapter 2.0 (Project Description), Table 2.0-2.

Development and growth facilitated by the General Plan would result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. The General Plan includes policies and actions to ensure that public services are provided at acceptable levels and to ensure that development and growth does not outpace the provision of public services.

Cumulative growth that would occur within San Joaquin County and other cities within San Joaquin County over the life of the proposed General Plan will result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. As the demand for public services and recreation increases, there will likely be a need to address acceptable service ratios, response times, and other performance standards. New or expanded service structures (e.g., offices, maintenance and administrative buildings, schools, parks, fire facilities, libraries, etc.) will be needed to provide for adequate staffing, equipment, and appropriate facilities to serve growth within the cumulative analysis area.

New public services and recreation facilities will be needed to serve growth contemplated in the General Plan. The environmental effect of providing the public services and recreation is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific sites for new or expanded public facilities. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be subject to CEQA review as appropriate. The General Plan includes a range of policies and actions to ensure that public services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, that new development funds its fair share of services, and that the effects of new development of parks, schools, and other public service facilities are appropriately considered. Payment of applicable impact fees, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the future projects, would ensure that the City maintains acceptable service ratios and that the expansion of public service facilities are adequately funded. The proposed General Plan's incremental contribution to cumulative public services and recreation impacts would be **less than cumulatively considerable**.

### TRANSPORTATION AND CIRCULATION

***Impact 4.14: Cumulative impacts on the transportation network (Less than Cumulatively Considerable)***

The VMT generated by buildout of the proposed General Plan would exceed the VMT threshold of 85 percent of baseline. Implementing the proposed General Plan policies and actions will help to reduce VMT through encouraging non-vehicle transportation modes, expanded transit services, and developing TDM program requirements including measures to reduce VMT associated with new development. However, reductions in VMT per employee from 15 to 52 percent would be required to achieve thresholds as shown in Table 3.14-5. Additionally, the feasibility and effectiveness of a local or regional VMT impact bank or exchange is unknown at this time. The City cannot demonstrate definitively at this time that implementation of these policies would achieve VMT reductions to meet the VMT per employee thresholds.

The VMT generated by buildout of the proposed General Plan would exceed the VMT threshold of 85 percent of baseline. Implementing the proposed General Plan policies and actions will help to reduce VMT through encouraging non-vehicle transportation modes, expanded transit services, and developing TDM program requirements including measures to reduce VMT associated with new development. However, reductions in VMT per employee from 15 to 52 percent would be required to achieve thresholds as shown in Table 3.14-5. Additionally, the feasibility and effectiveness of a local or regional VMT impact bank or exchange is unknown at this time. The City cannot demonstrate definitively at this time that implementation of these policies would achieve VMT reductions to meet the VMT per employee thresholds.

Nevertheless, development attributable to the General Plan would be expected to have no impact to air traffic. Furthermore, the General Plan does not contain any provisions that would increase hazards due to design features of incompatible uses. Lastly, the impact of the General Plan with respect to access to and performance of transit, bicycle, and pedestrian impacts would be considered **less than significant**. As a result, the General Plan's incremental contribution to cumulative transportation and circulation impacts would be **less than cumulatively considerable**.

### UTILITIES

***Impact 4.15: Cumulative impacts related to utilities (Less than Cumulatively Considerable)***

Cumulative growth that would occur within the service areas for the South San Joaquin Irrigation District's (SSJID) and the City utilities divisions over the life of the proposed General Plan will result in increased demand for water service, sewer service, and solid waste disposal services.

In general, expanded and new utility infrastructure will be needed to serve growth contemplated in the General Plan. The environmental effect of providing the utility services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific sites for new or expanded facilities and infrastructure associated with utilities. However, the facilities would be primarily provided on sites

with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be subject to CEQA review as appropriate.

**Water:** Table 3.15-7 summarizes annual projections of demands and supplies to meet those demands through 2040, as documented by West Yost Associates. The proposed General Plan includes a range of policies and actions designed to ensure an adequate water supply for development and to minimize the potential adverse effects of increased water use. Given that projected water demands associated with General Plan buildout would not exceed the projected available water (including after taking into account future development within San Joaquin County, neighboring cities, and the broader region), and that the proposed General Plan includes a comprehensive set of goals, policies and actions to ensure an adequate and reliable source of clean potable water, to implement water efficiency measures to reduce demand, and to ensure that adequate facilities are available to serve future development, impacts associated with water supplies are less than significant.

Additionally, future development in the Planning Area would be required to connect to existing water distribution infrastructure in the vicinity of each site, pay the applicable water system connection fees, and pay the applicable water usage rates. Future projects may be required to implement site specific and limited off-site improvements to the water distribution system in order to connect new project sites to the City's existing water infrastructure network. The specific impacts of providing new and expanded waster distribution infrastructure cannot be determined at this time, as the General Plan does not propose any specific development projects or include details on any future development projects. However, any future improvements to the existing water distribution infrastructure would be primarily provided on sites with land use designations that allow for urbanized land uses, and the environmental impacts of constructing and operating the new water distribution infrastructure would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the proposed General Plan.

This Draft EIR addresses the potential impacts of development that may occur under the proposed General Plan, including residential, commercial, professional office, business park, light industrial, public facilities, and a range of other uses. As shown in Tables 3.15-5 and 3.15-7, the City would have adequate future supplies available to meet projected demand increases throughout their respective service areas through the 2040, which is the greatest future year for water supply is projected).

Given that projected water demands associated with General Plan buildout would not exceed the projected water supplies, and that the proposed General Plan includes a comprehensive set of goals, policies, and actions to ensure an adequate and reliable source of clean potable water, impacts associated with water supplies are **less than cumulatively considerable.**

**Wastewater:** The City's sewer service area is contiguous with City limits, and is divided into north, south and central sewer sheds. The municipal wastewater collection system includes 242 miles of sewer mains and 19 pump stations (City of Manteca, 2017). The collection system includes gravity flow pipes ranging from 6-inch to 60-inch diameter, and force mains from 6-inch to 24-inch diameter (EDAW, 2007). Municipal wastewater is treated at the City's Wastewater Quality Control Facility (WQCF), which treats municipal sanitary sewage from the City of Manteca, portions of Lathrop, and Raymus Village, just northeast of Manteca. The WQCF treats an average dry weather flow (ADWF) of about 6 mgd and has an average dry weather design capacity of 9.87 mgd. Per contractual agreement, 8.42 mgd of plant capacity is allocated to the City of Manteca and 1.45 mgd is allocated to the City of Lathrop (EDAW, 2007).

As Manteca continues to develop in the future, there will be an increased need for water and wastewater services, including a reliable source of recycled water. These needs have been addressed in the WQCF master plan and will require that the city continue to implement phased improvements to some pump stations, sewer mains, and the various wastewater treatment plants when triggered by growth.

It is anticipated that buildout of the General Plan would result in a total demand for approximately 18.9 MGD. This total demand of 18.9 MGD, which includes demand associated with existing development, is well within the planned capacity of the WQCF.

While full buildout of the proposed General Plan would slightly increase the treatment demand of the WQCF, the proposed General Plan includes a range of policies and actions designed to ensure an adequate wastewater treatment capacity for development. Additionally, the City must also periodically review and update their Master Plans, and as growth continues to occur within the Planning Area, the City will identify necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development.

Given that projected wastewater generation volumes associated with General Plan buildout would not exceed the projected wastewater generation volumes described in the WQCF Master Plans, and that the proposed General Plan includes a comprehensive set of goals, policies, and actions to ensure an adequate and reliable wastewater collection and treatment system, impacts associated with wastewater treatment and compliance with waste discharge requirements are less than significant**.** The proposed General Plan's incremental contribution to cumulative wastewater impacts would be **less than cumulatively considerable**.

**Stormwater:** Development under the proposed General Plan would result in increased areas of impervious surfaces throughout the Planning Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site within new development projects, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way.

Stormwater drainage and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

With the policies and actions listed in Section 3.15 (Utilities) would ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under the General Plan, and would ensure that future drainage and flood control infrastructure projects do not result in adverse environmental impacts. The proposed General Plan's incremental contribution to cumulative wastewater impacts would be **less than cumulatively considerable**.

**Solid Waste:** Future development of projects as contemplated under the proposed General Plan may increase the population within the Planning Area to approximately 116,546 persons. The City of Manteca has achieved a disposal rate of 4.7 pounds per day per resident in 2014. Assuming these disposal rates remain constant throughout the life of the General Plan, the new growth under General Plan buildout would result in an increase of approximately 95,481 pounds per day of solid waste, which equals 47.7 tons per day or 17,410 tons of solid waste per year.

The City's projected increase in solid waste generation associated with future buildout of the proposed General Plan is within the permitted capacity of the Forward Sanitary Landfill expansion. As noted previously, the vast majority of landfill disposed from the City of Manteca went to Forward Sanitary Landfill.[1] Other landfills that received waste from the City of Manteca include:

- Lovelace Materials Recovery Facility and Transfer Station
- San Joaquin County Hazardous Waste
- Foothill Sanitary Landfill
- North County

Forward Sanitary Landfill has a remaining capacity of 23,700,000 cubic yards, and has a current maximum permitted throughput of 8,668 tons per day. At the closure of the Forward Landfill, the City can potentially utilize the Foothill Landfill and the North County Landfill as locations for solid waste disposal. The permitted maximum disposal at the Foothill Landfill is 1,500 tons per day and the North County Landfill is 825 tons per day. The remaining capacity of these landfills include 125 million cubic yards of solid waste at the Foothill Landfill, with an estimated cease operation date of 2054, and 35.4 million cubic yards of solid waste at the North County Landfill, which has an estimated cease operation date of 2035.

[1] Note: data provided by CalRecycle, based on information provided by County disposal reports.

The proposed project will contribute to the cumulative demand for solid waste facilities. The addition of solid waste associated with the proposed General Plan to the Foothill Landfill and North County Landfill would not exceed the combined landfills' remaining capacity of 160.4 cubic yards.

The proposed General Plan does not include any specific projects that would expand or construct new solid waste facilities. While there are no plans for landfill construction or expansion associated with the proposed General Plan, development of new solid waste disposal facilities to serve the region could result in environmental effects in areas such as traffic, hydrology, biology, air quality, greenhouse gases, and noise. Any future construction projects in would be required to conduct environmental review pursuant to CEQA prior to approval. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations associated with solid waste. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this impact would be less than significant, and no additional mitigation is required.

Future projects within the Planning Area would be required to comply with applicable state and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. While there is adequate permitted landfill capacity to accommodate future growth, the proposed General Plan includes actions to further reduce the project's impact on solid waste services. The General Plan would not exceed the permitted capacity of the landfill serving the City, and the General Plan complies with regulations related to solid waste. The proposed General Plan's incremental contribution to cumulative solid waste impacts would be **less than cumulatively considerable**.

### WILDFIRE

#### *Impact 4.16: Cumulative impact related to wildfire (Less than Cumulatively Considerable)*

No specific aspect as a result of implementation of the General Plan will substantially alter the slope, prevailing winds, or other factors that would increase exposure to Manteca residents, employees or visitors to increased pollutant concentrations from wildfire or result in the uncontrollable spread of a wildfire. General Plan implementation would not exacerbate wildfire risks. The Planning Area is not located in or near any State Responsibility Areas and there are no lands classified as very high fire hazard severity zones within or near the Planning Area.

Furthermore, the Manteca General Plan is a long range policy document that does not include site specific designs or proposals, and does not propose any entitlements for development. The majority of all future development would occur within existing developed areas. However, future development may require the limited extension and development of infrastructure such as roads, water and sewer utilities, and fuel breaks. The potential for future projects to impact environmental resources to meet compliance with fire development standards such (as fuel breaks and clearance requirements) would require site specific environmental require under CEQA to

identify any site-specific impacts. As demonstrated throughout this EIR, implementation of the various policies and actions contained in the General Plan would reduce potential impacts associated with the construction and expansion of infrastructure. Implementation of the General Plan policies and actions combined with local and state requirements, as discussed previously, would ensure that potential wildland fire hazards would not be exacerbated by local infrastructure, and this impact would be considered **less than significant**.

Lastly, while the City cannot state with certainty that future risks associated with post-fire flooding and debris flow would not occur in Manteca, implementation of the General Plan would not exacerbate this risk. Therefore, the proposed General Plan's incremental contribution to cumulative wildfire impacts would be **less than cumulatively considerable**.

## 4.2 GROWTH-INDUCING EFFECTS

### INTRODUCTION

Section 15126.2(d) of the CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

> *The way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth…It is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.*

Based on the CEQA Guidelines, growth inducement is any growth that exceeds planned growth of an area and results in new development that would not have taken place without implementation of the project. A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand *(Napa Citizens for Honest Government v. Napa County Board of Supervisors)*. Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project providing an increased water supply in an area where water service historically limited growth could be considered growth-inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and

water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

The General Plan is a long-term plan intended to accommodate projected population, housing, and employment growth, including the appropriate balance among these factors with the necessary public services and infrastructure. The proposed General Plan would serve as a comprehensive, long-term plan for the physical development of Manteca. Projected growth is described in Section 3.10 (Land Use, Population, and Housing), and the environmental consequences related to the potential growth are fully assessed in each topical section. By definition, the proposed Manteca General Plan is intended to provide for and address future growth in the City.

Because the proposed General Plan provides a framework for development through its Land Use Map, land use designations, goals, policies, and actions, it would directly induce population and employment growth in the Manteca Planning Area by designating land for development that is more intense, in some instances, than current designations allow. The analysis of the indirect growth-inducing impacts for the proposed General Plan focuses on the following factors: inducement of unanticipated population growth; encouragement of economic growth that leads to jobs and housing growth; elimination of obstacles to population growth; and resulting service, facility, or infrastructure demands in excess of existing and planned growth.

The proposed General Plan accommodates future growth in Manteca, including new businesses, expansion of existing businesses, and new residential uses. Infrastructure and services would need to accommodate future growth. The General Plan would encourage development of a broader array of businesses, increasing local employment opportunities, and providing residential development as necessary to serve economic growth. The cumulative development scenario addressed in this Draft EIR is the maximum projected development that could occur within the existing city limits and the Planning Area, if every parcel in the city and the Planning Area developed at or near the higher end of densities and intensities allowed under the proposed General Plan.

As shown in Table 4.0-3, compared to the existing General Plan, the proposed General Plan would result in approximately 10,498 new housing units. This new growth may increase the city's population by approximately 33,383 residents and 13,990 employees compared to the existing General Plan. At buildout, growth associated with the proposed General Plan would yield a total of approximately 116,546 residents and 37,969 jobs. Depending on growth rates, the actual growth during the life of the General Plan could be lower or higher, but would not exceed the theoretical buildout described in Chapter 2.0.

Given the historical and current population, housing, and employment trends, growth in the City, as well as the entire state, is inevitable. The primary factors that account for population growth are natural increase and net migration. The average annual birth rate for California is expected to be 20 births per 1,000 population. Additionally, California is expected to attract more than one third of the country's immigrants. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. While these factors would likely result in growth in Manteca during the planning period of the proposed General Plan, growth will continue to occur based primarily on the demand of the housing market and demand for new commercial, industrial, and other non-residential uses. As future development occurs under the proposed General Plan, new roads, infrastructure, and services would be necessary to serve the development and this infrastructure would accommodate planned growth. However, growth under the proposed General Plan would remain within the general growth levels projected statewide and would not be anticipated to exceed any applicable growth projections or limitations that have been adopted to avoid an environmental effect. The proposed General Plan is intended to accommodate the City's fair share of statewide housing needs, based on regional numbers provided by the California Department of Housing and Community Development on a regular basis (every five to eight years).

The proposed General Plan includes policies and actions that mitigate environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality. Additionally, this Draft EIR identifies General Plan policies and actions, where appropriate, that would serve to reduce or eliminate potentially significant impacts associated with specific environmental issues associated with growth. Chapters 3.1 through 4.0 provide a discussion of environmental effects associated with development allowed under the proposed General Plan.

