

**TO:** James L. App, City Manager  
**FROM:** Doug Monn, Public Works Director  
**SUBJECT:** Sewer System Management Plan  
**DATE:** October 20, 2009

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**NEEDS:** For the City Council to approve a Sewer System Management Plan.

**FACTS:**

1. On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted General Waste Discharge Requirements (WDRs) for all publicly-owned wastewater systems in California with more than one mile of sewer pipe. The goal of the WDRs is to provide a consistent statewide approach for reducing sanitary sewer overflows (SSOs). The City is enrolled under the WDRs.
2. Typical causes of SSOs include grease blockages, root blockages, sewer line damage, manhole structure failures, pump station failures, power outages, and other issues. Many SSOs are preventable with appropriate facilities, source control measures, and preventative maintenance.
3. The primary requirement of the WDRs is to develop a Sewer System Management Plan (SSMP) with provisions to provide proper and efficient management, operation, and maintenance of the sewer systems, including consideration of risk management and cost/benefits. Additionally, the SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
4. There are eleven required elements in an SSMP:
  - Goals
  - Organization
  - Legal Authority
  - Operation and Maintenance Program
  - Fats, Oils, and Grease Program
  - Overflow Emergency Response Plan
  - Design and Performance Provisions
  - System Evaluations and Capacity Assurance Plan
  - Monitoring, Measurement, and Program Modifications
  - SSMP Program Audits
  - Communication Program
5. The City Council approved the first two SSMP elements (Goals and Organization) and a SSMP development plan and schedule on October 17, 2007. City staff has since developed the remaining nine elements, which are contained in the attached SSMP.

6. According to the WDRs, the SSMP must be presented to the City Council for approval at a public meeting.

**ANALYSIS &  
CONCLUSIONS:**

The purpose of the SSMP is to reduce or eliminate SSOs and thereby improve water quality and public health. That purpose is consistent with the City's Integrated Water Resource Management Plan.

Since the City Council approved the SSMP goals and organization in 2007, the City has taken many steps to improve sewer system management, including:

- Hiring an Industrial Waste Manager to implement a fats, oils, and grease (FOG) control program;
- Purchasing a root control system, sewer video system, and combination sewer cleaner/vacuum truck;
- Systematic and aggressive cleaning of the entire sewer system, in addition to frequent cleaning of High Maintenance Areas; and,
- Rehabilitation and replacement of old and problematic sewers.

The SSMP integrates many ongoing City activities into one formal document. The SSMP is also a road map for future improvements to sewer system management. For example, the SSMP states the City will purchase a sewer system operation and maintenance database in Fiscal Year 2010/11. This database will receive sewer video data and aid staff in prioritizing collection system rehabilitation and replacement projects.

The SSMP is meant to evolve over time. City staff will measure sewer system performance and make any necessary changes to the SSMP every two years. Significant changes must be reviewed and approved by the City Council.

The SSMP is separate from, but complementary to, the revised sewer ordinance City Council considered on October 6, 2009. The sewer ordinance provides the legal authority staff requires to properly implement the SSMP. At the October 6 hearing of the revised sewer ordinance, City Council requested staff explore, and present options to 1) provide water conditioning system improvement incentives for businesses and residences, 2) limit residential softeners in new construction and during property transfer, and 3) allow communal/shared grease traps. These items will be the subject of a future report.

**FISCAL  
IMPACT:**

The SSMP elements have already been incorporated into existing City budgets. Consequently, City staff does not expect SSMP approval to cause a significant fiscal impact.

- OPTIONS:**
- a. Adopt Resolution 09-XX to approve the SSMP,
  - b. Amend or modify the option above.

Attachments: 1) Resolution, 2) SSMP dated October 2009

Prepared by: Matt Thompson, Wastewater Division Manager

RESOLUTION NO. 09-XX

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES  
APPROVING THE SEWER SYSTEM MANAGEMENT PLAN

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WHEREAS, the State Water Resources Control Board (State) adopted General Waste Discharge Requirements (WDRs) for all publicly-owned wastewater systems in California with more than one mile of sewer pipe; and

WHEREAS, the City is enrolled under the WDRs; and

WHEREAS, the WDRs require the development of a Sewer System Management Plan (SSMP) to reduce the occurrence of sewage spills; and

WHEREAS, the City Council approved the SSMP goals, organization, and implementation schedule by resolution in October 2007; and

WHEREAS, the City has prepared the attached SSMP to comply with the WDRs; and

WHEREAS, the WDRs require the SSMP to be considered at a public hearing and approved by the governing agency.

THEREFORE, BE IT RESOLVED AS FOLLOWS:

SECTION 1. The City Council of the City of El Paso de Robles does hereby approve the attached SSMP.

PASSED AND ADOPTED by the City Council of the City of Paso Robles this 20th day of October 2009 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

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Duane Picanco, Mayor

ATTEST:

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Cathy M. David, Deputy City Clerk



# **Sewer System Management Plan**

October 2009

Prepared by  
Patti Gwathmey, Chris Slater, Matt Thompson  
City of El Paso de Robles Public Works Department  
Wastewater Division

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## **INTRODUCTION**

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### Legal Requirements

On May 2, 2006, the State Water Resources Control Board (SWRCB) enacted Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR). The WDR requires any public agency that owns or operates a sanitary sewer system (hereafter “sewer system” or “collection system”) more than one mile in length that conveys treated or partially treated wastewater to a Publicly Owned Treatment Works (POTW) in the State of California, comply with the requirements of the WDR in order to reduce the number of Sanitary Sewer Overflows (SSOs).

Under this WDR, agencies must electronically report SSOs to the State Water Resources Control Board and develop a Sewer System Management Plan (SSMP) which describes how each agency operates, maintains, and evaluates its sewer system.

