14. PUBLIC FACILITIES AND SERVICES

The public facilities and services issues addressed in this section include domestic water, wastewater treatment (sewer), stormwater drainage, solid waste disposal, education (schools), library, parks and recreation, police protection, and fire protection.

14.1 WATER

14.1.1 Existing Conditions

Groundwater Supply

Groundwater is presently the only source of domestic water for the City. The City operates a system of wells interconnected with a transmission/distribution pipe system. Well depths range from 155 feet to 400 feet, and individual capacities of the operating wells range from 380 gpm to 2,300 gpm. The City has abandoned six wells over time due to age and water quality problems, but has added new wells to maintain the supply. The groundwater aquifers underlying the City extend to depths in excess of 600 feet and have been identified to include four formations. In general, the underlying strata slope from the hills east of the City downward to the west. The groundwater basin safe yield was estimated in the 1985 Groundwater Study at 1.0 acre-foot per acre per year.

Area groundwater levels are buoyed by the proximity of the Delta channels to the west. Groundwater recharge comes from irrigation of agricultural lands surrounding the City and infiltration from streams flowing west out of the Sierra Nevada. This recharge occurs in areas with permeable materials which allow the infiltration of water along streams, alluvial fans and foothill areas. The Study Area includes a variety of soil types that provide percolation to groundwater. However, with no streams other than Walthall Slough, or alluvial fan conditions, there are no notable groundwater recharge areas identified within the Study Area.

Surface Water Supply

The City of Manteca is participating in the South County Surface Water Supply Project. In 1995, Manteca entered into an agreement with the South San Joaquin Irrigation District (SSJID) and the Cities of Lathrop, Tracy and Escalon to jointly study the issues and related costs associated with developing a surface water treatment plant for the affected areas. This project now includes the construction of a state-of-the-art water treatment plant at Woodward Reservoir and 40 miles of pipeline to deliver treated water to each of the partner cities, including Manteca. When complete in 2005, the South County Surface Water Supply Project will begin deliveries of treated surface water to Manteca. The City of Manteca is contracted to receive up to 11,500 acre-feet of water from this project through 2010. A subsequent phase will increase the City of Manteca water allocation to 18,500 acre feet per year. **(1)**

Conjunctive Use

The project will help preserve groundwater quality and promote regional water management planning, keeping water historically used in San Joaquin County within the County. The surface water and ground water will be applied in a conjunctive use program in which the surface water becomes the primary supply. Groundwater would then be allowed to naturally recharge and replenish the groundwater basin. Groundwater would be used as a supplemental supply. Wells would be operated only for on-going maintenance and to supplement the surface water supply during peak demand periods.

Water Storage

The City has one surface storage reservoir, a 300,000-gallon elevated tank, located the City Corporation yard between the downtown and industrial area. The tank is 30 feet high and 42 feet in diameter and is supported on top of a 100-foot high tower.

14.1.2 Service Standard

The City of Manteca Water Master Plan **(2)** and the Public Facilities Implementation Plan (PFIP) establishes the Level of Service Standard for Water.

The City of Manteca's target Level of Service (LOS) for water is to supply an average of 200 gallons per day (gpd) per person at pressures of no less than 40 pounds per square inch (psi) under average conditions, and 20 pounds per square inch under emergency and peak demand conditions. The water service standard for fire suppression is 1,250 gallons per minute (gpm) for Low Density Residential (LDR) uses, 2,500 gpm for commercial land uses, and 3,500 gpm for industrial uses. This Level of Service standard is applicable to all areas of the City that are already developed and those areas where development is planned.

14.2 WASTEWATER TREATMENT (SEWER)

14.2.1 Treatment Capacity

The City of Manteca Wastewater Quality Control Facility (WQCF) is a 6.95 million gallons per day (mgd) rated, combined biofilter-activated sludge plant. Secondary effluent is land applied during the spring and summer (flood irrigation for alfalfa production) and discharged to the San Joaquin River during the winter (October- March). Dried sludge is subsequently spread on agricultural lands adjacent to the plant site. **(3)**

The WQCF serves commercial and residential properties in Manteca (5.93 mgd) and to the City of Lathrop (1.02 mgd), and one frozen food packager (Eckert Cold Storage). Subsequent phased improvements will increase the capacity of the treatment facility to 10 mgd. These

improvements are scheduled for completion by December 2005. The existing Wastewater Quality Control Facility can ultimately be expanded to treat 25 mgd. **(4)**

14.2.2 Sewer Collection System

Generally, the land within the existing developed City has trunk sewer constructed to fully serve the expected development. A relatively small sewer service is presently partially served by an interim lift station and will require a trunk sewer to serve the entire shed. Undeveloped areas will require trunk sewers in order to develop.

