3.0 UTILITIES AND COMMUNITY SERVICES

This chapter addresses utilities, public services, and community services within the City of Manteca. Public services include the provision of utilities including water services, wastewater (sewer) services, stormwater, solid waste disposal, electricity, and natural gas. Community services include fire protection, law enforcement, parks and recreation, schools, libraries, and other public facilities.

This chapter is divided into the following sections:

- 3.1 Utilities
    - 3.1.1 Water
    - 3.1.2 Wastewater
    - 3.1.3 Stormwater and Drainage
    - 3.1.4 Solid Waste
    - 3.1.5 Electricity and Natural Gas
- 3.2 Public Safety
    - 3.2.1 Fire Protection
    - 3.2.2 Law Enforcement
    - 3.2.3 Miscellaneous Public Safety
- 3.3 Parks and Recreation
- 3.4 Schools, Libraries, and Other Public Facilities

3.1 UTILITIES

This section addresses the provision of utilities in the City of Manteca, including water, wastewater (sewer), stormwater, solid waste, electricity, and natural gas.

3.1.1 WATER SERVICES

This section describes the City of Manteca's water demands, water supplies, water distribution system, and water quality.

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 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.

REGULATORY FRAMEWORK

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.

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.

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.

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.

City of Manteca General Plan

The existing City of Manteca General Plan Public Facilities and Services Element, and Resource Conservation Element identifies the following goals and policies related to water services, supply, and conservation:

Public Facilities and Services Element

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

POLICY PF-P-4. Secure sufficient sources of water to meet the needs of the existing community and planned residential and commercial growth.

POLICY PF-P-5. City will continue to rely principally on groundwater resources for its municipal water in the near term, will participate in the regional improvements to deliver surface water to augment the City's groundwater supply.

POLICY PF-P-6. The City shall develop new water sources as necessary to serve new development.

POLICY PF-P-7. The City shall develop new water storage facilities and major distribution lines as necessary to serve new development.

POLICY PF-P-8. The City will provide water for future development to maintain a balance of jobs and housing.

POLICY PF-P-9. City water services shall not be extended to unincorporated areas except in extraordinary circumstances. Existing commitments for City water service outside the City limits shall continue to be honored.

POLICY PF-P-10. Development of private water wells within the City limits shall be allowed only where 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.

POLICY PF-P-11. The City will develop and implement water conservation measures as necessary elements of the water system.

POLICY PF-P-12. The City shall continue to assess a water development fee on all new commercial, industrial, and residential development sufficient to fund systemwide capacity improvements. The water development fee schedule shall be periodically reviewed and revised as necessary.

POLICY PF-P-13. 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.

POLICY PF-P-14. The City shall continuously monitor water flows through the City's water system to identify areas of potential water loss and cases of under billing for water service and shall make improvements in the systems as necessary.

POLICY PF-P-15. The City shall monitor water quality regularly and take necessary measures to prevent contamination.

POLICY PF-P-16. The City of Manteca shall include a groundwater analysis as a technical analysis of water system capacity in the update of the Public Facilities Implementation Plan (PFIP), and shall prepare an environmental analysis in the PFIP that addresses the quality and availability of groundwater.

POLICY PF-P-17. The City of Manteca shall consider incremental increases in the demands on groundwater supply and water quality when reviewing development applications.

Resource Conservation Element - Water Conservation

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

POLICY RC-P-1. The City shall continue to implement water conservation standards for all commercial and industrial development, and for all existing and new residential development.

POLICY RC-P-2. The City shall explore potential uses of treated wastewater when such opportunities become available.

POLICY RC-P-3. The City shall protect the quantity of Manteca's groundwater.

POLICY RC-P-4. The City shall require water conservation in both City operations and private development to minimize the need for the development of new water sources.

POLICY RC-P-5. Development of private water wells within the city limits shall be allowed only where the City makes a finding that municipal water service is not readily and feasibly available, and such private well systems shall only be allowed to be used until such time as City water service becomes available.

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 3.1-1. 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 groundlevel 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.

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 goal is to provide 53 percent of the City potable water supply from surface water and 47 percent from groundwater (Kennedy/Jenks Consultants, 2016).

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). In 2015, the City purchased 5,596 acre-feet (AF) of supply from SSJID (Kennedy/Jenks Consultants, 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, more recently, State and SSJID supply limits in response to the drought. 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). The City does not anticipate using the full amount of its SCWSP allotment until 2025 (City of Manteca, 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).

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 (Kennedy/Jenks Consultants, 2016). 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).

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. The City plans to play an active role in local GSA formation (Kennedy/Jenks Consultants, 2016).

Recycled Water

Recycled water is produced at the City of Manteca's Wastewater Quality Control Facility (WQCF). The WQCF is a tertiary treatment facility. The City has historically used secondary treated, undisinfected recycled water to irrigate fodder crops on City-owned and leased lands. Annual crop usage has averaged about 1,000 AFY, but usage is expected to decrease over time as land is developed. Since 2015, the City has used tertiary treated recycled water at fill stations for dust control at construction sites. By 2020, construction water usage is expected to be about 30 AFY (Kennedy/Jenks Consultants, 2016).

The City is currently developing a Reclaimed Water Facilities Master Plan, that will identify plans for the phased development and use of tertiary treated recycled water over the next 20 to 25 years. The draft plan evaluated the use of recycled wastewater for irrigation of City parks, public areas, other open spaces and a golf course to offset current potable water and irrigation well use. The estimated potential for recycled water use for landscape irrigation is just under 2,200 AFY by 2040 (Kennedy/Jenks Consultants, 2016).

CURRENT AND PROJECTED WATER DEMANDS AND SUPPLIES

The City's 2015 UWMP documents 2015 and projected future water demands and supplies through 2040, as shown in Table 3.1-1 (Kennedy/Jenks Consultants, 2016).

TABLE 3.1-1: CITY OF MANTECA WATER SUPPLIES AND DEMANDS (AFY)

WATER SUPPLY SOURCE [a]	*2015* [b]	*2020*	*2025*	*2030*	*2035*	*2040*
Purchase from SSJID	5,596	11,500	18,500	18,500	18,500	18,500
City Produced Groundwater	7,249	10,060	10,060	10,060	10,060	10,060
Recycled Water	1,463	900	480	290	740	2,240
Total Available Supply	14,308	22,460	29,040	28,850	29,300	30,800
CURRENT & PROJECTED DEMANDS [c]						
Potable & Raw Water	12,844	19,350	21,480	23,880	25,960	27,530
Recycled Water	1,463	900	480	290	740	2,240
Total Projected Demand	14,307	20,250	21,960	24,170	26,700	29,770
Surplus or Shortfall	**--**	**2,210**	**7,080**	**4,680**	**2,600**	**1,030**

(A) PROJECTED SUPPLIES FROM 2015 UWMP, TABLE 6-11.

(B) ACTUAL 2015 WATER SUPPLIES FROM 2015 UWMP, TABLE 6-9.

(C) CURRENT AND PROJECTED DEMANDS ARE FROM 2015 UWMP, TABLE 4-3.

SOURCES: 2015 URBAN WATER MANAGEMENT PLAN; WEST YOST ASSOCIATES TECHNICAL MEMORANDUM JULY 17, 2017

Water demand projections were developed assuming a 2.3 percent per year population growth rate, with water use projected from a 2013 baseline, the most recent year of normal water use prior to the drought. Projections factor in water use reductions mandated by California's 2009 Water Conservation Act (SBX7-7), which require that the City's per capita water use not exceed 179 gallons per capita per day (GPCD) by 2020. The City's 2013 per capita water use was just under 200 GPCD, while the City's 2015 per capita water use was 137 GPCD, due to water conservation regulations in effect during the 2014-2015 drought (Kennedy/Jenks Consultants, 2016).