The City of Paso Robles (City) owns and operates 123 miles of sewers and 14 lift stations which provide service to over 29,000 customers. Sewage is conveyed to a wastewater treatment plant at the north end of the City, adjacent to the Salinas River. The City has agreements to accept wastewater from the Templeton Community District Services and the California Department of Corrections and Rehabilitation (formerly California Youth Authority), for the currently mothballed El Paso de Robles Boys School. Both of these entities own and maintain their collection system up to the point of discharge to the interceptors that are owned and maintained by the City. Neither of these entities is included in this SSMP.

### Sewer System Management Plan Requirements

The City submitted a Notice of Intent for coverage under the WDR and has developed this SSMP per the requirements of the WDR. This SSMP identifies how the City complies or implements the following WDR elements:

1. Goal
2. Organization
3. Legal Authority
4. Operation and Maintenance Program
5. Design and Performance Provisions
6. Overflow Emergency Response Plan
7. FOG Control Program
8. System Evaluation and Capacity Assurance Plan
9. Monitoring, Measurement, and Program Modifications
10. SSMP Program Audits
11. Communication Program

The City currently implements a variety of programs that meet the WDR objectives and are consistent with the specific requirements of the SSMP. The sections of this SSMP are organized to correspond with the 11 elements listed above. The SSMP integrates many ongoing City activities into one formal document. Some of these activities are described in greater detail in other documents that are referenced in the SSMP. The applicable documents are kept at the Wastewater Treatment Plant. This SSMP is available to the public at:

<http://www.prcity.com/government/departments/publicworks/wastewater/index.asp>

## SSMP ELEMENTS

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### Goals

**WDR Requirement:** The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

The City Council adopted the following SSMP goals by resolution in October 2007:

1. Decrease the occurrence of reportable SSOs by one-third (1/3) from pre-SSMP levels. City staff intends to meet this goal by October 2011.
2. Prevent public health hazards through proper notification, emergency response and spill containment and clean up procedures.
3. Minimize inconveniences by responsibly handling interruptions in service.
4. Protect the City's large investment in sewer systems by maintaining adequate capacities and extending useful life.
5. Prevent unnecessary damage to public and private property by coordinating with property owners, business operators, contractors, and other parties utilizing the City's sewer system.
6. Use available funds for sewer operations in the most efficient manner. Identify, prioritize, and renew and replace sewer system facilities according to the approved Capital Improvement and Integrated Water Resources Plans.
7. Convey wastewater to treatment facilities with minimum infiltration, inflow and exfiltration.
8. Provide adequate capacity within the sewer system, including peak flows, through review of development plans and other associated plans which may affect the City's sewer system capacity.
9. Perform operations in a safe manner to avoid personal injury or property damage.
10. Be available and responsive to the needs of the public, and work cooperatively with local, state and federal agencies to reduce, mitigate and properly report SSOs.
11. Implement regular scheduled maintenance of the sewer system to remove roots, debris, sand, and Fats, Oils and Greases (FOG) in areas prone to blockages that may cause SSOs or sewer backups.



## Organization

**WDR Requirement:** The SSMP must identify:

- (a) The name of the responsible or authorized representative as described in Section J of the WDR.
- (b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
- (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

The Wastewater Division is part of the City Public Works Department. The Wastewater Division is responsible for administration and implementation of the SSMP. The Division includes Industrial Waste, Wastewater Plant Operations and Collections. Although the Collection Operators are responsible for the daily maintenance and response to SSOs during regular work hours, the Wastewater Operators respond to SSOs after hours and on the weekend when on standby. Figure 1 shows the organization of the Division.

- (a) ***The name of the responsible or authorized representative as described in Section J of the WDR.***

The authorized representative or Legally Responsible Official (LRO) for the implementation and administration of the City's SSMP and for completing and certifying spill reports electronically is Chris Slater, Wastewater Supervisor (Supervisor).

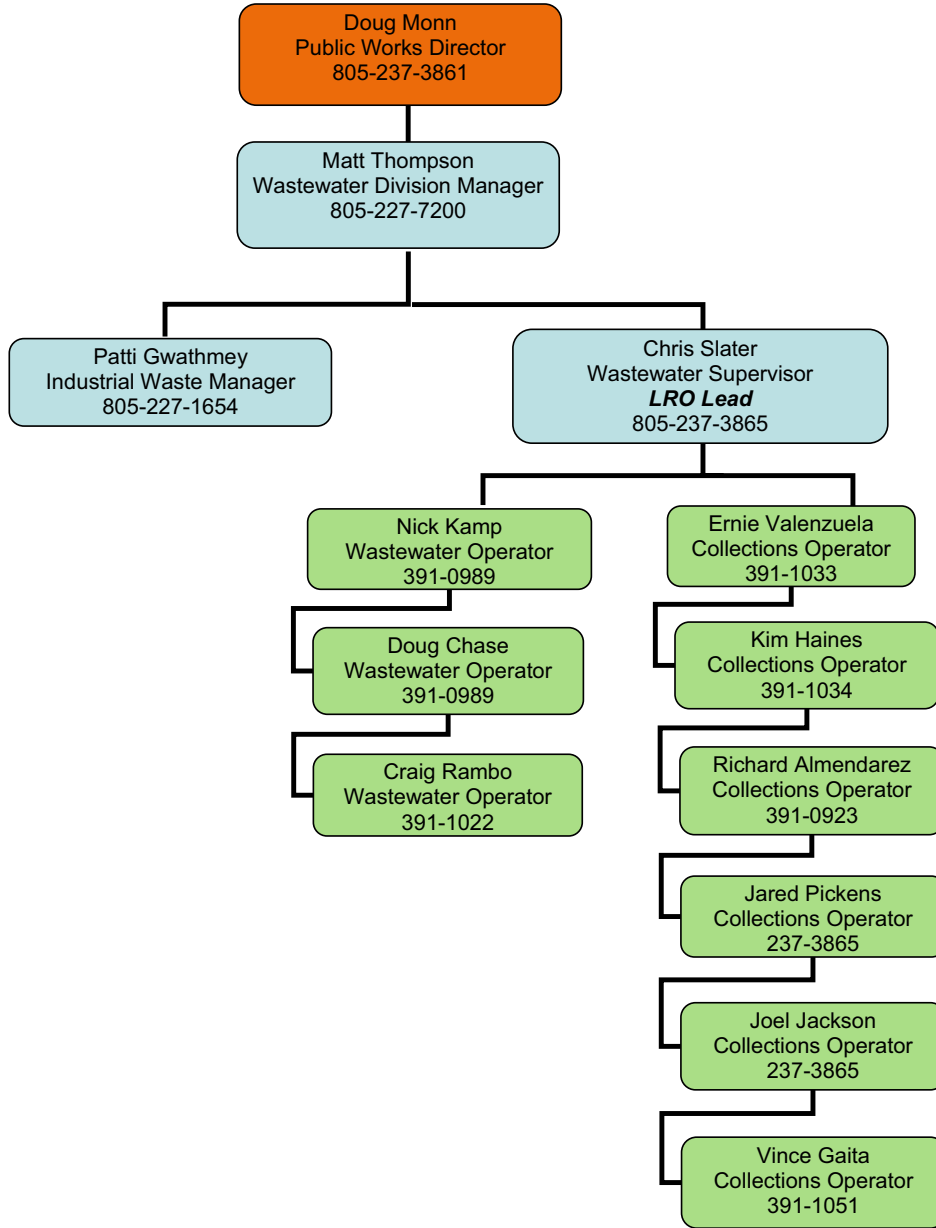
- (b) ***The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and***

