

CITY OF EXETER

**SEWER SYSTEM
MANAGEMENT PLAN**

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City of Exeter SSMP Work Plan

Work Plan Intent

The SSMP Work Plan is developed to support the City's Sewer System Management Plan (SSMP) goals and strategies. This work plan is a detailed tactical action plan with activities, schedule and resources to implement the SSMP. The SSMP work plan is also one of the first deliverables to be submitted to the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR) Order No. 2006-003.

Work Plan Task Summary

The following list summarizes the SSMP tasks to be addressed:

1. GOALS
2. ORGANIZATION
3. LEGAL AUTHORITY
4. OPERATIONS AND MANAGEMENT PLAN
5. DESIGN AND PERFORMANCE PLAN
6. OVERFLOW EMERGENCY RESPONSE PLAN
7. FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM
8. SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN
9. MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS
10. SSMP AUDITS
11. COMMUNICATIONS PROGRAM
12. FINAL SSMP COMPLETION AND CERTIFICATION

Task 1: Goals

Table 1 presents the tactical action plans for the SSMP Goals.

TABLE 1. SSMP GOALS

	Activities	Due	Responsible
1.	Formally prepare SSMP goals.	01/2009	Public Works Director / Wastewater Supervisor
2.	Communicate SSMP goals to building inspectors and maintenance crews.	01/2009	Public Works Director
3.	Have City Council review and adopt SSMP goals.	01/2009	City Council / City Staff
4.	Submit new SSMP goals to the Regional Water Resource Control Board (RWRCB). The goals of the SSMP provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system.	01/2009	Public Works Director

Task 2: Organization

Table 2 presents the tactical action plans for the SSMP Organizational Structure.

TABLE 2. SSMP ORGANIZATION

	Activities	Due	Responsible
1.	Develop a SSMP organizational chart.	01/2009	Public Works Director / City Engineer
2.	Provide names and telephone numbers for all responsible for implementing the SSMP program.	01/2009	Public Works Director / City Engineer
3.	Develop an overflow emergency response plan organizational chart to identify the chain of communication and responsibilities in the event of a Sewer System Overflow (SSO).	01/2009	Public Works Director / City Engineer
4.	Implement and communicate to building inspectors and maintenance crews the new SSMP organizational chart and emergency response plan organizational chart.	01/2009	Public Works Director / City Staff
5.	Submit new SSMP organization chart to the RWRCB.	01/2009	Public Works Director

Task 3: Legal Authority

Table 3 presents the tactical action plans for the SSMP legal authority.

TABLE 3. LEGAL AUTHORITY

Activities	Due	Responsible
1. Update legal authority as necessary to achieve compliance with GWDR. This includes to: a. Prevent illicit discharges into sanitary sewer system; b. Require that sewers and connections be properly designed and constructed; c. Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the City; d. Limit the discharge of fats, oils, grease, and other debris that may cause blockages; and e. Enforce any violation of these sewer ordinances.	05/02/2009	Public Works Director / City Attorney

Task 4: Operation and Maintenance Program

Table 4 presents the tactical action plans for the SSMP Operation and Maintenance Program.

TABLE 4. OPERATION AND MAINTENANCE PROGRAM

Activities	Due	Responsible
1. Collection System Map: 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 pumping and piping facilities.	05/02/2009	Public Works Director / City Engineer
2. Preventive Maintenance (PM) program: 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;	05/02/2009	Public Works Director / City Staff
3. Rehabilitation and Replacement Plan: Identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. 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.	05/02/2009	Public Works Director / Wastewater Supervisor
4. Training: Provide training on a regular basis for staff in sanitary sewer system operations and maintenance. Require contractors to be appropriately trained.	05/02/2009	Public Works Director / Wastewater Supervisor
5. Contingency Equipment and Replacement Inventories: Provide equipment and replacement part inventories, including identification of critical replacement parts	05/02/2009	Public Works Director / Wastewater Supervisor

Task 5: Design and Performance Provisions

Table 5 presents the tactical action plans for the SSMP Design and Performance Provisions.

TABLE 5. DESIGN AND PERFORMANCE PROVISIONS

Activities	Due	Responsible
1. Standards for Installation, Rehabilitation and Repair: Identify 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.	08/02/2009	Public Works Director / City Engineer
2. Standards for Inspection and Testing of New, Rehabilitated, and Repaired Facilities: Identify procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.	08/02/2009	Public Works Director / City Engineer

Task 6: Overflow Emergency Response Plan

Table 6 presents the tactical action plans for the SSMP overflow emergency response plan.

TABLE 6. OVERFLOW EMERGENCY RESPONSE PLAN

Activities	Due	Responsible
1. Develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment.	05/02/2009	Wastewater Supervisor
2. Communicate & train City staff new overflow emergency response plan.	05/02/2009	Public Works Director / Wastewater Supervisor
3. Submit Overflow Emergency Response Plan to the Regional Water Control Board	05/02/2009	Public Works Director

Task 7: Fats, Oils, and Grease (FOG) Control Program

Table 7 presents the tactical action plans for the SSMP Fats, Oils and Grease Control Program.