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 29,770 AFY.

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.

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).

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.

WATER SYSTEM INFRASTRUCTURE PHOTOGRAPHS

Photographs of the following key water system facilities are included below:

- Atherton Drive Storage Tank and Booster Pump Station
- Wells 13, 19 and 21
- Well 24
- Tesoro Park Irrigation Well (non-potable)

Atherton Drive Storage Tank and Booster Pump Station. Five variable frequency pumps, onsite treatment, and a 3.7 million gallon tank serve peak water demands. The facility was completed in 2014.

Wells 13, 19, and 21 have local treatment facilities for arsenic removal, but nitrate, manganese, and TCP 123 are treated at a central treatment facility, shown above, where blending with surface water is performed.

Well 24, off of Van Ryn Avenue, is one of several City wells with onsite manganese green sand filtration to remove arsenic, which is a problem at deeper levels of the aquifer.

An irrigation well and stormwater pump station are both located at Tesoro Park on Tesoro Drive

3.1.2 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: In the context of wastewater treatment plants, effluent is wastewater that has been through a treatment process to remove pollution and undesirable constituents from the water.

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.

REGULATORY FRAMEWORK

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 Central Valley RWQCB.

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 SWRCB's role has historically been one of providing overall policy 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.

The City's current NPDES Permit, which regulates the wastewater effluent quantity and quality upon discharge, was issued by the Central Valley Regional Water Quality Control Board and is Order R5-2006-0094 and Order 5-01-251.

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

City of 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).

City of Manteca General Plan

The existing City of Manteca General Plan Public Facilities Element identifies the following goals and policies related to wastewater services:

Public Facilities and Services Element - Sewer

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.

POLICY PF-P-18. Ensure wastewater collection and treatment for all development in the City and the safe disposal of wastes.

POLICY PF-P-19. The City will maintain capacity to process combined residential, commercial, and industrial flow.

POLICY PF-P-20. The City shall develop new sewage treatment and trunk line capacity as necessary to serve new development.

POLICY PF-P-21. City sewer services will not be extended to unincorporated areas, except in extraordinary circumstances. Existing commitments for sewer service outside the city limits shall continue to be honored.

POLICY PF-P-22. Development of individual septic systems may be allowed only where the City makes a finding that it cannot feasibly provide public sewer service, and such systems shall only be used until such time as City sewer service becomes available. Such systems shall meet the minimum standards of the San Joaquin County Health Department.

POLICY PF-P-23. The City shall establish and maintain a growth management plan to ensure the development of a balanced mix of residential, commercial, industrial, and public land uses.

POLICY PF-P-24. Ensure that all new development provides for and funds a fair share of the costs for adequate sewer distribution, including line extensions, easements, and plant expansions.

POLICY PF-P-25. The City will maintain the ability to handle peak discharge flow while meeting State Regional Water Quality Control Board Standards as established in the current NPDES Permit.

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 (EDAW, 2007).

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 3.1-2.

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

No recent flow projections were available for this Background Report. 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.

SEWER COLLECTION SYSTEM AND WQCF FACILITY PHOTOGRAPHS

Photographs of the City's sewer lift station at Woodward Park and facilities at the WQCF are provided below.

The sewer lift station at Woodward Park, along Buena Vista Drive, will be replaced in the near future when a new gravity line servicing the area is installed.

Wastewater Quality Control Facility ultraviolet contact chamber, during servicing of the ultraviolet bulbs.

Recycled water is diverted for construction dust control at the Wastewater Quality Control Facility.

3.1.3 STORMWATER AND DRAINAGE

Provided below is a discussion of the creeks and stormwater/flood control systems that serve the city of Manteca.

REGULATORY FRAMEWORK

FEDERAL

Clean Water Act

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 February 5, 2013 became effective July 1, 2013. 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 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.

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).

City of Manteca General Plan

The existing City of Manteca General Plan Public Facilities Element identifies the following policies related to stormwater and drainage (for additional policies and information specifically related to flooding see Section 4.4 Flooding):

Public Facilities and Services Element - Major Drainage

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.

POLICY PF-P-26. The City shall continue to complete gaps in the drainage system in areas of existing development.

POLICY PF-P-27. The City shall require the dedication and improvement of drainage detention basins as a condition of development approval according to the standards of the Drainage Master Plan. The responsibility for the dedication and improvement of detention basins shall be based on the prorated share of storm water runoff resulting from each development.

POLICY PF-P-28. Storm drainage systems within new development areas shall include open drainage corridors where feasible to supplement or replace an underground piped drainage system. The drainage systems would provide for short-term storm water detention, storm water conveyance for storm waters exceeding a 10-year event, storm water quality treatment, bike and pedestrian paths, and visual open space within neighborhoods. The width and length of the corridors would be determined by the storm water management requirements. The drainage systems would provide a pedestrian connection between parks and access to open space from residential neighborhoods. The neighborhoods would be designed with homes oriented to, rather than backing on the open space corridor.

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 3.1-3 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).

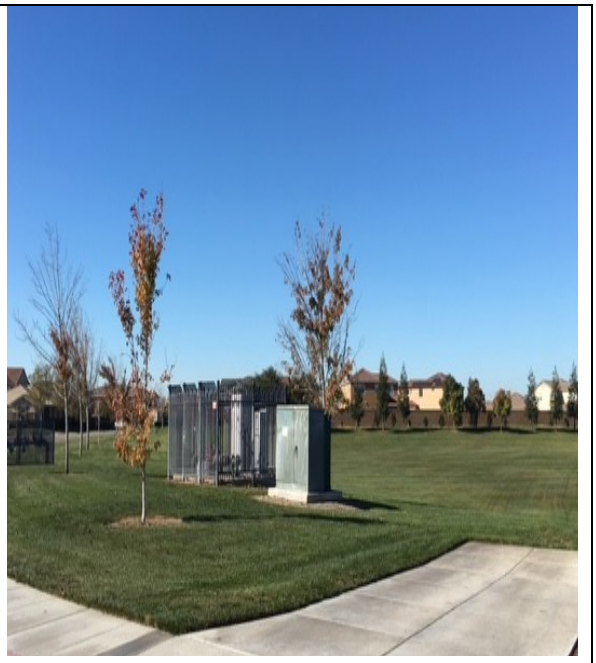
FLOODING AND FLOODPLAIN MAPPING

The Federal Emergency Management Agency (FEMA) identifies Special Flood Hazard Areas (SFHA). FEMA publishes Flood Insurance Rate Maps that depict the floodplains. Flooding and flood hazards are addressed in greater detail in Section 4.4. The FEMA 100-year flood plain is shown on Figure 4.4-1.

STORMWATER INFRASTRUCTURE PHOTOGRAPHS

Photographs of the Spreckles BMX Park and detention basin and the Tesoro Park detention basin and pump station are provided below.

Most detention basins in the City, such as this one at Spreckles BMX park, seek to utilize space in non-flood seasons for recreational purposes. Stormwater pumps at the Spreckles BMX Park detention basin are sized for 48-hour discharge of events less than a 10-year storm. The latest storm drain master plan increases the time limit for discharge of the 10-year event to 96-hours and newer basin designs hold water longer.



Above-ground stormwater pump stations like this one at Tesoro Park are gradually being replaced with below-grade submersible pumps.

3.1.4 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.

REGULATORY FRAMEWORK

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.

AB 341 (75 Percent Solid Waste Diversion)

AB 341 requires CalRecycle to issue a report to the Legislature that includes strategies and recommendations that would enable the state to divert 75 percent of the solid waste generated in the state from disposal by January 1, 2020, requires businesses that meet specified thresholds in the bill to arrange for recycling services by January 1, 2012, and also streamlines various regulatory processes.