Figure 1 is the organization chart for the Wastewater Division. Table 1 lists the responsible person for implementing the specific measures in the SSMP program.

- (c) ***The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).***

Figure 2 shows the City's chain of communication and responsible staff for receiving reports, responding to SSOs, notifying the proper authorities and for reporting and certifying the spills electronically.

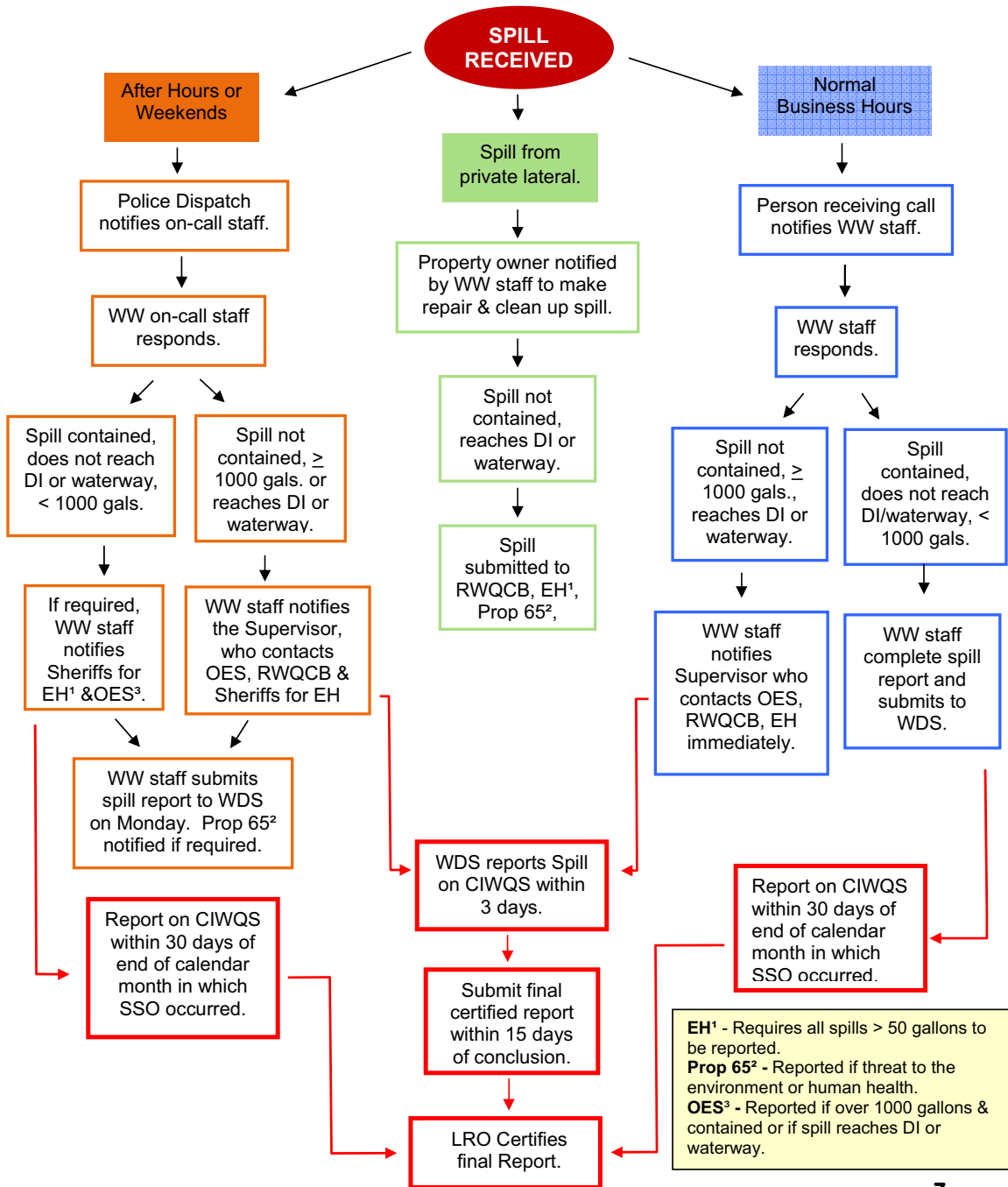
Figure 1: Wastewater Department Organizational Chart



