



City of  
**Los Banos**  
*At the Crossroads of California*

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Public Works Department

# Sewer System Management Plan



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This Sewer System Management Plan is in conjunction with the following City documents:

- City of Los Banos Sewer Infrastructure Maps
- City of Los Banos Master Plan for Wastewater Collection System
- City of Los Banos Improvement Standards and Specifications

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<b>AACE</b>	Association for the Advancement of Cost Engineering
<b>APWA</b>	American Public Works Association
<b>BACWA</b>	Bay Area Clean Water Agencies
<b>CCTV</b>	Closed Circuit Television
<b>CIWQS</b>	California Integrated Water Quality System
<b>CRWA</b>	California Rural Water Association
<b>CWEA</b>	California Water Environment Association
<b>DHS</b>	Department of Health Services
<b>FOG</b>	Fats, Oils and Grease
<b>LBFD</b>	Los Banos Fire Department
<b>LBPD</b>	Los Banos Police Department
<b>LBPW</b>	Los Banos Public Works (department)
<b>MCEHD</b>	Merced County Environmental Health Department
<b>MRP</b>	Mandatory Reporting Program
<b>NPDES</b>	National Pollution Discharge Elimination System
<b>OERP</b>	Overflow Emergency Response Plan
<b>OES</b>	Office of Emergency Services
<b>PW</b>	Public Works (department)
<b>RWQCB</b>	Regional Water Quality Control Board
<b>SOPSPSF</b>	Standard Operating Procedures for Sewer Pump Station Failures
<b>SORP</b>	Sewer Overflow Response Plan
<b>SSO</b>	Sewer System Overflow
<b>SSORP</b>	Sewer System Overflow Response Plan
<b>SSMP</b>	Sewer System Management Plan
<b>SWMP</b>	Storm Water Management Plan
<b>SWRCB</b>	State Water Resources Control Board
<b>WDR</b>	Waste Discharge Requirement
<b>WWTP</b>	Waste Water Treatment Plant

This introductory section provides background information on the purpose and organization of this Sewer System Management Plan (SSMP) and provides a brief overview of the City's service area and sewer system.

### SSMP Requirement Background

This SSMP has been prepared in compliance with requirements of the Regional Water Quality Control Board (RWQCB) pursuant to section 13267 of the California Water Code. The RWQCB mandates that the City prepare a SSMP following the guidelines in the SSMP Development guide prepared by the RWQCB in cooperation with the Bay Area Clean Water Agencies (BACWA). The City must also comply with RWQCB sanitary sewer overflow (SSO) electronic reporting requirements.

The State Water Resources Control Board (SWRCB) enacted on May 2, 2006 to require all public wastewater collection system agencies in California with greater than one mile of sewers to be regulated under General Waste Discharge Requirements (GWDR). The SWRCB action also mandates the development of a SSMP and the reporting of SSO's using an electronic reporting system. The SWRCB SSMP requirements are similar to the RWQCB requirements, but differ in organization and some details.

### Document Organization

This SSMP is intended to meet the requirements of both the RWQCB and the GWDR. The Organization of this document is consistent with the RWQCB guidelines, but the contents address both the RWQCB and SWRCB requirements. The SSMP includes eleven elements, listed below. Each of these elements forms a section of this document. (As of November 2007 the Goals and the Organization are the only two elements of the eleven that are prepared for this SSMP.) Parenthesis indicate the title of the comparable SWRCB element.

1. Goals
2. Organization
3. Overflow Emergency Response Plan
4. Fats, Oils and Grease (FOG) Control Program
5. Legal Authority
6. Measures and Activities (Operations and Maintenance Program)
7. Design and Construction Standards (Design and Performance Provisions)
8. Capacity Management (System Evaluation and Capacity Assurance Plan)
9. Monitoring, Measurement, and Program Modifications
10. SSMP Audits
11. Communication

Supporting information for each element is included in the appendix associated with that section, as applicable. (The appendix would include information expected to require updates, such as names and phone numbers of staff, as well as supporting information, such as maps, forms or schedules.)