With implementation of General Plan policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds. Therefore, population and housing growth associated with the proposed General Plan would result a **less than significant** impact.

## 4.3 SIGNIFICANT IRREVERSIBLE AND ADVERSE EFFECTS

### LEGAL CONSIDERATIONS

CEQA Section 15126.2(c) and Public Resources Code Sections 21100(b)(2) and 21100.1(a), requires that the EIR include a discussion of significant irreversible environmental changes which would be involved in the proposed action should it be implemented. Irreversible environmental effects are described as:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to previously remote area);

- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Determining whether the proposed project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would be little possibility of restoring them. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

## Consumption of Nonrenewable Resources

Consumption of nonrenewable resources refers to the loss of physical features within the natural environment, including the conversion of agricultural lands, loss of access to mining reserves, and nonrenewable energy use. The Manteca Planning Area has nonrenewable resources, including biological resources, water resources, and agricultural resources.

One of the objectives of the proposed General Plan is to establish a long-term plan for conservation of resources and future growth and development. Many of the policies and actions aimed at conserving resources are contained within the Resource Conservation Element, and have been identified throughout this EIR. Additionally, the proposed General Plan directs most new development to infill areas, and areas surrounding existing neighborhoods and urbanized areas. As a result, the proposed General Plan will minimize the potential for impacts to the nonrenewable resources in the Planning Area, including biological resources, water resources, and agricultural resources, to the greatest extent feasible. More detailed and focused discussions of potential impacts to these nonrenewable resources are contained throughout this Draft EIR.

Nonrenewable agricultural resources such as agricultural land, farmland, and agricultural soils, would be converted during the construction and operation of development projects contemplated under the General Plan buildout. The proposed General Plan includes a variety of policies that seek to conserve and protect agricultural resources. 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.

## Irretrievable Commitments/Irreversible Physical Changes

Implementation of the proposed General Plan would result in a commitment of land uses designated for the foreseeable future. Land use and development consistent with the General Plan would result in irretrievable commitments by introducing development onto sites that are presently undeveloped.

The conversion of agricultural lands to urban uses would result in an irretrievable loss of agricultural land, wildlife habitat, and open space.

A variety of resources, including land, energy, water, construction materials, and human resources would be irretrievably committed for development and infrastructure installation associated with uses envisioned by the proposed General Plan. Buildout of the proposed General Plan would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals.

Additionally, a variety of resources would be committed to the ongoing operation and life of the uses accommodated by the proposed General Plan. The introduction of new residential, commercial, industrial, recreational, and other uses to the Planning Area will result in an increase energy demand associated with building operations, vehicle travel, equipment operation, and other activities. Fossil fuels are the principal source of energy and the Project will increase consumption of available supplies, including gasoline and diesel fuel, and natural gas. These energy resource demands relate to initial construction, operation, maintenance and the transport of people and goods to and from the Planning Area that would occur with implementation of the proposed General Plan.

Additionally, development will physically change the environment in terms of aesthetics, air emission, noise, traffic, open space, and natural resources. These physical changes are irreversible after development occurs. Therefore, the proposed General Plan would result in changes in land use within the Planning Area that would commit future generations to these uses.

## Irreversible Damage

The General Plan does not involve uses in which irreversible damage could result from any potential environmental accidents associated with future buildout of the Planning Area. Future development, infrastructure, and other projects allowed under the General Plan may involve the transportation, use, and/or disposal of hazardous materials. However, potential environmental accidents would not result in irreversible damage because the future uses in the Planning Area would be subject to applicable requirements of Federal, State, and local regulations and policies. Additionally, hazardous materials are typically used in industrial, and commercial uses, as well as residential uses. Future uses may involve the transport and disposal of such materials from time to time. Future activities may involve equipment or construction activities that use hazardous materials (e.g., coatings, solvents and fuels, and diesel-fueled equipment), cleanup of sites with known hazardous materials, the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated, or disposal of contaminated materials at an approved disposal site. While hazardous materials may be associated with industrial activities, hazardous materials may also be associated with the regular cleaning and maintenance of residential and other less intense uses.

The General Plan does not propose any uses that are would cause irreversible damage.

## Phased Consumption of Resources

Buildout of the General Plan would use energy resources for the operation of buildings (electricity and natural gas), for on-road vehicle trips (e.g., gasoline and diesel fuel), and from off-road

construction activities (e.g., diesel fuel) associated with buildout of the General Plan. Each of these activities would require the use of energy resources. Buildout would also require commitment of other resources, as discussed above. Developers of individual projects within the Planning Area would be responsible for conserving energy, to the extent feasible, and would rely heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures. Additionally, developers would have to comply with proposed General Plan policies and implementing actions that reduce energy usage, promote renewable and/or alternative energy sources, and encourage pedestrian/bicycle modes of transportation.

Buildout of the General Plan would be in compliance with all applicable federal, state, and local regulations regulating energy usage. For example, PG&E is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing the Statewide RPS to increase the proportion of renewable energy (e.g., solar and wind) within its energy portfolio. PG&E is expected to achieve at least 60% renewables by 2030, and 100 percent zero-carbon electricity by 2045 (in compliance with SB 100). Additionally, energy-saving regulations, including the latest State Title 24 building energy efficiency standards ("part 6"), would be applicable to the proposed project. Other Statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g., the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time. Furthermore, additional project-specific the sustainability features individual development projects could further energy consumption of individual projects.

PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the Planning Area. The City of Manteca would comply with all existing energy standards in implementing the General Plan project, and would not result in significant adverse impacts on energy resources.

## MANDATORY FINDINGS OF SIGNIFICANCE

CEQA Guidelines Section 15065 states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects that are individually limited but cumulatively considerable. As defined in CEQA Guidelines Section 15065(a)(3), cumulatively considerable means "that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." Cumulative impacts are addressed previously in Section 4.1 for each of the environmental topics.

CEQA Guidelines Section 15065(a)(1) states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number or

restrict the range of an endangered, rare, or threatened species. These impacts are discussed below.

Additionally, as required by CEQA Guidelines Section 15065(a)(4), a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. These impacts are discussed below.

## Substantial Adverse Effects on Fish, Wildlife, and Plant Species

Section 3.4 (Biological Resources) of this Draft EIR fully addresses any impacts that might relate to the reduction of the fish or wildlife habitat, the reduction of fish or wildlife populations, and the reduction or restriction of the range of special-status species as a result of project implementation. As described throughout the analysis in this Draft EIR, the proposed General Plan would not result in any significant impacts that would substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal to the environment. As described in greater detail in Section 3.4 (Biological Resources) any potentially significant impacts related to plant and animal species would be reduced to a less than significant level through implementation of goals, policies and implementation measures provided in the City's General Plan as well as through adherence to state and federal regulations. Therefore, this is considered a **less than significant** impact.

## Substantial Adverse Effects on Human Beings

While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air quality, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, population and housing, public services and recreation, transportation, utilities, and climate change, which are addressed in Section 3.3 (Air Quality), Section 3.6 (Geology and Soils), Section 3.8 (Hazards and Hazardous Materials), Section 3.9 (Hydrology and Water Quality), Section 3.12 (Noise), Section 3.10 (Land Use, Population and Housing), Section 3.13 (Public Service and Recreation), Section 3.14 (Transportation and Circulation), Section 3.15 (Utilities), and Section 3.7 (Greenhouse Gases, Climate Change and Energy). As described throughout the analysis of this Draft EIR, the proposed General Plan reduces environmental effects including effects that directly and indirectly impact humans through implementation of goals, policies and implementation measures provided in the City's General Plan. However, several environmental impacts would still be considered significant and unavoidable (listed below in Section 4.6). These impacts include increases in localized noise, considerable increases of criteria pollutants, reduced air quality, and visual degradation, which may cause substantial adverse effects on humans and the way humans interact with their environment. Therefore, this is considered a **significant and unavoidable** impact.

***Impact 4.17: Irreversible and adverse effects (Significant and Unavoidable)***

In summary, the proposed General Plan includes an extensive policy framework that is designed to address land use and environmental issues to the greatest extent feasible, while allowing growth and economic prosperity for the City. However, even with the policies and actions that will serve to reduce potential significant impacts, the proposed General Plan will result in significant irreversible changes and has the potential to result in adverse effects as described above. This impact is considered a ***significant and unavoidable*** impact under CEQA.

## 4.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. The following significant and unavoidable impacts of the General Plan are discussed in Sections 3.2, 3.12, 3.14, and previously in this chapter (cumulative-level). Refer to those discussions for further details and analysis of the significant and unavoidable impacts identified below:

- **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.
- **Impact 3.2-2:** General Plan implementation would conflict with existing zoning for agricultural use, or a Williamson Act Contract.
- **Impact 3.12-1:** General Plan implementation may result in exposure to significant traffic noise sources;
- **Impact 3.14-1:** General Plan implementation may result in VMT increases that are greater than 85 percent of Baseline conditions.
- **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.
- **Impact 3.14-3:** General Plan implementation may increase hazards due to a design feature, incompatible uses, or inadequate emergency access.
- **Impact 4.2:** Cumulative impact to agricultural lands and resources.
- **Impact 4.12:** Cumulative impacts related to noise.
- **Impact 4.17:** Irreversible and adverse effects.

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## 5.1 CEQA REQUIREMENTS

CEQA requires that an EIR analyze a reasonable range of feasible alternatives that meet most or all of the project objectives while potentially reducing or avoiding one or more environmental effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed.

Alternatives that are evaluated in the EIR must be potentially feasible alternatives. However, not all possible alternatives need to be analyzed. An EIR must "set forth only those alternatives necessary to permit a reasoned choice." (CEQA Guidelines, Section 15126.6(f).) The CEQA Guidelines provide a definition for a "range of reasonable alternatives" and, thus limit the number and type of alternatives that need to be evaluated in an EIR. An EIR need not include any action alternatives inconsistent with the lead agency's fundamental underlying purpose in proposing a project. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1166.)

First and foremost, alternatives in an EIR must be potentially feasible. In the context of CEQA, "feasible" is defined as:

> *… capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.* (CEQA Guidelines 15364)

## 5.2 ALTERNATIVES CONSIDERED IN THIS EIR

### FACTORS GUIDING SELECTION OF ALTERNATIVES

A Notice of Preparation was circulated to the public to solicit recommendations for a reasonable range of alternatives to the proposed project. Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed project. No specific alternatives were recommended by commenting agencies or the general public during the NOP public review and comment period.

The alternatives to the General Plan Update selected for analysis in the EIR were developed to minimize significant environmental impacts while fulfilling the basic objectives of the project, and address public, City staff, and elected officials' input with respect to potential land use and growth scenarios that may be appropriate for consideration as part of the General Plan Update. Significant impacts are summarized in Chapter 4.0 and described in greater detail in Sections 3.1 through 3.16. As described in Chapter 2.0 (Project Description), the following objectives have been identified for the proposed project:

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. Protect Manteca's family-oriented environment, character, and sense of community;
4. Establish a long-term plan for conservation of resources and future growth and development;
5. Provide a range of high-quality housing options and accommodate a variety of housing types;
6. Retain and attract businesses and industries that provide high-quality and high-paying jobs so that residents can live and work in Manteca;
7. Expand retail shopping opportunities to provide better local services and increased sales tax revenues;
8. Continue to maintain the road network, improve multimodal transportation opportunities, and identify truck routes;
9. Maintain strong fiscal sustainability and continue to provide efficient and adequate public services;
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.

## SIGNIFICANT AND UNAVOIDABLE IMPACTS

The proposed General Plan Update would result in the following significant and unavoidable impacts, which are described in Sections 3.1 through 3.16 and Chapter 4.0:

- **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.
- **Impact 3.2-2:** General Plan implementation would conflict with existing zoning for agricultural use, or a Williamson Act Contract.
- **Impact 3.12-1:** General Plan implementation may result in exposure to significant traffic noise sources;
- **Impact 3.14-1:** General Plan implementation may result in VMT increases that are greater than 85 percent of Baseline conditions.
- **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.
- **Impact 3.14-3:** General Plan implementation may increase hazards due to a design feature, incompatible uses, or inadequate emergency access.
- **Impact 4.2:** Cumulative impact to agricultural lands and resources.
- **Impact 4.12:** Cumulative impacts related to noise.
- **Impact 4.17:** Irreversible and adverse effects.

## ALTERNATIVES TO THE GENERAL PLAN UPDATE

Three alternatives to the General Plan Update were considered based on the analysis performed to identify the environmental effects of the proposed project. Since the General Plan Update was prepared with the intent to be a self-mitigating document, project alternatives focused on amending land uses to potentially address impacts. The three alternatives analyzed in this EIR are described below.

### 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.

Under Alternative A (No Project Alternative), the City would continue to implement the existing General Plan and no changes would be made to address updated General Plan Guidelines, or the requirements of State law. Since adoption of the existing General Plan, State legislation has been passed requiring the City to address new safety, environmental justice, and circulation requirements in the General Plan and to further address greenhouse gas emissions. Additionally, while the City currently has a certified Housing Element, it will be required to update its Housing Element and receive new State certification by December 2023, and the existing General Plan does not conform to state requirements regarding planning for future housing growth. The General Plan goals, policies, and actions, as well as the Land Use Map, would not be updated to address the vision and concerns of the City's residents, property owners, decision-makers, and other stakeholders that actively participated in the visioning and goal and policy development process.

Under Alternative A, new growth would be allowed as envisioned under the existing General Plan, with land uses required to be consistent with the existing General Plan Land Use Map. Therefore, Alternative A would result in the continuation of existing conditions and development levels, as described in Chapter 3.10 (Land Use and Population) and as shown in Table 2.0-3 in Chapter 2.0 (Project Description). The existing General Plan Land Use Map is shown in Figure 5.0-1 and Table 5.0-1 shows the acreages of each land use designation for the existing General Plan Land Use Map compared to the proposed Land Use Map.

As shown in Table 5.0-1, when compared to the Proposed General Plan, Alternative A offers fewer opportunities to develop by providing a smaller Planning Area with over 5,000 acres for urban reserve uses, resulting in a decrease in developable land at full buildout. As shown in Table 5.0-1, Alternative A would provide for a decrease in residential uses by 777 acres, a decrease in commercial/industrial/professional uses by 1,804 acres, and a decrease in mixed uses by 162 acres. Additionally, public land uses would also decrease by 357 acres.