**Table 1: Implementation Responsibility**

Element	Responsible Person(s)
Goals	The Public Works Director and Wastewater Division Manager are responsible for developing the goals of the Wastewater Division and this SSMP.
Organization	The Wastewater Division Manager is responsible for updating the organizational structure, SSMP implementation assignments, and chain of communication, as needed.
Legal Authority	Wastewater Division Manager, Industrial Waste Manager
Operations and Maintenance Program	Wastewater Supervisor
FOG Control Program	The Wastewater Supervisor is responsible for identifying grease hot spots, maintaining an effective cleaning program for grease problem sewers. The Industrial Waste Manager is responsible for inspecting grease traps/interceptors that have been installed and for enforcing discharge regulations, as needed.
Overflow Emergency Response Plan	The Wastewater Supervisor is responsible for implementation of the Overflow Emergency Response Plan, including revisions to the plan and annual trainings for maintenance staff.
Design and Performance Provisions	The Wastewater Division Manager, Wastewater Supervisor and the Capital Projects Engineer are responsible for reviewing design and construction documents to ensure that all construction projects meet the City standards. The City Engineer is responsible for updating standards for installation, rehabilitation and repair, as needed. The Wastewater Supervisor or his designee are responsible for the inspection of construction projects to ensure City standards have been followed.
System Evaluation and Capacity Assurance Plan	Wastewater Division Manager, Wastewater Supervisor
Monitoring, Measurement and Program Modifications	Wastewater Division Manager, Wastewater Supervisor
SSMP Audits	Wastewater Division Manager
Communication Program	Wastewater Division Manager, Wastewater Supervisor

Figure 2: SSO Response and Reporting



## Legal Authority

**WDR Requirement:** Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- (a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);
- (b) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, storm water, chemical dumping, unauthorized debris and cut roots, etc.);
- (c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
- (d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages; and
- (e) Enforce any violation of its sewer ordinances.

The City's sewer use ordinance provides City staff with authority to enforce all of the above. Chapter 14.08, Sewerage System Operations, addresses construction of sewers, connection to City sewers, prohibitions, and limitations on discharges to the sewer system. Chapter 14.10 addresses discharges of industrial waste. The local limits in Chapter 14.10 are to protect the longevity of the City's sewer system, as well as prevent pass-through and interference by pollutants at the wastewater treatment plant.

**Deleted:** The ordinance is currently being revised to clarify and remove redundant language, and separate industrial waste provisions into another chapter. The revised ordinance will be considered for adoption by the City Council in October 2009.

The City has sewer connection agreements with the Templeton Community Services District (TCSD) and the California Department of Corrections and Rehabilitation (formerly California Youth Authority) to accept and treat wastewater from these two entities. The agreement with TCSD includes a wastewater quality section which requires the District to develop, implement and enforce source control and pretreatment programs and to conduct routine monitoring of their effluent prior to mixing with wastewater from the City.

- a) **Prevent illicit discharges into its sanitary sewer system (examples may include I/I, storm water, chemical dumping, unauthorized debris and cut roots, etc.)**

The City's sewer use ordinance sets limitations and prohibitions on wastewater discharges to protect the collection system, workers and treatment plant.

The City is implementing an Industrial Waste Program, to control certain commercial and industrial facility dischargers that have the potential to have an adverse effect the collection system or the wastewater treatment plant.

The City uses Closed Circuit Television to inspect City sewer mains after routine cleaning. During the inspections the lines are graded. Lines that have inflow/infiltration (I/I), exhibit high flow, or operational failure are identified. Lines that have problems that may cause a blockage or SSO are placed on a High Maintenance Areas (HMA) list. Sewer system sections on the HMA list receive frequent cleaning or maintenance so as to prevent SSOs.

**(b) Require that sewers and connections be properly designed and constructed**

The City's sewer use ordinance.

1. States that "no person shall uncover, make any connections with or opening into, use, alter or disturb and public sewer or appurtenance, or perform any work on any plumbing or drainage system with the City's public right-of-way, without first obtaining a written permit from the City."
2. Outlines the requirements for the construction of and connection to the City sewer.

See Design and Performance Provisions below.

**(c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency.**

The City does not maintain private lateral sewer lines. The City's sewer use ordinance states "Building sewers shall be maintained by the owner of the property served thereby." City easements are in place where City owned sewer appurtenances are located on private property to ensure that City staff can perform the necessary maintenance, inspection, and repairs.

**(d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages.**

The City began implementing a Fats, Oils, and Grease (FOG) Program in June 2008. The program consists of annual inspections to ensure that grease removal devices are installed, properly maintained, and that waste FOG is properly disposed of.

The City's sewer use ordinance:

1. Limits discharges to 100 mg/L Oil and Grease.
2. Provides City the authority to supplement with the ordinance with more stringent limitations and prohibitions if necessary.
3. Requires grease interceptors be installed at food facilities. Grease interceptors must be sized and installed per the California Plumbing Code.
4. Provides City staff authority to require property owners to install upgraded equipment if the existing removal device does not adequately remove FOG.

**(e) Enforce any violation of its sewer ordinances.**

The City's sewer use ordinance:

1. Outlines penalties for not connecting to the City sewage facilities in the manners provided in the City Code.

2. Gives the Director of Public Works the authority to administer, implement, and enforce policies and standards necessary to protect the City facilities. Enforcement procedures in this section include notice of violation, administrative compliance order, cease and desist order, termination of service, civil and criminal penalties.
3. Gives the Director of Public Works the authority to inspect facilities and sample the wastewater discharged to the City sewer to ensure compliance with the provisions of the sewer code, requirements of the industrial wastewater discharge permit and all applicable federal and state laws and regulations. In addition, the city may enter a user's property at any hour under emergency circumstances involving the city's sewerage system. The city shall have the right to set up on the user's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations.