## SSMP Preparations Deadlines

Deadlines for completion of the required elements have been assigned based on the population served by the public wastewater collection system agency. The City of Los Banos is included in the schedule for population served between 10,000 and 100,000. The deadlines for preparation and implementation of the SSMP required actions and elements for this population group are as follows:

ACTIONS	Completion Dates
SSMP Development Plan and Schedule	11/1/07
Approval of SSMP, by agency's governing board (City Council)	11/1/07
Final SSMP Approval, by agency's governing board (City Council)	7/1/09
ELEMENTS	Completion Dates
Goals	11/1/07
Organization	11/1/07
Overflow Emergency Response Plan (Develop a formal SSO emergency response plan)	5/1/09
Fats, Oils and Grease Control Program (Establish a FOG program through regulation and education)	5/1/09
Legal Authority (Review and establish enforcement provisions for violations)	5/1/09
Measures and Activities (Assess and optimize maintenance activities)	5/1/09
Design and Construction Standards (Review and update design and construction standards)	7/1/09
Capacity Management (Hydraulic modeling will be included as part of the new Master Plan)	7/1/09
Monitoring, Measurement, and Program Modifications (Evaluation and updating of training, procedures and data)	7/1/09
SSMP Audits (Annual update and review of SSMP progress)	7/1/09
Communication (Continually educate all stakeholders)	7/1/09

## City Service Area and Sewer System

The City of Los Banos is located in the Central San Joaquin Valley at the cross roads of Highways 152, 165 and 33. Interstate 5 is six miles to the west and Highway 99 is 30 minutes to the east. Los Banos is famous for its agricultural products, including melons, almonds, walnuts, apricots, cotton, tomatoes and dairy products. As of May 2013 the City had a population of approximately 37,017.

The City's sewer system consists of approximately 130 miles of sewer mains, 13 lift stations, 1260 sewer manholes, and 245 sewer cleanouts, as of July 2013. Little or no change has occurred to date. The City provides sewer service to most businesses and residences within the City, as well as industries which discharge into the collection system.



This SSMP element identifies goals the City has set for the management, operation and maintenance of the sewer system and discusses the role of the SSMP in supporting these goals. These goals provide focus for City staff to continue high-quality work and to implement improvements in the management of the City's wastewater collection system. This section fulfills the Goals requirements of both the RWQCB (Element 1) and the SWRCB (Element 1) SSMP requirements.

### 1.1 Regulatory Requirements for Goals Element

The summarized requirements for the Goals element of the SSMP are as follows:

#### RWQCB Requirement:

The City of Los Banos must develop goals to manage, operate, and maintain all parts of its collection system. The goals should address the provision of adequate capacity to convey peak wastewater flows, as well as a reduction in the frequency of sanitary sewer overflows (SSO's) and the mitigation of their impacts.

#### SWRCB Requirement:

The City of Los Banos must develop goals to properly manage, operate, and maintain all parts of its wastewater collection system in order to reduce SSO's, as well as to mitigate any SSO's that occur.

### 1.2 Appendix

There is no appendix associated with Element 1.

### 1.3 Goals Discussion

Providing safe, responsive, and reliable sewer service is a key component to fulfilling the City's Public Works Department mission statement: "The City of Los Banos Public Works Department is committed to preserving and securing the health and safety of residents by providing quality wastewater services"

In support of this mission, the City has developed the following goals for the operation and maintenance of its sewer system. These goals are also adopted by the City's staff and provide procedures and guidelines for maintenance and cleaning activities.

1. Minimize sanitary sewer overflows.
2. Prevent public health hazards.
3. Minimize inconveniences by responsibly handling interruptions in services.
4. Protect the large investment in collection systems by maintaining adequate capacities and extending useful life.
5. Prevent unnecessary damage to public and private property.