The City of Manteca has set a target (PFIP) such that capacity is sought to be available to serve demand at the specific LOS but not to anticipate demand. The required timing for each public improvement is related primarily to the timing of additional development that will be served by that improvement.

The expanding areas of Manteca, for the most part, have no sewer facilities and therefore have not existing deficiencies as it relates to the LOS target. However, the infill development expected to occur may exert a demand upon the existing facilities in excess of their capacity. At the crux of this issue is the Union Road Lift Station; existing and future peak flows at the lift station; and improvements required, if any, to handle the expected greater flows. This is, however, a possible capacity problem and not a deficiency.

14.2.3 Service Standard

The City of Manteca Public Facilities Implementation Plan (PFIP) establishes the Level of Service Standard for Wastewater.

Manteca's target LOS for sewer is to collect and treat an average of 325 gallons per day per dwelling unit equivalent (due). This LOS standard is applicable both in the areas of Manteca that have already developed and in the geographic areas where development is expected.

Sewer collection dwelling unit equivalent (due) factors are calculated in the PFIP based on the relative average generation of wastewater for the various land use types. Sewer generation factors are based upon the expected building intensities and population densities. For example, the average daily generation per unit for Low Density Residential (LDR) is calculated as the product of the population per unit (3.25) times the average daily per capita generation (100 gallons). As a result, the LDR generation is 325 gallons per unit per day. Sewer flow generation factors are based upon industry standards applicable to conceptual level facilities planning and professional judgement.

14.3 STORMWATER DRAINAGE

14.3.1 Existing conditions

The South San Joaquin Irrigation District (SSJID) operates drainage facilities that pass through Manteca and carry a portion of the City's drainage. Because of topography, drainage facilities generally follow along an east-to-west alignment. In some instances where subdivisions have developed near irrigation laterals, drainage pumping stations have been installed in lieu of long trunk lines to drains. Water from the SSJID, along with drainage pumped by the City, flows west into French Camp Canal, which eventually flows into French Camp Slough. Storm drainage is gravity-discharged from the Study Area north to French Camp Canal. Existing road and railroad crossings of the Canal are, however, undersized and will require replacement to accommodate peak design flows from the Study Area. The San Joaquin Delta is the ultimate destination of drainage carried by French Camp Slough.

The concept for handling drainage is to collect, store, and meter the water into the terminal drainage conduits and channels. Individual development plans in the City are required to provide on-site detention designed to reduce the peak flow. Typically, 7 to 10 percent of the land area is required for on-site detention. The detention basins in residential subdivisions are often developed as joint use park facilities.

The capacity of the French Camp Outlet Channel and its tributary drains is the limiting factor that sets the metered flow rates. Location of the discharge along the outlet conduits and channels is not a factor affecting the hydraulic capacity requirements of the system. Therefore, regardless of position along the channel, each tributary subarea along the system is provided the same level of service.

All stormwater is to flow to retention basins in order to help control both the quality and quantity of storm runoff discharge to the main drainage system, and ultimately the San Joaquin River. **(5), (6)**

14.3.2 Service Standard

The City of Manteca Public Facilities Implementation Plan (PFIP) establishes the Level of Service Standard for Drainage.

The target Level of Service for drainage is to provide 10-year storm drainage protection for all development and to provide 100-year storm drainage protection for all structures.

14.4 SOLID WASTE DISPOSAL

14.4.1 Existing Conditions

The City of Manteca Solid Waste Division collects solid waste throughout the City and deposits it at the Lovelace Solid Waste Transfer Station. **(7)** Recyclable materials are sorted at the Lovelace facility. Green waste is delivered to the Austin Road/Forward Landfill. This landfill has a closure date of 2053 and has a remaining capacity of 1,608,752 cubic yards.

The Solid Waste Division helps to ensure that the City's residential and commercial demands are met effectively and that landfill use remains available for future generations by helping residents and businesses to recycle, compost and reduce the overall solid waste flow.