### Operation and Maintenance Program

**WDR Requirement:** The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

- (a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities;
- (b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
- (c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
- (d) Provide training on a regular basis for staff in sanitary sewer system operations and
- (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

The City has a variety of preventative maintenance programs in place to reduce the number of SSOs from the sewer system including Area and High Maintenance Cleaning, root control, CCTV, and lift station maintenance. These programs allow for the Collections staff to continually evaluate the system.

- (a) **Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes, valves and applicable storm water conveyance facilities;**

City staff uses a detailed map book which shows the features of the collection system such as pipe material, elevations and manhole numbers. Collections staff make necessary corrections when discrepancies are found. Staff meet weekly to update each staffs' map book to ensure all the books are current with any changes, including new or rehabilitated sewers. City staff is currently mapping the collection system in Geographic Information System (GIS). The City is working towards electronic mapping using layers of data, linked databases and reports. Collection staff will regularly communicate collection system changes to the City's GIS specialist for inclusion into the map program.

- (b) **Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance program should have a system to document scheduled and conducted activities, such as work orders;**

The City uses two maintenance programs in conjunction for scheduling and tracking maintenance and tracking field data. . The first program is Oasis which is used for field data collection on lines, manholes, cleaning, root control, High Maintenance Areas, rodding, and Closed Circuit Television (CCTV). The other program used is Maintenance Plus. Using the maintenance manuals guide, experience, past performance, manufacturer's recommendations and site-specific conditions, tasks are scheduled and completed and catalogued by work orders in the maintenance management of the Plus program.

#### Preventative Maintenance

The two main preventative maintenance programs are Area Cleaning and High Maintenance Areas (HMAs). The HMA program includes areas of the sewer system that are known to have problems such as the build-up of sediment or FOG, or roots or have experienced SSOs. HMAs are scheduled for monthly, quarterly, semi-annual, or annual cleaning depending on the severity of the problem. The remainder of the system is maintained under the Area Cleaning program. The City's goal is to clean the entire system once every two years. Cleaning is done using the Jetter or the Combo Hydro-Vac and includes high velocity cleaning, mechanical and manual rodding.

#### CCTV

The City purchased a new CCTV Van in 2008. CCTV is used after lines are cleaned to assure that the line was properly cleaned and to inspect the condition of the line. Staff grade the lines for cleaning efficiency and condition. CCTV inspection records are reviewed to identify deficiencies. Lines that exhibit high flow levels or operational failures are identified. Further reviews determine the cause and/or immediate or accelerated corrective actions. Lines with problems are placed on the HMA list. HMA cleaning or maintenance frequency depends on the severity of the problem.



CCTV is also performed after an SSO to identify any necessary repairs or special maintenance needs.

Fats, Oils, and Grease Cleaning

Areas that are known to have FOG problems are included on the HMA list for increased attention to prevent the occurrence of overflows. Rodding of the lines is also used where there is heavy build up in the lines.

Root Control

In 2008 the City purchased a trailer mounted vapo-rooting machine for foaming lines for root control. Root related problems have decreased.

Lift Station Maintenance

City staff inspects each lift station 365 days a year. One staff person is scheduled daily for inspection and maintenance repair. Pump and related equipment are scheduled for maintenance based on the manufacturers recommended schedule.

All lift stations have duplex or triplex pumping systems. All lift stations either have built-in backup emergency or capability to plug in portable emergency power. All lift stations are equipped with Supervisory Control and Data Acquisition (SCADA) systems to alert city staff of problem conditions.

- (c) **Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;**

Short term

By obtaining CCTV equipment, City staff is now collecting valuable information about the actual condition of collection system sections. Through the process described above, collection system sections are placed on an HMA list. In Fiscal Year 2009/10, the City will rehabilitate or replace all HMA's on the west side of the City. In Fiscal Year 2010/11, City staff intends to rehabilitate or replace all HMA's on the east side of the City.

Long term

The City is moving towards a modern sewer system asset management program. Mapping of the City's collection system assets in GIS facilitates valuation of the City's sewer system assets. The City has retained Kennedy/Jenks consultants to prepare a wastewater rate study. As part of the study, Kennedy/Jenks is determining the value and necessary depreciation cost of the entire collection system. Assuming the City can successfully establish a new wastewater rate, the City will have adequate revenue for regular sewer system rehabilitation and replacement. The City plans to purchase a

collection system operation and maintenance database in Fiscal Year 2010/11. This database will receive CCTV data and aid staff in prioritizing collection system rehabilitation and replacement projects.

**(d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained;**

Training is an important aspect in the Wastewater Division and a training budget exists to ensure all Wastewater staff are properly trained. New staff receive on-the-job training specific to the collection system and maintenance equipment used. Wastewater staff also attend outside workshops whenever possible. Grade Certification in Collection System Maintenance is encouraged as well as self improvement training through online courses. On-the-job cross training is actively pursued to ensure that each staff has proficient working knowledge of each and every specific part of a task.

All staff are trained on new equipment by the contractor or manufacturer. Equipment manuals are reviewed by staff for maintenance and operational parameters.

The City provides much of the required safety training through the California Joint Powers Insurance Authority (CJPIA) and outside training workshops. Staff receive training in Confined Space Entry, Hazardous Materials Management, and First Aid and CPR. Training includes formal classroom training, informal on-the-job and hands-on training.

Wastewater staff are also trained to respond to major emergencies and disasters. The City has an emergency operation center and emergency response teams established. Procedures and the implementation of emergency response are outlined in the Spill Response and Prevention Handbook as well as the Emergency Response Plan developed by the Emergency Operations Center for the City.