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.

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.

LOCAL

City of Manteca Municipal Code, Chapter 8.12

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 8.14.020: 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 8.14.030: 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 8.14.050: 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.

City of Manteca General Plan

The existing Manteca General Plan Public Facilities and Services Element includes the following goals and policies related to solid waste:

Public Facilities and Services Element - Solid Waste Management

GOAL PF-11: Solid Waste: Provide for the implementation and enforcement of the provisions for the Source Reduction and Recycling Element, as mandated by the state.

GOAL PF-12: Solid Waste: Maintain efficient, effective and economical solid waste services for the residents, businesses and visitors to Manteca

POLICY PF-P-31: The City will implement and enforce the provisions of its Source Reduction and Recycling Element.

POLICY PF-P-32: The City shall support the continued use of Lovelace Transfer Station on Lovelace Road, between Union Road and Airport Way, for the processing and shipping of solid waste materials.

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.

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 1300 tons of waste per day and have a traffic volume of 1280 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.

HAZARDOUS WASTE DISPOSAL

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 3.1-2 below.

TABLE 3.1-2: 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

SOURCE: CAL RECYCLE. ACCESSED AUGUST 2016.

As shown in the Table 3.1-2 above, the per capita waste generation rate decreased from 4.9 to 4.7 lbs/person/day over the 5 year (2010-2014) period, however, the total annual disposal tonnage in Manteca increased by 2,490 tons over the 2010 to 2014 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 3.1-3.

TABLE 3.1-3: 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

SOURCE: CAL RECYCLE. ACCESSED AUGUST 2016.

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 2021. The City of Manteca landfills are summarized in Table 3.1-4.

Upon closure of Forward Landfill, Foothill and North County landfills cannot become the main location of Manteca's solid waste because their current allotted maximum daily throughput is significantly lower than the 620 tons that Forward landfill receives on a daily basis. The City of Manteca must secure another location of waste disposal in preparation of Forward Landfill's closure.

TABLE 3.1-4: CITY OF MANTECA LANDFILL SUMMARY

LANDFILL	*LOCATION*	*MAXIMUM DAILY THROUGHPUT (TONS/DAY)*	*REMAINING CAPACITY (CUBIC YARDS)*	*ANTICIPATED CLOSURE DATE*
Forward Sanitary	Manteca	8,668	23.7 Million	2021
Foothill Sanitary	Linden	1,500	125.0 Million	2054
North County	Victor	825	35.4 Million	2035

SOURCE: CAL RECYCLE. ACCESSED AUGUST 2016.

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.

3.1.5 ELECTRICITY AND NATURAL GAS

REGULATORY FRAMEWORK

STATE

Public Utilities Commission

The California Public Utilities Commission (PUC) is the primary State agency that regulates privately owned public utilities in California. These utilities include telecommunications, electricity, natural gas, water, railroad, rail transit, and passenger transportation companies. A primary role of the PUC is to authorize utility rate changes. It also establishes service standards and safety rules, monitors the safety of utility and transportation operations, prosecutes unlawful marketing and billing activities, and oversees the merger and restructure of utility corporations.

Bioenergy Action Plan – Executive Order #S-06-06

Executive Order #S-06-06 establishes targets for the use and production of biofuels and biopower, and directs State agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The executive order establishes the following target to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20% of its biofuels within California by 2010, 40% by 2020, and 75% by 2050. The executive order also calls for the State to meet a target for use of biomass electricity, including biomass cogeneration facilities.

Senate Bill 14 and Assembly Bill 64

Prior to the passage of SB 14 and AB 64 in 2009, California law required investor-owned utilities (IOUs) and energy service providers (ESPs) to increase their existing purchases of renewable energy by 1% of sales per year such that 20% of their retail sales, as measured by usage, are procured from eligible renewable resources (including biomass cogeneration) by December 31, 2010. This is known as the Renewable Portfolio Standard (RPS).

SB 14 and AB 64 require IOUs, POUs, and ESPs to increase their purchases of renewable energy such that at least 33% of retail sales are procured from renewable energy resources by December 31, 2020. For IOUs and ESPs, this is required only if the PUC determines that achieving these targets will result in just and reasonable rates.

Title 24

Title 24, Part 6, of the California Code of Regulations is also known as California's Energy Efficiency Standards for Residential and Nonresidential Buildings. Title 24 was established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2008 Energy Efficiency Standards went into effect on January 1, 2010. Title 24, Part 11, of the California Code of Regulations establishes the California Green Building Standards Code (CalGreen). Initially, the code requirements were voluntary; however, CalGreen became mandatory in 2011. CalGreen addresses five areas of green building: 1) planning and design, 2) energy efficiency, 3) water efficiency and conservation, 4) material conservation and resources efficiency, and 5) environmental quality. The mandatory requirements are separated into non-residential and residential projects. CalGreen also includes two optional tiers: Tier 1 and Tier 2. The tiers employ higher thresholds that jurisdictions may adopt or that projects may meet voluntarily.

EXISTING SETTING

The Pacific Gas and Electric Company (PG&E) provides electrical and natural gas service to residences and businesses throughout the City of Manteca. As a privately owned public utility, PG&E has a service area that covers most of northern and central California. PG&E generates electric power from many sources, including hydroelectric powerhouses, Diablo Canyon Power Plant (active until 2025) and a few small fossil-fired power plants. PG&E also purchases power from independent power producers. Generation sources from these producers can range from large fossil power plants to smaller renewable and cogeneration plants. After the power is produced or bought, it goes into PG&E's electric transmission and distribution systems to get to the homes and businesses of PG&E's customers. PG&E's infrastructure is in place to distribute natural gas and electricity to Manteca and PG&E typically can accommodate new developments upon request.

The South San Joaquin Irrigation District (SSJID) is in the process of replacing PG&E as the electrical distribution authority in Manteca and other surrounding cities. The SSJID aims to provide retail electric service to southern San Joaquin County for a 15% lower service fee then PG&E. The SSJID claims that this change will also result in customers having democratic control and improved customer service. This shift has been approved by the Local Agency Formation Commission and the SSJID is currently working on purchasing PG&E's distribution system.

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3.2 PUBLIC SAFETY

This section addresses the provision of public safety services in the City of Manteca, including fire protection, law enforcement, and other local safety provisions.

3.2.1 FIRE PROTECTION

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 71,164 residents throughout approximately 17.2 square miles within the City limits. The Manteca Fire Department operates out of four 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 four engines, four 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.

REGULATORY FRAMEWORK

STATE

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 firefighting and emergency medical equipment.

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

Emergency Response/Evacuation Plans

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

California Fire Protection Code

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.

UNIFORM FIRE CODE

The Uniform Fire Code with the State of California Amendments 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 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

LOCAL

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.

City of Manteca General Plan

The existing City of Manteca General Plan has the following Policies related to Fire Protection:

Public Facilities and Services Element - Fire Protection

POLICY PF-P-42. The City shall endeavor to maintain an overall fire insurance (ISO) rating of 4 or better.

POLICY PF-P-43. The City shall endeavor through adequate staffing and station locations to maintain the minimum feasible response time for fire and emergency calls.

POLICY PF-P-44. The City shall provide fire services to serve the existing and projected population.

POLICY PF-P-45. The City will establish the criteria for determining the circumstances under which fire service will be enhanced.

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 3.2-2). The Manteca Fire Department operates out of four 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 2014, the Department averaged a 4:18 response time City-wide and was on scene within five minutes 77% of the time. In 2015, the Department averaged a 4:40 response time City-wide. Additionally, in 2015, 6,615 calls were made to the Department, which is the greatest number of calls in the history of the Manteca Fire Department.[1]

The Department is not currently meeting the Response Effectiveness goal. In May of 2016, the Department arrived on-scene within 5 minutes approximately 66% of the time.2 The percentage continues to decline. The Department has recently seen increased calls and expanded areas of coverage. To combat the increased calls in the southern areas of Manteca, the Department has recently staffed a "Rescue" in District 2. The additional unit will help relieve the significant call volume in south Manteca.