6. Use funds available for sewer operations in the most efficient manner.
7. Convey wastewater to treatment facilities with a minimum of infiltration, inflow and exfiltration.
8. Provide adequate capacity to convey peak flows.
9. Perform all operations in a safe manner to avoid personal injury and property damage.

This SSMP supplements and supports the City's existing Operations & Maintenance program and goals by providing high-level, consolidated guidelines and procedures for all aspects of the City sewer system management. The SSMP will contribute to the proper management of the collection system and assist the City in minimizing the frequency and impacts of SSOs by providing guidance for appropriate maintenance, capacity management, and emergency response.



## 2.1 SSMP Staff Organization

The organization chart for the management, operations, and maintenance of the City's wastewater collection system is shown in Figure 2-1. The names and phone numbers of staff filling these positions are included in Appendix A, Table 1.

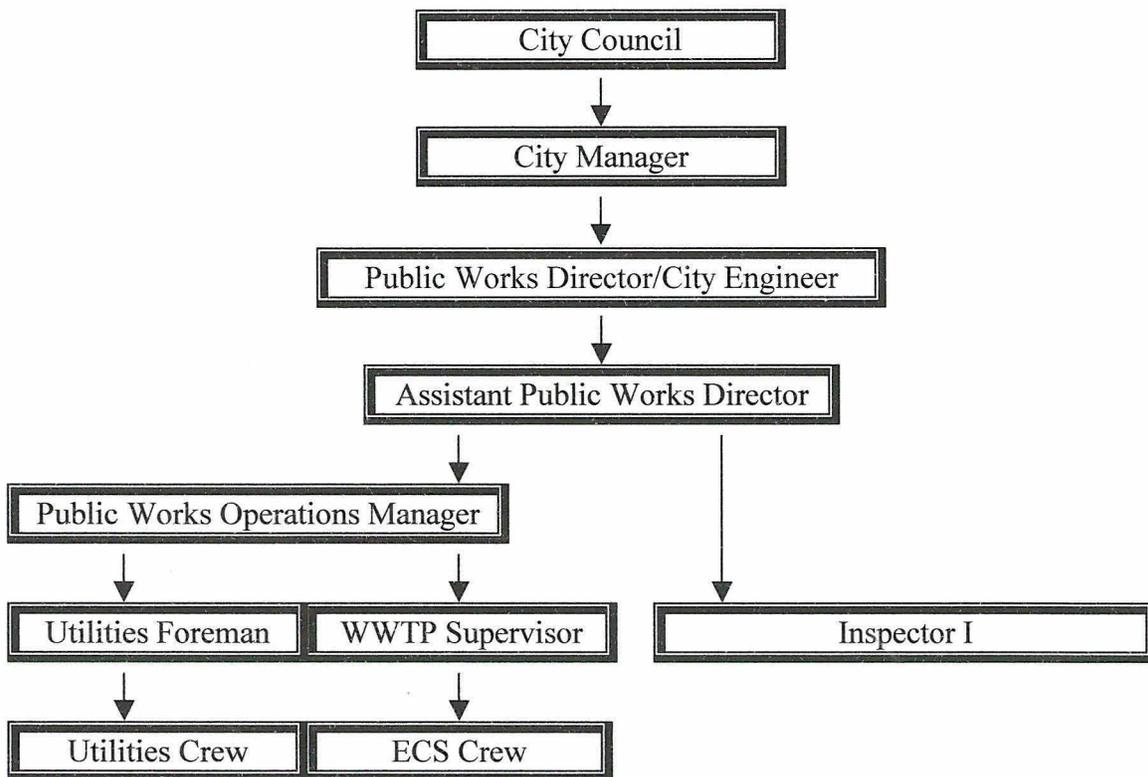


Figure 2-1. Organization Chart of Sewer Staff

## 2.2 Element 2 Appendix

Supporting information for Element 2 is included in Appendix A. This appendix includes the following documents:

1. Public Works Contact List

## 2.3 Description of General Responsibilities

**Public Works Director/City Engineer.** Plans, organizes, directs, and supervises the Public Works activities of the City. Advises the City Council and Planning Commission on engineering and Public Works matters, including those related to the collection system. Oversees and controls department budget. Reviews project plans and specifications for public works projects and performs technical engineering planning studies. Confers with engineering consultants and officials of other public works departments.