The City functions interactively with customers to remove all permissible waste and achieve the community's responsibility towards conserving resources. Manteca provides the following solid waste services:

- Residential recycling picked up on a bi-weekly schedule at no extra cost to the customer.
- Residential bi-weekly curbside pickup of compost materials.
- Leaf and Christmas tree pick up.
- Oil collection containers picked up on a weekly basis.
- Commercial recycling.
- Household Hazardous Waste collection.

Hazardous waste handling/disposal is discussed in Hazardous Materials, Section 9 of this EIR.

14.5 EDUCATION (SCHOOLS)

14.5.1 Existing Primary and Secondary Education Resources

The Manteca Unified School District (MUSD) operates twenty-eight (28) schools ranging from Kindergarten through High School; education facilities include twenty (20) elementary schools, three high schools, one adult education school, and two continuation high schools. The estimated number of students is 21,327 as of May 16, 2003. Schools follow both a traditional and year-round calendar. MUSD includes the communities of Manteca, Lathrop, French Camp, and Weston Ranch. **(8)(9)(10)**

14.5.2 Existing Post-Secondary Education Resources

There are no post-secondary campuses located in Manteca. However, post-secondary educational resources are available through distance learning and regional education. San Joaquin Delta College (Stockton) offers classes at Delta College Farm Laboratory in Manteca and the Manteca Adult School. Courses in Manteca are taught by Delta college instructors or are

provided by "distance learning" utilizing the internet, television, and video. California State University, Stanislaus also offers educational opportunities in Manteca at Manteca High School. Community colleges are located in Stockton, Merced and Modesto. There are a variety of private and specialized college opportunities nearby. California State University, Sacramento, and University of Phoenix, Sacramento, offer a university experience to Manteca residents.

14.5.3 Service Standard

The projected enrollment is based on an average number of students per dwelling unit. Table 14-1 summarizes the student yield rate as of 2003-2004.

Table 14-1

Projected Student Yield Rate

K-6	0.534 students per unit
7-8	0.147 students per unit
9-12	0.267 students per unit
Total	0.948 students per unit

Source: Student Generation Analysis, Manteca Unified School District, Public Economics, Inc. May 2003

14.6 LIBRARY

The Manteca Branch Library was constructed in 1961, and is a 14,396 square-foot facility. The Library is the information and learning center for the City of Manteca, and a service area that includes outlying unincorporated county areas. Part of the Stockton-San Joaquin County Public Library, the Manteca Branch is one of the libraries serving the southern end of San Joaquin County. The branch is located in the heart of downtown Manteca. It has served as the connection to government, business, schools, and community organizations for the residents of Manteca for over 40 years, providing meeting room space, among other services. The Library is a current depository for local government documents and ordinances. The Library and the community room have long been the unofficial center of the City of Manteca.

14.6.1 Planned Library Building Program

The current Library's size and infrastructure is inadequate to meet the modern library service needs of the community. Grant funding is currently being sought in order to build a new facility. The City of Manteca will own and maintain the new Library.

The new Branch Library will be constructed on the downtown site of the current Library, which a community assessment has shown to be the preferred location for the residents of Manteca. The new Library will include a Family Literacy Center. It will also provide easy access to computers and other electronic resources. The new facility will be 58,481 square feet, which is 3.7 times the size of the current facility. The target building completion date is March 2007.

14.6.2 Service Standard

The existing Manteca Library provides .29 square feet per capita.**(11)** The proposed new Library facility will provide an overall .69 square feet per capita of library space to a projected population of 77,699.

14.7 PARKS AND RECREATION

The City of Manteca currently provides 28 neighborhood and five (5) community parks distributed throughout the City. Many parks are co-located with a small detention basin the serves the surrounding neighborhood. Consequently, the parks are typically located within easy walking distance of the residents. The City is currently planning for a large active sports complex focusing on baseball and softball fields in conjunction with a private company, Big League Dreams.

14.7.1 Service Standard

The City has a standard of 5 acres of parkland per 1000 residents. This standard will be reviewed in the preparation of a Recreation Master Plan that will follow the adoption of the General Plan 2023.

14.8 POLICE PROTECTION

The Manteca Police Department is a full service municipal law enforcement agency with specialized assignments and recognized specialties. In addition, the Department has an active and valuable volunteer staff consisting of Police Explorers, Reserve Officers, and senior citizens who render invaluable assistance to the Department and the community. The Department provides aggressive crime prevention through neighborhood watch, proactive enforcement, community policing, and citizen involvement.

