

# 6 PUBLIC UTILITIES AND SERVICES

*The purpose of the Public Utilities and Services Element is to provide a policy framework for the City to manage infrastructure and services, identify areas for improvement, and ensure that public utilities and services meet the needs of the community as the city grows. More specifically, the Public Utilities and Services Element addresses the planning, provision, and maintenance of water, wastewater, solid waste systems, and other facilities operated by the City, as well as police and fire services. Details on fiscal management policies and strategies, which also have a bearing on public utilities and services, are in the Economic Development and Fiscal Sustainability Element.*

One of the fundamental responsibilities of the City is to provide adequate public facilities and services that will support existing development as well as projected growth. As part of this mandate, the City provides police, fire protection, potable water, sewage collection and treatment, and solid waste pickup, while the Fresno Metropolitan Flood Control District (FMFCD) provides storm drainage and flood control. Continued urban development under the General Plan, within the city limits and the City's Sphere of Influence (SOI) may require new or expanded facilities and increased service capacities. The capital costs of these facilities and services will be borne by the development community, consistent with the policies of the Economic Development and Fiscal Sustainability Element.

This Public Utilities and Services Element focuses on substantive issues related to public facilities and services, including service standards, design, and operational measures. Related issues are covered in other elements. Water conservation, for example, is addressed in the Resource Conservation and Resilience Element. Emergency response, flood hazards, and fire hazards are addressed in the Noise and Safety Element. Policies regarding the extension of utilities outside the city limits are in the Urban Form, Land Use, and Design Element.

## Relationship to General Plan Goals

This Element provides objectives and policies that support a wide range of General Plan goals, in particular the following:

9. Promote a city of healthy communities and improve quality of life in established neighborhoods.  
*Emphasize supporting established neighborhoods in Fresno with safe, well maintained, and accessible streets, public utilities, education and job training, proximity to jobs, retail services, health care, affordable housing, youth development opportunities, open space and parks, transportation options, and opportunities for home grown businesses.*
12. Resolve existing public infrastructure and service deficiencies, make full use of existing infrastructure, and invest in improvements to increase competitiveness and promote economic growth.  
*Emphasize the fair and necessary costs of maintaining sustainable water, sewer, streets, and other public infrastructure and service systems in rates, fees, financing and public investments to implement the General Plan. Adequately address accumulated deferred maintenance, aging infrastructure, risks to service continuity, desired standards of service to meet quality-of-life goals, and required infrastructure to support growth, economic competitiveness and business development.*
16. Protect and improve public health and safety.

## 6.1 POLICE

The Fresno Police Department (Police Department) Patrol Division provides a full range of police services, including uniformed patrol response to both emergency and non-emergency calls for service, crime prevention, pro-active tactical crime enforcement (including gang and violent crime suppression through the use of Impact Teams), and investigation of crimes utilizing District Detectives.

The Police Department currently operates out of four policing district stations in the Southwest, Southeast, Northwest, and Northeast geographic areas within the city. In 2011, the Central Policing District located at Broadway and Elizabeth Streets was closed due to budget reductions. From the four remaining policing districts, the Police Department responds to approximately 1,100 law enforcement calls per day utilizing a priority system to immediately respond to life threatening calls for service and crimes in progress. Other calls for service have a lesser priority and are handled as patrol officers become available.

These services are supplemented by the Police Department - Investigative Services Division, which is responsible for follow-up investigation on cases involving crimes against persons and property crimes, evaluation of crime and public safety intelligence information utilizing the Intelligence Unit, and pro-active investigation of vice/narcotics related crimes.

The Police Department - Support Division encompasses Traffic Enforcement and Accident Prevention, Communications, and Records Bureaus, as well as a Volunteer Services and Reserve Officers Unit. In addition to enforcement-related services, the Police Department provides extensive crime prevention assistance through residence and business security inspections; neighborhood and business watch group formation programs; and public presentations.

The Police Department - Professional Standards Division oversees the Commission of Accreditation for Law Enforcement Act (CALEA) compliance, as well as the Internal Affairs, Fiscal Affairs, Grant, and Policy and Procedure Units and the Accountability and Compliance, Training, and Personnel Bureaus.

### Key Issues

Safety is a fundamental concern for the citizens of Fresno and of upmost importance to the City of Fresno. Fresno experiences violent crime at a rate similar to and at times better than other large populace cities in California and on par with cities in the San Joaquin Valley. In comparison, Fresno's violent crime rate in 2012 was 5.4 per 1,000 persons while San Jose was 3.6, Anaheim 3.7, Sacramento 7.4, and Oakland 19.9, while

in the San Joaquin Valley, Clovis was 2.2, Bakersfield 5.4, Stockton 15.5, Visalia 4.3, Hanford 5.6, Tulare 6.2, Madera 7.4, Merced 10, and Sanger 10.8. The city's property crime rate of 50.9 per 1,000 persons in 2012 was higher than San Jose 29.2, Anaheim 29.2, Sacramento 41.9, and less than Oakland 65.9. In the San Joaquin Valley, it was more than Merced 50.8, Madera 25.8, Hanford 32.2, Clovis 41.1, Visalia 43.4, Tulare 39.4, Sanger 41.9, Bakersfield 49.9, and less than Stockton 51.

With much ingenuity, hard work and dedication the Police Department has had much success in countering crime in Fresno. For the third straight year, violent crime has decreased in Fresno with a seven percent reduction for 2013. This includes a 22 percent decline in homicides. Property crimes also fell in 2013 by 12 percent. For the first time in over a decade, every single crime category decreased in our city. This occurred despite the loss of experienced personnel and the strained criminal justice system in Fresno County.

From 2010 to 2013, the Police Department has concentrated resources and efforts to address the violent crime that is a hallmark of the Bulldog gang. This includes the focused efforts of the Multi-Agency Gang Enforcement Consortium (MAGEC), Street Violence Unit, and patrol resources and tactical teams. Continuing efforts have resulted in 135 search warrants authored, 261 Bulldog probation and compliance checks conducted, 112 shootings solved, and 98 illegal firearms taken off the streets.

The Police Department also formed the Gun Crimes Unit in 2011 as part of their overall violent crime reduction strategy. Since inception, the Gun Crimes Unit has reviewed 853 cases involving weapons in Fresno, authored 107 search warrants, recovered 54 illegal guns as a result of the investigations and sought Federal Prosecution of 6 cases by the United States Attorney's Office.



*SKYWATCH helicopter on patrol over Fresno*



*Fresno Police Department Honor Guard at Fresno County Peace Officer's Memorial*



*Fresno Police Department Chief of Police Jerry Dyer at community event*



*Police K-9 training*

In addition to enforcement efforts, the Police Department in collaboration with the Office of the Mayor set out in 2006 to create an environment where gang members and their associates can obtain educational services, job skills, and social skills to obtain success. The Mayor's Gang Prevention Initiative (MGPI) provides a number of efforts designed to provide alternatives to the gang lifestyle through public/private collaborations such as Night Walks (community outreach in specified parts of the city with high concentration of gang incidents), Ceasefire (prevention, intervention and community-mobilization strategies to reduce violence), Street Outreach (former gang members trained as street outreach workers), and a tattoo removal program (removal of visible gang related tattoos which may inhibit their ability to seek employment).