***TABLE 5.0-1: ALTERNATIVE A V. PROPOSED GENERAL PLAN LAND USE DESIGNATIONS COMPARISON***

| *LAND USE DESIGNATION* | *PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)* | *ALTERNATIVE A – NO PROJECT (ACRES)* | *DIFFERENCE* |
|---|---|---|---|
| *RESIDENTIAL LAND USES* | | | |
| Very Low Density Residential | 446 | 944 | 498 |
| Low Density Residential | 8,495 | 7,436 | -1,059 |
| Medium Density Residential | 575 | 356 | -219 |
| High Density Residential | 418 | 421 | 3 |
| *Residential Subtotal* | *9,934* | *9,157* | *-777* |
| *MIXED USE LAND USES* | | | |
| Commercial Mixed Use | 570 | 568 | -2 |
| Downtown | 160 | 0 | -160 |
| *Mixed Use Subtotal* | *730* | *568* | *-162* |
| *COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES* | | | |
| Business Professional | 126 | 14 | -112 |
| Business Industrial Park | 714 | 208 | -506 |
| Commercial | 1,192 | 5 | -1,187 |
| General Commercial | 0 | 895 | 895 |
| Neighborhood Commercial | 0 | 178 | 178 |
| Light Industrial | 0 | 1,051 | 1,051 |
| Heavy Industrial | 0 | 690 | 690 |
| Industrial | 2,581 | 0 | -2,581 |
| Agricultural Industrial | 232 | 0 | -232 |
| *Commercial, Professional, and Industrial Subtotal* | *4,845* | *3,041* | *-1,804* |
| *PUBLIC LAND USES* | | | |
| Public/Quasi-Public | 1,399 | 1,160 | -239 |
| Park | 698 | 580 | -118 |
| Open Space | 447 | 447 | 0 |
| *Public Subtotal* | *2,544* | *2,187* | *-357* |
| *OTHER LAND USES* | | | |
| Agriculture | 4,004 | 3,944 | -60 |
| Right-of-Way | 179 | 135 | -44 |
| Water | 180 | 0 | -180 |
| *Other Subtotal* | *4,364* | *4,079* | *-285* |
| *URBAN RESERVE* | | | |
| Urban Reserve – Very Low Density Residential | 775 | 590 | -185 |
| Urban Reserve – Low Density Residential | 576 | 1,307 | 731 |
| Urban Reserve – Medium Density Residential | 20 | 20 | 0 |
| Urban Reserve – High Density Residential | 19 | 0 | -19 |
| Urban Reserve – Commercial Mixed Use | 0 | 201 | 201 |
| Urban Reserve – Business Industrial Park | 700 | 412 | -288 |
| Urban Reserve – Commercial | 32 | 0 | -32 |
| Urban Reserve – General Commercial | 0 | 38 | 38 |
| Urban Reserve – Industrial | 321 | 0 | -321 |
| Urban Reserve – Light Industrial | 0 | 36 | 36 |
| Urban Reserve – Park | 16 | 67 | 51 |

| *LAND USE DESIGNATION* | *PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)* | *ALTERNATIVE A – NO PROJECT (ACRES)* | *DIFFERENCE* |
|---|---|---|---|
| Urban Reserve – Public/Quasi-Public | 1 | 12 | 11 |
| Urban Reserve – Agriculture | 0 | 1,734 | 1,734 |
| Urban Reserve | 0 | 955 | 955 |
| *Urban Reserve Subtotal* | *2,460* | *5,372* | *2,912* |
| **TOTAL** | **24,877** | **24,404** | **-473** |

*SOURCE: DE NOVO PLANNING GROUP, 2021.*

As shown in Table 5.0-1, Alternative A would result in increased housing and job growth within the Manteca city limits when compared to existing conditions, but substantially less overall growth than all other alternatives. Under Alternative A at full buildout, there would be an increase over existing conditions in residential growth (approximately 26,152 dwelling units) and non-residential growth (approximately 24,541,050 square feet) within City limits. Under cumulative conditions, development in Planning Area combined under Alternative A would result in a population of 172,998 and 40,360 jobs.

Under Alternative A, the existing General Plan policy framework would still be in effect, which would constitute a status quo approach to land use regulation in the City. As shown in Table 5.0-1, the proposed General Plan Land Use Map consolidates a number of existing land use designations, as well as establishes new land use designations (i.e., Downtown and Agricultural Industrial). The proposed General Plan, along with the policy framework proposed by the General Plan Update, encourages and aims to provide the framework and land use pattern for logical, orderly growth from the City's compact, historic center extending to well-delineated residential neighborhoods, employment centers, and community amenities to meet the City's long-term housing, employment, and civic needs. The land uses allowed under the proposed General Plan provide opportunities for cohesive new growth at in-fill locations within existing urbanized areas of the city, as well as new growth adjacent to existing urbanized areas. A mix and balance of uses to provide an improved ratio of local jobs to population, would ensure that development pays its fair-share of necessary roadway, public service, and other infrastructure improvements, and that provides for increased protection of natural resources would occur. The proposed General Plan was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection.

Alternative A would not include updated policies, particularly those related to housing, greenhouse gases, and complete streets policies to address safety, access, and mobility for all roadway users, as required by State law. This alternative would not include various policies proposed in the General Plan update to ensure protection of environmental resources, both at a project level and under cumulative conditions, consistent with the objectives of CEQA, and to ensure compatibility between residential uses and more intense uses, such as industrial.

Alternative A fails to meet several of the basic project objectives, including the following:

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.
4. Establish a long-term plan for conservation of resources and future growth.
5. Provide a range of high-quality housing options and accommodate a variety of housing types.
6. Retain and attract businesses and industries that provide high-quality and high-paying jobs so that residents can live and work in Manteca.
7. Expand retail shopping opportunities to provide better local services and increased sales tax revenue.
8. Continue to maintain the road network, improve multimodal transportation opportunities, and identify truck routes.
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.
11. Address new requirements of State law.

Alternative A does not include changes to the General Plan goals, policies, and programs nor to the land use map that have been prepared to address the vision of the community as identified during the General Plan visioning process and throughout the General Plan Advisory Committee process of reviewing and considering community input and recommending changes to the goals, policies, programs, and topics addressed by the General Plan. Alternative A does not provide for expanded employment opportunities and support for more local jobs to serve the City's residents. Alternative A does not include updates to the General Plan that address the requirements of State law related to environmental justice, transportation, including vehicle miles travelled, and safety, including climate adaptation.

Therefore, Alternative A (No Project) is rejected from further consideration as a CEQA alternative, as it fails to meet several of the project objectives. However, for reference, the environmental effects associated with Alternative A are discussed and summarized in Table 5.0-9 to provide a general comparison between the adopted Manteca General Plan (Alternative A – No Project), the proposed project, and Alternatives B and C.

## 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 shows the Land Use Map for Alternative B, which includes the following major changes from the Proposed General Plan:

1. The Villa Ticino policy area reverts to the approved land use plan, rather future Industrial growth (same as Alternative C).
2. The Urban Reserve overlay is applied in the area north of Roth Road and West of Airport Way, reducing future industrial and employment-generating growth in this area (same as Alternative C).

3. A residential/commercial node with High Density Residential, Medium Density Residential, and Mixed Use Commercial uses is created east of Airport Way between Lovelace Road and the future Roth Road extension.
4. The Urban Reserve overlay is removed from lands north of the future Roth Road extension and west of Union Road and this area is designated Business Industrial Park, increasing the potential for industrial and employment-generating uses in this area (same as Alternative C).
5. Additional park locations are added in the northwest residential growth area, north of the City limits bounded by Airport Way to the west, Lovelace Road and the future Roth Road extension to the north, and Highway 99 to the east (same as Alternative C).
6. The future Roth Road alignment is moved to the south between Airport Way and Union Road, increasing the amount of Business Industrial Park and decreasing the area designated for future industrial and employment-generating uses (same as Alternative C).
7. The Urban Reserve overlay is applied to lands west of Castle Road in the northeastern portion of the Planning Area, reducing future industrial and employment-generating growth in this area (same as Alternative C).
8. An infill site northwest of Union Road and Crom Street is changed from Mixed Use to High Density Residential.
9. Infill opportunities in the select areas in the City south of SR 120 are changed from Commercial and Mixed Use to residential designations, Low, Medium, and High Density Residential (same as Alternative C).

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 B (Residential and Balanced Employment Growth Alternative) places greater emphasis on residential development and balanced employment growth by revising the proposed General Plan Land Use Map to increase residential and mixed use land uses and decrease commercial, professional, and industrial land uses within the Planning Area. Alternative B would reduce the Urban Reserve overlay in the area north of the City and would increase the Urban Reserve overlay east of SR 99 and south of French Camp Road in order to encourage an efficient development pattern. Alternative B would result in less nonresidential and job growth than the proposed General Plan, but greater residential and population growth. Additionally, Alternative B would facilitate more residential and nonresidential growth than Alternative A, the existing General Plan, and more residential growth but slightly less nonresidential growth than Alternative C (Increased Intensity Residential and Balanced Employment Growth Alternative).

Alternative B would adopt most of the goals, policies, and actions of the proposed General Plan Update policy document, which would apply to subsequent development, planning, and infrastructure projects under this alternative, except for the several changes to address the Land Use Map revisions. General Plan Policy Area 1, which identifies the potential for industrial uses at

the Villa Ticino site, and supporting policy LU-8.3 would be removed as well as references to Policy Area 1 as proposed. Alternative A However, Alternative However, as previously described, land use designations under Alternative B would be modified as shown on Figure 5.0-2 and summarized in Table 5.0-2.

As shown in Table 5.0-2, Alternative B would provide for approximately 259 more acres of residential uses and 15 more acres of mixed use development to facilitate additional higher density residential growth and a greater variety of housing types within the Planning Area, when compared to the Proposed Land Use Map. Additionally, Alternative B would provide for 619 fewer acres of employment-generating commercial, professional, and industrial uses, when compared to the Proposed Land Use Map.

***TABLE 5.0-2: ALTERNATIVE B V. PROPOSED GENERAL PLAN LAND USE DESIGNATIONS COMPARISON***

| *LAND USE DESIGNATION* | *PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)* | *ALTERNATIVE B – RESIDENTIAL AND BALANCED EMPLOYMENT GROWTH (ACRES)* | *DIFFERENCE* |
|---|---|---|---|
| *RESIDENTIAL LAND USES* | | | |
| Very Low Density Residential | 446 | 491 | 45 |
| Low Density Residential | 8,495 | 8,611 | 116 |
| Medium Density Residential | 575 | 613 | 38 |
| High Density Residential | 418 | 478 | 60 |
| *Residential Subtotal* | *9,934* | *10,193* | *259* |
| *MIXED USE LAND USES* | | | |
| Commercial Mixed Use | 570 | 585 | 15 |
| Downtown | 160 | 160 | 0 |
| *Mixed Use Subtotal* | *730* | *745* | *15* |
| *COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES* | | | |
| Business Professional | 126 | 101 | -25 |
| Business Industrial Park | 714 | 773 | 59 |
| Commercial | 1,192 | 1,169 | -23 |
| Industrial | 2,581 | 1,951 | -630 |
| Agricultural Industrial | 232 | 232 | 0 |
| *Commercial, Professional, and Industrial Subtotal* | *4,845* | *4,220* | *-619* |
| *PUBLIC LAND USES* | | | |
| Public/Quasi-Public | 1,399 | 1,405 | 6 |
| Park | 698 | 734 | 36 |
| Open Space | 447 | 447 | 0 |
| *Public Subtotal* | *2,544* | *2,586* | *42* |
| *OTHER LAND USES* | | | |
| Agriculture | 4,004 | 4,018 | 14 |
| Right-of-Way | 179 | 179 | 0 |
| Water | 180 | 180 | 0 |
| *Other Subtotal* | *4,364* | *4,377* | *13* |
| *URBAN RESERVE* | | | |
| Urban Reserve – Very Low Density Residential | 775 | 775 | 0 |
| Urban Reserve – Low Density Residential | 576 | 576 | 0 |

| *LAND USE DESIGNATION* | *PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)* | *ALTERNATIVE B – RESIDENTIAL AND BALANCED EMPLOYMENT GROWTH (ACRES)* | *DIFFERENCE* |
|---|---|---|---|
| Urban Reserve – Medium Density Residential | 20 | 20 | 0 |
| Urban Reserve – High Density Residential | 19 | 19 | 0 |
| Urban Reserve – Business Industrial Park | 700 | 594 | -106 |
| Urban Reserve – Commercial | 32 | 32 | 0 |
| Urban Reserve – Industrial | 321 | 717 | 396 |
| Urban Reserve – Park | 16 | 16 | 0 |
| Urban Reserve – Public/Quasi-Public | 1 | 1 | 0 |
| *Urban Reserve Subtotal* | *2,460* | *2,750* | *290* |
| **TOTAL** | **24,877** | **24,877** | **0** |

*SOURCE: DE NOVO PLANNING GROUP, 2021.*

## 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 shows the Land Use Map for Alternative C, which includes the following major changes from the Proposed General Plan:

1. The Villa Ticino policy area reverts to the approved land use plan, rather future Industrial growth (same as Alternative B).
2. The Urban Reserve overlay is applied in the area north of Roth Road and West of Airport Way, reducing future industrial and employment-generating growth in this area (same as Alternative B).
3. A residential/commercial node with High Density Residential, Medium Density Residential, and Mixed Use Commercial uses is created east of Airport Way between Lovelace Road and the future Roth Road extension. Alternative C differs from Alternative B in this location as Alternative C includes extended Commercial designation along the future Roth Road extension and includes a narrow swath of the Park land use designation between Airport Way and the proposed Medium Density Residential and High Density Residential uses.
4. The Urban Reserve overlay is removed from lands north of the future Roth Road extension and west of Union Road and this area is designated Business Industrial Park, increasing

the potential for industrial and employment-generating uses in this area (same as Alternative B).

5. Additional park locations are added in the northwest residential growth area, north of the City limits bounded by Airport Way to the west, Lovelace Road and the future Roth Road extension to the north, and Highway 99 to the east (same as Alternative B). In addition to the Parks designations, Alternative C also includes Medium Density Residential Development and/or High Density Residential designations adjacent to the proposed Park designations in this area, as well as Business Professional and a narrow swath of Park designation located between the Low Density Residential designation and Highway 99.
6. The future Roth Road alignment is moved to the south between Airport Way and Union Road, increasing the amount of Business Industrial Park and decreasing the area designated for future industrial and employment-generating uses (same as Alternative B).
7. The Urban Reserve overlay is applied to lands west of Castle Road in the northeastern portion of the Planning Area, reducing future industrial and employment-generating growth in this area (same as Alternative B).
8. An infill site northwest of Union Road and Crom Street is changed from Mixed Use to Commercial.
9. Infill opportunities in the select areas in the City south of SR 120 are changed from Commercial and Mixed Use to residential designations, Low, Medium, and High Density Residential (same as Alternative C).
10. Lands south of Graves Road are revised to replace a portion of the proposed Mixed Use and Business Industrial Park designations with Medium Density Residential, High Density Residential, and a narrow Parks strip separating residential designations from Industrial uses and Highway 99.

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 C (Increased Intensity Residential and Balanced Employment Growth Alternative) provides for greater residential development and balanced employment growth similar to Alternative B; however, Alternative C provides more Medium Density and High Density Residential opportunities to better distribute higher intensity residential uses in planned neighborhoods and near parks. Additionally, this alternative has also been designed to provide some additional buffers between high density residential uses and industrial and other intensive uses.

Overall, Alternative C would revise the proposed General Plan Land Use Map to provide an increase in residential and mixed use land uses and a decrease commercial, professional, and industrial land uses. As shown in Table 5.0-3, Alternative C would allow for more residential growth than the proposed General Plan, but less nonresidential and job growth. Compared to Alternative B, Alternative C would provide for slightly more nonresidential and multi-family

residential growth, but slightly less overall residential growth. Additionally, Alternative C would facilitate more residential and nonresidential growth than Alternative A, the existing General Plan.