The Department currently has 58 sworn officer positions.

14.8.1 Service Standard

The City meets a standard of one sworn officer per 1000 residents.

14.9 FIRE PROTECTION

Fire protection for the City of Manteca is provided by the Manteca Fire Department (MFD). The Insurance Services Office (ISO) has rated Manteca as a Class 3 on a scale of 9. Manteca shares the second best rating in the County and is rated in the top 15% of fire departments in San Joaquin County. The most common ISO rating in San Joaquin County is 5 in developed areas where water for fire suppression is provided and 8 in undeveloped areas.

MFD's main functions are to provide fire prevention, organized and efficient response to fires, first response to hazardous materials incidents, basic level "first responder" medical response, and public fire education.

MFD responds to emergencies and calls for service from three fire stations located within the City limits. It is also the responsibility of the MFD to provide emergency medical services to customers. Medically related responses account for nearly 60 percent of all requests for service. To maintain a standard level of care, all fire personnel are trained and certified Emergency Medical Technician-1 (EMT) and EMT-D.

MFD has entered into a cooperative agreement with the Stockton Fire Department for the consolidation of emergency dispatching services.

14.9.1 Service Standard

The existing goal is to maintain as average 5-minute response time for all emergencies, and engine and ladder companies should be staffed with a minimum of 3 personnel.

14.10 NATURAL GAS AND ELECTRICITY

Natural Gas and Electricity are supplied by in the City of Manteca by Pacific Gas and Electric Company, Inc. (PG&E), a private corporation. PG&E currently owns and operates electricity and natural gas infrastructure within Manteca.

14.11 REGULATORY SETTING

14.11.1 Applicable Federal Regulation

Federal Energy Regulatory Commission (FERC)

The Federal Energy Regulatory Commission (FERC) regulates the construction of the interstate natural gas pipelines that serve California.

14.11.2 Applicable State Regulation

Solid Waste Management: California Integrated Waste Management Board (CIWMB)

The California Integrated Waste Management Act became law on January 1, 1990. This law mandates that every county and city divert twenty-five percent (25%) of its waste from landfills by 1995 and fifty percent (50%) by 2000, or face fines of $10,000 per day. The California Integrated Waste Management Board (CIWMB), administering this Law, requires each city and county to prepare an Integrated Waste Management Plan (IWMP). The IWMP must include a Source Reduction and Recycling Element (SRRE) and a Household Hazardous Waste Element (HHWE).

Fire Protection: California Occupational Safety and Health Administration (Cal/OHSA)

The California Occupational Safety and Health Administration (Cal/OHSA) requires for presence of a minimum of four firefighters before the use of respirators, which are required for entry into an enclosed space filled with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. Therefore, a minimum of four (4) firefighters are required in order to respond to most fire incidents.

California Public Utilities Commission (CPUC)

Electricity: The California Public Utilities Commission (CPUC) has permitting authority over the construction of new and expanded power plants, electric transmission lines and substations. Pursuant to CEQA, environmental analyses must be conducted before issuance of construction permits by CPUC. The CPUC Utilities Safety Branch audits utility overhead and underground electric facilities through random field inspections.

Natural Gas: The CPUC regulates local natural gas distribution facilities and services, as well as intrastate pipelines. CPUC published the California Natural Gas Infrastructure Outlook 2002-2206 Report, which concluded that PG&E's natural gas infrastructure would be sufficient through the year 2006.

California Energy Commission (CEC)

The California Energy Commission (CEC) has the statutory authority to site and license thermal power plants that are rated at 50 megawatts and larger and related transmission lines, fuel supply lines and other facilities. Pursuant to CEQA, environmental analyses are required prior to the issuance of energy facility licenses.

14.12 IMPACT EVALUATION CRITERIA

In accordance with CEQA Guidelines, Appendix G, a project would have a significant impact on the environment if it would:

1. Have insufficient water supplies available to serve the project from existing entitlements and resources, requiring expanded entitlements.

2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

4. Exceed wastewater treatment requirements of the Regional Water Quality Control Board.

5. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effect.

6. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

7. Be in noncompliance with federal, state, and local statutes and regulations related to solid waste.

8. Result in substantial adverse physical impacts associated with the provision of new or altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services including schools, parks, police protection, or fire protection.