TABLE 7. FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM

Activities	Due	Responsible
1. Develop formal FOG program. <ul style="list-style-type: none"> a. Implement public education outreach program. b. Plan for proper FOG waste disposal. c. Identify SSO and blockages prevention measures d. Establish FOG design standards 	05/02/2009	Public Works Director / Building Official
2. Formally establish a FOG ordinance to enforce the FOG program.	05/02/2009	Public Works Director / City Attorney
3. Implement a FOG educational program for multifamily facilities focusing both on property managers and on tenants.	05/02/2009	Public Works Director / Building Official

Task 8: System Evaluations and Capacity Assurance Plan

Table 8 presents the tactical action plans for the SSMP System Evaluations and Capacity Assurance Plan.

TABLE 8. SYSTEM EVALUATIONS AND CAPACITY ASSURANCE PLAN

Activities	Due	Responsible
1. Continue to monitor flows and evaluate in the City's hydraulic model for capacity based on growth, Identify areas with capacity issues to prevent overflows.	08/02/2009	Public Works Director / Chief Wastewater Operator/ City Engineer
2. Develop a plan and schedule to develop capital improvements to avoid system deficiencies that can cause SSO events.	08/02/2009	Public Works Director / Chief Wastewater Operator/ City Engineer

Task 9: Monitoring, Measurement and Program Modifications

Table 9 presents the tactical action plans for the SSMP Monitoring, Measurement and Program Modifications.

TABLE 9. MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

Activities	Due	Responsible
1. Identify performance metrics for the SSMP and SSOs. <ul style="list-style-type: none"> a. Establish SSMP performance metrics to support SSMP goals. b. Configure the CMMS/GIS to capture the data to support the performance metrics. c. Train or communicate performance metrics to staff. d. Monitor performance metrics. 	08/02/09	Public Works Director / City Staff
2. Establish a Monitoring and Measurement Program to evaluate effectiveness of the SSMP.	08/02/09	Public Works Director / City Staff

Task 10: Internal Management Audits

Table 10 presents the tactical action plans for the SSMP Internal Management Audits. TABLE 10.

INTERNAL MANAGEMENT AUDITS

Activities	Due	Responsible
1. Bi-Annual update and review of progress of the SSMP.	08/02/09	Public Works Director

Task 11: Communications Program

Table 11 presents the tactical action plans for the SSMP Communications Program.

TABLE COMMUNICATIONS PROGRAM

Activities	Due	Responsible
1. Provide annual report to educate political decision makers and customers about how money is being spent to sustain the wastewater infrastructure, protect public health, and the environment.	08/02/2009	Public Works Director / Building Official
2. Provide annual notice to ratepayers about capital programs associated to SSMP and their respective local impacts.	08/02/2009	Public Works Director / Building Official

Task 12: Completion and Certification

Table 12 presents the tactical action plans for the SSMP Completion and Certification.

TABLE COMPLETION AND CERTIFICATION

Activities	Due	Responsible
1. Submit Final SSMP and certification form to State Water Board for review and certification.	08/02/2009	Public Works Director

ELEMENT 1 GOALS

1.1 Introduction

The Goals are intended as guidance to properly manage, operate, and maintain all parts of the City's sanitary sewer system. These Goals are the first element of City's Sewer System Management Plan (SSMP).

1.2 Regulatory Requirements

The SSMP is required by the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR), Order No. 2006-003. The GWDR requires at a minimum, that the City shall develop goals to accomplish the following:

- i) To properly manage, operate, and maintain all parts of the wastewater collection system,
- ii) To provide adequate capacity to convey peak flows,
- iii) To minimize the frequency of sanitary sewer overflows (SSOs), and
- iv) To mitigate the impact of SSOs.

1.3 SSMP Goals

The goals of the City of Exeter SSMP are to:

- a) Properly **manage, operate, and maintain** the wastewater collection system;
- b) **Maintain** wastewater design construction standards and specifications on new projects;
- c) **Verify** the wastewater collection system has adequate capacity to convey sewage during peak flows;
- d) **Minimize** the frequency of sanitary sewer overflows;
- e) **Respond** to sanitary sewer overflows quickly and mitigate the impact of the overflow;
- f) **Provide** training on a regular basis for staff in collection, maintenance, and operations;
- g) **Encourage** and **support** participation in the California Water Environment Associations' voluntary Wastewater Certification Program and on-going training programs;
- h) **Maintain** a Fats, Oil, and Grease (FOG) program to limit fats, oils, grease, and other debris that may cause blockages in the sewage collection system;
- i) **Identify** system blockages due to FOG and **develop** strategies to decrease backups;
- j) **Identify** and **prioritize** structural deficiencies and implement short-term and long-term maintenance and rehabilitation actions to address each deficiency;
- k) **Operate** all pump stations at peak efficiency and **perform** preventative maintenance on equipment at all sanitary sewer pump stations;
- l) **Refer** mainlines with repeat non-scheduled maintenance to engineering for evaluation;
- m) **Conduct** appropriate analysis/evaluation of SSOs utilizing historical maintenance and activity records to provide recommendations to reduce future risk;
- n) **Maintain** records of the sanitary sewer system and **respond** to inquiries;
- o) **Develop** a capital improvement program to maintain the current sewer assets, improve system reliability and provide adequate future capacity;
- p) **Meet** all applicable regulatory notification and reporting requirements; and
- q) **Provide** excellent customer service.

ELEMENT 2 ORGANIZATION

2.1 Introduction

This section identifies City staff responsible for implementing this SSMP, responding to an SSO event, and reporting of an SSO event.