On September 11, 2013, Fire Station No. 4 opened in northwest Manteca. Fire Station No. 4 was one factor that helped to improve both the average response time and the percent of response effectiveness in 2014.

The construction of Fire Station No. 5, which is planned in southeast Manteca, will have a similar impact on response times and response effectiveness. The construction and staffing of Fire Station No. 5 will allow the City the ability to achieve the full alarm standard outlined by NFPA 1710 for the first time in the City's History; this will directly affect the ISO rating, enhance service to the citizens of Manteca, and improve the department's ability to obtain grants.

ISO RATING

The Insurance Services Office (ISO) Public Protection Classification Program currently rates the Fire Department as THREE 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 as well as the imminent construction

[1] City of Manteca Fire Department. 2015. City of Manteca Fire Department 2015 Annual Report.
[2] Personal Communication with Lantz Rey, City of Manteca Fire Department Fire Marshal. July 19, 2016.

and staffing of 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 December of 2016. 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 four fire stations within its service area, as shown on Figure 3.2-1 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, located in southwest Manteca at the intersection of Woodward Avenue and Atherton Drive (planned station)

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 (see Figure 3.2-2). The The Lathrop-Manteca Fire District staffs four fire stations with career personnel as well as volunteer firefighters. The district has developed into a proactive fire & 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 3.2-2).

3.2.2 LAW ENFORCEMENT

The Manteca Police Department (MPD) provides law enforcement and police protection services throughout the city.

REGULATORY FRAMEWORK

LOCAL

City of Manteca General Plan

The existing City of Manteca General Plan has the following Policies related to Police Protection:

Public Facilities and Services Element - Police Protection

POLICY PF-P-39. The City shall endeavor through adequate staffing and patrol arrangements to maintain the minimum feasible police response times for police calls.

POLICY PF-P-40. The City shall provide police services to serve the existing and projected population.

POLICY PF-P-41. The City will establish the criteria for determining the circumstances under which police service will be enhanced.

POLICE PROTECTION SERVICES

Police protection services in the City of Manteca are provided by the Manteca Police Department (MPD). The MPD operates out of its headquarters located at 1001 W. Center Street**.** Currently the MPD has 63 sworn officers. The Manteca Police Department Facility Location is shown on Figure 3.2-1.

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).

CRIMES BY CATEGORY IN MANTECA

Statistics on the number of crimes by category of crime in Manteca during each year from 2013 to 2015, as reported by the Federal Bureau of Investigation (FBI) Criminal Justice Information Services Division, are shown in Table 3.2-1 below.

TABLE 3.2 -1: MANTECA POLICE DEPARTMENT CRIME STATISTICS (2013-2015)

CATEGORY/CRIME	*2013*	*2014*	*2015*
Total Violent Crimes	**212**	**176**	**213**
Homicide	0	4	5
Rape	4	7	10
Robbery	79	73	82
Assault	129	92	116
Total Property Crimes	2,699	2,100	2,449
Burglary	489	314	420
Motor Vehicle Theft	327	346	405
Larceny	1,883	1,440	1,624
Arson	22	16	20

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 2015, there were five homicides reported in Manteca.

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 MPD 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 for service where no emergency or serious problem is involved. The average response times by priority call for 2012 and 2013 are listed below.

- Priority 1 calls: 2012, 4 minutes and 16 seconds. 2013, 4 minutes and 46 seconds.
- Priority 2 calls: 2012, 18 minutes and 39 seconds. 2013, 17 minutes and 54 seconds.
- Priority 3 calls: 2012, 37 minutes and 17 seconds. 2013, 37 minutes and 49 seconds.

3.2.3 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 (CERT)

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
- Disaster simulation

REFERENCES

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Personal Communication with Lantz Rey, City of Manteca Fire Department Fire Marshal. July 12, 2016.

Personal Communication with Lantz Rey, City of Manteca Fire Department Fire Marshal. July 19, 2016.

3.3 PARKS AND RECREATION

Parks, trails, and recreational facilities in the City of Manteca are managed and maintained by the Parks and Recreation Department.

REGULATORY FRAMEWORK

STATE

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.

LOCAL

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 parks.

Manteca Parks and Recreation Master Plan

The City of Manteca recently adopted a Parks and Recreation Master Plan. 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.

City of Manteca General Plan

The existing Manteca General Plan includes the following goals and policies related to parks and recreation:

Public Facilities and Services - Parks and Recreation

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.

POLICY PF-P-46. The City shall expand the community and neighborhood park system with the goal of providing neighborhood park facilities within reasonable walking distance of all city residential areas.

POLICY PF-P-47. The City shall use joint development of park and drainage detention basins in the development of neighborhood parks.

POLICY PF-P-48. The City shall cooperate with the Manteca Unified School District in opportunities for joint-use of school and park and recreational facilities.

POLICY PF-P-49. City park acquisition and development efforts shall be based on a goal of 5 acres of developed neighborhood and community parkland per 1,000 residents within the city limits. The distribution of land between neighborhood and community parks shall be determined within the Parks and Recreation Master Plan.

POLICY PF-P-50. Neighborhood parks shall conform to the following general guidelines (specific details and standards to be determined within the Parks and Recreation Master Plan):

- The typical minimum size shall be set to support active and passive recreation activities.
- The typical service area for a neighborhood park is approximately ¼ mile walking distance.
- Neighborhood parks shall include a turf area above the basin flood line of sufficient area to be used for playgrounds, sports, picnic areas, and other recreational facilities.

POLICY PF-P-51. The City shall aggressively pursue State and County funding to supplement City revenues to the extent such funding is available.

POLICY PF-P-52. The City shall endeavor to identify, acquire, and develop one or more community parks as defined in the Parks and Recreation Master Plan.

POLICY PF-P-53. All new residential development will be required to pay a park acquisition and improvement fee, based on providing 5 acres per 1,000 residents, to fund system-wide improvements.

POLICY PF-P-54. The City shall require the provision of private open space and recreational facilities as part of new residential developments.

POLICY PF-P-55. The City shall not discourage the expansion of private commercial recreational facilities.

POLICY PF-P-56. The City shall develop a convenient system of pedestrian sidewalks and pathways linking City parks, major open space areas, and the downtown core.

POLICY PF-P-57. The City shall adopt a Bicycle Route Master Plan and develop a bicycle route system linking areas, schools, public facilities, the downtown core, and neighborhoods.

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.

This City of Manteca has six developed Community Park sites, 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.

This City of Manteca has 49 Neighborhood Parks, totaling approximately 213 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 382 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 3.3-1. Table 3.3-1 summarizes the City's park facilities by category.

TABLE 3.3-1: 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	49 sites	212.73	3	2.79
Community Parks	6 sites	78.46	1	1.03
Special Use Facilities	10 sites	90.94	1	1.19
TOTAL	65 sites	382.13	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 212.73 acres of Neighborhood Park land. The Parks and Recreation Master Plan identified a small current deficit of 5.67 acres in the Neighborhood Parks category. This is approximately the equivalent of one Neighborhood Park, and will be satisfied with the completion of Evans Estate Park. 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.

REFERENCES

City of Manteca Parks Recreation Department, 2016. https://www.ci.manteca.ca.us/parks/

City of Manteca GIS Shapefiles, 2016. Augmented by De Novo Planning Group 2016.