Domestic water and wastewater regulation by the Regional Water Quality Control Board (RWQCB) is further discussed in Hydrology and Water Quality, Section 10 of this EIR.

14.13 IMPACTS AND MITIGATION

POTENTIAL IMPACT PFS-1: **The General Plan 2023 would create a demand for domestic water beyond current entitlements, resulting in significant adverse effects upon the environment.**

Level of Significance: **Potentially Significant**

Water demand will increase with the planned increase in residential, commercial and industrial uses. The level of demand cannot be precisely predicted due to the to variability of water demand in non-residential uses, notably industrial, and the potential for changes in average household water use due to changes in household size and composition. Residential conservation practices, smaller residential lots and the potential to use recycled water for landscape irrigation could reduce the current level of demand for the average residential use.

Mitigation Measures:

PFS-1.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses domestic water supply through the following goal, policies (P), and implementation measures (I):

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

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

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

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

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

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.

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

PF-I-2 The City shall update the Public Facilities Implementation Plan regarding water supply and distribution, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

PF-I-3 The City shall require, as a condition of project approval, dedication of land and easements, or payment of appropriate fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.

PF-I-7 The City will encourage the use of recycled water for landscape irrigation where feasible, within the parameters of State and County Health Code and standards.

PFS-1.2: The City of Manteca Water Service Master Plan (1998) defines the future water supply, storage and delivery system for the City. The Master Plan recommends a conjunctive use of surface water from the South San Joaquin Irrigation District (SSJID) Surface Water Project to meet the future water needs of the City. SSJID plans to commence surface water supply deliveries to the City in 2005. Based on limiting average groundwater supplies to the safe yield of 1.0 acre-foot per acre per year, it is estimated that under a conjunctive use program groundwater could meet 48 percent of the City's annual water needs and surface water would meet the remaining 52 percent.

Table 14-2 presents the proposed future annual water supply distribution for the City.

Table 14-2

Conjunctive Use of Surface Water and Groundwater

Year	Annual Water Use (Acre-Feet)		
	Surface Water	Groundwater	Total
2000		12,800	12,800
2005	9,400	8,600	18,000
2010	12,700	11,800	24,500
2015	17,500	16,200	33,700
2020	21,600	19,900	41,500
2025	24,500	22,400	46,900

Source: 1998 Water Master Plan – City of Manteca

The surface water supply will be used as the base supply and groundwater facilities will be used to meet peak water demands. During winter months SSJID surface water deliveries will meet nearly the entire City's projected water demands. City wells will be utilized only as necessary to exercise wells (for operational water quality or treatment equipment maintenance considerations) or to alleviate localized low pressure wells.

The City service area for the Water Master Plan encompasses the SSJID 1991 Study Service Area which includes the existing City limits and the 2023 General Plan Study Area. The total Water Master Plan service area encompasses approximately 35,000 acres, and the General Plan Study Area encompasses 25,975 acres.

The Water Master Plan assumes that 17,620 acres will be used for residential purposes at full build out of the SSJID 1991 Study Service Area. Table 14-3 compares land use proposed in the General Plan 2023 to the Ultimate Land Use assumed in the Water Master Plan. The General Plan Land Use categories are summarized to match the land use designations in the Water Master Plan. Table 14-3 indicates that the Water Master Plan assumes substantially greater residential land use that provided in the General Plan 2023. The Water Master Plan assumes less land allocated to Commercial/Industrial use for the combined planned land use and reserve land use in the General Plan 2023.

Table 14-3

Land Use Assumptions - Water Master Plan and General Plan 2023

Land Use Category	Water Master Plan Service Area	2023 Manteca GP Land Use	2023 Manteca GP Reserve Land Use	2023 Manteca GP Total Potential Land Use
	Acres	Acres	Acres	Acres
Residential	17,620	8,569	2,515	11,084
Commercial/Industrial	3,820	3,802	1,004	4,806
Parks and Public/Quasi Public Land	960	1,267	91	1,358

Source: Wade Associates and 1998 Water Master Plan – City of Manteca, May 2003

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal, policies, and implementation measures, together with the City's Water Master Plan and PFIP, and continued participation in the SSJID Surface Water

Project, will help ensure that the domestic water demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-2: **The General Plan 2023 would create a demand for wastewater (sewer) treatment beyond capacity of current facilities, resulting in significant adverse effects upon the environment.**

Level of Significance: **Potentially Significant**

The city has planned for expansion of the WQCF to accommodate growth. The existing site constrains the long term expansion of the plant due to limitations on land disposal. Continued expansion on the site will depend on future improvements that rely less on land disposal methods. Such methods include improved treatment technology, use of recycled wastewater for irrigation, and management of solid waste, among other methods. The current population of 55,000 residents create a demand that is within the capacity of the treatment plant, 6.95 mgd. The planned improvements would provide 10 mgd and the ultimate planned capacity of 25 mgd would be more than sufficient to accommodate the growth planned in General Plan 2023.