2.2 Regulatory Requirements

As required by the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR) Order No. 2006-003 the City's SSMP shall, at a minimum, identify the following:

- i) The name of the responsible or authorized representative;
- ii) The names and telephone numbers for management, administrative, and maintenance positions for implementing specific measures in the SSMP program. Include lines of authority through an organization chart or similar document with a narrative explanation; and
- iii) The chain of communication for reporting SSO's from receipt of a complaint or other information, including the person responsible for reporting SSO's to the State and Regional Water Quality Control Board.

2.3 SSMP Responsibility Structure

The City's Department of Public Works is responsible for the City's Wastewater Collection System. This includes the daily operation and regular maintenance of the system. The primary contact for any sanitary sewer system problem or SSO event is the Director of Public Works.

The City's Community Development Department is responsible for inspecting commercial and industrial grease generators discharging into the City's sanitary sewer collection system. The primary contact for any inspection issue is the Building Official.

2.4 Response Structure

City Hall Staff is the primary contact for the public to notify the City of any sanitary sewer system problem or SSO event. City administrative staff is available to field calls during normal business hours (Monday through Friday, 8 a.m. to 5 p.m.). During all other hours, calls are directed to contact the City police department dispatch.

During normal business hours, phone calls regarding SSO events are directed to the Director of Public Works. The Director then coordinates with available crews to address the concerns as quickly as possible. Once the issue is resolved, an incident Summary will be created.

Outside of normal business hours, police dispatch will contact the on duty wastewater person. The on duty wastewater person will respond within an hour to the situation. Once at the site, the on duty person will evaluate the situation and determine if additional help is necessary.

The wastewater person on duty will notify the Public Works Director if:

- More than one employee is called to assist;
- The SSO is over 1,000 gallons;
- The SSO enters surface water or a drainage channel;
- The SSO causes property damage or flooding in a building structure; or
- The SSO constitutes an imminent danger to the general public or environment.

The wastewater person on duty will complete an incident Summary for all SSOs. The summary is then forwarded to the Public Works Director for investigation and follow-up.

2.5 Reporting Structure

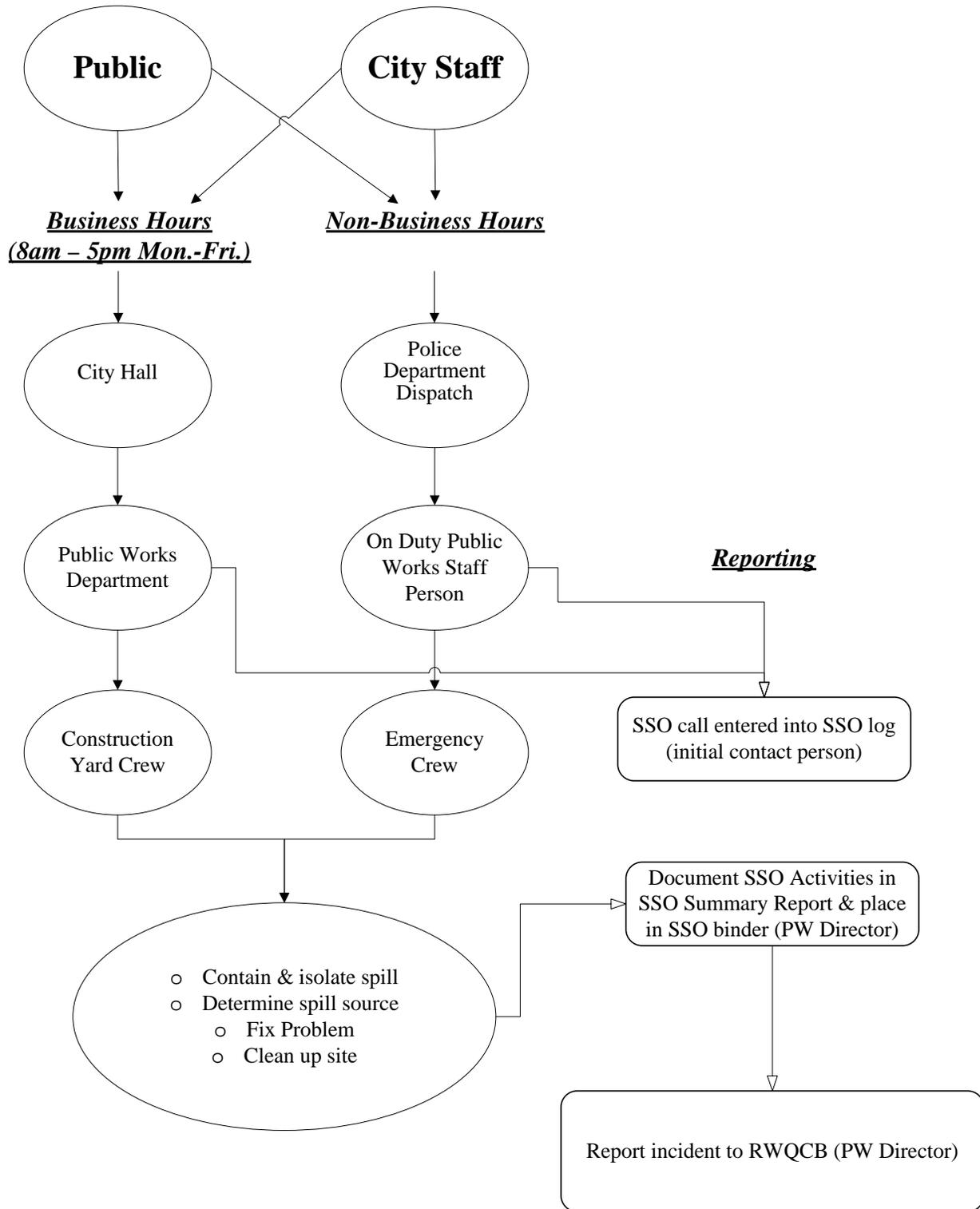
The Public Works Director is responsible for ensuring that the following are completed for all SSO events.