In 2013, the Police Department formed the Homeless Task Force (HTF) to assist both the community and people experiencing homelessness by providing a safer environment, free from illegal and dangerous encampments. In that year, the HTF completed four major encampment cleanups and removed over 168 smaller settlements. In addition, they made 73 felony arrests, 147 misdemeanor arrests, issued 180 citations and removed over 770 shopping carts from the street. The HTF is the first unit in the Department to wear personal video cameras that are used to record all property storage and release, as well as citizen contacts.

The Police Department Regional Training Center (RTC) opened in September of 2010 and is a unique training center among California's law enforcement agencies. Since opening, personnel representing over 150 different agencies have trained at the RTC. The RTC has become the host for an annual regional SWAT training day that is overseen by the FBI which draws about 300 participants. The RTC also provides facilities for the California Department of Corrections and Rehabilitation as they conduct monthly physical fitness testing of its entry level applicants for their position of correctional officer. In addition, the RTC hosts a portion of the annual fire symposium that is held in Fresno and the City allows fire agencies to use the RTC throughout the year. Many agencies now use the RTC as a venue where they provide their own training to their employees including the FBI, DEA, U.S. Probation, Veterans Affairs Police, California Department of Consumer Affairs to name a few.

The Police Department maintains national accreditation through the Commission on Accreditation for Law Enforcement Agencies (CALEA) which requires the agency to prove that the City meet national best practice standards for law enforcement. Having received initial accreditation in 2003, CALEA ensures continual compliance to their standards through rigorous on-site inspections, audits, public hearings and extensive reporting mechanisms every three years. By continually adhering to these strict standards, the agency will be seeking a "Gold" certification standard for excellence in law enforcement through the 2014 CALEA accreditation process.

For the purposes of planning for the future it is important to point out some of the needs the Police Department have which affect their ability to provide optimum service. Over the past five years, staff reductions were necessary to meet budget constraints. These reductions resulted in reduced service delivery for services such as handling lower priority field calls and prisoner processing, and increased call-delay time in the agency's 9-1-1 Dispatch Center. The Police Department is diligently working toward restoring these services.

Other resource issues facing the Police Department include ongoing equipment needs such as patrol vehicles, radios, and computers. As an example, patrol vehicles have historically had a useful service life of five years and 100,000 miles. Due to budget constraints, these same vehicles now remain in the patrol fleet for more than seven years with many having over 170,000 miles. Extending the service time for other law enforcement equipment has also occurred including expanded years of service life for traffic enforcement motorcycles, plain cars, and other safety equipment used by police officers. Policies in the Economic Development and Fiscal Sustainability Element address these long-term resource needs.

A strained criminal justice system also creates critical issues for the Police Department. The realignment of convicted prisoners from State incarceration to County of Fresno

supervision under AB109 has increased the workload of patrol officers and investigators. As inmates, released from State prison, continue their criminal enterprises out of custody, calls for police services, as well as additional investigative follow up are imposing significant impacts on the Police Departments already strained resources.

## Liquor Stores

The location and prevalence of liquor stores can have a negative effect on neighborhood health. In recent public meetings, three interrelated concerns have arisen:

- **Market saturation.** Some neighborhoods feel they have an overabundance of establishments with off-sale or on-sale licenses to sell liquor. The Downtown and the area immediately east have a larger number of venues for the sale and consumption of alcoholic beverages within a small area than other areas of the city. Blackstone and Shaw Avenues also feature a high concentration of these stores.
- **Fear of crime.** Community members often see a strong relationship between establishments with off-sale or on-sale licenses to sell liquor and rates of nuisances and crime.
- **Danger to schools.** Related to the above point, residents are concerned when alcohol sales are allowed too close to schools because of the impact on teenage drinking.

The State Department of Alcoholic Beverage Control (ABC) manages the issuance of licenses for the sale of alcoholic beverages. ABC is allowed to deny licenses located in the immediate vicinity of churches and hospitals, within 600 feet of schools and public playgrounds, or within 100 feet of a residence. ABC can also restrict hours of sales. State law limits the number of off-sale beer and wine licenses to no more than one per 2,500 city residents, although there is no restriction on the concentration of licensed establishments within the city.

Currently, the ability to use land within the city for alcoholic beverage sales is subject to Conditional Use Permit approval. While this requirement applies citywide, some neighborhoods feel saturated with liquor stores. The City has not developed an independent mechanism for assessing appropriate concentrations of alcohol sales establishments, however, and relies on information from the Police Department and the ABC in their consideration of permit applications. The Development Code update provides an opportunity for a more nuanced approach to controlling and abating nuisances associated with liquor stores and restaurants through Conditional Use Permit and other land use approvals that consider neighborhood needs and potential impacts.

## OBJECTIVE

- PU-1** Provide the level of law enforcement and crime prevention services necessary to maintain a safe, secure, and stable urban living environment through a Police Department that is dedicated to providing professional, ethical, efficient and innovative service with integrity, consistency and pride.

## IMPLEMENTING POLICIES

- PU-1-a** **Integration of Crime Data.** Develop a mechanism to share pertinent crime data from multiple sources with other law enforcement agencies as a means of improving service delivery, officer safety, and providing a safer community for the citizens of Fresno.

- Strive to develop and implement data sharing agreements externally throughout County of Fresno Law Enforcement Agencies with the intent of participating in region-wide data sharing agreements throughout the State of California.
- Utilize developing technologies internally to ensure that crime specific data is made available for first responders and criminal investigators.
- Develop advanced predictive policing capabilities to ensure that limited law enforcement resources are properly placed to reduce criminal activity in locations of the city that are identified as having a high probability of criminal activity.
- Fully implement a Real Time Crime Center which provides responding officers integrated computer data, video data from the Video Policing Unit, and up-to-date emergency dispatch information as a means of improving officer safety to critical incidents and service delivery to the community.

- PU-1-b** **Involvement in General Plan.** Facilitate Police Department participation in the implementation of General Plan policies, including citizen participation efforts and the application of crime prevention design measures to reduce the exposure of neighborhoods to crime and to promote community security.

- Facilitate Police Department communication with citizen advisory committees.
- Refer appropriate development entitlements to the Police Department for review and comment.



**PU-1-c**      **Safety Considerations in Development Approval.** Continue to identify and apply appropriate safety, design and operational measures as conditions of development approval, including, but not limited to, street access control measures, lighting and visibility of access points and common areas, functional and secure on-site recreational and open space improvements within residential developments, and use of State licensed, uniformed security.

**PU-1-d**      **New Police Station Locations.** Consideration will be given to co-locating new police station facilities with other public property including, but not limited to, schools, parks, playgrounds, and community centers to create a synergy of participation in the neighborhood with the potential result of less vandalism and promotion of a better sense of security for the citizens using these facilities.

**PU-1-e**      **Communication with Public.** Maximize communication and cooperative efforts with residents and businesses in order to identify crime problems and optimize the effectiveness of crime prevention measures and law enforcement programs.

**PU-1-f**      **Law Enforcement Collaboration.** Collaborate with community-based public, non-profit and private agencies to:

- Develop comprehensive narcotics and violence prevention programs designed to discourage delinquent behavior and narcotics abuse and to encourage viable alternative behaviors.
- Develop a more concentrated understanding of how to assist and support citizens with a variety of disabilities, especially those with cognitive and developmental auditory disabilities.
- Maintain active involvement in youth development and delinquency prevention activities.

**PU-1-g**      **Plan for Optimum Service.** Create and adopt a program to provide targeted police services and establish long-term steps for attaining and maintaining the optimum levels of service - 1.5 unrestricted officers per 1,000 residents.