Mitigation Measures:

PFS-2.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses wastewater (sewer) treatment through the following goal, policies (P), and implementation measures (I):

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.

PF-P-16 Ensure wastewater collection and treatment for all development in the City and the safe disposal of wastes.

PF-P-17 The City will maintain capacity to process combined residential, commercial, and industrial flow.

PF-P-18 The City shall develop new sewage treatment and trunk line capacity as necessary to serve new development.

PF-P-19 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.

PF-P-23 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.

PF-I-8 The City shall update the Public Facilities Implementation Plan (PFIP) regarding wastewater collection and treatment, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

PF-I-10 The City will encourage and permit an industrial pretreatment program for business parks and other industrial uses in accordance with state and federal requirements.

PF-I-12 The City will promote reduced wastewater system demand through efficient water use by:

requiring water conserving design and equipment in new construction,

encouraging retrofitting with water conserving devices;

designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and

maintaining a Citywide map of all sewer collection system components and monitoring the condition of the system on a regular basis.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal, policies, and implementation measures, together with the City's Sewer Master Plan and PFIP, will help ensure that the wastewater treatment demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-3: The General Plan 2023 would create a demand for stormwater drainage beyond capacity of current facilities, resulting in significant adverse effects upon the environment.

Level of Significance: Potentially Significant

The capacity of the French Camp Outlet Channel and its tributary drains is the limiting factor that sets the flow rates for drainage systems in the City.

Mitigation Measures:

PFS-3.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses stormwater drainage through the following goal, policies (P), and implementation measure (I):

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.

PF-P-24 The City shall continue to complete gaps in the drainage system in areas of existing development.

PF-P-25 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 stormwater runoff resulting from each development.

PF-P-26 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 stormwater detention, stormwater conveyance for stormwaters exceeding a 10-year event, stormwater quality treatment, bike and pedestrian paths, and visual open space within neighborhoods.

PF-I-13 The City shall update the Storm Drainage Master Plan and Public Facilities Implementation Plan, regarding stormwater drainage, every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

PFS-3.2: The Public Facilities Implementation Plan (PFIP) 1993 addresses additional drainage capacity made necessary by development occurring through June 30, 2020.

All stormwater is to flow to detention basins in order to help control both the quality and quantity of storm runoff discharge to the main drainage system, and ultimately the San Joaquin

River. Detention basins are designed to temporarily hold and gradually release water for short periods not to exceed 72 hours. Retention basins do not provide for release but will allow water to percolate or evaporate within a 72-hour period.

The LOS standard is the existing standard in the areas of Manteca that have already developed and is the target standard in the areas where development is expected. The LOS targets identified should be maintained through all future development.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal, policies, and implementation measure, together with the City's Storm Drainage Master Plan and PFIP, will help ensure that the stormwater drainage demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-4: The General Plan 2023 would create a demand for solid waste services beyond the capacity of current landfill facilities, resulting in significant adverse effects upon the environment.

Level of Significance: Potentially Significant

The City of Manteca utilizes the Lovelace Transfer Station to process and ship its solid waste and materials. The Lovelace Transfer Station is of regional significance in that it provides services to the majority of south San Joaquin County.

Mitigation Measures:

PFS-4.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses solid waste handling and disposal through the following goals, and policies (P):

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

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

PF-P-30 The City shall support the continued use of the Lovelace Transfer Station on Lovelace Road, between Union Road and Airport Way, for the processing and shipping of solid waste materials.

As discussed above in Subsection 14.1.4, the City of Manteca Solid Waste Department currently provides household and commercial recycling, and compost material pickup, among other programs, to help reduce the City's solid waste load.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal and policies, including implementation and enforcement of the Source Reduction and Recycling Element, will help ensure that solid waste disposal demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-5: The General Plan 2023 would not comply with statutes and regulations related to solid waste.