- Creation of a reporting Log of initial notification of an SSO event
 - The Log will include:
 - Time of event
 - Location of event
 - Callers name and contact info
- Preparation of an incident Summary
 - The Summary will include:
 - Log information
 - Details of the issue
 - How the issue was resolved
 - What the suspected cause of the issue was
 - How prevention of similar issues can be effectively avoided
- Contact of any applicable state or local agency that should be notified of the SSO event
- Submission of an annual SSMP Report to SWQCB
 - The Report will include:
 - A copy of the reporting Log
 - A copy of all incident Summaries
 - Any other board requirements

2.6 Response and Reporting Flow Chart

This section identifies City staff responsible for implementing this SSMP, responding to an SSO event, and reporting of an SSO event.

SSO Reporting Flow Chart



Staff Responsibility Table

Name	Phone #	Title	Area of Responsibility
Felix Ortiz & Daymon Qualls	(559) 592-9244 & (559) 592-3318	Public Works Director & Assistant PW Director	Goals
Felix Ortiz & Daymon Qualls	(559) 592-9244 & (559) 592-3318	Public Works Director & Assistant PW Director	Organization
Felix Ortiz & Daymon Qualls	(559) 592-9244 & (559) 592-3318	Public Works Director & Assistant PW Director	Legal Authority
Ted Guinn & Johnny Mejia	(559) 592-9637	Chief Wastewater Operator & Operator I	Operations and Maintenance Program
Felix Ortiz & Daymon Qualls	(559) 592-9244 & (559) 592-3318	Public Works Director & Assistant PW Director	Design and Performance Provisions
Ted Guinn & Johnny Mejia	(559) 592-9637	Chief Wastewater Operator & Operator I	Sanitary Sewer Overflow Response Plan
Ted Guinn & Johnny Mejia	(559) 592-9637	Chief Wastewater Operator & Operator I	FOG Control Program
Felix Ortiz & Daymon Qualls	(559) 592-9244 & (559) 592-3318	Public Works Director & Assistant PW Director	System Evaluation and Capacity Assurance Plan
Felix Ortiz & Daymon Qualls	(559) 592-9244 & (559) 592-3318	Public Works Director & Assistant PW Director	Monitoring, Measurement, and Program Modifications
Felix Ortiz & Daymon Qualls	(559) 592-9244 & (559) 592-3318	Public Works Director & Assistant PW Director	SSMP Program Audits
Ted Guinn & Johnny Mejia	(559) 592-9637	Chief Wastewater Operator & Operator I	Communication Program

ELEMENT 3 LEGAL AUTHORITY

3.1 *Introduction*

This section identifies City ordinances, and other regulations that allow the City to properly protect and maintain its sanitary sewer system.

3.2 *Regulatory Requirements*

As required by the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR) Order No. 2006-0003, the City must demonstrate through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- i) Prevent illicit discharges into its sanitary sewer system (examples may include infiltration and inflow (I/I), stormwater, chemical dumping, unauthorized debris and cut roots, etc.);
- ii) Require that sewers and connections be properly designed and constructed;
- iii) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
- iv) Limit the discharge of fats, oils, and grease and other debris that may cause blockages; and
- v) Enforce any violation of its sewer ordinances.

3.3 *City Regulations*

The following is a listing of the current Codes and Regulations that give the City the Authority to Implement the SSMP Program:

- a) Prevent Illicit Discharge
 - 1) Municipal Code Sections:
 - 13.28.100 Discharges - General Prohibitions
 - 13.28.110 Discharges - Specific Prohibitions
- b) Proper Sewer Design & Construction
 - 1) Municipal Code Sections:
 - 13.28.030 - Permits - Generally
 - California Plumbing Code Requirements
 - City inspector approval

- c) Ensure Access
 - 1) Municipal Code Sections:
 - 13.28.160 Right of Entry - Inspection and Sampling

- d) Limit FOG Discharge
 - 1) Municipal Code Sections:
 - 13.28.120 Grease Oil and Sand Interceptors

- e) Enforcement
 - 1) Municipal Code Sections:
 - 13.28.215 Violation - Penalty
 - 13.28.220 Notice of Violation
 - 13.28.230 Cease and Desist
 - 13.28.240 Administrative Fines

ELEMENT 4 OPERATION & MAINTENANCE PROGRAM

4.1 *Introduction*

This section of the Sewer System Management Plan (SSMP) is to describe the current operation of the City's wastewater collection system.

4.2 *Regulatory Requirements*

The SSMP is required by the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR), Order No. 2006-0003. The GWDR requires at a minimum, that the City shall:

- i) 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;
- ii) 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;
- iii) 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 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;
- iv) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
- v) Provide equipment and replacement part inventories, including identification of critical replacement parts.

4.3 *Collection System Maps*

The City maintains an up-to-date GIS map of the wastewater collection system. The map indicates the location of sanitary sewer manholes, lift stations, cleanouts, and all pipe segments with associated pipe sizes. Similar information on the City storm drain system is also included on the GIS map. This map is used internally by the City staff for planning and design purposes.