***Commentary:*** *The City's fiscal management strategies will affect planning for optimum service. The Economic Development and Fiscal Sustainability Element provides additional details.*

- PU-i-h**      **Retail Conversion.** Assist community groups seeking information on conversion of establishments with off-site or on-site liquor sales licenses to other retail products that better meet community needs.
- PU-i-i**      **Crime and Nuisances.** Assist community and neighborhood groups seeking to reduce crime and nuisances they associate with high concentrations of establishments with off-sale or on-sale liquor licenses through Police Department consultations, other available services, and programs such as Neighborhood Watch.
- PU-i-j**      **Lighting and Safety.** Ensure adequate lighting at off-sale liquor stores to help deter crime and to promote a more inviting and safe atmosphere around them.

## 6.2 FIRE

The City of Fresno Fire Department (Fire Department) offers a full range of services including fire prevention, suppression, emergency medical care, hazardous materials, urban search and rescue response, as well as emergency preparedness planning and public education coordination. This plan addresses the on-going need for the effectiveness and efficiency of the Fire Department's fire suppression operations, emergency medical service, and special operations delivery in protecting the citizens of the jurisdiction and the occupational safety and health of its employees. The Fire Department in 2005, 2006, and 2007 contracted for services with the Airports Department and two adjacent fire protection districts and now operates 24 fire stations that serve a 336-square mile area. The contracting of services has provided an enhanced level of service through consolidation of communication center, and boundaryless fire station response districts. The City also has an automatic aid agreement with the City of Clovis whereby the nearest fire station responds to an emergency regardless of the jurisdiction within which it is located. The Fire Department also participates in a statewide mutual aid system, providing resources throughout the State of California upon request.

Historically, 60 to 65 percent of all calls for Fire Department services have been for medical emergencies, while seven percent have been for structure fires. Other fire-related calls include vegetation fires, vehicle fires, and debris fires. Fresno averages two working multiple alarm fires every day, which must be addressed despite the challenge of substantially reduced staffing levels. In addition to responding to calls, the Fire Department is involved in reviewing all building permits and subdivision maps to ensure access and fire suppression equipment (i.e., fire hydrants) are properly located. Staff also conducts new construction inspections of fire protection systems and routine fire and life safety inspections of existing buildings.

The Fire Department provides comprehensive fire prevention services to all commercial, industrial, and residential establishments by routine fire and life safety inspections and public education. Fire risk factors have been substantially reduced through more restrictive statewide residential housing unit fire sprinkler mandates and adoption of a local fire sprinkler ordinance, in effect since 1979, requiring fire sprinklers in most buildings over 5,000 square feet; as a result, the frequency and severity of extended fire attacks has been reduced. In order to combat the threat of structure fires in new growth areas, the City developed urban growth management standards requiring new development to be within a four minute response service area of a fire station. While this standard may be increased by applying additional conditions of approval (i.e., building separation distances, traffic preemption, enhanced onsite fire protection systems), it is uncommon for residential development to be located outside of a fire station's four minute response area.



1877 Fresno Fire Fighters



Recent photo of Fresno Fire Engines



Rescue at car roll over with pin in



Ladder Truck in action at a working fire

## Key Issues

### Ability to Meet Response Time Standards

The City of Fresno Fire Departments target response time for its service area is 5 minutes and 20 seconds for 90 percent of emergency incident response. This time standard measures unit response from the time the unit was alerted to the emergency

incident to the time the first unit arrived at the emergency incident. This response time standard is critical to saving lives before flashover occurs at fire incidents and arriving in time to provide basic life support in situations such as sudden cardiac arrest, trauma, impaired breathing and other severe medical emergencies. In 2013, the Fire Department response time was 6 minutes 26 seconds to 90 percent of fire and medical emergencies.

The Fire Department has been unable to meet target response times due to cuts in the number of units available to respond. In 2009, the Fire Department had 25 operational units available to respond to, however, due to the economic downturn in 2010, the Fire Department had to reduce the number of responding units to 19 (a 24 percent reduction in available work force) though the service level demands remained the same or higher. Industry standard defines an effective firefighting force as having 15 firefighters on a residential fire ground within 8 minutes 90 percent of the time. Today the department continues to provide service with 19 responding units providing an effective firefighting force on-scene only 64 percent of the time in 8 minutes. Note the FY2015 budget anticipates one additional engine company added to the service level.

Although there are currently 19 fire stations in the Metropolitan Area, staffing levels are a key issue that must be addressed. The national standard for firefighter staffing is 1 to 1.5 per 1,000 residents and the state average is 0.81 firefighters per 1,000 residents. The National Fire Protection Association Standard (NFPA) 1710 provides recommendations of minimum workforce standards to accomplish provisions of fire suppression and emergency medical services. Fresno Fire Department uses NFPA 1710 as a guidance document to establish its own minimum staffing standards to ensure sufficient workforce is present in the event of emergency situations.

In 2009, the Fire Department had 89 firefighters on duty each day (a minimum daily staffing) or 0.52 firefighters per 1,000 residents. In 2011, the daily minimum staffing dropped to 66 firefighters on duty each day or 0.39 firefighters per 1,000 residents, which is equivalent to the staffing levels held in 1958. Today, the current daily minimum staffing level is a total of 70 firefighters on duty each day which equates to 0.41 firefighters per 1,000 residents. This increase was realized through funding by the Staffing for Adequate Fire and Emergency Response Grants (SAFER).

This significant reduction in resources caused the Fire Department to change its operating model in an effort to keep apparatus available to respond within the desired response criteria for emergencies. More specifically, the Fire Department:

- Stopped responding to approximately 10,000 annual serious medical emergency calls;

- Moved all fire and life safety inspections to the Fire Department - Prevention Division; and
- Reduced availability for all public education outreach.

The Fire Department's long-term planning target is to match daily staffing levels to service level demands.

The City is currently rated by the Insurance Services Office (ISO) as a Public Protection Class 3 (scale 1 to 10, with 1 being the best). An updated City of Fresno Fire Department Strategic Plan should include objectives that will identify strategies to improve and/or enhance emergency operations, community risk reduction (to include education, engineering and enforcement), training requirements, and support service functions that improve service delivery and potentially move the Fire Department into a Class 2 rating.

### Ability to Provide Annual Fire Inspections and Fire Safety Education

Fire prevention is not simply preventing fire. It is the systematic application of codes, standard, engineering principles, and an understanding of human behavior to achieve the objective of limiting the loss of life and property. The Fire Department is responsible for providing annual fire and life safety inspections of all commercial, industrial, institutional, and multi-family buildings and proactive fire safety public education programs. Due to current budget constraints, many low and moderate fire and life safety hazard buildings are not being inspected, and public education outreach has ceased. The eventual effect of these reductions in fire prevention services has yet to be determined, but it is anticipated that frequency of preventable fires will increase and the reliability of building fire protection systems will decrease, due to lack of inspection and maintenance of those systems. Furthermore in the Fire Department's recent ISO review, full points were not received in the area of fire inspections due to deferral of consistent inspections by a reduced staff. Policies are currently being evaluated to address options for implementing a long-term plan to restore the Fire Department's ability to conduct fire and life safety inspections on all appropriate occupancies, and when possible provide a self-certification option and appropriate fire and life safety education outreach programs to the community.

### Facilities to Serve New Development

Existing facilities may not be adequate to maintain a sufficient level of services for future growth in Fresno. Increased population densities in the Downtown and mixed-use corridors and centers, at the locations shown on the Land Use Diagram (Figure LU-1), may require commensurate increases in firefighter staffing, facilities, and equipment to maintain current levels of service. The location of fire stations may become more dependent on density and availability than running distances between fire stations.