***TABLE 5.0-3: ALTERNATIVE C V. PROPOSED GENERAL PLAN LAND USE DESIGNATIONS COMPARISON***

| *LAND USE DESIGNATION* | *PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)* | *ALTERNATIVE C – INCREASED INTENSITY RESIDENTIAL AND BALANCED EMPLOYMENT GROWTH (ACRES)* | *DIFFERENCE* |
|---|---|---|---|
| *RESIDENTIAL LAND USES* | | | |
| Very Low Density Residential | 446 | 491 | 45 |
| Low Density Residential | 8,495 | 8,565 | 70 |
| Medium Density Residential | 575 | 619 | 44 |
| High Density Residential | 418 | 477 | 59 |
| *Residential Subtotal* | *9,934* | *10,152* | *218* |
| *MIXED USE LAND USES* | | | |
| Commercial Mixed Use | 570 | 585 | 15 |
| Downtown | 160 | 160 | 0 |
| *Mixed Use Subtotal* | *730* | *745* | *15* |
| *COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES* | | | |
| Business Professional | 126 | 107 | -19 |
| Business Industrial Park | 714 | 787 | 73 |
| Commercial | 1,192 | 1,187 | -5 |
| Industrial | 2,581 | 1,951 | -630 |
| Agricultural Industrial | 232 | 232 | 0 |
| *Commercial, Professional, and Industrial Subtotal* | *4,845* | *4,264* | *-581* |
| *PUBLIC LAND USES* | | | |
| Public/Quasi-Public | 1,399 | 1,405 | 6 |
| Park | 698 | 745 | 47 |
| Open Space | 447 | 452 | 5 |
| *Public Subtotal* | *2,544* | *2,602* | *58* |
| *OTHER LAND USES* | | | |
| Agriculture | 4,004 | 4,004 | 0 |
| Right-of-Way | 179 | 179 | 0 |
| Water | 180 | 180 | 0 |
| *Other Subtotal* | *4,364* | *4,364* | *0* |
| *URBAN RESERVE* | | | |
| Urban Reserve – Very Low Density Residential | 775 | 775 | 0 |
| Urban Reserve – Low Density Residential | 576 | 576 | 0 |
| Urban Reserve – Medium Density Residential | 20 | 20 | 0 |
| Urban Reserve – High Density Residential | 19 | 19 | 0 |
| Urban Reserve – Business Industrial Park | 700 | 594 | -106 |
| Urban Reserve – Commercial | 32 | 32 | 0 |
| Urban Reserve – Industrial | 321 | 717 | 396 |
| Urban Reserve – Park | 16 | 16 | 0 |

| *LAND USE DESIGNATION* | *PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)* | *ALTERNATIVE C – INCREASED INTENSITY RESIDENTIAL AND BALANCED EMPLOYMENT GROWTH (ACRES)* | *DIFFERENCE* |
|---|---|---|---|
| Urban Reserve – Public/Quasi-Public | 1 | 1 | 0 |
| *Urban Reserve Subtotal* | *2,460* | *2,750* | *290* |
| **TOTAL** | **24,877** | **24,877** | **0** |

*SOURCE: DE NOVO PLANNING GROUP, 2021.*

Alternative C would adopt the goals, policies, and actions of the proposed General Plan Update policy document, which would apply to subsequent development, planning, and infrastructure projects under this alternative. However, as previously described, land use designations under Alternative C would be modified as shown on Figure 5.0-3 and summarized in Table 5.0-3.

As shown in Table 5.0-3, Alternative C would provide for approximately 218 more acres of residential uses and 15 more acres of mixed use development to facilitate additional residential growth within the Planning Area, when compared to the Proposed Land Use Map. Additionally, Alternative B would provide for 581 fewer acres of employment-generating commercial, professional, and industrial uses, when compared to the Proposed Land Use Map.

## GROWTH PROJECTIONS BY ALTERNATIVE

A summary of the growth projections, including population growth, housing units, and jobs, and the resultant job/housing balance for the project and each alternative is shown in Table 5.0-4.

As shown in Table 5.0-4, Alternative A would result in increased housing and job growth within the Manteca city limits when compared to existing conditions, but substantially less overall growth than all other alternatives. Under Alternative A at full buildout, there would be an increase over existing conditions in residential growth (approximately 26,152 dwelling units) and non-residential growth (approximately 24,541,050 square feet) within City limits. Under cumulative conditions, development in Planning Area combined under Alternative A would result in a population of 172,998 and 40,360 jobs. This is 7,362 less housing units, 33,383 less people, and 12,073 fewer jobs compared to the Proposed General Plan.

Alternative B would result in a total of 66,770 dwelling units, 212,329 persons, and 51,452 jobs at buildout. This is approximately 1,870 more housing units (503 single family and 1,367 multi-family) and 5,948 more residents when compared to the proposed General Plan Land Use Map. Nonresidential square feet would be reduced by 2,525,551 square feet and employment opportunities would be decreased under this alternative, with approximately 3,078 fewer jobs created within the Planning Area when compared to the proposed General Plan.

Alternative C would result in approximately 66,490 housing units at buildout. This is approximately 1,590 more housing units, including 177 single family and 1,413 multi-family, within the Planning Area when compared to the proposed General Plan Land Use Map. Of the 1,590 additional housing units, 1,413 are multi-family residential units while 177 are single-family

units. Employment opportunities would also decrease under this alternative, with approximately 2,370 fewer jobs created within the Planning Area when compared to the proposed General Plan. Under full buildout conditions, this alternative would result in a total population within the Planning Area of approximately 211,438, which is slightly more than the total population projection of 201,346 under the proposed General Plan.

***TABLE 5.0-4: GROWTH PROJECTIONS BY ALTERNATIVE***

| *ALTERNATIVE* | *SINGLE-FAMILY UNITS* | *MULTI-FAMILY UNITS* | *DWELLING UNITS* | *POPULATION* | *NON-RESIDENTIAL DEVELOPMENT (SQUARE FEET)* | *JOBS* |
|---|---|---|---|---|---|---|
| *EXISTING CONDITIONS* | | | | | | |
| Existing Conditions (City) | 23,697 | 4,553 | 28,250 | 89,835 | - | 16,381 |
| *NEW GROWTH* | | | | | | |
| **Proposed General Plan** | **26,564** | **10,086** | **36,650** | **116,546** | **35,458,437** | **37,969** |
| Alternative A: Existing General Plan/No Project | 19,202 | 6,950 | 26,152 | 83,163 | 24,541,050 | 23,979 |
| Alternative B: Residential and Balanced Employment Growth | 27,067 | 11,453 | 38,520 | 122,494 | 32,932,886 | 35,071 |
| Alternative C: Increased Intensity Residential and Balanced Employment Growth | 26,741 | 11,499 | 38,240 | 121,603 | 33,326,546 | 35,599 |
| *TOTAL BUILDOUT GROWTH: EXISTING PLUS NEW GROWTH* | | | | | | |
| **Proposed General Plan** | **50,261** | **14,639** | **64,900** | **206,381** | **-** | **54,530** |
| Alternative A: Existing General Plan/No Project | 42,899 | 11,503 | 54,402 | 172,998 | - | 42,457 |
| Alternative B: Residential and Balanced Employment Growth | 50,764 | 16,006 | 66,770 | 212,329 | - | 51,452 |
| Alternative C: Increased Intensity Residential and Balanced Employment Growth | 50,438 | 16,052 | 66,490 | 211,438 | - | 51,980 |

*SOURCE: DE NOVO PLANNING GROUP, 2020.*

## LAND USE DESIGNATIONS BY ALTERNATIVE

A summary of the land use designations by acreage associated with the Proposed General Plan Update and with each alternative is provided in Table 5.0-5.

***TABLE 5.0-5: LAND USE DESIGNATIONS BY ALTERNATIVE***

| LAND USE DESIGNATION | PROPOSED PROJECT (ACRES) | ALTERNATIVE A (ACRES) | DIFFERENCE | ALTERNATIVE B (ACRES) | DIFFERENCE | ALTERNATIVE C (ACRES) | DIFFERENCE |
|---|---|---|---|---|---|---|---|
| *RESIDENTIAL LAND USES* | | | | | | | |
| Very Low Density Residential | 446 | 944 | 498 | 491 | 45 | 491 | 45 |
| Low Density Residential | 8,495 | 7,436 | -1,059 | 8,611 | 116 | 8,565 | 70 |
| Medium Density Residential | 575 | 356 | -219 | 613 | 38 | 619 | 44 |
| High Density Residential | 418 | 421 | 3 | 478 | 60 | 477 | 59 |
| *Residential Subtotal* | *9,934* | *9,157* | *-777* | *10,193* | *259* | *10,152* | *218* |
| *MIXED USE LAND USES* | | | | | | | |
| Commercial Mixed Use | 570 | 568 | -2 | 585 | 15 | 585 | 15 |
| Downtown | 160 | 0 | -160 | 160 | 0 | 160 | 0 |
| *Mixed Use Subtotal* | *730* | *568* | *-162* | *745* | *15* | *745* | *15* |
| *COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES* | | | | | | | |
| Business Professional | 126 | 14 | -112 | 101 | -25 | 107 | -19 |
| Business Industrial Park | 714 | 208 | -506 | 773 | 59 | 787 | 73 |
| Commercial | 1,192 | 5 | -1,187 | 1,169 | -23 | 1,187 | -5 |
| General Commercial | 0 | 895 | 895 | 0 | 0 | 0 | 0 |
| Neighborhood Commercial | 0 | 178 | 178 | 0 | 0 | 0 | 0 |
| Light Industrial | 0 | 1,051 | 1,051 | 0 | 0 | 0 | 0 |
| Heavy Industrial | 0 | 690 | 690 | 0 | 0 | 0 | 0 |
| Industrial | 2,581 | 0 | -2,581 | 1,951 | -630 | 1,951 | -630 |
| Agricultural Industrial | 232 | 0 | -232 | 232 | 0 | 232 | 0 |
| *Commercial, Professional, and Industrial Subtotal* | *4,845* | *3,041* | *-1,804* | *4,226* | *-619* | *4,264* | *-581* |
| *PUBLIC LAND USES* | | | | | | | |
| Public/Quasi-Public | 1,399 | 1,160 | -239 | 1,405 | 6 | 1,405 | 6 |
| Park | 698 | 580 | -118 | 734 | 36 | 745 | 47 |
| Open Space | 447 | 447 | 0 | 447 | 0 | 452 | 5 |
| *Public Subtotal* | *2,544* | *2,187* | *-357* | *2,586* | *42* | *2,602* | *58* |
| *OTHER LAND USES* | | | | | | | |
| Agriculture | 4,004 | 3,944 | -60 | 4,018 | 14 | 4,004 | 0 |
| Right-of-Way | 179 | 135 | -44 | 179 | 0 | 179 | 0 |
| Water | 180 | 0 | -180 | 180 | 0 | 180 | 0 |
| *Other Subtotal* | *4,364* | *4,079* | *-285* | *4,377* | *13* | *4,364* | *0* |

| *Land Use Designation* | *Proposed Project (acres)* | *Alternative A (acres)* | *Difference* | *Alternative B (acres)* | *Difference* | *Alternative C (acres)* | *Difference* |
|---|---|---|---|---|---|---|---|
| *Urban Reserve* | | | | | | | |
| Urban Reserve – Very Low Density Residential | 775 | 590 | -185 | 775 | 0 | 775 | 0 |
| Urban Reserve – Low Density Residential | 576 | 1,307 | 731 | 576 | 0 | 576 | 0 |
| Urban Reserve – Medium Density Residential | 20 | 20 | 0 | 20 | 0 | 20 | 0 |
| Urban Reserve – High Density Residential | 19 | 0 | -19 | 19 | 0 | 19 | 0 |
| Urban Reserve – Commercial Mixed Use | 0 | 201 | 201 | 0 | 0 | 0 | 0 |
| Urban Reserve – Business Industrial Park | 700 | 412 | -288 | 594 | -106 | 594 | -106 |
| Urban Reserve – Commercial | 32 | 0 | -32 | 32 | 0 | 32 | 0 |
| Urban Reserve – General Commercial | 0 | 38 | 38 | 0 | 0 | 0 | 0 |
| Urban Reserve – Industrial | 321 | 0 | -321 | 717 | 396 | 717 | 396 |
| Urban Reserve – Light Industrial | 0 | 36 | 36 | 0 | 0 | 0 | 0 |
| Urban Reserve – Park | 16 | 67 | 51 | 16 | 0 | 16 | 0 |
| Urban Reserve – Public/Quasi-Public | 1 | 12 | 11 | 1 | 0 | 1 | 0 |
| Urban Reserve – Agriculture | 0 | 1,734 | 1,734 | 0 | 0 | 0 | 0 |
| Urban Reserve | 0 | 955 | 955 | 0 | 0 | 0 | 0 |
| *Urban Reserve Subtotal* | *2,460* | *5,372* | *2,912* | *2,750* | *290* | *2,750* | *290* |
| **TOTAL** | **24,877** | **24,404** | **-473** | **24,877** | **0** | **24,877** | **0** |

## 5.3 ENVIRONMENTAL ANALYSIS

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR. Following the analysis of each alternative, Table 5.0-5 summarizes the comparative effects of each alternative.

The primary difference between the proposed General Plan and Alternatives B and C are the Land Use Maps associated with each of these alternatives. The goals, policies, and actions contained in the proposed General Plan would also apply and be implemented under Alternatives B and C,

except where specifically identified in the description of the alternative. Modifications to goals and policies proposed under Alternatives 2 and 3 generally correspond to the changes to the Land Use Map. Therefore, changes to the Land Use Map are the main variables that may increase or decrease the severity of one or more of the significant environmental impacts identified in this Draft EIR. It is important to note, however, that all of the Land Use Maps, across all of the Alternatives analyzed in this EIR, include essentially the same Planning Area, with the exception of Alternative A excluding the area north of Roth Road and west of Airport Way.

Throughout the preparation of the General Plan Update, the City Council, Planning Commission, and General Plan Advisory Committee 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 further this goal of crafting a self-mitigating General Plan, the environmental analysis contained in this Draft EIR was completed concurrently with the development of the General Plan elements and Land Use Map in order to foster informed decision making regarding the Land Use Map and the General Plan goals, policies, and actions as they were being developed. As the Land Use Map was crafted, refined, and revised throughout the course of the General Plan Update, changes were made on a continuous basis in order to incrementally and substantially reduce potentially significant environmental impacts that were identified. The result of this approach and this process is a proposed General Plan Land Use Map that has reduced potentially significant impacts to the environment, while still meeting the project objectives identified by the City of Manteca.

As demonstrated in the discussions below, Alternative B is the environmentally superior alternative as it is the most effective in terms of overall reductions of impacts compared to the proposed General Plan and all other alternatives, while still meeting all of the project objectives.

## Aesthetics and Visual Resources

As described in Chapter 3.1 (Aesthetics and Visual Resources) impacts related to Aesthetics were found be less than significant. Manteca is mostly urbanized with commercial, residential, and industrial uses concentrated along the Highway 99 and Highway 120 corridors and other major roadway corridors and residential neighborhoods occupying most other developed areas. Therefore, development would generally occur on either vacant, infill parcels, or the undeveloped land outside the City limits within the Planning Area. Much of the undeveloped land within the Planning Area surrounding the urbanized portion of Manteca is predominantly farmland and rural residential uses. The introduction of new and more intense development into previously undisturbed areas or areas that have been historically used for agricultural operations may result in potentially significant impacts to scenic resources or result in the degradation of the city's visual character. Additionally, new development may result in changes to the skyline throughout the city.

Alternative B would result in a similar development pattern to the proposed General Plan and Alternative C; however, Alternatives B and C would provide for a slightly smaller development footprint at full buildout than the proposed General Plan due to changes to the Urban Reserve

overlay. Alternatives B and C would expand the Urban Reserve overlay in the northern portion of the Planning Area to include 396 additional acres of land designated Industrial by the proposed General Plan while also removing 106 acres of Business Industrial Park from the overlay. The net changes to the Urban Reserve overlay under Alternatives B and C would result in 290 additional acres within the overlay when compared to the proposed General Plan, which would preserve rural and agricultural land within the outskirts of the Planning Area for development beyond the current General Plan.

The proposed General Plan would allow for greater nonresidential development than is currently allowed by all other alternatives while Alternative B would allow for the greatest residential growth. Compared to the proposed General Plan, Alternative B would provide for 1,870 more dwelling units, but 2,525,551 less square feet of nonresidential developments. As shown in Table 5.0-2, Alternative B would designate approximately 259 additional acres of land for Residential uses within the Planning Area, consisting of 45 acres of Very Low Density Residential, 116 acres of Low Density Residential, 38 acres of Medium Density Residential, and 60 acres of High Density Residential. Conversely, the proposed General Plan designates approximately 630 additional acres Industrial and 23 additional acres Commercial than Alternative B, which would lead to more intense development, particularly in relation to building heights and footprints, than would occur under Alternative B.