Proficiency is required for all job positions and promotions, and training records are maintained to monitor completed classes and schedule employee training.

Construction contractors working on City projects are required to have an approved sewage bypass system and emergency response plan in place prior to start of construction. Contractors are instructed to notify staff immediately and to take immediate action to stop any overflow. These procedures are outlined and discussed at the pre-construction meeting and enforced by the City.

**(e) Provide equipment and replacement part inventories, including identification of critical replacement parts;**

Staff are working on compiling inventory lists on a recently purchased Maintenance Pac program. The City does not keep parts and supplies in inventory that can be readily accessed from local suppliers due to space constraints. Lining and replacement of underground pipelines, manholes and lift stations are contracted out to licensed contractors who have the equipment, materials and staff to complete the work. Redundancy is provided in all lift station equipment.

The City either has permanent generators or a fleet of four (4) portable backup generators for emergency use that are kept in the ready stand by mode at all times in case of emergency.

### Design and Performance Provisions

**WDR Requirement: The SSMP must include:**

- (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and**
- (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.**

Installation of all new sanitary sewer systems, lift stations, and other appurtenances, as well as rehabilitation and repair of existing sewer systems, must adhere to the City of Paso Robles Public Works Department's March 1995 Standard Details and Specifications (hereafter "Standards), including any revisions thereto. The Standards are available on the City's website at:

<http://www.prcity.com/government/departments/publicworks/publications.asp>

The City Engineer and Wastewater Division staff will review plans for construction of new collection system infrastructure for adherence to the Standards.

Procedures and standards for testing the installation of new sewers, pumps, and other appurtenances, as well as rehabilitation and repair projects, are specified in the Standards. For example, prior to final approval, and after compacting backfill, all sewer lines shall be tested for leakage by a standard low pressure air test and deflection by a mandrel test. All new sewer installations, private lateral connections, and sewer rehabilitation projects must be inspected by Public Works Department staff or a contract inspector prior to approval.

The City Engineer is responsible for periodically updating the Standards. The Wastewater Division will inform the City Engineer of any Standards changes necessary to improve performance of the wastewater collection system.

## Overflow Emergency Response Plan

**WDR Requirement:** Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

- (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- (b) A program to ensure an appropriate response to all overflows;
- (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
- (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

The City Wastewater staff strives for a proactive approach to maintenance in an effort to reduce or minimize SSOs having impacts to the public health and safety or the environment. Staff responds to all reported SSOs within the City. All overflows or stoppages are documented, including those in private laterals for which the City is not legally responsible.

- (a) **Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner.**

The Wastewater Division follows all regulatory requirements relating to Sewer System Overflow Response. A copy of the Sewage Overflow Reporting Guidelines is placed in every vehicle for staff to use in the field. The guideline outlines the reporting procedures and the agencies that must be notified.

All SSOs are responded to immediately during working hours and by standby staff after hours. Figure 2, on page 7, outlines the process for receiving, responding to and reporting SSOs. If an SSO has occurred, the Wastewater Supervisor is advised and notifies the required agencies.

All SSOs that reach a waterway are reported immediately. Notification to Environmental Health, Regional Water Quality Control Board (RWQCB) and the Department of Fish and Game are outlined in the SSO Report Manual, along with appropriate phone numbers.

**(b) A program to ensure an appropriate response to all overflows;**

All wastewater staff are trained on the appropriate response to SSOs. As stated above, written guidelines are provided in each vehicle for reporting SSOs, assessing the overflow, documenting the overflow, estimating the volume of overflow. The procedures are in place to provide immediate response and to protect the exposure to the public.

Construction contractors working on City projects are required to have an approved sewage bypass system and emergency response plan in place prior to start of construction. Contractors are instructed to notify staff immediately and to take immediate action to stop any overflow. These procedures are outlined and discussed at the pre-construction meeting and enforced by the City.

**(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Quality boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the Monitoring and Reporting Program (MRP). All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification.**

The City's Spill Response and Prevention Handbook outlines the notification steps and includes a complete up to date notification list. The severity and potential impact of the overflow determine the path of notification. Upon arrival to a SSO, the Supervisor is advised of the spill and notifies the required agencies. All SSOs that enter the waters of the state are reported immediately. Staff's priority is to take all feasible steps and necessary remedial actions to control or limit the release of untreated wastewater, minimize or prevent the discharge and recover as much of the wastewater discharged as possible.

Spills that do not reach the waters of the state are reported to Environmental Health and the RWQCB within two hours of knowledge of the event. In addition, any spill that may endanger human health or is greater than 50 gallons is reported to the Environmental Health. The Health Officer determines if public notification is necessary such as local press release and posting the effected area.

**(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;**

The City has an Emergency Response Plan which is available to all personnel and is used as a resource in the emergency response training. New employees receive this training as part of their orientation and this information is reinforced during the tailgate meetings. All other staff are trained on emergency response procedures on an annual basis.

The City emphasizes its goal to have no construction-related overflows during pre-bid and pre-construction meetings. Construction contractors are required to submit and

obtain approval of all flow bypasses and emergency response plans prior to the start of construction.

**(c) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities;**

The City developed a Spill Response & Prevention Handbook in 1999 and it has been recently updated to include the current requirements and regulations. This is in addition to the guidelines in each vehicle describing response to agencies, charts for estimating overflow volume and clean up procedures.

The Wastewater Division has a standby operator for after hour emergencies. The standby operator is either notified by the SCADA alarm system or police dispatch for overflows that are called in by the public. It is the responsibility of the standby operator to determine whether assistance in handling the spill is needed. The City's Police, Fire, and Public Works Street Departments can be used in the event of a major situation for traffic and crowd control.