Infill development may require reopening of the former Broadway/Elizabeth fire station, construction of a new station in the Downtown Planning Area, and/or restoring the number of fire apparatus and firefighters at the existing stations. Where infill development substantially increases density or building height, the existing public water main infrastructure may require upgrading due to increased domestic water demand reducing available water volume and pressure for firefighting and potential damage to aging water pipes when fire apparatus must pump large volumes of water for fire suppression purposes.

New development in Development Areas identified in Figure 1-3 will need new and relocated fire stations. In DA-1 North, the City owns land near Shaw and Bryan Avenues and is currently in the process of finalizing details for the construction of permanent Fire Station 18. One site for a future fire station is needed to serve the southeast corner of Established Neighborhoods south of Shaw Avenue and the South Industrial Area. Five future sites have been identified to build three future fire stations in Established Neighborhoods north of Shaw Avenue, one in DA-2 South, and one in DA-2 North. Also needed over the planning period are a new Training & Learning Center, Repair and Maintenance Facility, Joint Police/Fire Public Safety Complexes and Communications Center, possibly located in the Downtown.

In planning for new facility locations, consideration will be given to co-locating such facilities with other public property such as schools, parks, playgrounds, community centers, etc. to create a synergy of participation in the neighborhood with the potential result of less vandalism and promotion of a better sense of security for the citizens using these facilities.

## OBJECTIVE

- PU-2** Ensure that the Fire Department's staffing and equipment resources are sufficient to meet all fire and emergency service level objectives and are provided in an efficient and cost effective manner.

## IMPLEMENTING POLICIES

- PU-2-a** **Unify Fire Protection.** Pursue long-range transfer of fire protection service agreements with adjacent fire districts that, in concert with existing automatic aid agreements, will lead to the eventual unification of fire protection services in the greater Fresno area.
- PU-2-b** **Maintain Ability.** Strive to continually maintain the Fire Department's ability to provide staffing and equipment resources to effectively prevent and mitigate emergencies in existing and new high-rise

buildings and in other high-density residential and commercial development throughout the city.

**PU-2-c**      **Rescue Standards.** Develop appropriate standards, as necessary, for rescue operations, including, but not limited to, confined space, high angle, swift water rescues, and the unique challenges of a high speed train corridor.

**PU-2-d**      **Station Siting.** Use the General Plan, community plans, Specific Plans, neighborhood plans, and Concept Plans, the City's Geographic Information Systems (GIS) database, and a fire station location program to achieve optimum siting of future fire stations.

**PU-2-e**      **Service Standards.** Strive to achieve a community wide risk management plan that include the following service level objectives 90 percent of the time:

- *First Unit on Scene* – First fire unit arriving with minimum of three firefighters within 5 minutes and 20 seconds from the time the unit was alerted to the emergency incident.
- *Effective Response Force* – Provide sufficient number of firefighters on the scene of an emergency within 9 minutes and 20 seconds from the time of unit alert to arrival. The effective response force is measured as 15 firefighters for low risk fire incidents and 21 firefighters for high risk fire incidents and is the number of personnel necessary to complete specific tasks required to contain and control fire minimizing loss of life and property.

**PU-2-f**      **Plan for Optimum Service.** Create and adopt a program to provide appropriate number of employees to effectively respond to call volume and type; and establish a long-term plan to attain a level of service of 0.81 firefighters per 1,000 residents.

***Commentary:** The City's fiscal management strategies will affect planning for optimum service. The Economic Development and Fiscal Sustainability Element has additional details.*

**PU-2-g**      **Community Facilities District for Emergency Services.** Develop strategies on the formation of Community Facilities Districts in new Development Areas to fund emergency services.

## OBJECTIVE

**PU-3** Enhance the level of fire protection to meet the increasing demand for services from an increasing population.

*Commentary: In addressing enhanced fire protection provide a community wide risk management model.*

## IMPLEMENTING POLICIES

**PU-3-a** **Fire Prevention Inspections.** Develop strategies to enable the performance of annual fire and life safety inspection of all industrial, commercial, institutional, and multi-family residential buildings, in accordance with nationally recognized standards for the level of service necessary for a large Metropolitan Area, including a self-certification program.

**PU-3-b** **Reduction Strategies.** Develop community risk reduction strategies that target high service demand areas, vulnerable populations (e.g. young children, older adults, non-English speaking residents, persons with disabilities, etc.), and high life hazard occupancies.

**PU-3-c** **Public Education Strategies.** Develop strategies to re-establish and enhance routine public education outreach to all sectors of the community.

**PU-3-d** **Review Development Applications.** Continue Fire Department review of development applications, provide comments and recommend conditions of approval that will ensure adequate on-site and off-site fire protection systems and features are provided.

**PU-3-e** **Building Codes.** Adopt and enforce amendments to construction and fire codes, as determined appropriate, to systematically reduce the level of risk to life and property from fire, commensurate with the City's fire suppression capabilities.

**PU-3-f** **Adequate Infrastructure.** Continue to pursue the provision of adequate water supplies, hydrants, and appropriate property access to allow for adequate fire suppression throughout the City.

**PU-3-g** **Cost Recovery.** Continue to evaluate appropriate codes, policies, and methods to generate fees or other sources of revenue to offset the ongoing personnel and maintenance costs of providing fire prevention and response services.



- PU-3-h**      **Annexations.** Develop annexation strategies to include the appropriate rights-of-way and easements necessary to provide cost effective emergency services.
- PU-3-i**      **New Fire Station Locations.** Consideration will be given to co-locating new Fire Station facilities with other public property including, but not limited to, police substations, schools, parks, playgrounds, and community centers to create a synergy of participation in the neighborhood with the potential result of less vandalism and promotion of a better sense of security for the citizens using these facilities.

### 6.3 WASTEWATER COLLECTION AND TREATMENT

The City is the Regional Sewer Agency for the Fresno-Clovis Metropolitan Area. The City owns and maintains the wastewater collection system that serves the City and the other participating agencies: County of Fresno, City of Clovis (Clovis), Pinedale Public Utility District, and Pinedale County Water District. The City also owns and operates the Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF), located southwest of the city, and the North Fresno Water Reclamation Facility, located in northeast Fresno. The wastewater treatment and reclamation system includes: (1) collection and conveyance of wastewater; (2) treatment of raw wastewater; and (3) management of reclaimed water and bio solids. Aging infrastructure (collection and treatment), together with the need to pursue more advanced levels of reclamation and reuse are a concern over the long term, not only in the new growth areas but also in established neighborhoods and Downtown where increased density is planned.

The City's existing wastewater system, shown in Figure PU-1: Wastewater System is comprised of an extensive system of main lines, connection points, manholes, and lift stations. The collections pipelines consist of smaller diameter pipes (4 to 12 inches) serving individual properties, larger collection pipelines (13 to 33 inches) typically referred to as "oversized sewers," and sewer trunk interceptors (34 inches and larger) that convey sewage to the RWRF. The age and condition of the collection system varies considerably over the service area, with some pipelines dating back to the 1890s.