Graphic Information System (GIS) is used as an interactive electronic mapping tool by the City. Layers displaying different components of the City's infrastructure can be turned on and off based on the needs of the user. GIS can also be used to visualize the comparison of historic data and the location of the incident. For example, GIS can display locations of past overflows on a map and show a relationship to existing pipe sizes in the City sewer system.

Map updates typically occur whenever a new development project is completed. These updates occur within a month after project is completion and acceptance by the City. Additional map updates and corrections occur when the Engineering department is notified by field personnel of any discrepancies found in the field.

4.4 Collection System Inventory

The City owns and operates an approximately 35 mile long wastewater collection system the with 10 lift stations.

The City of Exeter's Lift Stations are listed below:

- Rancho Lift Station; on Albert Ave. north of Visalia Rd.
- Lenox Lift Station; intersection of Lenox Ave. and Bryant Ct.
- A & W Lift Station; intersection of Kaweah Ave. and Sequoia Dr.
- Kaweah Trailer Park Lift Station; on Kaweah Ave. south of Firebaugh Ave.
- Rocky Hill Lift Station; on Sequoia Dr. between D and B Streets
- Quince Lift Station; Alley btwn Willow St., Vine St., Orange Ave., & Quince Ave.

- Visalia Road Lift Station; intersection of Visalia Rd. and Belmont Rd.
- Filbert Lift Station; intersection of Filbert Rd. and King St.
- Industrial Lift Station; intersection of Firebaugh Ave. and Industrial Dr.

4.5 Preventive Operations and Maintenance Activities

Preventive and scheduled maintenance is essential to maintain operational integrity of any sanitary sewer system. Regular inspections catch small areas of concern before they develop into large unmanageable problems. Well maintained equipment reduces service disruption caused by faulty elements and expenditures for emergency service. Overall, preventative maintenance practices reduce overall operational costs, ensure reduction of public health hazard risks, and extend the operational life of the sanitary sewer system.

The City uses the following preventative measures on the various components of the City's sanitary sewer system.

4.6 Routine Inspection and Maintenance Schedule

The City conducts routine inspections of its Sanitary Sewer System to monitor the health of its system. If items of concern are identified during inspection, then these items are addressed as needed to alleviate the issue, reported to the Field Superintendent, and entered in the Maintenance Log along with a designated priority of repair or replacement.

Sanitary Sewer Components	Inspection Frequency	Inspection Method	Items of concern
Manholes	As Needed	Visual	Damaged Lids System Backup High FOG Concentrations Irregular Flow
Lift Stations	Daily	Visual	Damaged Lids System Backup High FOG Concentrations Irregular Flow Clogged Pumps Power Loss
Pipe Segments	As needed*	Visual	Clogged Pipes

*If an area experiences three or more stoppages over a thirty day period, then it becomes designated as a problem area. Problem areas are inspected and maintained at greater frequency until the source of the stoppages is determined and resolved.

The primary inspection method is a visual evaluation. If there are consistent issues, a TV inspection can be contracted to ensure a more thorough evaluation is conducted.

Overall, the City maintains all components of the municipal sanitary sewer system, including the sewer lift stations, manholes, and pipelines. Service laterals are not designated as part of the City's sewer system and, therefore, the responsibility of maintenance is on the adjacent customer.

The City is fortunate not to have many problem areas to deal with. The primary area of concern is the pipe system near the intersection of Kaweah and Sequoia Avenue. This area is regularly inspected and cleaned out, at minimum, twice a year. It is suspected that either a Fats, Oils, and Grease (FOG) issue or a negative grade in the sewer system is the source of concern. A project to address this issue is budgeted for the 2009-10 fiscal year.

4.7 Rehabilitation and Replacement Program

Regular inspections and record keeping allow the City sanitation department to better access and identify the City's sewer system's future needs. Based on the likelihood for component failure, these future needs are prioritized for long- and short-term rehabilitation actions. The identified needs are then used to develop the list of projects to be considered in the City's long term Capital Improvement Program (CIP).

4.8 Training

The City understands the importance of maintaining a regular training and development program as it increases employee productivity and effectiveness at the job site. This is especially important since the overall goal of the City sanitation department is to maintain and protect public and human safety.

The City currently uses a combination of in-house classes and on-the-job training to train staff. Additional education is encouraged through participation in the operator certification program, and conferences, seminars, and other opportunities to train its wastewater collection staff.

The City provides the following training for the wastewater department staff:

Training		
Type	Frequency	Method
Safety	Weekly	On-the-job training (OJT) – weekly safety meetings
Routine Line Maintenance	As appropriate	OJT
Confined Space Entry	Quarterly	Formal Program
Traffic Control	Annually	OJT – Formal Program
Record Keeping	As appropriate	OJT
Device and Instrumentation	As appropriate	Offsite Vendor/specialty Training
Pipe Repair and Maintenance	As appropriate	OJT – Formal Training for Mechanical Joints
Public Relations	As appropriate	For initial public contact, then directed to City HR Staff
Emergency Response (SSO)	Annually	Yearly Staff Training
Emergency Response (Public Health)	Bi-Annually	CPR, First Aid
Emergency Response (Fire)	Annually	Fire Department Training
Pump Station Operation and Maintenance	As appropriate	OJT – Formal Vendor Training
Trench and Shoring	As appropriate	OJT – Formal Vendor Training
Wastewater Operator Certification	Bi-annually	Formal State Required Training

Furthermore, all employees who work on the wastewater collection system receive training to recognize activities that may cause SSOs and how to respond when SSOs occur. The City doesn't retain outside contractors to work on the wastewater collection system.