**Assistant Public Works Director.** Works under the broad policy guidance and direction of the Public Works Director/City Engineer. Works to improve efficiency and effectiveness of operations. Assists the Public Works Director/City Engineer in development of department plans, including sewer operations and the Capital Improvement Program. Supervises the review of private development plans for compliance of codes, regulations, and standards, adequacy of applications for permits and compliance with approved plans. Oversees and coordinates sewer maintenance operations. Acts as project manager on public works projects, including sewer projects. Confers with contractors, consultants, and the public on engineering and construction matters. Prepares reports on sewer and other public works projects.

**Public Works Operations Manager.** Plans, organizes, and supervises the maintenance and repair of City public works infrastructure, including sewers. Manages the various public works Services. Reviews plans and specifications for sewer and other projects, and makes recommendations regarding maintenance, construction, and operations aspects. Controls budget expenditures within the Utilities Services. Confers with contractors, engineers, and members of the general public on construction and maintenance problems and procedures.

**Wastewater Treatment Plant Supervisor.** Supervises Sewer lift station maintenance workers. Schedules work assignments. Maintains records of projects assigned and completed, supplies and equipment used, and cost incurred. Estimates needed equipment and equipment maintenance.

**Utilities Foreman.** Investigates sewer related complaints from the general public. Supervises and personally assists in the cleaning and repair of sewer mains and lines. Oversees the locating and raising of manholes. Lays out and schedules work for the crew. Trains crew members in specific tasks, as needed, including collection system preventive maintenance and SSO response. Checks work of assigned crew.

**Utilities Crew / Environmental Control Specialist (WWTP) Crew.** Works alone or as part of a crew. Repairs, unplugs, cleans, and performs preventative maintenance on sewer lines. Repairs and maintains the many sewer lift stations throughout the system. Operates power equipment including hydraulic / vacuum cleaning truck. Conforms to all confined space regulations, USA and other safety rules.

**Inspector I.** Works to insure that public works projects meet the current code requirements. Inspection of development and infrastructure projects to insure that plans, materials and scope of work meet with the City's standards. Observe all projects for compliance with Best Management Practices Policies.

## 2.4 Authorized Representative

The City's authorized representative in all wastewater collection system matters is the Public Works Director/City Engineer. The Public Works Director/City Engineer is authorized to certify electronic spill reports submitted to the SWRCB

The assistant Public Works Director is authorized to act in the Director's absence.

The Wastewater Treatment Plant Supervisor (or other designee) is authorized to complete electronic SSO reports for further certification by the Director.

## 2.5 Responsibility for SSMP Implementation

The Public Works Director/City Engineer is responsible for implementation and maintaining all elements of this SSMP.