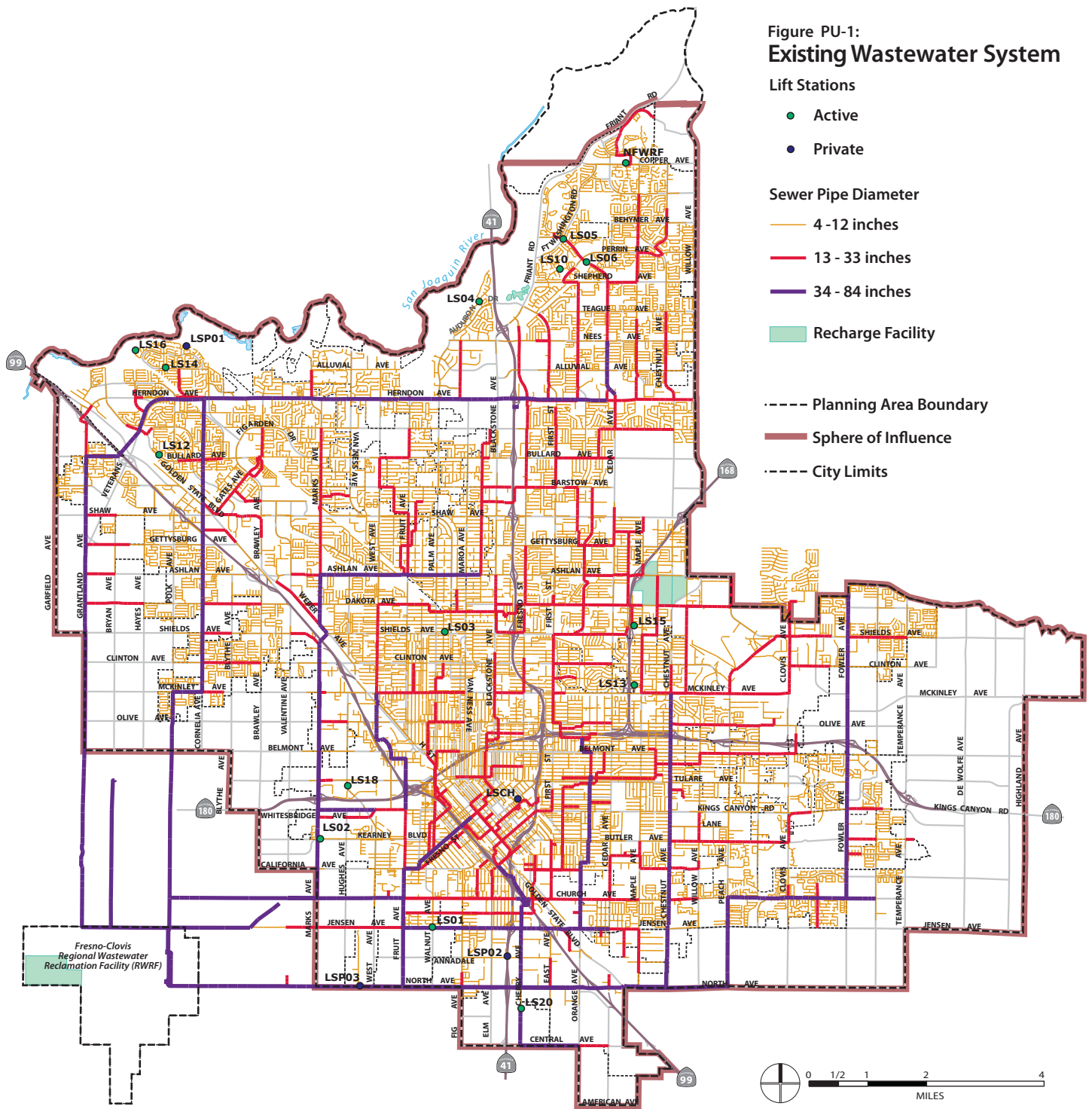
The City of Fresno Department of Public Utilities (DPU) manages a comprehensive sewer maintenance program in accordance with its Sewer System Management Plan. The DPU is also responsible for preparing the Fresno Wastewater Collection System Master Plan, last updated in 2006. The 2006 Fresno Wastewater Collection System Master Plan (2006 Master Plan) concluded that the collection system receives "no appreciable groundwater infiltration" and relatively small amounts of rainfall-dependent infiltration or inflow, except for older areas of the Downtown. The 2006 Master Plan

identified over 130 projects as necessary to accommodate the projected development anticipated by the 2025 Fresno General Plan; a greater number will be needed to serve development under this Plan.

The 2006 Master Plan anticipated that the RWRF would be operating at its full capacity, treating 80 million gallons of wastewater per day by 2010; however, the volume of wastewater has declined in recent years. Consequently, it is possible that the plant has sufficient capacity to accommodate growth for several years beyond what was previously anticipated. Nonetheless, the City is required by State statutes to begin planning for increased capacity when flows reach 75 percent of the current design capacity.

Wastewater presently receives primary (removal of materials that will float or settle) and secondary treatment (biological process to remove suspended and dissolved solids). Upon treatment, the wastewater is distributed to a series of infiltration ponds where it is allowed to percolate through the soil (which serves as another level of treatment). The City also conducts programs, such as a federally mandated Industrial Pretreatment Program, to prevent the introduction of pollutants into a publicly owned treatment works (collection system and treatment facilities) that could impact its infrastructure and pass through into receiving waters. Under the Industrial Pretreatment Program, industrial users are regulated through a Wastewater Discharge Permit that specifies discharge prohibitions and limitations. Failure to comply could result in penalties.

In addition, industries are billed for sewer depending on the amount of water used or effluent discharged and the strength of their wastewater measured as pounds of biochemical oxygen demand and pounds of total suspended solids. Reducing the strength of their wastewater to reduce sewer utility costs becomes an incentive for industrial users to improve their water quality and the amount of water used and/or discharged.



Source: City of Fresno, 2014

## OBJECTIVE

- PU-4** Ensure provision of adequate trunk sewer and collector main capacities to serve existing and planned urban development, consistent with the Wastewater Master Plan.

## IMPLEMENTING POLICIES

- PU-4-a** **Plan for Regional Needs.** Coordinate and consult with the City of Clovis, pursuant to the Fresno-Clovis Sewerage System Joint Powers Agreement, so that planning and construction of sewer collection facilities will continue to meet the regional needs of the Metropolitan Area.

- PU-4-b** **New Trunk Facilities.** Pursue construction of new or replacement sewer trunk facilities or other alternatives consistent with the Wastewater Master Plan to accommodate the uses as envisioned in this General Plan.

- PU-4-c** **System Extension and Cost Recovery.** Pursue enlargement or extension of the sewage collection system where necessary to serve planned urban development, with the capital costs and benefits allocated equitably and fairly between the existing users and new users.

*Commentary: Consistent with fiscal management policies and strategies in the Economic Development and Fiscal Sustainability Element, new users will be obligated to pay for the cost of being attached to the collection system through connection fees, including the cost of any incremental burden that they may place on the entire system, and pay for their share of operational and maintenance costs in addition to any costs for extraordinary facilities, such as lift stations or capacity enhancement measures, as authorized by law.*

- PU-4-d** **Capacity Modeling.** Continue development and utilization of citywide sewer flow monitoring and computerized flow modeling to determine availability of sewer collection system capacity to serve planned urban development.

*Commentary: Information about the availability of sewer collection system capacity will be a factor in evaluating proposed General Plan amendments, community plans, Specific Plans, neighborhood plans, and Concept Plans.*

- PU-4-e**      **Evaluate and Maintain Infrastructure.** Promote the health and safety of the community, and preserve the longevity and sound condition of the sewer collection system through evaluation and maintenance of the sewer infrastructure.
- Continue assessments of existing infrastructure and facilitate necessary repair to damaged and worn-out pipelines.
  - Continue routine sewer line maintenance and cleaning programs to prevent line blockages caused by root intrusion, grease buildup, and pipe failure.
  - Continue a sewer line replacement program and funding to repair or replace sewer lines damaged or worn beyond useful life.