4.9 Replacement Parts

The City has a small inventory of replacement parts kept at the public works yard in the event small repairs are needed or maintenance equipment fails. The listing includes:

- Emergency Pump;
- Hoses; and
- Manhole Lids.

The following are resources available to the City for use during large maintenance events and emergency services:

- Vacuum Truck.

ELEMENT 5: DESIGN AND PERFORMANCE PROVISIONS

5.1 Introduction

The intent of this section of the SSMP is to ensure consistent and quality design methods are available for sewer projects within the City. These methods include procedures for inspection, testing, rehabilitation and repair.

5.2 Regulatory Requirements

As required by the RWQCB to satisfy the GWDR Order No. 2006-0003, the City must develop and implement the following:

- i) 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
- ii) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

5.3 Design and Construction Standards and Specifications

The City currently has existing sewer standards and specifications outlined in the City Improvement Standards. Furthermore, these design standards are referred to, approved by, and enforced through the City Municipal Code.

5.4 Inspection and Testing Procedures and Standards

The City currently has existing sewer inspection and testing procedures and standards as outlined in the City Improvement Standards. Furthermore, these design standards are referred to, approved by, and enforced through the City Municipal Code.

ELEMENT 6: OVERFLOW EMERGENCY RESPONSE PLAN

6.1 Introduction

This section of the SSMP summarizes the key elements of the City's overflow emergency response plan, and includes response procedures and training plans for Sanitary Sewer Overflow (SSO) events.

6.2 Regulatory Requirements

As required by the RWQCB to satisfy the GWDR Order No. 2006-0003, the City must 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:

- i) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSO's in a timely manner;
- ii) A program to ensure an appropriate response to all overflows;
- iii) 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 SSO's that potentially affect public health or reach the waters of the State in accordance with the Monitoring and Reporting Program (MRP). All SSO's shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board Waste Discharge Requirements or National Pollutant Discharge Elimination System permit requirements. The SSMP should identify the officials who will receive immediate notification;
- iv) Procedures to ensure appropriate staff and contractor personnel are aware, appropriately trained, and follow the Emergency Response Plan;
- v) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- vi) 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 SSO's, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

6.3 City Regulations

The City has addressed the State requirements through the following regulations:

- 1) Proper Notification Procedures
 - a) Notification procedures are outlined under Element 2, Organization, of the SSMP. This element includes a detailed description for responding to and reporting of SSOs as well as a chain of command diagram.

2) Appropriate Response

a) As part of the SSMP, it is the responsibility of the first responder to the site of the suspected SSO to assess the situation and respond appropriately. This SSMP provides three categories as the baseline of site assessment.

(1) No Significant Spill. The first responder reaches the site and finds no spill that fits the state definition for an SSO. No action needed.

(2) Minor Spill. The first responder finds a site spill that requires clean up, but does not meet the classification of a major spill. Generally, the spill does not cause immediate danger or damage and is easy to remediate by one person.

(3) Major Spill. The Public Works Director must be notified when a major spill occurs. A spill that meets any of the following criteria is considered a major spill.

- The SSO is over 1,000 gallons;
- The SSO enters surface water or a drainage channel;
- The SSO causes property damage or flooding in a building structure; or
- The SSO constitutes an imminent danger to the general public or environment.

3) Notification Procedures

a) Element 2, Organization, of the SSMP outlines specific reporting procedures for notifying the appropriate agencies of an SSO event. For the City of Exeter, the appropriate contacts are as follows:

- Regional Water Quality Control Board - Jim Fischer, (916) 341-5548;
- State SSO Database: http://www.waterboards.ca.gov/water_issues/programs/ciwqs/index.shtml; and
- Tulare County Office of Emergency Services – (800) 834-7121.

4) Staff Response Training

a) As outlined in Element 4, operation and Maintenance Program, of the SSMP, the City will provide training to prepare the appropriate staff on how to respond, assess, and remediate SSO events.

5) Emergency Operation Procedures

a) Due to the small City staff, City personnel will coordinate directly with the Police and Fire department to address any emergency operations such as traffic and crowd control.

6) Response Program

a) A program that ensures 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 due to an SSO event is provided in Element 4, Operations and Maintenance Program, of the SSMP.

ELEMENT 7: FATS, OILS, & GREASE PROGRAM

7.1 Introduction

This section of the Sewer System Management Plan (SSMP) outlines the implementation plan for the Fats, Oils & Grease (FOG) Program, and includes a public education plan and the legal authority to inspect and enforce FOG Program.

7.2 Regulatory Requirements

The SSMP is required by the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR), Order No. 2006-0003. The GWDR requires at a minimum, that the City shall provide:

- i) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- ii) 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;
- iii) The legal authority to prohibit discharges to the system and identify measures to prevent SSO's and blockages caused by FOG;
- iv) 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;
- v) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
- vi) An identification of sanitary sewer system sections subject to FOG blockages and establishments of a cleaning maintenance schedule for each section; and
- vii) Develop and implement source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (vi) above.

7.3 Public Education

7.3.1 PLAN

According to the State records, a majority of Sanitary Sewer Overflow (SSO) events are caused by blockages in the sewer system. These blockages are caused by not only FOG related issues, but foreign objects as well. The City plans to reduce opportunities for SSO events by establishing a public education campaign that promotes the proper disposal of FOG related items. Homeowners and FOG relevant businesses will be targeted.