The proposed General Plan would allow for greater nonresidential development than is currently allowed by all other alternatives while Alternative C would allow for the greatest multi-family residential growth. Compared to the proposed General Plan, Alternative C would provide for 1,590 more dwelling units, but 2,131,891 less square feet of nonresidential developments. As shown in Table 5.0-3, Alternative C would designate approximately 218 additional acres of land for Residential uses within the Planning Area, consisting of 45 acres of Very Low Density Residential, 70 acres of Low Density Residential, 44 acres of Medium Density Residential, and 59 acres of High Density Residential. Conversely, the proposed General Plan designates approximately 630 additional acres Industrial and 19 additional acres Business Professional than Alternative C, which would lead to more intense development than would occur under Alternative C.

Based on the above, the proposed General Plan would lead to more intense development and a larger development footprint than would occur under Alternatives A, B, or C. Therefore, visual impacts under each Alternative would be slightly reduced compared to the Proposed General Plan. Overall, Alternative B would allow for an increased development footprint in comparison to Alternative A and could have slightly worse aesthetic impacts than Alternative C. However, development under both Alternative B and Alternative C would be subject to policies and measures establishing design and aesthetic requirements that would reduce impacts associated with aesthetics, lighting, and glare. As shown in Table 5.0-1, 5.0-4, and 5.0-5, Alternative A (No Project Alternative) would allow for the least amount of residential and nonresidential development than the proposed General Plan and Alternatives B and C and would provide the smallest development footprint at full buildout due to its Planning Area being reduced by approximately 473 acres and Urban Reserve overlay containing over 2,000 more acres than the

proposed General Plan and Alternative B and C. Therefore, Alternative A may have slightly reduced impacts to aesthetics and visual resources.

## Agriculture and Forest Resources

As described in Impact 3.2-1 of Chapter 3.2 (Agriculture and Forest Resources), the proposed General Plan would result in significant and unavoidable impacts related to the conversion of farmlands, including Prime Farmland and Unique Farmland, to non-agricultural use.

All Project Alternatives would result in General Plan land use designations that would result the loss of Important Farmlands; however, when compared to the proposed General Plan, all Project Alternatives would result in less development on Important Farmlands at full buildout due to increases in the Urban Reserve overlay. Specifically, Alternative A would provide for 2,912 additional acres within the Urban Reserve when compared to the proposed General Plan while Alternatives B and C would provide for 290 additional acres. According to Figure 3.2-1 in Chapter 3.2, the majority of land within the Urban Reserve overlay of Alternatives A (see Figure 5.0-1), B (see Figure 5.0-2), and C (see Figure 5.0-3) is Prime Farmland and Farmland of Statewide Importance. Therefore, farmland conversion impacts would be slightly reduced under Alternatives B and C and the most reduced under Alternative A in comparison to the proposed General Plan. However, this impact would remain significant and unavoidable under all of the Alternatives.

## Air Quality

As described in Chapter 3.3 (Air Quality), the proposed General Plan implementation would result in less than significant impacts to air quality.

As stated in Chapter 3.3, existing VMT in Manteca is approximately 1,784,908. Manteca has an existing population of approximately 84,800 and an existing jobs base of approximately 16,862 jobs. Full buildout of the proposed General Plan could generate up to 206,381 total residents (116,546 new residents) and generate up to 54,530 total jobs (37,969 new jobs), resulting in a VMT of 4,384,963. Implementation of the proposed General Plan would result in an approximately 146% increase in citywide VMT, with a commensurate 146% increase in combined population and jobs. Therefore, the growth rate associated with the proposed General Plan is comparable to the VMT increase associated with it. Moreover, the proposed General Plan includes a range of goals and policies that cover the full breadth of air quality issues as recommended in the applicable air quality plans.

Table 5.0-6 compares projected VMT to the projected service population for the proposed General Plan and each of the alternatives.

As shown in Table 5.0-6, under Alternative A, the growth in VMT would exceed population growth. However, both Alternative B and Alternative C would have a reduction in VMT growth in comparison to the increase in service population. Therefore, both Alternatives B and C would have improved air quality impacts in comparison to the Proposed General Plan. Alternative B would be slightly better than Alternative C with a lower increase in VMT compared to the increase

in service population. Although health risks associated with the proposed truck route were less than significant, as described in Chapter 3.3, Alternatives A, B, and C would have a reduction in industrial uses which would result in a decrease in heavy truck traffic and would reduce the amount of toxic air contaminants (TACs) associated with heavy truck traffic in comparison to the proposed General Plan. that would generate heavy truck. The Proposed General Plan, Alternative B, and Alternative C all include a range of goals and policies that would reduce air quality and toxic air contaminant emissions, consistent with the Air District's Clean Air Plan and Alternatives B and C would also include measures to reduce impacts to air quality, consistent with those measures developed for the proposed General Plan. Therefore, impacts to air quality under Alternative B would be better when compared to the proposed General Plan, similar to Alternative C, and better than Alternative A.

***TABLE 5.0-6: VMT ANALYSIS BY ALTERNATIVE***

| | *EXISTING CONDITIONS* | *PROPOSED PROJECT (BUILDOUT)* | *ALTERNATIVE A (BUILDOUT)* | *ALTERNATIVE B (BUILDOUT)* | *ALTERNATIVE C (BUILDOUT)* |
|---|---|---|---|---|---|
| Service Population (Population + Employment) | 106,216 | 260,911 | 215,455 | 263,781 | 263,418 |
| Total VMT | 1,784,908 | 4,384,963 | 3,855,205 | 4,322,566 | 4,344,174 |
| Increase in Service Population | | 146% | 103% | 148% | 148% |
| Increase in VMT | | 146% | 116% | 142% | 143% |

## Biological Resources

There are various biological resources, including habitat, that occur throughout the region. As described in Chapter 3.4 (Biological Resources) General Plan implementation would result in less than significant impacts to biological resources. 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. 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 proposed 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. The proposed General Plan and Alternatives B and C would include these updated biological policies and actions aimed at protecting biological resources (as described in detail in Chapter 3.4), while Alternative A would rely on the biological policies and actions within the existing General Plan.

As previously stated, all Project Alternatives would increase the Urban Reserve overlay when compared to the proposed General Plan, ranging from 2,912 additional acres in Alternative A and approximately 290 additional acres in Alternatives B and C. Alternatives B would also designate slightly more land as Agriculture and Open Space than the proposed General Plan, 14 more acres, and Alternative C would designate 5 more acres as Agriculture and Open Space compared to the

proposed General Plan. The expansion of the Urban Reserve in all Project Alternatives would preserve land within the overlay for future development outside of the current planning period, resulting in a smaller development footprint at full buildout when compared to the proposed General Plan. Therefore, impacts to biological resources under all Project Alternatives would be slightly reduced when compared to the proposed Project, which includes a larger development footprint at full buildout. Additionally, Alternative A would reduce the overall Planning Area by approximately 473 acres, resulting in the smallest Planning Area when compared to all alternatives and the Proposed General Plan. Therefore, Alternative A would result in the smallest development footprint. However, because Alternatives B and C would update conservation and biological resource policies consistent with the Proposed General Plan, impacts to biological resources would be slightly reduced when compared to the Alternative A (No Project Alternative), which does not include an updated policy document. Impacts under Alternative B would remain the same when compared to the Alternative C, which has a comparable development footprint and updated policies consistent with the Proposed General Plan.

## Cultural and Tribal Cultural Resources

As described in Chapter 3.5 (Cultural and Tribal Cultural Resources) General Plan implementation would result in less than significant impacts to cultural and tribal cultural resources.

As previously stated, all Project Alternatives would increase the Urban Reserve overlay when compared to the proposed General Plan, including 2,912 additional acres in Alternative A and 290 additional acres in Alternatives B and C. Alternatives B and C would also result in slight increases in lands designated Agriculture and Open Space, compared to the proposed General Plan. The expansion of the Urban Reserve in all Project Alternatives would preserve land within the overlay for consideration for future development outside of the current planning period, resulting in a smaller development footprint at full buildout when compared to the proposed General Plan. Additionally, Alternative A would reduce the overall Planning Area by approximately 473 acres, resulting in the smallest Planning Area when compared to all alternatives and the Proposed General Plan. Therefore, impacts to cultural resources under all Project Alternatives would be slightly reduced when compared to the proposed Project, which includes a large development footprint at full buildout. Because Alternatives B and C would update cultural resource policies to include new policies and actions related to agency coordination, consultation, and monitoring consistent with the proposed General Plan Policy Document, impacts to cultural resources would be slightly reduced when compared to the No Project Alternative which does not include additional and updated policies related to cultural resources.

## Greenhouse Gases, Climate Change, and Energy

As described in Chapter 3.7 (Greenhouse Gases, Climate Change, and Energy), the proposed General Plan would result in less than significant impacts to Greenhouse Gases, Climate Change, and Energy.

As stated in Chapter 3.7, Manteca has an adopted Climate Action Plan, which is a Qualified GHG Reduction Plan. The CAP is designed to streamline environmental review of future development projects in the City of Manteca consistent with CEQA Guidelines Section 15183.5(b), as identified

within the CAP itself. The proposed General Plan has been developed to be consistent with the adopted CAP, and to further the goals and implementation strategies identified in the CAP. Crucially, the proposed General Plan includes implementation measure RC-4a, which requires the City to update the City's existing CAP to achieve the State's greenhouse gas reduction targets beyond 2020, which would include the 2030 and 2050 targets. Updates to the CAP would align the City's GHG reduction targets and associated reduction measures with the statewide GHG reduction targets established by AB 32, SB 32, and SB 375 and EOs S-03-05 and B-30-15.

Additionally, Table 3.7-1 identifies the VMT for the Planning Area and total VMT for the existing baseline condition, for the projected proposed General Plan buildout condition, and for the projected existing General Plan buildout condition. The "per service population" metric, which accounts for both population and employment, is a common way to analyze the GHG efficiency of new development in comparison to an existing baseline. The land use modifications and policies proposed as part of the proposed General Plan would result in an overall approximately 4.8% increase in per service population vehicle miles traveled compared to the existing baseline condition. However, the proposed General Plan would result in in an approximately 1.6% reduction in per service population vehicle miles traveled compared to the existing General Plan.

Under Alternative B, the Planning Area would be developed with similar uses as the Proposed General Plan, but there would be an increase in residential uses, with 503 more single family and 1367 more multi-family units and a decrease of approximately 3,078 jobs compared to the Proposed General Plan. The increase in residential uses focuses on multi-family uses and density reductions typically decrease per capita GHG emission levels. Similarly, under Alternative C, there would be an increase in residential units, with 177 more single family and 1,413 more multi-family, and a decrease of approximately 2,370 jobs compared to the proposed General Plan. The increase in residential uses under Alternatives B and C focuses on multi-family uses and density reductions typically decrease per capita GHG emission levels. Under Alternative A, there would be a decrease in residential and employment uses and the density reductions and population may decrease the total greenhouse gas emissions and energy use, however, density reductions would generally be seen to increase per capita GHG emissions levels.

As shown in Table 5.0-6, Alternatives B and C would both result in a decrease in total VMT as well as in a decrease in VMT compared to the change in service population, whereas Alternative A would result in an increase in VMT compared to the change in service population. Table 5.0-8 (in the Transportation and Circulation discussion), provides additional details regarding the changes in VMT under Alternatives A through C and shows that while Alternative A would result in an increase in VMT per service population, Alternatives B and C would result in a decrease in VMT per service population compared to the proposed General Plan, with Alternative B achieving a slightly higher decrease in VMT. As such, the greenhouse gas emissions impact is decreased slightly under Alternatives B and C when compared to the proposed General Plan. Moreover, when compared to Alternative A, the Proposed General Plan, Alternative B and Alternative C all include a range of goals and policies that would reduce GHG emissions, including policies to encourage mixed-use development, complete streets, and multi modal improvements that would further reduce per capita GHG impacts. When compared to Alternative A, the proposed General

Plan and Alternatives B and C present more opportunities for trip internalization and increased opportunities for walking and bicycling due to their proposed mix of higher density residential, office, retail, and other uses under increased mixed-use designations, including the Commercial Mixed Use and Downtown designations. Therefore, impacts related to greenhouse gases, climate change and energy resources would also be reduced under Alternatives B and C when compared to the No Project Alternative which does not include an updated policy document, or an update land use map that prioritizes mixed uses and higher densities and intensities.

## Geology and Soils

As described in Chapter 3.6 (Geology and Soils), the proposed General Plan would result in less than significant impacts to Geology and Soils. All alternatives would result in similar development patterns. The proposed General Plan and Alternatives B and C would also include updated policies related to geologic hazards, including requirements for project reviews and standards for construction and building practices (as described in detail in Chapter 3.6).

All future projects within the Planning Area will be required to comply with state laws including the preparation of stormwater plans, and compliance with the provisions of the California Building Standards Code (CBSC), which requires development projects to perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues, and use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements. Therefore, impacts related to Geology and Soils would generally remain the same under all alternatives. However, the updated policy document provides for additional policies and action related to geologic hazards and safety when compared to the existing General Plan, therefore the proposed General Plan and Alternatives B and C would be considered to be slightly superior to the Alternative A.

## Hazards and Hazardous Materials

As described in Chapter 3.8 (Hazards and Hazardous Materials), all impacts related to hazards and hazardous materials were found to be less than significant. The proposed General Plan and Alternative B would include updated policies and actions aimed at protecting the public from hazardous materials. These policies and actions in the General Plan would ensure that potential hazards are identified on a project site, that development is located in areas where potential exposure to hazards and hazardous materials can be mitigated to an acceptable level, and that business operations comply with Federal and State regulations regarding the use, transport, storage, and disposal of hazardous materials. The proposed General Plan also includes policies and actions to ensure that the City has adequate emergency response plans and measures to respond in the event of an accidental release of a hazardous substance (as described in detail in Chapter 3.8). Additionally, the proposed General Plan includes policies and actions for adequate water supply and water flow availability, ensuring adequate emergency access, adequate fire protection services, fire safe design site standards, and ensuring public awareness regarding fire safety.

All Project alternatives would result in additional urban uses including commercial, industrial, residential, and mixed-use and public facility development. Additionally, all Project Alternatives

would result in development patterns that include future development of urban uses in areas designated as Moderate FHSZ. Alternatives B and C would result in impacts comparable to those under the proposed General Plan. Alternative A would not include updated goals, policies, and programs to address hazards and hazardous materials, including programs to address exposure of sensitive receptors to intensive uses, and could result in worse impacts compared to the proposed General Plan. associated with hazards and hazardous materials.

## Hydrology and Water Quality

Implementation of the proposed General Plan has the potential to result in the violation of water quality standards and waste discharge of pollutants into surface waters during both construction and long-term operations. Construction operations could result in temporary increases in runoff, erosion, sedimentation, soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas. The long-term operation of the proposed General Plan could result in long-term impacts to surface water quality from urban stormwater runoff and could enter groundwater or surface water systems. Additionally, the proposed General Plan would result in new impervious surfaces that could reduce rainwater infiltration and groundwater recharge. Mitigation measures incorporated into the project would reduce potential water quality impacts to a less than significant level. The General Plan would not place persons or structures in a flood hazard zone. As described in Chapter 3.9 (Hydrology and Water Quality), under all impact areas, implementation of the proposed General Plan would result in less than significant impacts related to Hydrology and Water Quality.