#### OBJECTIVE

- PU-5**      Preserve groundwater quality and ensure that the health and safety of the entire Fresno community is not impaired by use of private, on-site disposal systems.

#### IMPLEMENTING POLICIES

- PU-5-a**      **Mandatory Septic Conversion.** Continue to evaluate and pursue where determined appropriate the mandatory abatement of existing private wastewater disposal (septic) systems and mandatory connection to the public sewage collection and disposal system.
- PU-5-b**      **Non-Regional Treatment.** Discourage, and when determined appropriate, oppose the use of private wastewater (septic) disposal systems, community wastewater disposal systems, or other non-regional sewage treatment and disposal systems within or adjacent to the Metropolitan Area if these types of wastewater treatment facilities would cause discharges that could result in groundwater degradation.
- PU-5-c**      **Satellite Facilities.** Work with the Regional Water Quality Control Board to ensure that approval of any satellite treatment and reclamation facility proposal is consistent with governing statutes and regulations.

#### OBJECTIVE

- PU-6**      Ensure the provision of adequate sewage treatment and disposal by utilizing the Fresno-Clovis Regional Wastewater Reclamation Facility as the primary facility, when economically feasible, for all existing and new development within the Metropolitan Area.

*Commentary:* Supplemental subregional facilities, such as the North Fresno Water Reclamation Facility, may also provide sewage treatment and disposal for new and existing development in the Metropolitan Area.

## IMPLEMENTING POLICIES

### PU-6-a

**Treatment Capacity and Cost Recovery.** Prepare for and consider the implementation of increased wastewater treatment and reclamation facility capacity in a timely manner to facilitate planned urban development within the Metropolitan Area consistent with this General Plan. Accommodate increase in flows and loadings from the existing community with the capital costs and benefits allocated equitably and fairly between existing users and new users, as authorized by law.

*Commentary:* Consistent with the fiscal management policies and strategies in the Economic Development and Fiscal Sustainability Element, new users will be obligated to pay for the cost of being attached to the treatment facility through connection fees, including the cost of any incremental burden that they may place on the entire system, and pay for their share of operational costs of extraordinary facilities such as satellite or “package” treatment plants, as authorized by law.

### PU-6-b

**Consider Capacity in Plan Amendments.** Monitor wastewater treatment plant flows and loadings to the extent feasible. Consider the effects on wastewater treatment capacity and availability of potable water when evaluating proposed General Plan amendment proposals, community plans, Specific Plans, neighborhood plans, and Concept Plans.

## OBJECTIVE

### PU-7

Promote reduction in wastewater flows and develop facilities for beneficial reuse of reclaimed water and biosolids for management and distribution of treated wastewater.

## IMPLEMENTING POLICIES

### PU-7-a

**Reduce Wastewater.** Identify and consider implementing water conservation standards and other programs and policies, as determined appropriate, to reduce wastewater flows.

- PU-7-b**      **Reduce Stormwater Leakage.** Reduce storm water infiltration into the sewer collection system, where feasible, through a program of replacing old and deteriorated sewer collection pipeline; eliminating existing stormwater sewer cut-ins to the sanitary sewer system; and avoiding any new sewer cut-ins except when required to protect health and safety.
- PU-7-c**      **Biosolid Disposal.** Investigate and consider implementing economically effective and environmentally beneficial methods of biosolids handling and disposal.
- PU-7-d**      **Wastewater Recycling.** Pursue the development of a recycled water system and the expansion of beneficial wastewater recycling opportunities, including a timely technical, practicable, and institutional evaluation of treatment, facility siting, and water exchange elements.
- Commentary:** This policy corresponds with Policy RC-6-d in the Resource Conservation and Resilience Element.*
- PU-7-e**      **Infiltration Basins.** Continue to rehabilitate existing infiltration basins, and if determined appropriate, pursue acquiring additional sites for infiltration basins, as needed.
- PU-7-f**      **Food and Drink Industry.** Ensure adequate provision of facilities for the appropriate management of wastewater from wineries and food processing and beverage facilities, including conformance with Waste Discharge Requirements issued by the Regional Water Quality Control Board.

## 6.4 WATER

The quality, treatment, and conveyance of potable water in Fresno are a critical responsibility of the DPU – Water Division, and objectives and policies in this section support this obligation. The Resource Conservation and Resilience Element addresses the long-term supply of water resources, and the Urban Form, Land Use, and Design Element includes policies restricting the extension of water supply only to planned development in Development Areas that are consistent with this Plan.

The Water Division provides potable water to the majority of the city and some users within the City's SOI with the exception of the Bakman Water Company, Pinedale County Water District, Park Van Ness Mutual Water Company, and California State University, Fresno. Fresno's primary source of potable water is groundwater stored in

an aquifer. However, in 2004 the City's first Surface Water Treatment Facility (SWTF) came on line and began delivering on average 27,000 acre feet/year to residents in northeast Fresno.

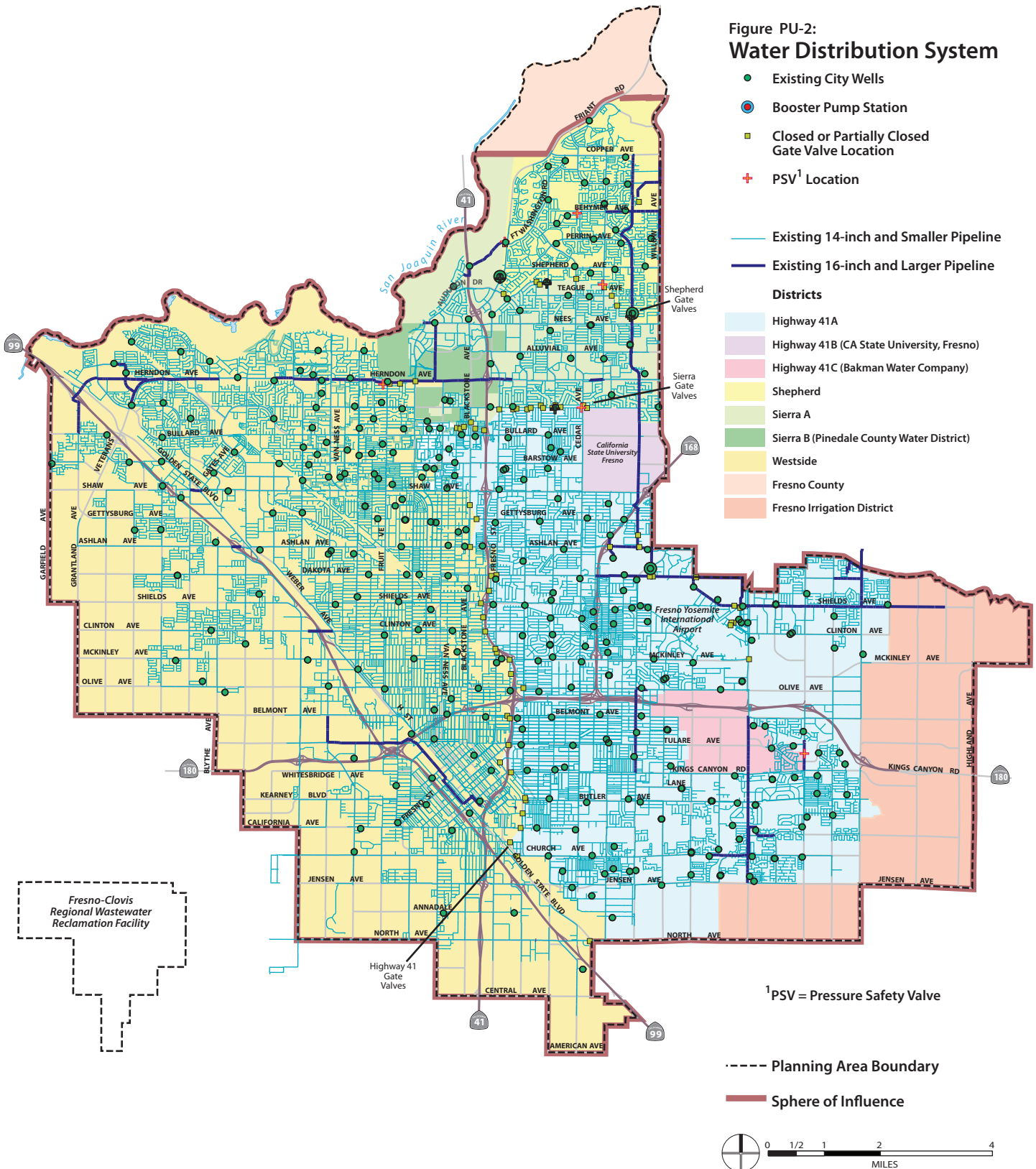
The City's existing water distribution system is quite old and is shown in Figure PU-2: Water Distribution System. Nearly 35 percent of the 1,780-mile distribution system is over 50 years old, with another 34 percent ranging between 25 and 50 years old. There is a marginal pipeline replacement plan and a limited budget to replace this aged infrastructure. Most of the aged infrastructure is in the older parts of the community, including the Downtown. When the pipes fail, there is usually extensive damage to adjacent roadway and wet and dry utilities. This can cause disruption of service and costly cleanup. Based on historic City cost data, catastrophic failure costs 3 to 5 times more than planned replacement.