The smaller proportion of SSO events are caused by storm water infiltration and failures in the sanitary sewer system. Since these areas have a smaller effect on the system, the City plans to address these items as part of their long term plans.

7.3.2 SCHEDULE

- a) Short Term – (1-3 years)
 1. Over the first three years the City will focus on educating the public on effects of FOG has on the City’s sanitary sewer system and how this affects them.
 2. In the same effort, the public will be informed on how and where they can properly dispose of FOG related items.
 3. Business owners that have a potential of releasing FOG into the City’s sanitary sewer system will also be informed of the potential risks and existing FOG regulations as part of the City inspection program.
- b) Mid-Term Evaluation (year 3)
 1. An evaluation of the programs effectiveness will be conducted help decide whether to change current strategies to better achieve initial goals or begin implementation of long term efforts.
 2. The evaluation will include the measurable goals of:
 - Number of incidents of SSO events
 - System cleaning frequency
 - Lift station pump maintenance
- c) Long Term – (3-5 years)
 1. Develop a public education program focused on methods to address storm water infiltration by means of root invasions and illicit connections.
 2. Repeat FOG program with a scaled back version for continual education.

7.4 FOG Disposal

7.4.1 PLAN

The City is required to develop and implement source control measures for FOG control. Currently the City enforces the installation of Grease, Oil, and Sand Interceptors through City Ordinances and building inspections as required by California Law.

Any FOG collected through the regular operations of the City’s sanitary sewer system is disposed of at County landfill sites.

As part of the City’s Public Education program, the City plans to better inform the public on when, where, and how to properly dispose of FOG. The implementation schedule is located in the public education section.

7.4.2 DISPOSAL PROGRAM

The FOG disposal program will inform the public on the following recommendations and services offered by the City:

- a. City sponsored dump collection days when residents can deposit their refuse, including FOG related items, at designated locations within the City. The refuse is then taken to dump sites in the County that can accept them. There are no refuse areas within the City.

The nearest landfill is located near Woodville on Road 152 south of Avenue 200. It is approximately 7 miles southwest of Exeter;

- b. Identify how FOG collected by businesses and industry can be properly disposed of; and
- c. Identify which household items are commonly and improperly disposed of down the drain and provide tips for proper household item disposal.

For Example:

Every day, meals are prepared that contain fats, oils and grease. All too often the fats, oils and grease are poured down the sink or garbage disposers which are not designed to properly handle these materials. Once FOG enters the drain, it begins to build up in the pipes and can eventually cause blockages and back ups. Here are some quick tips for properly disposing of FOG:

- Before washing, scrape and dry wipe pots, pans and dishes with paper towels and dispose of materials in the trash;
- Pour fats, oils and grease into a container such as an empty jar or coffee can. Once the materials have cooled and solidified and the container is full, secure the lid and place it in the trash; and
- Use sink strainers to catch food items, and then empty the strainer into the trash.

7.4.3 SCHEDULE

- a. The city sponsored dump program is offered on an annual basis.
- b. Fog education for households, businesses and industry is part of the short term public education plan to be executed within the first three years.

7.5 Legal Authority

Refer to Element 3 of the SSMP for all relevant ordinances and municipal requirements in place to support the inspection, implementation, and remediation of all specified efforts to minimize SSO caused by FOG related incidents.

7.6 Requirements for FOG collection devices

An existing Municipal Code Section 13.28.120, Grease Oil and Sand Interceptors, requires the installation and use of specified FOG collection devices.

7.7 FOG Problem Areas

The City monitors and maintains the sewer system as outlined in Element 4, Operation and Maintenance, of the SSMP. Element 4 identifies sanitary sewer system sections subject to FOG blockages and the associated maintenance efforts. This includes source control measures for problem areas that would be developed and implemented through the Replacement and Rehabilitation program.

ELEMENT 8 System Evaluation and Capacity Assurance Plan:

8.1 Introduction

The intent of this section of the Sewer System Management Plan (SSMP) is to document the City's planning efforts to assess the current capacity of the wastewater collection system, determine if there are current or expected planned needs, develop a capital improvement plan (CIP) for identified capacity needs, and fund the CIP program so that the wastewater conveyance needs are met before the capacity of the system is exceeded.

8.2 Regulatory Requirements

The SSMP is required by the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR), Order No. 2006-0003. The GWDR requires that the City shall prepare and implement a capital improvement plan 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:

- i) **Evaluation:** Steps to evaluate those portions of the collection 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;
- ii) **Design Criteria:** Where design criteria does not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria;
- iii) **Capacity Enhancement Measures:** 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, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding; and
- iv) **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 of State Water Resources Control Board Order No. 2006-0003-DWQ.

8.3 Evaluation

The City currently does not experience any portion of the collection system that contributes to an SSO discharge cause by hydraulic deficiencies. Portions of the overall system have been evaluated as part of regular maintenance operations and have found no areas with conditions that suggest overflow events are likely to occur. If an area of the collection system develops specific conditions that indicate a strong likelihood that an SSO event may occur, a specific comprehensive plan will be developed by the City to address the actual conditions found.

8.4 Design Criteria

All sanitary sewers are designed in accordance with the City's Improvement Standards and to accepted engineering principles. In all newly developed area and/or in all existing area where new sanitary sewers are required, the designs include the provisions that the sewer system size and capacity can adequately accommodate the ultimate anticipated conditions. Any type or any form of storm drain system is not be connected to any sanitary sewer system.