Level of Significance: Potentially Significant

Mitigation Measures:

PFS-5.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses compliance with statutes and regulations related to solid waste through the following goal and policy (P):

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

PF-P-29 The City will implement and enforce the provisions of its Source Reduction and Recycling Element.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal and policy providing for the implementation and enforcement of the Source Reduction and Recycling Element will help comply with statutes and regulations related to solid waste.

POTENTIAL IMPACT PFS-6: Implementation of the General Plan 2023 would require additional facilities and LOS for police protection, fire protection, schools, and parks.

Level of Significance: Potentially Significant

Police Protection: The effect of growth from the General Plan 2023 will be an incremental increase in the number of service calls from the Manteca Police Department. The effects will be in terms of personnel requirements for training and emergency responses, and an increased need to upgrade equipment and facilities.

Fire Protection: The effect of growth from the General Plan 2023 will be an incremental increase in the number of calls for service from the MFD. The current Insurance Services Organization (ISO) level of service and other indicators of service capability will be affected as the population increases and the general character of the community changes over time. The effects will be in terms of personnel requirements for training and emergency responses, and an increased need to upgrade equipment and engines. Personnel requirements will also increase due to the Cal OSHA requirement of a minimum of four (4) firefighters to respond to most fire incidents. New fire stations will be required to maintain a standard of a maximum 5 minute response. The MFD will determine the location of these stations as growth occurs to maintain the response coverage of the urban area. Therefore, the stations will be located in urbanizing areas.

Schools: Proposed growth in the General Plan 2023 will require new K-8 and high schools. The location of these schools cannot be determined in the General Plan. The Manteca Unified School District will select the location of new schools sites based on the location of new growth and the District's site criteria.

Parks and Recreation: Based upon the standard of 5 acres of parkland per one thousand residents new neighborhood and community parkland will be required. The City Parks and Recreation Department and the Parks and Recreation Commission will establish location and site criteria in the Recreation Master Plan.

Mitigation Measures:

PFS-6.1: The Public Facilities and Services Element (Section 6) of the General Plan 2023 addresses police protection, fire protection, schools, and parks and recreation through the following goals, policies (P), and implementation measures (I):

Police Protection

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

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

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

PF-I-22 The Police Department shall continuously monitor response times and report annually on the results of the monitoring.

PF-I-23 The Planning Commission and City Engineer will review proposed residential developments to evaluate the accessibility for police patrols and emergency response.

Fire Protection

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

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.

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

PF-I-24 The Fire Department shall continuously monitor response times and report annually on the results of the monitoring.

PF-I-25 The Planning Commission and City Engineer will review proposed residential street patterns to evaluate the accessibility for fire engines and emergency response.

Education (Schools)

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

PF-P-32 The City shall cooperate with the Manteca Unified School District and others in locating and reserving appropriate sites for new schools. Adequate facilities shall be planned to accommodate new residential development.

PF-P-33 The City shall cooperate with the Manteca Unified School District in their collection of school facility development fees from new development.

PF-P-34 Financing of new school facilities will be planned concurrent with new development.

PF-P-35 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.

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

PF-P-38 When feasible, schools will 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.

PF-I-18 The City will maintain an inventory of all public lands to identify opportunities for joint-use facilities.

PF-I-19 The City shall cooperate with the Manteca Unified School District to select a suitable location for a high school south of SR-120.

PF-I-20 The City will request an annual meeting with the Administrator and the Board of Trustees of the Manteca Unifi9ed School District to review development issues and opportunities for cooperation between the school district and the City.

PF-I-21 The City will encourage the expansion of higher education program offerings and opportunities in Manteca.

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.

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.

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

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

PF-P-49 City park acquisition efforts shall be based on a goal of 5 acres of developed neighborhood and community parkland per 1,000 residents within the City limits.

PF-P-50 Neighborhood parks shall conform to the following general guidelines (specific detail 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 areas 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.

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

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.

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.

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

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

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.

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

PF-I-26 The City shall adopt a Parks and Recreation Master Plan, setting out goals, policies, and standards for the location, size, and level of development of all existing and proposed parks. The Plan will establish specific development criteria for the use of neighborhood and community parks. The master plan shall cover at least the succeeding 10-year period, with greater detail devoted to improvements planned for the first five-year period.

PF-I-27 The City shall periodically review projected park development needs and plans, update cost estimates for park acquisition and development, and remaining development potential based on the General Plan.