Groundwater within the Kings Subbasin generally meets primary and secondary drinking water standards for municipal water use. However, the groundwater basin is threatened by chemical contaminants that affect the City's ability to fully use the groundwater basin resources without some type of wellhead treatment in certain areas. Many different types of chemical pollutants have contaminated portions of the Upper Kings Subbasin underlying the city's water service area, as shown in Figure PU-3: Existing Regional Groundwater Contamination. Some of the major contaminant plumes include 1,2-Dibromo-3-Chloropropane (DBCP); ethylene dibromide (EDB); 1-2-3 trichloropropane (TCP); and other volatile organic compounds (VOCs) including trichlorethylene (TCE), tetrachloroethylene (PCE), nitrate, manganese, radon, chloride, and iron.

There are also several major contaminate point sources. In fact, about half of the city's water service area has some form of groundwater contamination; only areas in the northwest appear to be relatively unaffected by regional groundwater contamination. Of the City's 272 currently active wells, 96 wells are impacted by a single contaminant plume, 33 wells are impacted by a pair of contaminant plumes, and 5 wells are impacted by 3 contaminant plumes. Currently, 34 of the City's wells have wellhead treatment systems. With this in mind, the General Plan includes specific policies to address groundwater contamination.

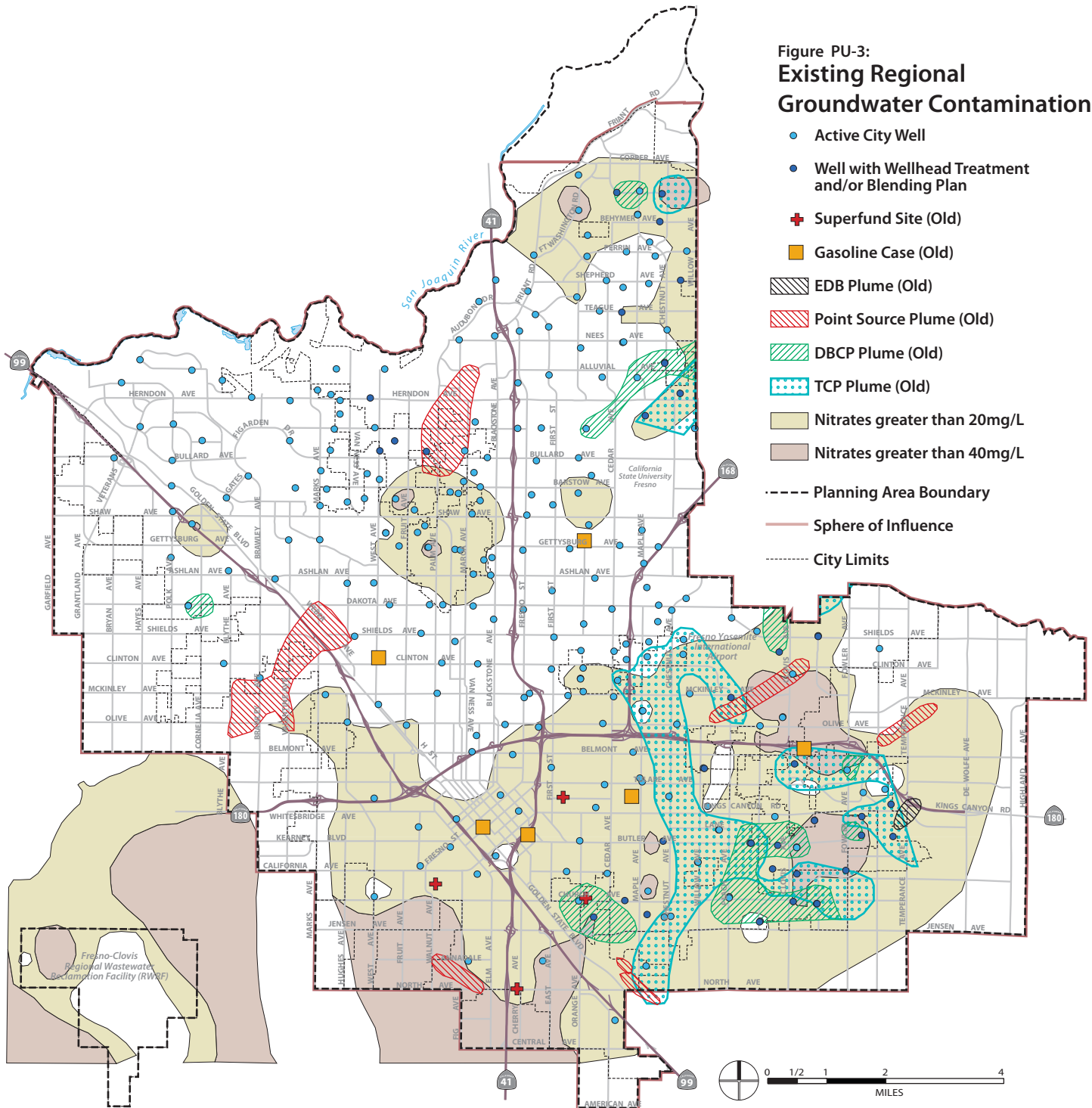


Figure PU-2:  
Water Distribution System



Source: City of Fresno, DPU Dept., 2014

- Active City Well
- Well with Wellhead Treatment and/or Blending Plan
- + Superfund Site (Old)
- Gasoline Case (Old)
- ▨ EDB Plume (Old)
- ▨ Point Source Plume (Old)
- ▨ DBCP Plume (Old)
- TCP Plume (Old)
- Nitrates greater than 20mg/L
- Nitrates greater than 40mg/L
- Planning Area Boundary
- Sphere of Influence
- City Limits



**Note: This map does not include all of the known plumes in the Planning Area Boundary, but represents the City of Fresno's efforts during 2006 to document the location of most of the known plumes as part of an update to the City's Water Resource Management Plan.**

## OBJECTIVE

- PU-8** Manage and develop the City's water facilities on a strategic timeline basis that recognizes the long life cycle of the assets and the duration of the resources, to ensure a safe, economical, and reliable water supply for existing customers and planned urban development and economic diversification.