Under Alternatives B and C, development would occur in a manner similar to the proposed General Plan within a highly urbanized environment, where flood control and water quality protection measures are well established and enforced. Alternative B and C both provide for an expansion of the Urban Reserve overlay by 290 acres, which would result in these areas not being urbanized during the Planning Period and Alternative A designates 2,912 more acres as Urban Reserve when compared to the proposed General Plan. Alternatives B and C would also result in slight increases to lands designated Agriculture, Open Space, and Water compared to the proposed General Plan while Alternative A would result in a decrease of 240 acres in this category. Therefore, future development allowed under all alternatives would result in less land covered with impervious surfaces compared to the proposed General Plan, with Alternative B providing a slightly higher amount of land preserved in Open Space and Agriculture designations compared to Alternative C. Similar to the proposed General Plan, stormwater from future development would flow into the City's stormwater system via a network of drains, pipes, and detention basins. Future development projects allowed under all alternatives would be subject to National Pollution Discharge Elimination System requirements to develop temporary (construction) and permanent storm water control measures and incorporate these measures in order to mitigate the impacts of pollutants in storm water runoff. Because these alternatives would be required to implement improvements in order to manage and treat stormwater flows from the site, impacts related to water quality would be similar, but would be reduced under Alternative A due to the decrease in development and would also be slightly reduced under Alternatives B and C due to the decrease in development footprint compared to the proposed General Plan.

As described in Chapter 3.9 (Hydrology and Water Quality), when the proposed General Plan is eventually developed, the on-site impervious area would increase, leading to faster runoff rates. Alternatives A, B, and C would provide for a reduced amount of impervious surface due to increases in the Urban Reserve overlay, Agriculture, Open Space, Water, and Park land uses when compared to the proposed General Plan, which would also result in slightly decreased impacts related to rainfall infiltration and runoff during storm events as compared to the proposed General Plan.

As described in Chapter 3.9 (Hydrology and Water Quality), General Plan implementation has the potential to result in the discharge of pollutants into detention basins and storm drains, and would change the existing drainage pattern on the site, although these impacts are less than significant as a result of compliance with local, state, and federal regulations, as well as compliance with General Plan policies. The implementation of the updated General Plan policies aimed to enhance stormwater quality and infiltration as well as actions to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure off-site runoff is not increased as a beyond pre-development levels would not be included under Alternative A as this alternative does not include an update to the General Plan Policy Document. Therefore, this impact under the No-Project Alternative may be slightly increased when compared to all other alternatives. Under Alternatives B and C, these impacts would be similar as the proposed General Plan; however, the smaller development footprint of Alternatives B and C would decrease the potential to result in a discharge of pollutants into detention basins and storm drains and change the existing drainage pattern of the site; therefore, impacts related to hydrology and water quality would be slightly better under Alternative B when compared to the proposed General Plan and Alternative C due to its slightly higher amount of lands designated Urban Reserve, Open Space, and Agriculture.

## Land Use, Population and Housing

The proposed General Plan and Alternative B and C are long-range land use plans. As described in Chapter 3.10 (Land Use, Population, and Housing) all impacts related to land use, population, and housing were found to be less than significant under the proposed General Plan. As described previously, the proposed General Plan, Alternative B, and Alternative C would include adoption of the updated policy document consistent with the Proposed General Plan. Therefore, Alternative B would also result in the same impact level as the proposed General Plan. Alternative B would update current land use designations, and the City's General Plan would be more effective in promoting and encouraging more compact urban development and revitalization through mixed use development. In addition, numerous programs and policies within the proposed General Plan's policy document allow for greater consistency with applicable state and regional plans versus the existing General Plan, and would also promote efficiency in the delivery of urban services, and local agency coordination. Finally, the amount and typology of allowable development under the Proposed General Plan, Alternative B, and Alternative C has been crafted to meet City's Regional Housing Needs Allocation (RHNA) for future housing needs, with Alternatives B and C both providing more opportunities for the City to meet its fair share of regional housing needs. Continuation of the existing General Plan and its Housing Element may

not enable the City to meet its RHNA obligation for new State certification by December 2023. In all, Alternative A (No Project Alternative) would result in less consistency with pertinent state and regional plans relative to the proposed General Plan and when compared to all other alternatives and would not implement changes in State law that address environmental concerns related to climate adaptation, environmental justice, and VMT. Alternatives B and C are both comparable to the proposed General Plan and would result in similar impacts related to land use planning and population/housing.

## Mineral Resources

As described in Chapter 3.11, the proposed General Plan would result in less than significant impacts relating mineral resources. All of the alternatives, like the Proposed General Plan, accommodate development generally in the same areas, and these areas are, for the most part, either already urbanized or in an open space land use. Given that no mineral resources would be impacted by the proposed project, impacts associated with each of the alternatives would be the same and all would remain less than significant.

## Noise

As described in Chapter 3.12 (Noise), and 4.0 (Other CEQA) the proposed General Plan would result in significant noise impacts related to increases in transportation noise. Buildout of the General Plan would contribute to transportation noise and in increases in traffic noise levels at existing sensitive receptors. The proposed General Plan, Alternative B, and Alternative C include General Plan Policies intended to minimize exposure to excessive noise, including noise associated with increased traffic. Additional policies would ensure that new development mitigates potential noise impacts to the greatest extent feasible through incorporating the noise control treatments necessary to achieve acceptable noise levels and sets criteria for evaluating future increases in traffic noise levels.

Alternative A would result in less residential and employment growth than the proposed General Plan and result in less noise associated with development and operation of uses, as well as less traffic noise due to generally reduced traffic volumes on area roadways.

Alternative B would result in 1,870 more residential units and 5,948 more residents, but 2,525,551 less non-residential square feet and 3,078 fewer jobs than the proposed General Plan. Alternative C would result in 1,590 more residential units, consisting of 1,413 more multi-family units and 177 more single-family units, and 5,057 more residents, but 2,131,891 less non-residential square feet and 2,370 fewer jobs than the proposed General Plan. Both alternatives would identify more land as Urban Reserve and would result in less development overall than the proposed General Plan. As shown in Table 5.0-6, both Alternatives B and C would result in slightly less VMT than the proposed General Plan and would have an associated reduction in traffic volumes. However, Alternatives B and C would result in a different traffic pattern than the proposed General Plan, due to a shift in areas identified for urbanization and areas identified for preservation and conservation during the buildout of the General Plan.

As shown in Table 5.0-7, under Alternative A traffic volumes would generally decrease in comparison to the proposed General Plan. Under Alternatives B and C, there would be an overall decrease in traffic volumes, including a decrease in heavy truck traffic, but there would be a localized increase in traffic volumes on a number of area roadways, as shown in Table 5.0-7. These shifts in traffic patterns include, but are not limited to, increased traffic on Union Road north of Del Webb and south of Lovelace Road, which would increase by 2% under Alternative B and 5% under Alternative C, Union Road north of Lovelace Road, which would increase by 30% under Alternative B and 25% under Alternative C, and Lovelace Road east of Airport Way, which would increase by 15% under Alternative B and by 18% under Alternative C. Traffic reductions, when compared to the proposed General Plan, under Alternatives B and C would include Atherton Drive east of Union Road, which would decrease by 3% under Alternative B and 5% under Alternative C, Louise Avenue west of Austin Road, which would decrease by 5% under Alternative B and 2% under Alternative C, future Raymus Parkway east of Main Street, which would decrease by 4% under Alternative B and 5% under Alternative C, and Roth Road east of Airport Way, which would decrease by 8% under Alternatives B and C. In general, there would be a slight reduction in traffic and associated noise under Alternatives B and C, with the exception of where there would be localized increases. Alternatives B and C would continue to result in the potential for noise levels to exceed adopted standards and the increase in noise would remain significant and unavoidable under each alternative, as with the proposed General Plan.

As described in Chapter 3.12 (Noise), increases of 5 dB or greater occurring primarily along portions of Louise Ave, Airport Way, Union Ave, and Woodward Ave. Under both alternatives, sensitive receptors would continue to be exposed to excessive traffic noise. Therefore, this impact would remain significant and unavoidable under Alternatives B and C, and both alternatives would be similar to the proposed project in terms of the potential to generate noise above adopted standards.

***TABLE 5.0-7: COMPARISON OF TRAFFIC VOLUMES BY ALTERNATIVE***

| | *PROPOSED GENERAL PLAN* | | *ALTERNATIVE A* | | *ALTERNATIVE B* | | *ALTERNATIVE C* | |
|---|---|---|---|---|---|---|---|---|
| *SEGMENT* | *ADT* | *TRUCK %* | *ADT* | *TRUCK %* | *ADT* | *TRUCK %* | *ADT* | *TRUCK %* |
| 1. Airport Way north of Daniels St | 49,200 | 2% | 43,960 | 3% | 48,490 | 2% | 48,500 | 2% |
| 2. Union Road south of Mission Ridge Drive | 31,710 | 0% | 30,590 | 0% | 31,510 | 0% | 31,660 | 0% |
| 3. Main St north of SR 120 WB ramps BY AXLE | 39,090 | 6% | 37,600 | 6% | 38,490 | 6% | 38,640 | 6% |
| 4. Moffat Blvd east of Powers Ave | 10,550 | 1% | 9,620 | 1% | 10,470 | 1% | 10,410 | 1% |
| 5. Spreckels Ave south of Phoenix Drive BY AXLE | 23,110 | 8% | 21,230 | 11% | 22,980 | 8% | 23,190 | 8% |
| 6. Austin Road south of Yosemite Ave | 17,160 | 3% | 10,360 | 4% | 16,930 | 3% | 16,630 | 3% |
| 7. Airport Way north of Crom St BY AXLE | 43,190 | 4% | 40,630 | 3% | 43,260 | 4% | 42,460 | 4% |
| 8. Union Road north of Crom St | 38,190 | 1% | 32,040 | 1% | 37,810 | 1% | 38,010 | 1% |
| 9. Main St south of Alameda St | 25,000 | 1% | 22,150 | 2% | 24,880 | 1% | 24,860 | 1% |
| 10. Cottage Ave south of Aldwina Lane | 16,510 | 0% | 11,380 | 0% | 16,280 | 0% | 16,300 | 0% |
| 11. Airport Way south of Northgate Drive | 38,090 | 10% | 30,140 | 10% | 38,060 | 10% | 38,470 | 10% |

| SEGMENT | PROPOSED GENERAL PLAN | | ALTERNATIVE A | | ALTERNATIVE B | | ALTERNATIVE C | |
|---|---|---|---|---|---|---|---|---|
| | ADT | TRUCK % | ADT | TRUCK % | ADT | TRUCK % | ADT | TRUCK % |
| 12. Union Road south of Northgate Drive | 31,840 | 1% | 25,880 | 1% | 32,250 | 1% | 32,300 | 1% |
| 13. Main St north of Northgate Drive | 21,660 | 2% | 16,660 | 3% | 21,350 | 2% | 21,590 | 2% |
| 14. Airport Way north of Daisywood Drive | 45,440 | 9% | 34,570 | 13% | 46,460 | 9% | 47,020 | 9% |
| 15. Union Road north of Del Webb Blvd | 20,810 | 1% | 16,170 | 3% | 21,260 | 1% | 21,910 | 1% |
| 16. Airport Way south of SR 120 EB ramps | 49,360 | 0% | 49,830 | 0% | 49,400 | 0% | 48,930 | 0% |
| 17. Union Road south of SR 120 EB ramps | 51,320 | 0% | 53,630 | 0% | 49,880 | 0% | 50,090 | 0% |
| 18. Main St south of Quintal Road | 54,760 | 1% | 51,570 | 1% | 53,890 | 1% | 54,200 | 1% |
| 19. Austin Road south of Moffat Blvd | 17,720 | 2% | 13,090 | 4% | 17,750 | 2% | 17,780 | 2% |
| 20. Moffat Blvd north of Woodward Ave | 14,540 | 7% | 12,170 | 6% | 14,290 | 7% | 14,390 | 7% |
| 22. Woodward Ave west of Laurie Ave | 20,400 | 0% | 18,090 | 0% | 19,900 | 0% | 19,770 | 0% |
| 24. Yosemite Ave west of Airport Way BY AXLE | 46,330 | 4% | 40,050 | 3% | 45,880 | 4% | 45,360 | 4% |
| 25. Yosemite Ave west of Pacific Road | 47,690 | 1% | 44,070 | 1% | 47,100 | 1% | 47,040 | 1% |
| 26. Yosemite Ave west of Almond Ave | 20,810 | 1% | 19,980 | 1% | 20,620 | 1% | 20,530 | 1% |
| 27. Yosemite Ave west of Washington Ave | 17,940 | 1% | 18,170 | 1% | 17,780 | 1% | 17,780 | 1% |
| 28. Yosemite Ave east of Cottage Ave BY AXLE | 36,460 | 4% | 34,430 | 6% | 36,040 | 4% | 36,110 | 4% |
| 29. Yosemite Ave west of El Rancho Drive BY AXLE | 81,490 | 5% | 65,230 | 7% | 81,160 | 5% | 81,140 | 5% |
| 30. Louise Ave west of Airport Way BY AXLE | 47,870 | 6% | 42,920 | 6% | 46,950 | 5% | 47,620 | 5% |
| 31. Louise Ave east of Marguerite Ave | 29,040 | 1% | 25,040 | 1% | 28,820 | 1% | 28,970 | 1% |
| 32. Louise Ave west of Yvonne Ave | 30,040 | 1% | 25,050 | 1% | 29,970 | 1% | 30,200 | 1% |
| 33. Louise Ave east of Tulip Place | 24,430 | 1% | 17,290 | 1% | 24,200 | 1% | 24,420 | 1% |
| 34. Louise Ave west of Cottage Ave | 22,140 | 1% | 14,530 | 1% | 21,870 | 1% | 22,060 | 1% |
| 35. Lathrop Ave west of Airport Way BY AXLE | 59,230 | 3% | 50,580 | 4% | 58,290 | 3% | 59,110 | 3% |
| 36. Lathrop Ave west of Madison Grove Drive | 54,300 | 4% | 51,760 | 6% | 53,140 | 4% | 53,280 | 4% |
| 37. Lathrop Ave west of Sherwood Ave | 57,290 | 4% | 53,440 | 7% | 55,960 | 4% | 56,080 | 4% |
| 38. Daniels St west of Airport Way | 33,740 | 0% | 29,350 | 1% | 33,910 | 0% | 33,940 | 0% |
| 40. Woodward Ave west of Airport Way | 12,630 | 0% | 9,770 | 0% | 12,380 | 0% | 12,530 | 0% |
| 41. Union Road south of Woodward Ave | 19,210 | 0% | 15,520 | 1% | 19,160 | 0% | 19,270 | 0% |
| 42. Atherton Drive east of Union Road | 23,660 | 0% | 22,870 | 0% | 22,840 | 0% | 22,450 | 0% |
| 43. Main St (Manteca Rd) north of Sedan Ave | 9,620 | 4% | 4,280 | 10% | 9,550 | 4% | 9,510 | 4% |
| 44. Atherton Drive east of Main St | 11,410 | 1% | 9,860 | 1% | 11,040 | 1% | 11,050 | 1% |

| SEGMENT | PROPOSED GENERAL PLAN | | ALTERNATIVE A | | ALTERNATIVE B | | ALTERNATIVE C | |
|---|---|---|---|---|---|---|---|---|
| | ADT | TRUCK % | ADT | TRUCK % | ADT | TRUCK % | ADT | TRUCK % |
| 45. Woodward Ave west of Moffat Blvd | - | - | - | - | - | - | - | - |
| 46. Louise Ave west of Austin Road | 8,780 | 3% | 5,190 | 3% | 8,330 | 3% | 8,570 | 3% |
| 47. Van Ryn Ave north of Atherton Drive | 13,880 | 1% | 10,910 | 1% | 13,570 | 1% | 13,680 | 1% |
| Lovelace Road east of Airport Way | 22,690 | 11% | 12,110 | 16% | 26,030 | 11% | 26,730 | 11% |
| Lovelace Road west of SR 99 | 37,670 | 11% | - | - | 37,280 | 10% | 39,390 | 10% |
| Raymus Parkway east of Union Road | 12,540 | 0% | - | - | 12,430 | 0% | 12,520 | 0% |
| Raymus Parkway east of Main St | 14,960 | 0% | - | - | 14,300 | 0% | 14,210 | 0% |
| Raymus Parkway east of Austin Road | 18,730 | 1% | - | - | 18,110 | 1% | 18,170 | 1% |
| French Camp Rd west of SR 99 | 21,740 | 20% | 22,410 | 15% | 22,920 | 19% | 22,250 | 18% |
| French Camp Rd east of SR 99 | 10,290 | 16% | 7,510 | 12% | 10,540 | 15% | 10,620 | 15% |
| Roth Rd west of Airport Way | 32,700 | 15% | 23,080 | 9% | 32,600 | 13% | 32,430 | 13% |
| Roth Rd east of Airport Way | 19,230 | 12% | - | - | 17,710 | 11% | 17,640 | 11% |
| Lovelace Rd east of Union Rd | 36,410 | 11% | - | - | 36,220 | 10% | 38,000 | 10% |
| Union Rd north of Lovelace Rd | 15,770 | 9% | 11,620 | 13% | 20,550 | 11% | 19,700 | 9% |
| SR 99 SB north of Lovelace Rd | 66,150 | 7% | 59,850 | 11% | 63,750 | 7% | 64,500 | 7% |
| SR 99 NB north of Lovelace Rd | 65,970 | 6% | 60,670 | 11% | 63,880 | 7% | 64,820 | 7% |
| SR 99 SB north of Yosemite Ave | 73,250 | 7% | 61,970 | 11% | 72,220 | 6% | 72,480 | 6% |
| SR 99 NB north of Yosemite Ave | 70,210 | 7% | 58,780 | 11% | 69,350 | 6% | 69,830 | 6% |
| SR 120 WB between McKinley Ave and Airport Way | 116,470 | 5% | 110,480 | 7% | 114,680 | 5% | 115,220 | 5% |
| SR 120 EB between McKinley Ave and Airport Way | 116,230 | 5% | 111,180 | 7% | 114,490 | 5% | 115,000 | 5% |
| SR 99 total north of Lovelace Rd | 132,120 | 6% | 120,520 | 11% | 127,630 | 7% | 129,320 | 7% |
| SR 99 total north of Yosemite Ave | 143,460 | 7% | 120,750 | 11% | 141,570 | 6% | 142,310 | 6% |
| SR 120 total between McKinley Ave and Airport Way | 232,700 | 5% | 221,660 | 7% | 229,170 | 5% | 230,220 | 5% |