Residual Level of Significance: Less than Significant with Mitigation

Implementation of the above goal and policies, including the Parks and Recreation Master Plan, will help ensure that police protection, fire protection, educational, and parks and recreation demands for implementation of the General Plan 2023 will be met without substantial adverse effects upon the environment.

POTENTIAL IMPACT PFS-7: The General Plan 2023 would require expanded energy sources and infrastructure for expanded urban development.

Level of Significance: Potentially Significant

Ever-increasing energy demand has been a prominent issue in recent years, as reflected in ever-increasing energy bills, black-outs, brown-outs, and scheduled outages.

Electrical and natural gas services are provided to the City of Manteca by Pacific, Gas & Electric Company, Inc., a private corporation.

Power plants, substations, and transmission lines, and natural gas transmission lines are approved by a combination of agencies, including FERC, CPUC, and CEC (discussed in Subsection 4.2 above). These agencies are exempt from following local regulations, although in practice each of these agencies consults with local jurisdictions and the public.

The CPUC published the California Natural Gas Infrastructure Outlook 2002-2206 Report, which concluded that PG&E's natural gas infrastructure would be sufficient through the year 2006

Mitigation Measures:

PFS-7.1: The General Plan 2023 Public Facilities and Services Element (Section 6) addresses electricity though the following goal, policy (P), and implementation (I) measures:

Goal PF-10	The City shall ensure adequate, reliable electric service is available to all users in the City.
PF-P-28	Cooperate with and encourage efforts to expand the opportunities for electric power service in the City.
PF-I-14	The City will consider participating on generating and/or distributing electric service within the City.
FP-I-15	The City will support energy conservation measures and innovative uses of solar energy, heat recovery, and co-generation in all structural and industrial processes.
PF-I-16	The City will confer with utility companies regarding major development plans and cooperate with planning extensions.

PFS-7.2: The General Plan 2023 Resource Conservation Element (Section 8) provides the following measures to mitigate impacts related to electricity and infrastructure expansion:

RC-I-6	The City shall implement development standards which promote energy conservation and the use of solar energy techniques for heating and cooling, including building orientation, street and lot layout, landscape placement, and protection of solar access.

RC-I-8 The City shall enforce Title 24 energy requirements (Building Code) which define construction standards that promote energy conservation.

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

RC-P-8 The City shall support use of alternative energy sources in new commercial, industrial and residential development.

RC-I-10 Encourage large energy users to use an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

RC-I-11 Cooperate with other agencies and jurisdictions to expand energy conservation programs.

Residual Level of Significance: Significant and Unavoidable

The need for expanded energy sources and infrastructure is a significant impact with expanded urban development. Implementation of the above goal, policy and implementation measures will help reduce the amount of energy and infrastructure needed to serve new urban development in the City of Manteca, but not to a less-than-significant level.

References:

(1) Jim Podesta, Manteca Department of Public Works, telephone conversation, May 28, 2003

(2) City of Manteca, Water Master Plan, Kennedy/Jenks Consultants, August 1998

(3) Wastewater Quality Control Facility Master Plan – 1995 for City of Manteca Nolte and Associates, June1995

(4) Phil Govea, Manteca Department of Public Works, conversation, May 6, 2003

(5) DRAFT Storm Drainage Master Plan, City of Manteca, Carter-Burgess, June 2000

(6) Jim Podesta, Manteca Department of Public Works, telephone conversation, May 28, 2003

(7) Frederic Clark, Manteca Department of Public Works, telephone conversation, May 29, 2003

(8) Sandy Dwyer, Manteca Unified School District, conversation, October 28, 2001

(9) Manteca Unified School District Educational Specifications K-8 Elementary Schools, n.d.

(10) Manteca Unified School District, Educational Specifications 4th High School, December 1999

(11) Community Needs Assessment, Manteca Branch Library, Drew Harrington, Library Building Consulting, Revised February 2003

Additional References

(12) Steve Houx, City of Manteca Parks and Recreation Director, conversation, December 2001

(13) Robert Adams, City Manager, conversation, October 2001

(14) George Quaresma, Fire Chief, conversation, October 28, 2001 and various e-mail

(15) Charlie Halford, Police Chief, conversation, October 28, 2001

(16) Manteca City Fire Department Annual Report 2000

(17) City of Manteca Comprehensive Annual Financial Report, June 30, 2000

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