## IMPLEMENTING POLICIES

- PU-8-a** **Forecast Need.** Use available and innovative tools, such as computerized flow modeling to determine system capacity, as necessary to forecast demand on water production and distribution systems by urban development, and to determine appropriate facility needs.

- PU-8-b** **Potable Water Supply and Cost Recovery.** Prepare for provision of increased potable water capacity (including surface water treatment capacity) in a timely manner to facilitate planned urban development consistent with the General Plan. Accommodate increase in water demand from the existing community with the capital costs and benefits allocated equitably and fairly between existing users and new users, as authorized by law, and recognizing the differences in terms of quantity, quality and reliability of the various types of water in the City's portfolio.

***Commentary:** Consistent with fiscal management policies and strategies in the Economic Development and Fiscal Sustainability Element, new users will be obligated to pay for the cost of being attached to the potable water supply and distribution system and surface water treatment through connection fees, including the cost of any incremental burden that they may place on the entire system in terms of both infrastructure and water resources, and pay for the full operational costs of extraordinary facilities, as authorized by law.*

- PU-8-c** **Conditions of Approval.** Set appropriate conditions of approval for each new development proposal to ensure that the necessary potable water production and supply facilities and water resources are in place prior to occupancy.

- PU-8-d** **CIP Update.** Continue to evaluate Capital Improvement Programs and update them, as appropriate, to meet the demands of both existing and planned development consistent with the General Plan.

- PU-8-e**      **Repairs.** Continue to evaluate existing water production and distribution systems and plan for necessary repair or enhancement of damaged or antiquated facilities.
- PU-8-f**      **Water Quality.** Continue to evaluate and implement measures determined to be appropriate and consistent with water system policies, including prioritizing the use of groundwater, installing wellhead treatment facilities, constructing above-ground storage and surface water treatment facilities, and enhancing transmission grid mains to promote adequate water quality and quantity.
- PU-8-g**      **Review Project Impact on Supply.** Mitigate the effects of development and capital improvement projects on the long-range water budget to ensure an adequate water supply for current and future uses.

## 6.5 SOLID WASTE

This section addresses land use compatibility, public sanitation, and aesthetic impacts associated with the City's solid waste management and community sanitation practices. The following objectives and policies will ensure a consistent, citywide level of service for refuse collection, neighborhood cleanup, sanitation enforcement, and recycling programs.

Existing waste disposal facilities are adequate to maintain a sufficient level of service for future population growth in the city over the planning period for this Plan. The DPU - Solid Waste & Recycling Division develops performance measures yearly to determine the pounds of waste, recycling and composting generated by each household, business, and multi-family unit and updates estimates of future waste generation with the latest growth projections.

The City is currently excelling at solid waste diversion, which is the system of moving solid waste away from landfills and into recycling and composting programs. Diversion conserves limited landfill space, keeps toxic chemicals and materials from contaminating landfills, and enhances the re-use of materials. In 2009, Fresno was ranked highest in the State among larger cities by the California Integrated Waste Management Board for diverting 71 percent of its solid waste. A Fresno City Council resolution committed the City to the goal of a 75 percent Waste Diversion Rate by 2012 and a Zero Waste goal by 2025. The City is still on track for the 2025 Zero Waste goal while the Waste Diversion Rate by 2012 has been delayed. The City was on track to meet the 75 percent goal by 2012, but budget constraints in 2011 prevented the goal from being met in that year.





*Annual Neighborhood Cleanup*



*Cleaning of the Fulton Mall*



*Department of Public Utilities Waste Hauling Equipment*



*The "Claw" is used in property cleanup and maintenance*

In 2005, the City adopted a Construction and Demolition Diversion ordinance to encourage and provide for the diversion of commercial materials and construction and demolition material from landfill disposal. Recycling of construction and demolition is required for any City-issued building, relocation or demolition permitted project that generates at least eight cubic yards of material by volume. All waste must be hauled to a City-approved facility.

The DPU - Solid Waste & Recycling Division provides residential waste collection service to the city of Fresno. In December 2011, exclusive franchises for commercial solid waste were approved (the system was privatized) and this service is no longer provided by the DPU - Solid Waste & Recycling Division.

## OBJECTIVE

**PU-9** Provide adequate solid waste facilities and services for the collection, transfer, recycling, and disposal of refuse.

## IMPLEMENTING POLICIES

**PU-9-a** **New Techniques.** Continue to collaborate with affected stakeholders and partners to identify and support programs and new techniques of

solid waste disposal, such as recycling, composting, waste to energy technology, and waste separation, to reduce the volume and toxicity of solid wastes that must be sent to landfill facilities.

**PU-9-b**      **Compliance with State Law.** Continue to pursue programs to maintain conformance with the Solid Waste Management Act of 1989 or as otherwise required by law and mandated diversion goals.

**PU-9-c**      **Cleanup and Nuisance Abatement.** Continue and enhance, where feasible, community sanitation programs that provide services to neighborhoods for cleanup, illegal dumping, and nuisance abatement services.

**PU-9-d**      **Facility Siting.** Locate private or public waste facilities and recycling facilities in conformance with City zoning and State and federal regulations, so that the transportation, processing, and disposal of these materials are not detrimental to the public health, safety, welfare, and aesthetic well-being of the surrounding community.

*Commentary: Following Council direction, facility siting provisions in Development Code will take into account proximity to residential development, access to transportation, density and separation requirements.*

**PU-9-e**      **Tire Dumping.** Adopt and implement, as determined appropriate, measures to eliminate illegal tire dumping.

**PU-9-f**      **Household-Generated Hazardous Waste and Hazardous Waste Facilities.** Allow for household-generated hazardous waste and hazardous waste facilities, which are planned and zoned for Heavy Industrial uses, only after CEQA review, environmental assessments, and approval of a Conditional Use Permit.

## 6.6 DISADVANTAGED UNINCORPORATED COMMUNITIES

California State law requires that local municipalities identify any Disadvantaged Unincorporated Communities (DUCs) within their SOI, analyze the infrastructure needs (including water, wastewater, stormwater drainage, and structural fire protection) of the DUC, and evaluate potential funding mechanisms to make service extension feasible. Disadvantaged Unincorporated Communities are defined as settled places not within

city limits where the median household income is 80 percent or less than the statewide median household income.<sup>1, 2</sup>

In compliance with State law, the City will identify all DUCs within the SOI and perform the required infrastructure analysis to coincide with its next Housing Element Update.

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<sup>1</sup> State of California Office of Planning and Research. *Technical Advisory to SB 244*.

<sup>2</sup> Flegal, C., Rice, S., Mann, J., & Tran, J. *California Unincorporated: Mapping Disadvantaged Communities*. PolicyLink, 2013

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