## Public Services and Recreation

As described in Chapter 3.13, the proposed General Plan would result in less than significant impacts relating to public services and recreation. New development would place increased demands on public services such as police, fire, schools, parks, libraries, and other governmental services. The proposed General Plan includes policies and actions that require payment of impact fees to the City and other public agencies to ensure that additional development allowed does not have adverse impacts on these services and agencies.

Under Alternative B, the development area and development types would remain similar, however, there would be fewer jobs and non-residential development but increased population and dwelling units when compared to the Propose General Plan. Comparatively, Alternative B would result in 3,078 less jobs, but 5,948 more residents than the Proposed General Plan and thus, impacts to public services (the demand for police, fire and other public services) would be slightly increased. Overall, Alternative B would have a slightly increased impact to public services

when compared to the proposed project and Alternative C, and a greater impact when compared to Alternative A as Alternative A would include the least amounts of growth and subsequent demand for services or the need to additional services.

Under Alternative C, the development area and development types would remain similar, however, there would be fewer jobs and non-residential development but increased population and dwelling units when compared to the Propose General Plan. Comparatively, Alternative C would result in 2,550 less jobs, but 5,057 more residents than the Proposed General Plan and thus, impacts to public services (the demand for police, fire and other public services) would be slightly increased. Overall, Alternative C would have a slightly increased impact to public services when compared to the proposed project, and a greater impact when compared to Alternative A as Alternative A would include the least amounts of growth and subsequent demand for services or the need to additional services. However, Alternative C would result in slightly reduced impacts when compared to Alternative B, which allows the most residential and population growth.

## Transportation and Circulation

As described in Chapter 3.14 (Transportation and Circulation), the proposed General Plan would result in significant and unavoidable impacts to transportation and circulation associated with VMT. As described in Chapter 3.14, the Proposed General Plan is not expected to result in VMT per dwelling unit exceeding 85 percent of baseline for residential-related land uses, the proposed General Plan is expected to result in VMT per employee exceeding 85 percent of baseline for employment-related land uses. This result is due to the change in the balance between jobs and housing in Manteca. In the future, fewer residents are expected to leave the City for employment, reducing VMT per dwelling unit, but more employees and customers are expected to travel to employment centers, increasing VMT per employee. If such employment growth does not occur, actual VMT per dwelling unit could be higher, and VMT per employee could be lower, than estimated for General Plan buildout conditions. This impact was determined to be significant and unavoidable for the Proposed General Plan, as discussed under Impact 3.14-1.

Table 5.0-8 compares VMT for the Proposed General Plan to VMT projected for each alternative, providing VMT by type of use and a VMT summary for VMT generated by households, residents, and service population. As discussed in Chapter 3.14, the threshold for identifying significant impacts associated with VMT is 15% less than baseline conditions. As shown in Table 5.0-8, the Proposed General Plan meets the standard for VMT per household and per resident, but exceeds the VMT standard for employment related growth by 43.1 miles per employee. The Proposed General Plan also results in VMT associated with the service population (population plus employees plus students) that is higher than the threshold.

While Alternative A would also result in VMT per household that meets the VMT per household threshold, Alternative A would have a worse employment VMT than the proposed General Plan, with an employment-related increase of 12%. Under Alternative A, overall VMT would be worse than the Proposed General Plan, with the VMT per service population, which takes into account resident, employment, and student trips, of 37.7, which is 3.0% higher than the General Plan VMT per service population (residents, employees, students) of 36.6.

***TABLE 5.0-8: VMT PROJECTIONS BY ALTERNATIVE***

| CATEGORY | VMT PER | THRESHOLD[1] | PROPOSED GENERAL PLAN | | ALTERNATIVE A | | | ALTERNATIVE B | | | ALTERNATIVE C | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | VMT | OVER THRESHOLD | VMT | OVER THRESHOLD | CHANGE FROM GP | VMT | OVER THRESHOLD | CHANGE FROM GP | VMT | OVER THRESHOLD | CHANGE FROM GP |
| *VMT BY TYPE OF USE* | | | | | | | | | | | | | |
| Single family | Household | 88.2 | 75.5 | (12.7) | 71.9 | (16.3) | -4.8% | 75.8 | (12.4) | 0.3% | 75.8 | (12.4) | 0.4% |
| Multi family | Household | 66.8 | 57.2 | (9.6) | 54.3 | (12.5) | -5.1% | 57.4 | (9.4) | 0.4% | 57.4 | (9.4) | 0.3% |
| Age restricted | Household | 37.5 | 28.5 | (9.0) | 27.5 | (10.0) | -3.5% | 28.4 | (9.1) | -0.2% | 28.4 | (9.1) | -0.4% |
| Education | Employee | 42.3 | 73.7 | **31.4** | 71.6 | **29.3** | -2.8% | 71.2 | **28.9** | -3.4% | 71.2 | **28.9** | -3.4% |
| Dining | Employee | 158.1 | 229.3 | **71.2** | 229.7 | **71.6** | 0.2% | 226.8 | **68.7** | -1.1% | 227.5 | **69.4** | -0.8% |
| Government | Employee | 74.5 | 124.6 | **50.1** | 123.9 | **49.4** | -0.6% | 120.6 | **46.1** | -3.2% | 121.5 | **47.0** | -2.5% |
| Industrial | Employee | 64 | 75 | **11.0** | 76.6 | **12.6** | 2.1% | 74.8 | **10.8** | -0.3% | 74.8 | **10.8** | -0.3% |
| Medical | Employee | 42.2 | 70 | **27.8** | 71.8 | **29.6** | 2.6% | 67.2 | **25.0** | -4.0% | 67.8 | **25.6** | -3.2% |
| Office | Employee | 27.5 | 43.1 | **15.6** | 43.4 | **15.9** | 0.7% | 41.6 | **14.1** | -3.4% | 41.9 | **14.4** | -2.9% |
| Retail | Employee | 101.1 | 211.9 | **110.8** | 222.1 | **121.0** | 4.8% | 201.0 | **99.9** | -5.1% | 203.7 | **102.6** | -3.9% |
| Agricultural | Employee | 16.2 | 24 | **7.8** | 23.7 | **7.5** | -1.3% | 23.0 | **6.8** | -4.1% | 23.1 | **6.9** | -3.6% |
| *VMT SUMMARY* | | | | | | | | | | | | | |
| All households | Household | 80.6 | 69.3 | (11.3) | 65.9 | (14.7) | -4.9% | 69.4 | (11.2) | 0.2% | 69.4 | (11.2) | 0.1% |
| All residents | Resident | 25.3 | 21.8 | (3.5) | 20.7 | (4.6) | -5.0% | 21.8 | (3.5) | 0.1% | 21.8 | (3.5) | 0.1% |
| All employment | Employee | 69.9 | 113 | **43.1** | 126.1 | **56.2** | 11.6% | 111.8 | **41.9** | -1.1% | 112.7 | **42.8** | -0.2% |
| Service population (no students) | Residents + Employees | 32.2 | 41.4 | **9.2** | 42.4 | **10.2** | 2.5% | 39.7 | **7.5** | -4.0% | 40.1 | **7.9** | -3.2% |
| Service population (with students) | Residents, Employees, + Students | 28.6 | 36.6 | **8.0** | 37.7 | **9.1** | 3.0% | 35.2 | **6.6** | -3.9% | 35.5 | **6.9** | -3.0% |

*SOURCE: FEHR & PEERS, 2021*

*1: THRESHOLD IS 15% LESS THAN THE BASELINE CONDITION (SEE CHAPTER 3.14)*

Alternatives B and C were designed to reduce the amount of jobs and improve housing opportunities, particularly multi-family, in order to reduce the amount of employment-generated trips and to provide more opportunities for employees to live locally. Alternatives B and C both provide a reduction in VMT when compared to the General Plan. Alternatives B and C have comparable household and resident VMT levels when compared to the General Plan (within 0.1% to 0.2%). Alternative B would have a 1.1% reduction in employment VMT when compared to the Proposed General Plan, while Alternative C would only yield a 0.2% reduction. However, Alternatives B and C both have measurable improvements when comparing total service population VMT to that associated with the proposed General Plan. Overall service population (residents, employees, and students) would improve by 3.9% under Alternative B (total service population VMT of 35.2 VMT) in comparison to the Proposed General Plan and would improve by 3.0% percent under Alternative C (total service population VMT of 35.5). Alternative B would provide the highest overall reduction in VMT.

Alternatives B and C would continue to provide the same goals, policies, and programs associated with pedestrian, bicycle, and transit modes and would implement the Active Transportation Plan and would be comparable to the Proposed General Plan in regards to consistency with pedestrian, bicycle, and transit impacts. However, Alternative A would not implement the Active Transportation Plan and would have less emphasis on encouraging non-vehicle modes of travel. Overall, the transportation impacts are most reduced under Alternative B in comparison to the Proposed General Plan, and are also reduced under Alternative C. Alternative A would be worse than the Proposed General Plan and Alternatives B and C in terms of transportation and circulation impacts.

## Utilities and Service Systems

As described in Chapter 3.15, the proposed General Plan would result in less than significant impacts relating Utilities.

New development would place increased demands on utilities. The total storm drainage runoff under Alternative C would be slightly reduced when compared to the proposed General Plan, due to expansions to the Urban Reserve overlay, agriculture, and park land use designations under this alternative which would decrease the overall development footprint at full buildout, similar to Alternative C.

Alternative A would result in less development than the proposed General Plan and would have the highest overall reduction in the demand for utilities and service systems, and the associated improvements, including new construction and expansion, to utilities and service systems facilities to serve existing and future development.

Under Alternative B, the Planning Area would be developed with a similar development patterns and uses as the Proposed General Plan; however, Alternative B would result in 259 more acres of residential uses, 15 more acres of mixed use, 6 more acres of public-quasi-public uses, and 619 fewer acres of industrial and commercial uses, resulting in an overall reduction of 339 acres of urbanized uses. Similarly, Alternative C would result in 218 more acres of residential uses, 15

more acres of mixed use, 6 more acres of public-quasi-public uses, and 581 fewer acres of industrial and commercial uses, resulting in an overall reduction of 342 acres of urbanized uses. The quantity of infrastructure installed would not be substantially reduced, as all alternatives would require similar development patterns, but the demand for utility services would be less under both Alternatives B and C, with Alternative C having a slightly lower overall demand for utilities and service systems and, thus, a slightly effect on the need for new or expanded service systems. Therefore, both Alternatives B and C would have better impacts related to utilities when compared to the proposed General Plan. However, compared to Alternative B, Alternative C would have slightly reduced impacts as this alternative provides for less urbanization and the need for utilities and service systems and associated improvements.

## Wildfire

As described in Chapter 3.16, the proposed General Plan have no impacts related to wildfire risks associated with lands in or near State Responsibility Areas or lands classified as very high fire hazard severity zones. As described in Impact 3.16-1, the Planning Area is not located in or near any State Responsibility Areas and there are no lands classified as very high fire hazard severity zones within or near the Planning Area. Because all alternatives would result in the same (Alternatives B and C) or slightly reduced (i.e., Alternative A) Planning, Area the impact under all scenarios would remain the same.

## Irreversible Effects

The proposed project would have a significant and unavoidable impact associated with irreversible environmental effects and adverse effects on human beings as described under Impact 4.17. Implementation of the proposed General Plan would result in a commitment of land uses designated for the foreseeable future. Land use and development consistent with the General Plan would result in irretrievable commitments by introducing development onto sites that are presently undeveloped. The conversion of agricultural lands to urban uses would result in an irretrievable loss of agricultural land, wildlife habitat, and open space. Additionally, development will physically change the environment in terms of aesthetics, air emission, noise, traffic, open space, and natural resources. These physical changes are irreversible after development occurs. Therefore, the proposed General Plan would result in changes in land use within the Planning Area that would commit future generations to these uses and that can expose human beings to adverse environmental effects.

During the planning horizon, development under Alternative A would be reduced most significantly in comparison to the proposed General Plan (see Tables 5.0-4 and 5.0-5). While Alternatives B and C would result in increases in housing and population growth, these alternatives would also result in a reduction in non-residential square footage and a reduction in industrial and other jobs-generating uses. Overall, both Alternatives B and C would result in a reduced urban footprint compared to the proposed General Plan and a reduction in development potential and uses that could result in irreversible effects and adverse impacts. Alternatives B and C would use nonrenewable resources, including metals, stone, and other materials related to construction, and result in on-going demand for fossil fuels and other resources associated with

energy production at levels greater than the proposed project. The associated irretrievable commitment of nonrenewable resources and permanent conversion of agricultural, and other undeveloped lands under Alternatives B and C would remain a significant impact. Alternatives B and C would have slightly reduced impact in comparison to the proposed General Plan due to reduced development levels and would be comparable in terms of impacts as Alternative B would conserve slightly more lands in the Urban Reserve, Open Space, and Agriculture designations when compared to Alternative C but Alternative B also has a slightly higher total amount of lands designated for residential, mixed, commercial, industrial, and public-quasit public uses and, thus, accommodates slightly more residential development and would result in a slightly higher population and impacts associated with urbanized uses.

## ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts when compared to the proposed General Plan.

A comparative analysis of the proposed General Plan and each of the Project alternatives is provided in Table 5.0-9 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.