City of Manteca, 2016. City of Manteca Parks and Recreation Master Plan. Adopted December 2016. Available At: https://www.ci.manteca.ca.us/Parks/Documents/ParksMasterPlan.pdf

3.4 SCHOOLS, LIBRARIES, AND OTHER PUBLIC FACILITIES

REGULATORY FRAMEWORK

STATE

California Code of Regulations

The California Code of Regulations, Title 5 Education Code, governs all aspects of education within the State.

Leroy F. Greene School Facilities Act of 1998 (SB 50)

The "Leroy F. Greene School Facilities Act of 1998," also known as Senate Bill No. 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% of the district's bonding capacity (percentage is based on revenue sources for repayment), having at least 20% 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% 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 65995.7. 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.

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.

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.

LOCAL

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.

City of Manteca General Plan

The existing Manteca General Plan includes the following goals and policies related to schools:

Public Facilities and Services Element – Education

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

POLICY PF-P-33. The City shall cooperate with the Manteca Unified School District and others in locating and reserving appropriate sites for new neighborhood walking distance schools. Adequate facilities shall be planned to accommodate new residential development and endeavor to create neighborhood schools.

POLICY PF-P-34. The City shall cooperate with the Manteca Unified School District in their collection of school facility development fees from new development.

POLICY PF-P-35. Financing of new school facilities will be planned concurrent with new development.

POLICY PF-P-36. The City and Manteca Unified School District will work together to develop criteria for the designation of school sites and consider opportunities for reducing the cost of land for school facilities. The City will encourage the school district to comply with City standards in the design and landscaping of school facilities.

POLICY PF-P-37. The City will consider opportunities for joint-use of facilities with the school district. When feasible, a joint-use agreement will be pursued to maximize public use of facilities, minimize duplication of services provided, and facilitate shared financial and operational responsibilities.

POLICY PF-P-38. Schools must be located away from hazards of sensitive resource conservation areas, except where the proximity of resources may be of educational value and the protection of resources is reasonably assured.

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 23,000 students. Within the City of Manteca, there are thirteen schools serving elementary age and middle school students (grades K-8), one K-6 school, four high schools (grades 9-12), one 7-12, and one vocational high school (grades 11-12). Table 3.4-1 lists MUSD schools in Manteca grades serves location and the most recent enrollment for each school.

As shown in Table 3.4-1, the schools in the City had a total enrollment of approximately 14,279 students, of which 9,416 were enrolled in elementary and middle school (grades K – 8) and 4,863 were enrolled in high school (grades 9 – 12).

Additionally, the MUSD currently operates three elementary schools and zero high schools within the area of Manteca south of State Route 120.[3] These three elementary schools have a combined permanent capacity of 2,560 students. During the 2015/2016 school year, the enrollment at these schools totaled 2,012 students, resulting in excess capacity of 548 future students. Further, excess capacity currently exists at the school facilities located north of State Route 120.

District-wide MUSD Schools has a total enrollment of 23,204 students for the 2015-2016 school year. Table 3.4-2 provides a summary of the public school enrolment by grade within Manteca.

[3] Breitenbucher, Jacqui. Senior Director of Business Services/Chief Business Officer, Manteca Unified School District. RE: Environmental Impact of Oakwood Landing – Cerri & Denali Subdivisions and recommended conditions of approval. September 12, 2016.

TABLE 3.4-1: PUBLIC SCHOOLS SERVING MANTECA

SCHOOL	*GRADES SERVED*	*ADDRESS*	*ENROLLMENT 2015-2016 SCHOOL YEAR*
ELEMENTARY AND MIDDLE SCHOOLS			
George McParland Elementary School	K-8	1601 Northgate Dr	1,054
Stella Brockman Elementary School	K-8	763 Silverado Dr	803
Brock Elliott Elementary School	K-8	1110 Stonum Ln	812
Golden West Elementary School	K-8	1031 North Main St	599
Joshua Cowell Elementary School	K-8	740 Pestana Ave	577
Lincoln Elementary School	K-8	750 E Yosemite Ave	589
Manteca Community Day	K-6	737 W Yosemite Ave	10
Neil Hafley Elementary School	K-8	849 Northgate Dr	779
New Haven Elementary School	K-8	14600 Austin Rd	594
Nile Garden Elementary School	K-8	5700 E Nile Rd	474
Sequoia Elementary School	K-8	710 Martha St	745
Shasta Elementary School	K-8	751 E Edison St	774
Veritas Elementary School	K-8	1600 Pagola Ave	726
Walter Woodward Elementary School	K-8	575 Tannehill Dr	880
Total			
HIGH SCHOOLS			
Calla High School	9-12	130 S Austin Rd	164
East Union High School	9-12	1700 N Union Rd	1,579
Manteca Community Day School	7-12	737 W Yosemite Ave	43
Manteca High School	9-12	450 E Yosemite Ave	1,511
Sierra High School	9-12	1700 Thomas St	1,358
Manteca Unified Vocational Academy (be.tech)	11-12	2271 W. Louise Ave	208

SOURCE: CALIFORNIA DEPARTMENT OF EDUCATION EDUCATIONAL DEMOGRAPHICS UNIT ENROLLMENT FOR 2015-16

TABLE 3.4-2: ENROLLMENT BY GRADE MUSD (2015-2016)

MANTECA UNIFIED	*GRADE LEVEL*													
	K	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*TOTAL 2015-2016*
Total	1,844	1,572	1,657	1,772	1,896	1,807	1,670	1,730	1,791	1,877	1,868	1,812	1,867	**23,204**

SOURCE: CALIFORNIA DEPARTMENT OF EDUCATION EDUCATIONAL DEMOGRAPHICS UNIT ENROLLMENT FOR 2015-16

MANTECA 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-2 years and on Thursdays the library has preschool storytime, primarily for children aged 2-4 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.

REFERENCES

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California Department of Education. 2014-15. School Accountability Report Card. Available: <http://www.mantecausd.net/schools/>.