8.5 Capacity Enhancement Measures

Currently, no conditions exist that warrant the need to establish short and long term Capital Improvement Projects (CIP) in regards to possible SSO events. In the event a sewer system CIP is needed, the City will follow the guidelines as provided in Section 8.2.

8.6 Schedule

Currently, no CIP has been developed and therefore no associated schedule of completion dates has been prepared. In the case a CIP is developed, the City will also provide a schedule as outlined in Section 8.2.

ELEMENT 9 Monitoring, Measurement, and Program Modification:

9.1 *Introduction*

The intent of this section of the Sewer System Management Plan (SSMP) is to ensure the City adequately maintains and updates the municipal sewer system. Any necessary adjustments or modifications to the SSMP will be made based on the results from regular sewer system monitoring and measurement.

9.2 *Regulatory Requirements*

The SSMP is required by the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR), Order No. 2006-0003. The GWDR requires that the City shall:

- i) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- ii) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- iii) Assess the success of the preventive maintenance program;
- iv) Update program elements, as appropriate, based on monitoring or performance evaluations; and
- v) Identify and illustrate SSO trends, including frequency, location, and volume.

9.3 *Program Evaluation*

Implementation of the SSMP will begin this year and, therefore, no evaluation can yet be made in regards to its effectiveness. The following sections outline methods that may be used in the future to help evaluate the programs effectiveness.

9.4 *Program Records*

In order to best evaluate and prioritize SSMP activities for effectiveness and appropriateness, relevant documentation and records are needed. Below is a list of documents and records organized by element that should be collected and reviewed to properly evaluate the SSMP program.

- 1. Goal
 - a. Review goals outlined in section 1.3
- 2. Organization
 - a. Update organizational chart and contact information as needed, Sect. 2-6.
- 3. Legal Authority
 - a. Update regulation references as needed, Sect. 3-3.

4. Operation and Maintenance Program
 - a. Update system maps as needed, Sect. 4-3
 - b. Update system inventory as needed, Sect. 4-4
 - c. Update maintenance schedule as needed, Sect. 4-6
 - d. Update training schedule as needed, Sect. 4-8
 - e. Update replacement part list as needed, Sect. 4-9
 - f. Review program based on the maintenance frequency and number of problem incidents
5. Design and Performance Provisions
 - a. Review program based on the number of problem incidents
6. Overflow Emergency Response Plan
 - a. Review plan based on response effectiveness to any past SSO events
7. FOG Control Program
 - a. Review program based on number of FOG related incidents
8. System Evaluation and Capacity Assurance Plan
 - a. Review program based on the number of problem incidents
9. Monitoring, Measurement, and Program Modifications
 - a. Revise program as necessary
10. SSMP Program Audits
 - a. Revise program as necessary
11. Communication Program
 - a. Revise program as necessary

ELEMENT 10 Program Audits:

10.1 Introduction

This section of the Sewer System Management Plan (SSMP) outlines the necessity for the City to regularly perform internal audits to ensure that the municipal sewer system is adequately maintained as described in Element 9. The results of any internal audit and consequential adjustments or modifications to the SSMP will be reflected in this chapter.

10.2 Regulatory Requirements

The SSMP is required by the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR), Order No. 2006-0003. The GWDR requires that 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 City's compliance with the SSMP requirements identified in subsection D.13 of the GWDR, Order No. 2006-0003, including identification of any deficiencies in the SSMP and steps to correct them.

10.3 Audit History

Implementation of the SSMP will begin this year and therefore no audits can yet be made in regards to the program's effectiveness. The following sections, 10.4-10.7, are left in sample form format to be filled out in future reporting.

10.4 Frequency

The State requires that audits, at minimum, occur every two years. Over the last five years the City has conducted (amount) audits and thus meets the States requirements. Copies of the audits performed are available at the City for review.

10.5 Program Effectiveness

This section will summarize how well the City has done in regards to achieving the SSMP goals.

10.6 Program Deficiencies

This section will summarize areas where the City might be able to improve its SSMP program.

10.7 Program Corrective Measures

This section will summarize the proposed steps the City will make to improve the SSMP program to better achieve the SSMP goals.

ELEMENT 11 Communication Program:

11.1 Introduction

This section of the Sewer System Management Plan (SSMP) outlines the City's plan for ensuring open collaboration and communication with both the public and nearby effected agencies.

11.2 Regulatory Requirements

The SSMP is required by the Regional Water Quality Control Board (RWQCB) to satisfy the General Waste Discharge Requirement (GWDR), Order No. 2006-0003. The GWDR requires:

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 City as the program is developed and implemented.

11.3 Public Hearing

In order to provide an opportunity for public discussion and input on the development of the SSMP, the SSMP will be placed on the City Council agenda for public review and council approval. The SSMP work plan and intent were presented to and sequentially approved by the Council during the initial stages of the development. The City intends to again present the complete SSMP to City Council for final public review and comment.

11.4 Public Notice and Review

The City intends to notify the public of the completion and approval of the SSMP through notices on utility bill inserts and the City website. Similar notices will be mailed to organizations that may also be affected by this program. These efforts may be combined with the public education component of the SSMP that is also required.

For Example:

As part of the City's Sewer System Management Plan, the City wants to remind you to avoid costly pipe repairs by placing your cooking grease in the trash and not down the drain.

11.4 Public Review

The City intends to post a digital copy of the SSMP on the website for public review. A hard copy can also be made available at the City upon request.