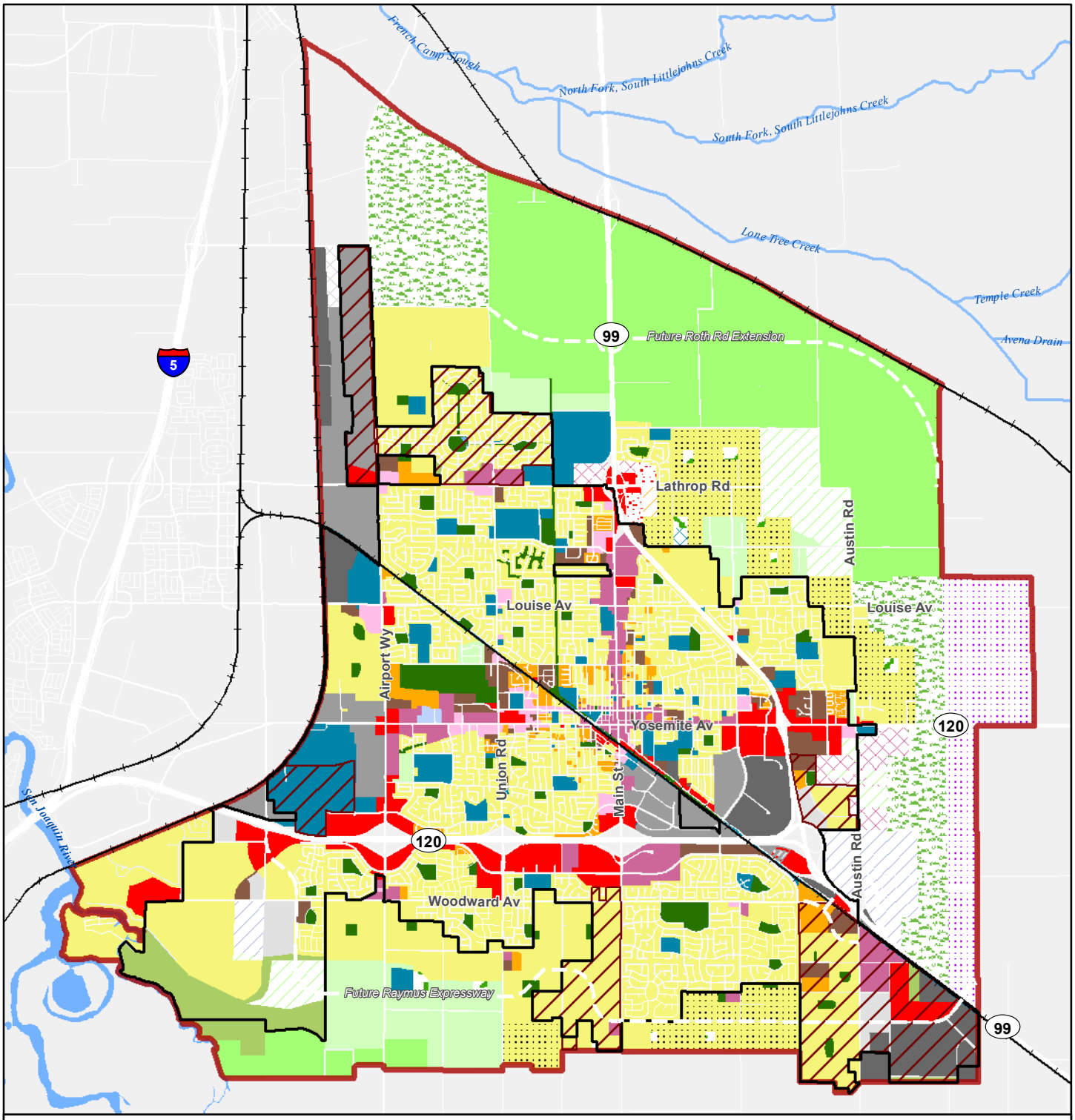
As shown in Table 5.0-5, Alternative B is the environmentally superior alternative when looked at in terms of all potential environmental impacts. While Alternative C is also superior to the proposed General Plan, Alternative B is slightly superior in several categories, including air quality, greenhouse gases, climate change, and energy, and transportation, and circulation impacts resulting in a higher overall score for Alternative B. 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 5.0-9: COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT***

| *ENVIRONMENTAL ISSUE* | *PROPOSED PROJECT* | *ALTERNATIVE A (NO PROJECT)* | *ALTERNATIVE B* | *ALTERNATIVE C* |
|---|---|---|---|---|
| Aesthetics and Visual Resources | 3 – Same | 1 – Better | 2 – Slightly Better* | 1 – Slightly Better* |
| Agricultural and Forest Resources | 3 – Same | 1 – Better | 2 – Slightly Better | 2 – Slightly Better |
| Air Quality | 3 – Same | 5 - Worse | 1 – Better* | 2 – Better* |
| Biological Resources | 3 – Same | 1 – Better | 2 – Slightly Better | 2 – Slightly Better |
| Cultural Resources | 3 – Same | 2 – Slightly Better | 2 – Slightly Better | 2 – Slightly Better |
| Geology and Soils | 3 – Same | 4 – Slightly Worse | 2 – Slightly Better | 2 – Slightly Better |
| Greenhouse Gases, Climate Change, and Energy | 3 – Same | 5 – Worse | 1 – Better* | 2 – Better* |
| Hazards and Hazardous Materials | 3 – Same | 4 – Slightly Worse | 3 – Same | 3 – Same |
| Hydrology and Water Quality | 3 – Same | 2 – Slightly Better | 1 – Slightly Better* | 2 – Slightly Better |
| Land Use and Population | 3 – Same | 4 – Slightly Worse | 3 – Same | 3 – Same |
| Noise | 3 – Same | 1 – Better | 3 – Same | 3 – Same |
| Public Services and Recreation | 3 – Same | 2 – Slightly Better | 2 – Slightly Better* | 1 – Slightly Better* |
| Transportation and Circulation | 3 – Same | 5 – Worse | 1 – Better* | 2 – Better* |
| Utilities | 3 – Same | 2 – Slightly Better | 2 – Slightly Better | 1 – Slightly Better* |
| Wildfire | 3 – Same | 3 – Same | 3 – Same | 3 – Same |
| Irreversible Effects | 3 – Same | 1 – Better | 2 – Slightly Better | 2 – Slightly Better |
| **SUMMARY** | **48** | **43** | **32** | **33** |

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

Overall, Alternative B is the environmentally superior alternative as it is the most effective in terms of overall reductions of impacts compared to the proposed General Plan and all other alternatives. As such, Alternative B is the environmentally superior alternative for the purposes of this EIR analysis. Additionally, similar to the Proposed General Plan, Alternative B meets all project objectives. Like the proposed project, Alternative B reflects the current goals and vision expressed by city residents, businesses, decision-makers, and other stakeholders; addresses issues and concerns identified by city residents, businesses, decision-makers, and other stakeholders; protects Manteca's family-oriented environment, character, and sense of community; provides a range of high-quality housing options; attracts and retains businesses and industries that provide high-quality and high-paying jobs so that residents can live and work in Manteca; expands retail shopping opportunities to provide better local services and increased sales tax revenues; continues to maintain the road network and improve multimodal transportation opportunities; maintains strong fiscal sustainability; continues to provide efficient and adequate public services; and addresses new requirements of State law.




**Legend**

- City of Manteca
- Manteca Planning Area
- Master/Specific Plan Overlay
- AG - Agriculture
- NC - Neighborhood Commercial
- CMU - Commercial Mixed Use
- GC - General Commercial
- VLDR - Very Low Density Residential
- LDR - Low Density Residential
- MDR - Medium Density Residential
- HDR - High Density Residential
- BIP - Business Industrial Park
- BP - Business Professional
- LI - Light Industrial
- HI - Heavy Industrial
- OS - Open Space
- P - Park
- PQP - Public/Quasi-Public
- UR - Urban Reserve
- UR-AG
- UR-CMU
- UR-GC
- UR-VLDR
- UR-LDR
- UR-MDR
- UR-BIP
- UR-LI
- UR-P
- UR-PQP

*Sources: City of Manteca; San Joaquin County. Map date: January 26, 2021.*

**CITY OF MANTECA GENERAL PLAN**

Figure 5.0-1.

Alternative A Existing General Plan Land Use Map

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Miles

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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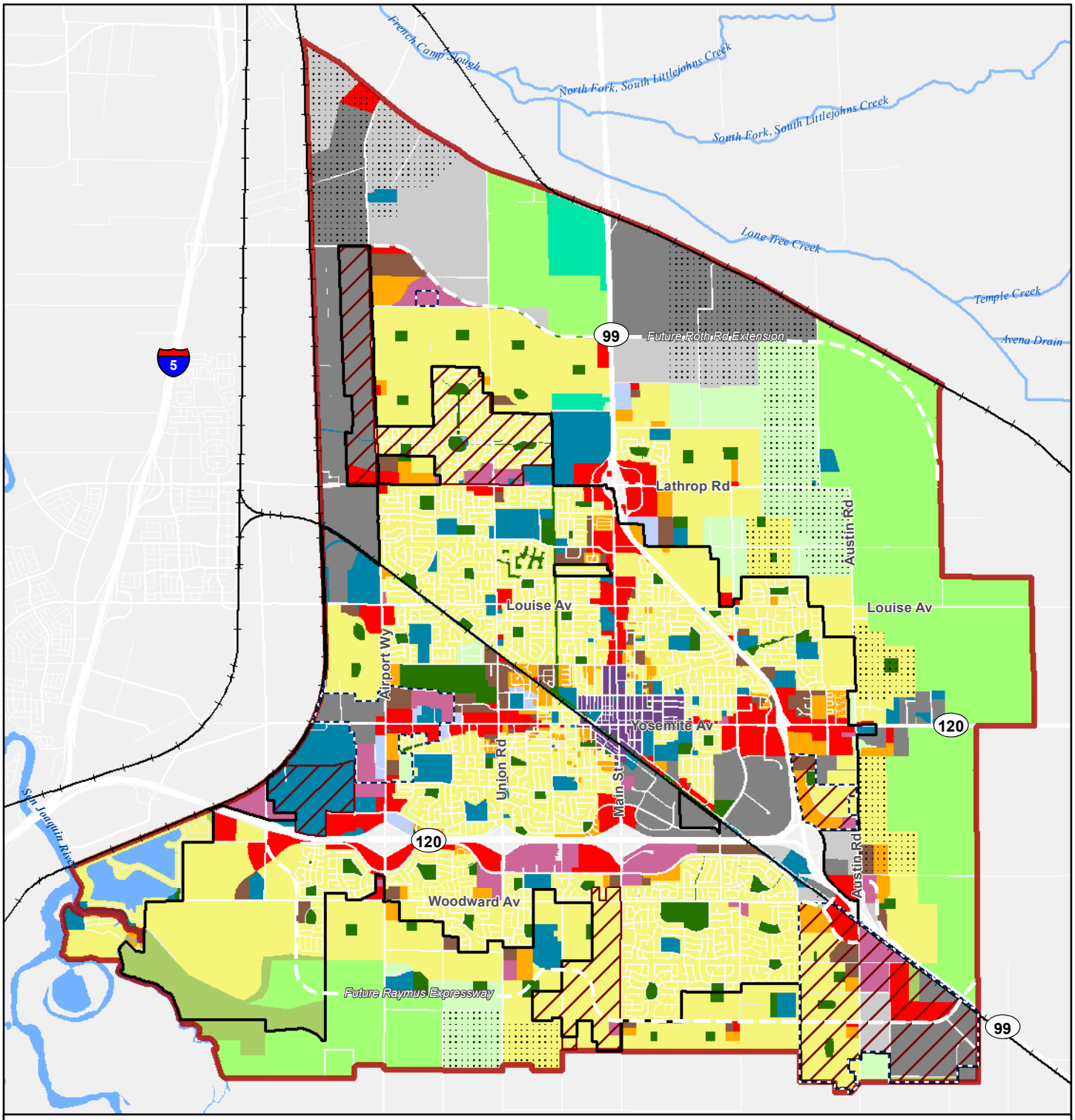


**Legend**

- 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: March 9, 2021.*

**CITY OF MANTECA GENERAL PLAN**

Figure 5.0-2.

Alternative B Residential and Balanced Employment Growth

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De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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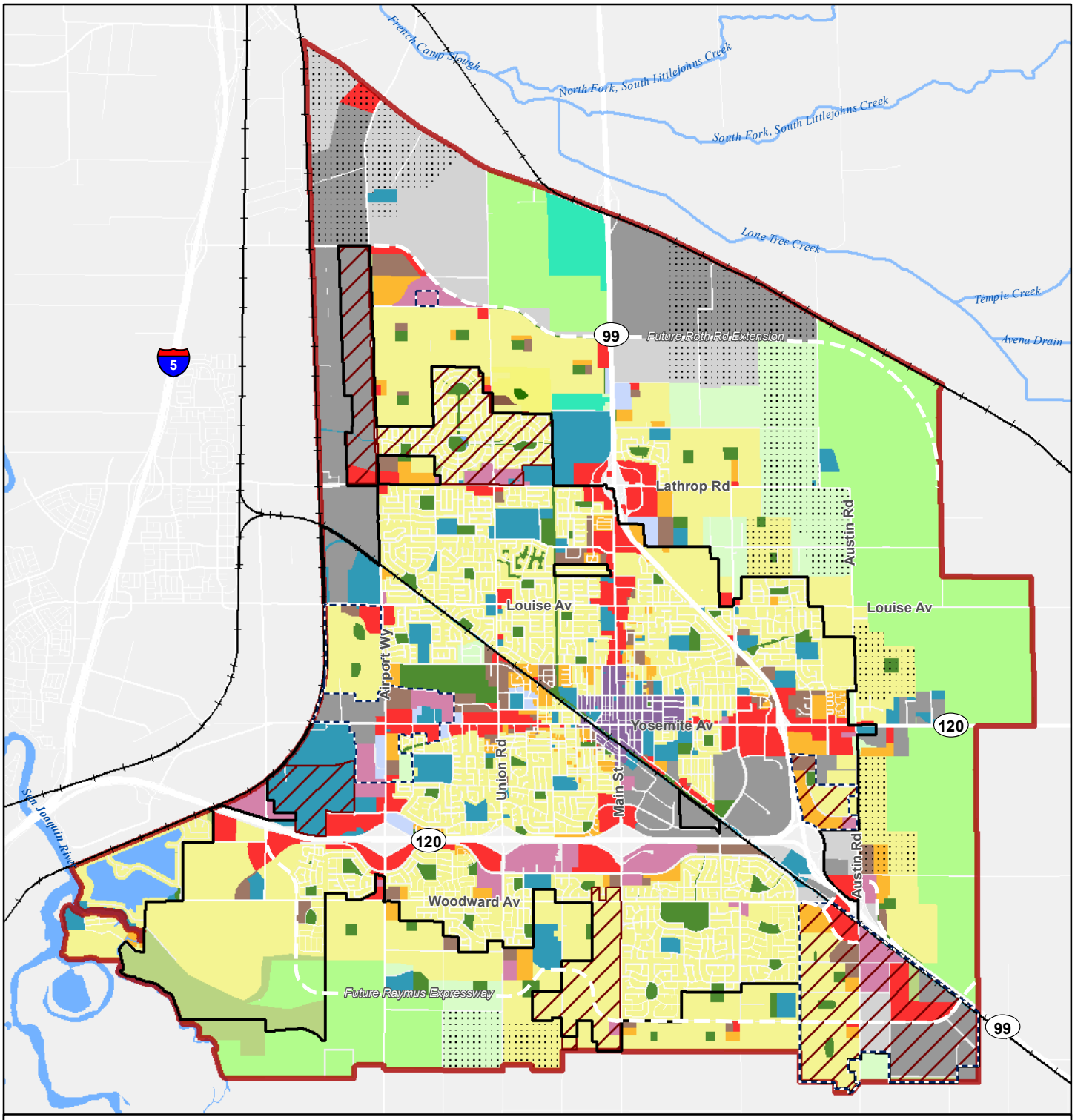


**Legend**

- 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: March 9, 2021.*

**CITY OF MANTECA GENERAL PLAN**

Figure 5.0-3.

Alternative C Increased Intensity Residential and Balanced Employment Growth

N

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Miles

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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