**(d) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.**

Public health and safety along with the environment are the City's first concern on any SSO. The City's proactive programs to perform extensive and aggressive cleaning, videoing, root control and implement an Industrial Waste Program is the first step to prevent SSOs.

Wastewater staff are trained that the highest priorities are to contain the overflow and minimize, if not prevent, the overflow discharge from reaching the water ways and eliminate exposure to the public and impact on public health. Staff use the combination hydro/vac truck for vacuuming up discharged wastewater, contaminated debris and wash down water. The Spill Response and Prevention Handbook provides guidance to the staff in order to accomplish this objective.

## Fats, Oils, and Grease Control Program

**WDR Requirement:** The Waste Discharge Requirement requires that each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

- (a) Implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG:
- (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area.
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG:
- (d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements:
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance
- (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section
- (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified above.

Due to the number of food facilities located in the City and the fact that 18% of SSOs in 2007 were a result of grease blockages, the City determined a Fats, Oils, and Grease (FOG) Program necessary. The City hired an Industrial Waste Manager in December 2007 to administer and implement an Industrial Waste Program, including a FOG program. In June 2008, the City began inspecting all food facilities. Food facilities will be permitted and inspected on an annual basis to ensure that the grease removal device is in working order, and waste oil and grease are properly stored and disposed of.

- (a) **Implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG:**

Education is an important aspect of the program. The City developed a brochure "FOG, Storm Water, and Your Restaurant!" which was distributed and reviewed at every inspection with the owner or manager. This brochure includes directions on how to clean a small grease removal device and Best Management Practices (BMPs) for FOG and grease trap/interceptor maintenance. BMPs include dry wiping pots, using absorbents to pick up oil and grease spills prior to mopping, using water temperatures less than 140° and training all staff on the BMPs.

- (b) **A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities**

**and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area**

Currently, there are not any FOG disposal facilities located within San Luis Obispo County. Food facilities must collect the waste FOG and properly store the oil and grease for disposal or recycling. Owners of food facilities are referred to the phone book for a list of licensed haulers to clean grease interceptors and haul waste FOG. The City does not allow FOG waste haulers to discharge waste FOG into the sewer system. City plans for an upgraded wastewater treatment plant include a grease receiving system.

Facilities are required to prevent waste FOG discharges into the sewer system by implementing BMPs:

- Collect waste cooking oil and store properly in recycling barrels or drums. Use a licensed hauler or a recycling facility to dispose of this waste.
- Clean the grease interceptor on a regular basis and keep a log of the maintenance/cleaning.
- Receipts from haulers must be available for review if an outside company is used for cleaning the interceptor.

**(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG:**

See Legal Authority above for a description of the City's legal authority to control FOG discharges to the sewer system.

Sections of the collection system that are known for having blockages or buildups of FOG are classified as HMAs. These HMAs are cleaned monthly using a combination hydro-cleaner/vacuum unit. If a spill occurs, the line is cleaned and inspected using CCTV.

**(d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements:**

The City's sewer use ordinance requires installation of grease interceptors when deemed necessary by the City. All interceptors must be sized using the California Plumbing Code and must be of a capacity sufficient to produce effluent that meets City standards (100 mg/L Oil and Grease). All interceptors must be in an easily accessible location for the purposes of cleaning and inspection. All interceptors and separators are required to be properly maintained. The ordinance provides the City authority to require property owners to install upgraded equipment if the existing removal device does not adequately remove FOG.

The City has adopted the 2007 California Plumbing Code (CPC) as its standard. A permit from the Building Department is required to install a grease interceptor. Plans are reviewed to ensure that grease interceptors are properly sized per the CPC and a the device must be inspected to ensure the device was properly installed.



Under the City's FOG Program food facilities will be permitted and inspected annually. Food facilities are required to keep a log of the maintenance for the grease interceptor, which includes the date and the person or contractor conducting the cleaning. Receipts for cleaning interceptors must be kept for three years and available for review.

**(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance**

The City's sewer use ordinance:

1. Gives the Director of Public Works the authority to inspect facilities and sample the wastewater discharged to the City sewer to ensure compliance with the provisions of the sewer code, requirements of the industrial wastewater discharge permit and all applicable federal and state laws and regulations. In addition, the city may enter a user's property at any hour under emergency circumstances involving the city's sewerage system. The city shall have the right to set up on the user's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations.
2. States that enforcement actions shall be initiated when any violation of any permit condition is noted, including discharge violations. Any user who violates the conditions of its permit or this code is subject to having its permit revoked.
3. Gives the Director of Public Works the authority to administer, implement, and enforce policies and standards necessary to protect the City facilities. Enforcement procedures in this section include notice of violation, administrative compliance order, cease and desist order, termination of service, civil and criminal penalties.

The City currently has sufficient staff to inspect and enforce the FOG requirements because it is using building inspectors to conduct inspections. However, when new construction picks up again, building inspectors will not be available. So the City plans to hire an industrial waste inspector in Fiscal Year 2010/11.

**(f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section**

The City's Collections crew has identified areas of the collection system with FOG problems. As described above, these areas are on the High Maintenance Area list and are cleaned monthly.

**(g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified above.**

See subsections (a) and (d) above.

### System Evaluation and Capacity Assurance Plan

**WDR Requirement:** The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

- (a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;
- (b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
- (c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- (d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.

Boyle Engineering has comprehensively evaluated the capacity of the City's collection system for existing and future wastewater flows. Boyle analyzed the City's General Plan population growth patterns, high maintenance areas, wastewater travel times, inflow and infiltration, flow monitoring, and capacity of all lift stations. Boyle incorporated this information into a hydraulic model to find collection system deficiencies. Boyle documented its findings in a Collection System Master Plan dated January 2007. The Master Plan is available for public review or copy at City Hall, 1000 Spring Street, Paso Robles.