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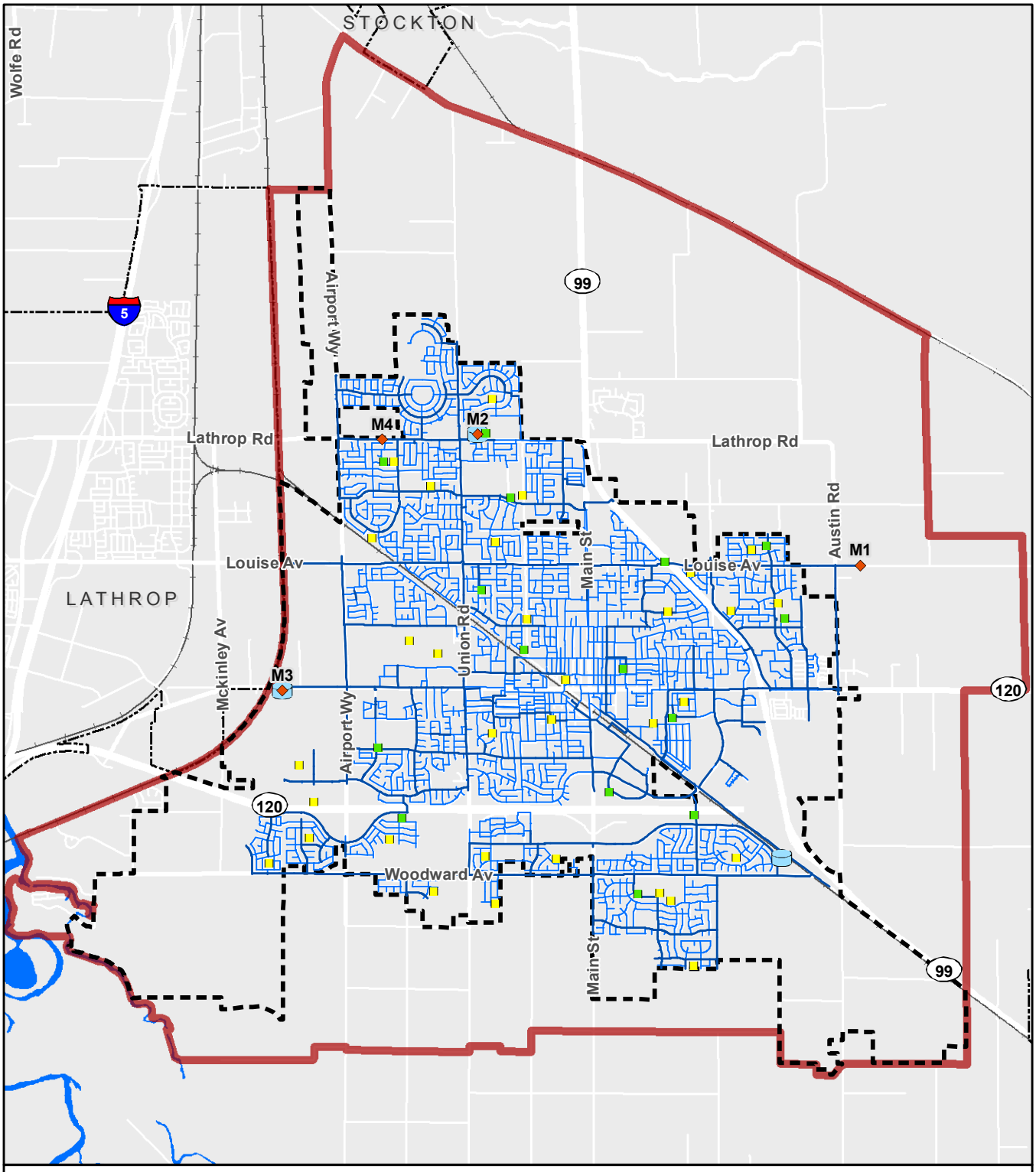
Personal Communication with Jacqui Breitenbucher, Senior Director of Business Services/Chief Business Office, MUSD. September 27, 2016.



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 UPDATE

Figure 3.1-1: Existing Water System Facilities

N

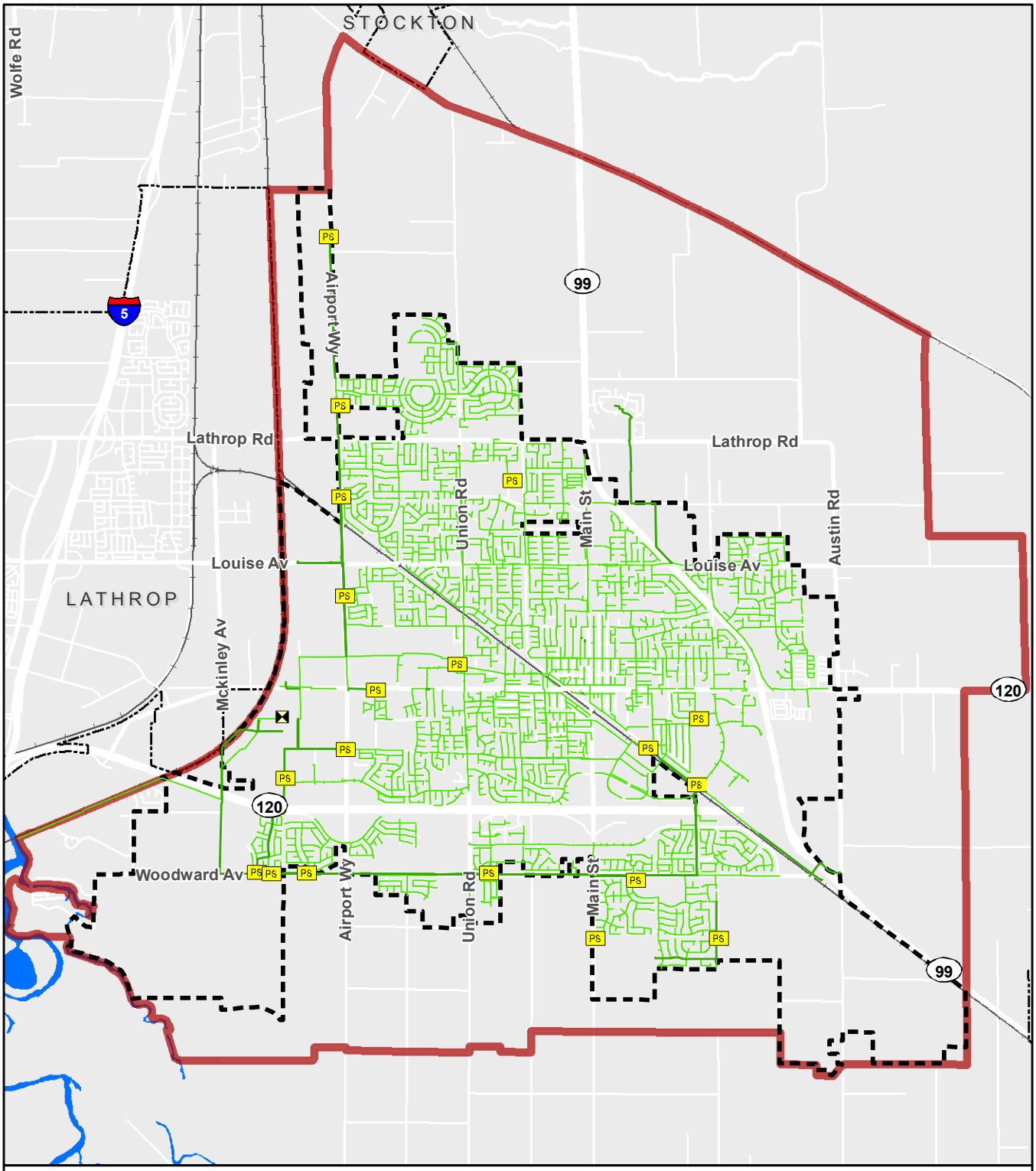
0 ½ 1

Miles

1:75,000

Source: City of Manteca GIS.
Notes: Turnout locations are approximate. Only active facilities are shown.
Map date: July 17, 2017.