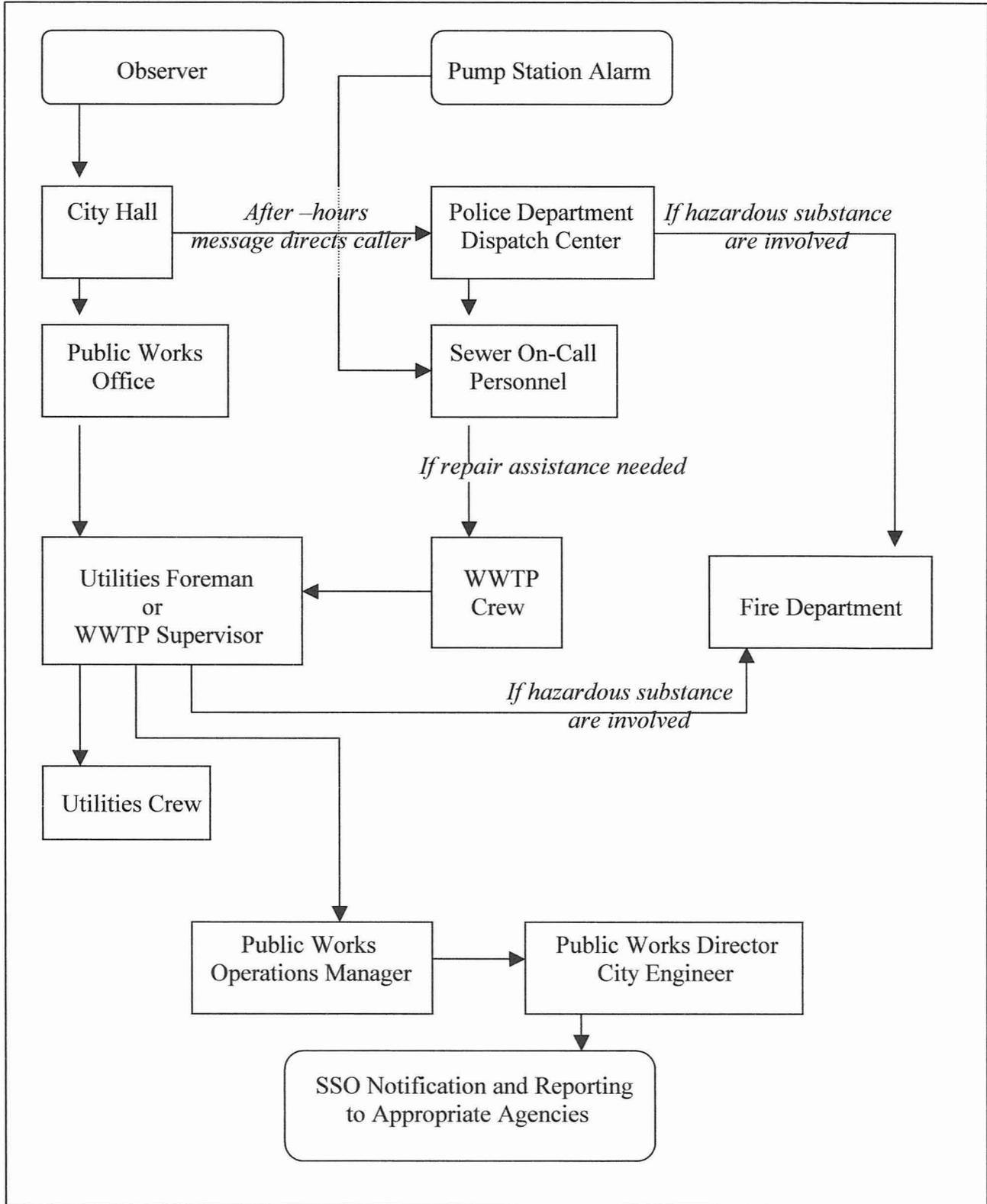
## 2.6 SSO Reporting Chain of Communication

Figure 2-2 contains a flowchart depicting the chain of communication for responding to and reporting SSO's, from observation of a SSO to reporting the SSO to the appropriate regulatory agencies. Table 2-1 lists contact phone numbers for the parties included in the chain of communication. The SSO reporting process is described in more detail in Element 3: Overflow Emergency Response Plan. (Element 3 pending.)