The Master Plan identifies several projects necessary to correct existing deficiencies, accommodate projected buildout flows, or accommodate planned expansions of the City's collection system. The City has already implemented several of the projects using its existing capital improvement projects budget. However, the City's capital improvement projects budget must increase over time to complete all of the projects recommended in the Master Plan. The City has hired Kennedy/Jenks Consultants to prepare a new wastewater rate study. The estimated cost and completion date of the projects recommended in the Master Plan (shown in the table below) are included in the rate study. Assuming a rate increase is implemented during Fiscal Year 2009/10, these projects will be completed according to this schedule.

**Table 2: Paso Robles Wastewater Collection System Capital Improvements Plan**

Project	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Lift station rehabilitation to upgrade obsolete pumps, rails, and motors and to provide longer response time	\$860,000	\$115,129	\$119,734	\$124,524	\$129,504	\$134,685	\$140,072	\$145,675	\$151,502
LS1 and T11 Lift Station #1 Capacity Expansion							\$2,231,009		
LS 12 Lift Station #12 Capacity Expansion					\$1,260,000				
Rehab various sewerlines	\$1,690,000	\$676,000	\$703,040	\$731,162	\$760,408	\$790,824	\$822,457	\$855,356	\$889,570
Rehab/replace old manholes	\$600,000	\$104,000	\$108,160	\$112,486	\$116,986	\$121,665	\$126,532	\$131,593	\$136,857
Collection system operation and maintenance database and hardware		\$83,200							
W1 Riverside Interceptor	\$300,000	\$430,498							
W3 - 36th Street Sewer Service Area							\$295,033		
W4 - 2nd Street Sewage Collector								\$111,045	
W5 - 15th Street Sewage Collector								\$108,122	
W7 - 12th St between Vine and Olive Sewer Upgrade									\$66,861
Seismic evaluation north/south pipe bridge	\$210,000								
Paso Robles on-ramp sewer rehab	\$50,000								
Buena Vista - Cuesta College	\$30,000								
<b>Collection System Subtotal =</b>	<b>\$5,000,000</b>	<b>\$1,408,827</b>	<b>\$930,934</b>	<b>\$968,172</b>	<b>\$3,185,683</b>	<b>\$3,313,110</b>	<b>\$5,029,047</b>	<b>\$1,351,791</b>	<b>\$1,244,789</b>

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**Deleted:** A1, SE2 - Sewer service expansion to Southern Airport Area on Dry Creek Road

The City will update the Collection System Master Plan and this Capital Improvement Plan as needed.

### Monitoring, Measurement, and Program Modifications

**WDR Requirement: The City of Paso Robles shall:**

- (a) **Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;**
- (b) **Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;**
- (c) **Assess the success of the preventative maintenance program;**
- (d) **Update program elements, as appropriate, based on monitoring or performance evaluations; and**
- (e) **Identify and illustrate SSO trends, including: frequency, location, and volume.**

The City will measure the performance of its wastewater collection system and the effectiveness of the SSMP with:

- SSO Rate (SSO's/100 miles of collection system/year);
- Number of SSO's by cause (roots, grease debris, pipe failure, capacity, lift station failure, etc.);
- Average SSO volume (gallons);
- Percentage of SSO's greater than 100 gallons;
- Percentage of SSO volume recovered (e.g, with vactor truck) compared to total volume spilled.
- Estimated total SSO's volume to reach surface waters (including SSO's not recovered from storm drains leading directly to surface waters).

The City has been reporting SSO's through the California Integrated Water Quality System (CIWQS) since 2007. CIWQS data will be used as the City's historical data. The City will evaluate the above performance measures annually, in July, for the previous fiscal year (e.g., Fiscal Year 2009/2010 data will be evaluated in July 2010). This evaluation will be used to make any necessary adjustments to the City's preventative maintenance program (e.g., spend more time on rooting, less time on lift station inspections).

Beginning in July 2010, the City will identify and illustrate any trends in the above performance measures. This trend analysis will be documented and posted at this address for public viewing:

<http://www.prcity.com/government/departments/publicworks/wastewater/index.asp>

### Program Audits

**WDR Requirement: the City “shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee’s compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.”**

Beginning in July 2011, and every two years thereafter, the Wastewater Division Manager will audit the effectiveness of all elements of this SSMP. The Wastewater Division Manager will document audit findings and recommend changes to the SSMP in a written report to the Public Works Director and City Manager. These audit reports will be kept on file and made available to the public upon request. Minor changes to the SSMP, such as changes to the operation and maintenance element, will be made at the staff level. Significant changes, such as changes to legal authority, must be reviewed and approved by the City Council. The latest version of the SSMP will always be available at the internet address shown above.

### Communication Program

**WDR Requirement: The City “shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented. The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee’s sanitary sewer system.**

The City Council will consider approval of this SSMP during a regularly scheduled meeting in October 2009. The meeting will be publicly noticed and the draft SSMP will be available for public review prior to the meeting. The public will have the opportunity to comment on the SSMP prior to City Council approval.

After the SSMP is adopted, it will be posted at the internet address shown above with instructions to the public on how to provide input on the SSMP. The Wastewater Division Manager will receive all public input. He will consider changes to the SWMP every two years, during the program audit process.

Templeton Community Services District (CSD) is tributary to the City collection system. Templeton CSD and the City have a written agreement in which Templeton CSD agrees to limit wastewater flow and quality and pay its share of collection system operation and maintenance costs. The City regularly communicates with Templeton CSD utilities staff (e.g., through semi-annual billing reports). The City will promptly notify Templeton CSD of any changes to the SSMP that may affect Templeton CSD.

A1, SE2 - Sewer service expansion to Southern Airport Area on Dry Creek Road						\$2,178,785	\$2,265,936	\$1,413,944		
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