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



Existing Sewer Collection System Infrastructure

- Water Pollution Control Facility
- PS Pump Station
- Gravity Main
- Force Main

Planning Area

- Manteca City Limits
- Manteca Sphere of Influence

CITY OF MANTECA GENERAL PLAN UPDATE

Figure 3.1-2: Existing Sewer Collection System Facilities

N

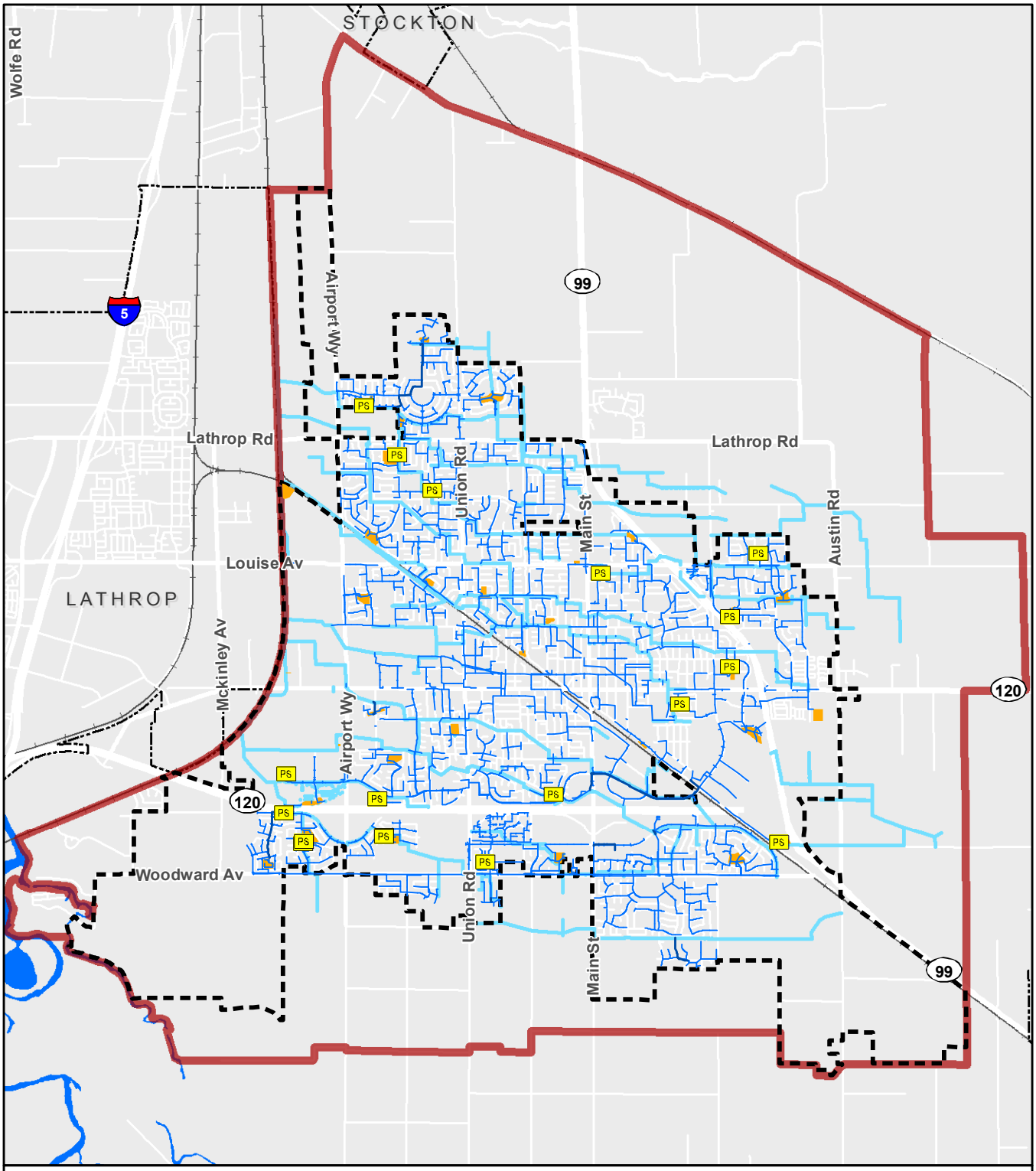
0 ½ 1

Miles

1:75,000

Source: City of Manteca GIS.
Map date: July 11, 2017.

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



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 UPDATE

Figure 3.1-3: Existing Stormwater System Facilities

N

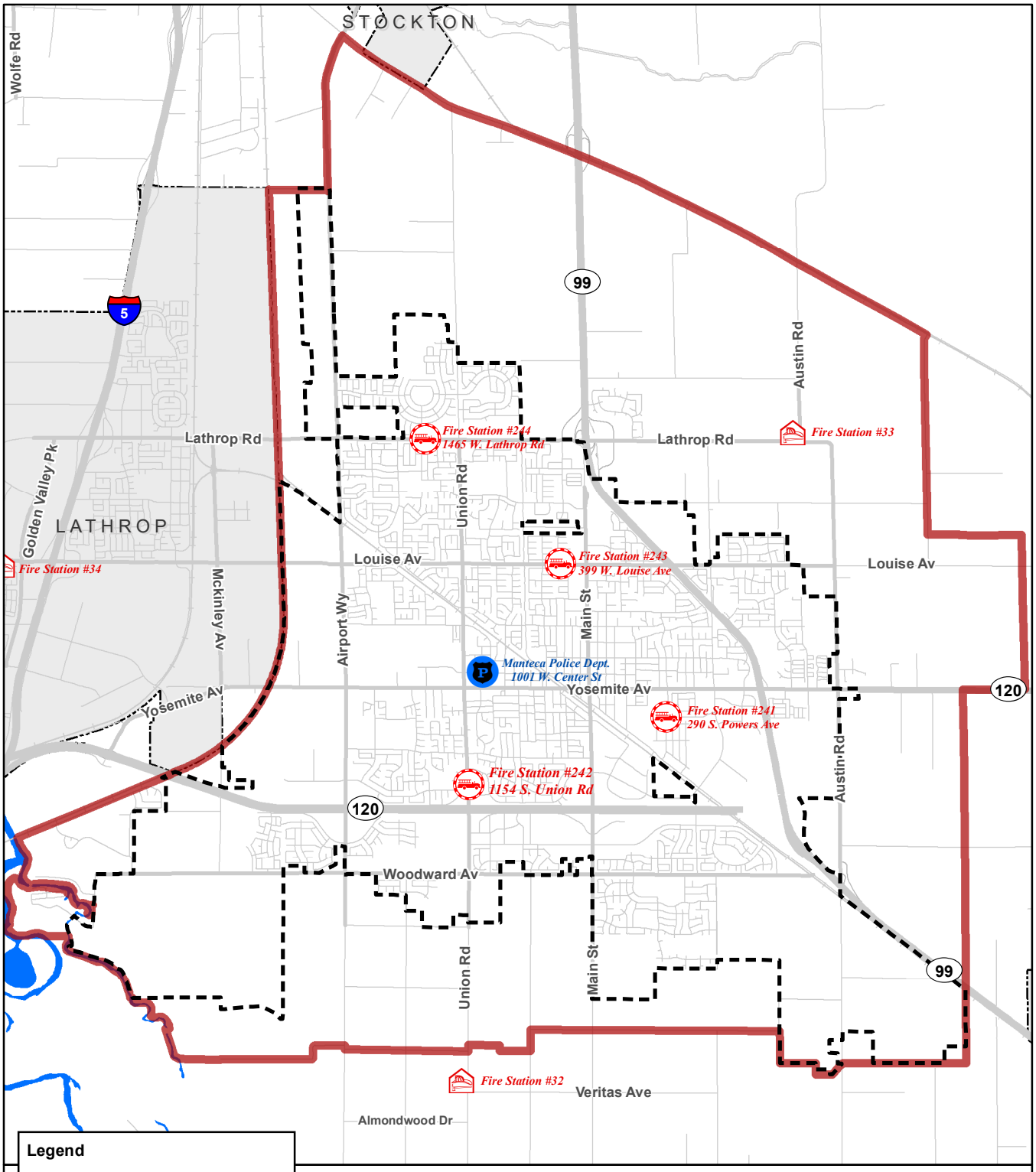
0 ½ 1

Miles

1:75,000

Source: City of Manteca GIS.
Map date: July 11, 2017.

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



Legend

Police and Fire Stations

- Police Station - City of Manteca
- Fire Station- City of Manteca
- Fire Station - Lathrop-Manteca Fire Protection District

Planning Areas

- Manteca City Limits
- Manteca Sphere of Influence

Sources: Google Maps; City of Manteca; San Joaquin County. Map date: December 16, 2016.