Table 2-1. Contact Numbers for SSO Chain of Communication

<b>Contact</b>	<b>Telephone Number</b>
City Hall	(209) 827-7000
Public Works Office	(209) 827-7056
Police / Fire Department Dispatch Center	(209) 827-7070
Public Works Director/City Engineer	(209) 827-7056
Public Works Operations Manager's Office	(209) 827-7044
Wastewater Treatment Plant Supervisor	(209) 827-7052
Public Works Utilities Foreman	(209) 827-7056
Sewer On-Call Personnel	(209) 587-1013

Figure 2-2. SSO Response Chain of Communication





## Element 3: Overflow Emergency Response Plan

This section of the SSMP provides an overview and summary of the City's emergency response documents and procedures for sewer overflows. Complete documentation for overflow response procedures are attached in Appendix B. This section fulfills the Overflow Emergency Response Plan requirement of both the RWQCB (Element 3) and the SWRCB (Element 6) SSMP requirements.

### 3.1 Regulatory Requirements for Overflow Emergency Response Plan Element

The summarized requirements for the Overflow Emergency Response Plan element of the SSMP are as follows:

#### RWQCB Requirement:

The collection system agency must develop an Overflow Emergency Response Plan (OERP) that provides procedures for SSO notification, reporting, and impact mitigation. The response plan should be developed as a stand-alone document and summarized in the SSMP.

#### SWRCB Requirement:

The collection system agency 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 insure appropriate response to all overflows.
- (c) Procedures to insure prompt notification to appropriate regulatory agencies and other potentially effected 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 WDR or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
- (d) Procedures to insure 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 insure that all reasonable steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to waters of the United States and 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.

## 3.2 Element 3 Appendix

Supporting information for Element 3 is included in Appendix B. This appendix includes the following documents:

1. Public Works Department - Sanitary Sewer Overflow Response Plan
2. Public Works Department - Standard Operating Procedure for Sewer Pump Station Failure

## 3.3 Overview of Sewer Overflow Response Documents

The City has two separate documents that define procedures or guidelines for responding to sewer overflows or other sewer-related emergencies (e.g., stoppages or pump station failures).

The Sanitary Sewer Overflow Response Plan and Operational Guidelines provides overflow emergency response procedures from the receipt of a sewer system overflow complaint, through response and cleanup, to reporting of the overflow to the appropriate government agencies. The document is relevant to anyone involved in the overflow response process, including the person initially receiving information about the SSO, the first responder and field crew responsible for identifying the source of the problem, correcting the cause of the overflow, and cleaning the surrounding area as well as other agency responders that could potentially be involved in the process (police and fire departments). The guidelines also include forms that a responder needs to fill out and guides the person responsible for submitting the overflow reports.

The Standard Operating Procedures for Sewer Pump Station Failure provides brief instructions on who to contact and how to respond in case of a failure of any of the City's many (currently thirteen) sewer lift pump stations. This document is most relevant to maintenance staff responsible for responding to overflows.

The Sanitary Sewer Overflow Response Plan and Operational Guidelines are summarized in the following subsections and included in Appendix B. This document should provide the procedures and guidelines necessary for fulfilling both the RWQCB and SWRCB emergency response plan requirements.

## 3.4 Summary of Sanitary Sewer Overflow Response Plan and Operational Guidelines

The City's overflow response plan is divided into seven sections, as follows:

- I. Authority
- II. General (objectives and organization)
- III. Overflow Response Procedure
- IV. Public Advisory Procedure
- V. Regulatory Agency Notification Procedure
- VI. Media Notification Procedure
- VII. Distribution and Maintenance of Sanitary Sewer Overflow Response Plan and Operational Guidelines

Objectives of the City's Sanitary Sewer Overflow Response Plan and Operational Guidelines are to protect public health and the environment, satisfy regulatory agency requirements, and minimize risk of enforcement actions against the City. Additional objectives include providing appropriate customer service and protecting City personnel, the collection system and facilities, and private and public property.