CITY OF MANTECA GENERAL PLAN UPDATE

Figure 3.2-1: Fire and Police Stations

N

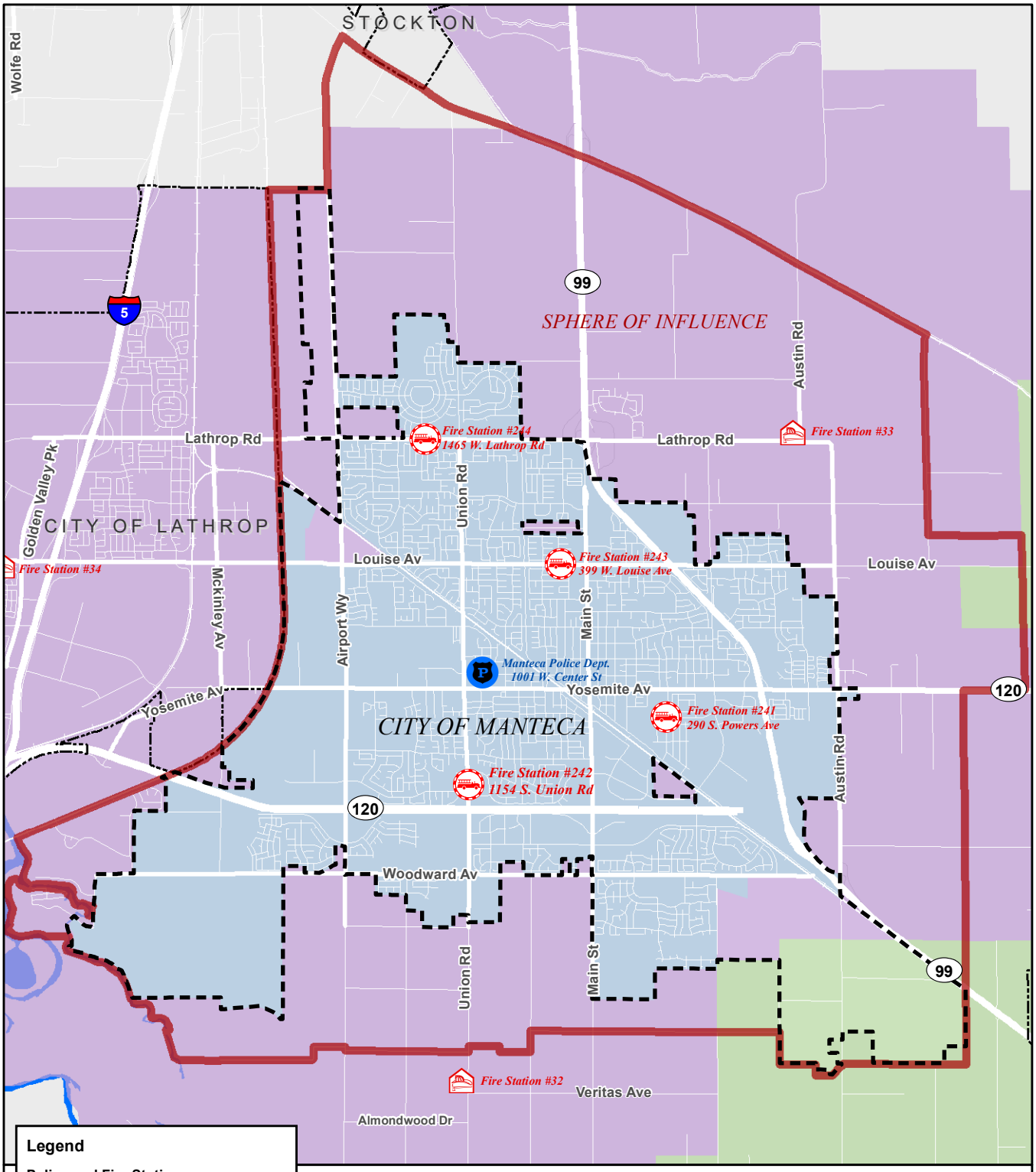
0 ½ 1

Miles

1:75,000

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

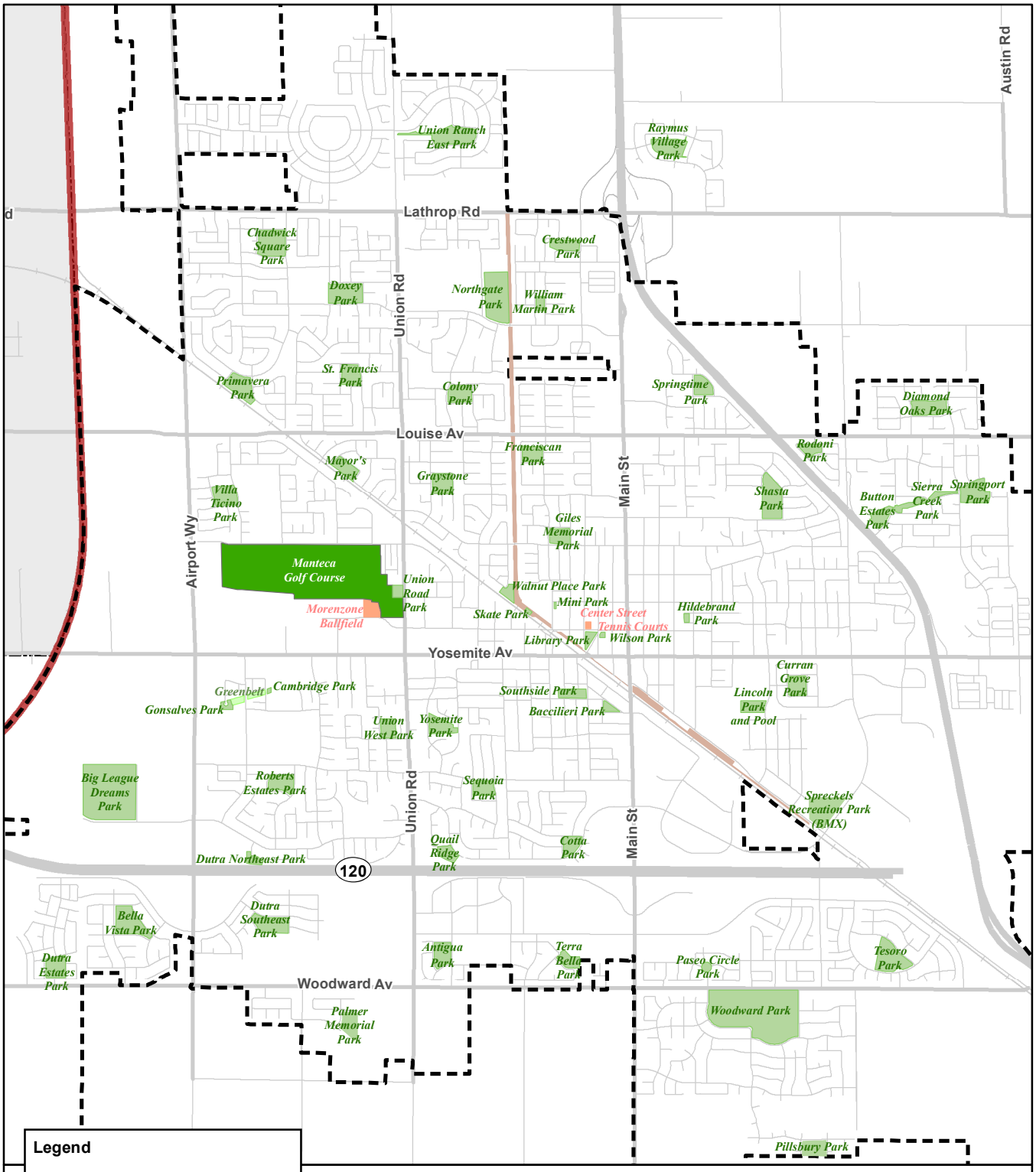


Sources: Google Maps; City of Manteca; San Joaquin County. Map date: October 4, 2017.

CITY OF MANTECA GENERAL PLAN

Figure 3.2-1: Fire Service Areas

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



CITY OF MANTECA GENERAL PLAN UPDATE

Figure 3.3-1: Parks

Sources: City of Manteca; San Joaquin County. Map date: December 16, 2016.

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