### Initial Notification and Response

Section III of the plan details response procedures from initial notification through field response and internal reporting. Subsections include the following:

- A. *Receipt of Information Regarding an SSO:* This subsection provides the contact information and chain of communication for receiving overflow reports, including pump station failures. This subsection also details the information that should be obtained regarding the overflow. Refer to Element 2 (organization) of this SSMP for a flow chart depicting the chain of communication.
- B. *Dispatch of Appropriate Crews to Site of Sanitary Sewer Overflow:* This subsection details protocols for dispatching appropriate crews and equipment, and discusses the additional communication between the response crew and supervisors. Guidelines for completing and documenting a preliminary damage assessment are provided, and coordination with any hazardous material response is explained.
- C. *Overflow Correction, Containment, and Cleanup:* This subsection describes the responsibilities of the response crew while on site. Upon arrival, the crew is responsible for determining the cause of the overflow, assessing the need for additional equipment or assistance, notifying the dispatcher to notify the Merced County Health Department if private property is effected, and taking immediate steps to stop the overflow. This subsection also discusses measures that should be taken for containment, sampling, and site cleanup. Section IV of the plan is referenced for determining whether public advisory notices are to be posted.
- D. *Overflow Report:* The Supervisor is responsible for submitting an overflow report to the Operations Manager. This subsection details the information to be included in the report, including indication whether the overflow reached receiving waters, start and stop time of the overflow, overflow volume, and damage assessment.

Officials receiving immediate notification of the SSO vary depending on the size of the spill and whether or not the spill contains hazardous materials, effects surface waters, or has the potential to impact human health. Appendix B, document 1 lists these officials, and the circumstances under which they are notified.

## Public Notification

Sections IV (Public Advisory Procedures) and VI (Media Notification) of the plan discuss circumstances under which the public should be notified of an SSO and establishes responsibilities for posting notices or contacting the media. Potential public notification measures include temporary signage to indicate any polluted surface waters or ground water due to an SSO and notification through media outlets. The Operations Manager is responsible for determining if temporary signage and further notification is necessary. The Operations Manager will serve as the contact person for all media notification communication.

## Agency Reporting

Section V of the response plan details reporting requirements to the RWQCB and the State Office of Emergency Services (OES). Criteria for immediate reporting versus ten day reporting are specified per RWQCB requirements, and the section includes a decision-making flowchart. This section also provides contact information for other agencies that may need to be contacted.

## Distribution, Updates, and Training

In addition to maintenance staff, Section VII of the response plan specifies additional departments that should receive the plan, including the Police Department and Fire Department. This section also provides for annual review and update of the plan, as well as annual training sessions for personnel.

## Sewer Backup Into Home or Business

This section includes flowcharts to determine the source of the backup, instructions on filling out the appropriate forms, and tips for communicating effectively with homeowners. Forms to be filled out include a first responder, field report form, which describes the location of the backup and provides an initial damage assessment.



## Fats, Oils, and Grease (FOG) Control Program

This section of the SSMP discusses the City's FOG control measures, including identification of problem areas, focused cleaning, and source control. This section fulfills the FOG control requirement for both the RWQCB (Element 4) and the SWRCB (Element 7) SSMP requirement.

### 4.1 Regulatory Requirements for FOG Control Element

The requirements for the FOG Control element of the SSMP are summarized below:

#### RWQCB Requirement:

The City must evaluate its service area to determine whether a FOG control program is needed. If so, a FOG control program shall be developed as part of the SSMP. If the City determines that a FOG program is not necessary, proper justification must be provided.

#### SWRCB Requirement:

The City shall evaluate its service area to determine whether a FOG control program is needed. If the City determines that a FOG program is not needed, the City must provide justification for why it is not needed. If FOG is found to be a problem, the City must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. The FOG source control program shall include the following as appropriate.

- (a) An 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 dischargers 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 grease removal devices, maintenance requirements, record keeping and report requirements;
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the City has sufficient staff to inspect and enforce the FOG ordinance.
- (f) An identification of sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section; and
- (g) Development and implementation of source control measures for all sources of FOG discharged to the sewer system, for each sewer system section identified in (f) above

## 4.2 Element 4 Appendix

Supporting information for Element 4 is included in Appendix C. This appendix includes the following documents:

1. List of food facilities in Los Banos (potential grease dischargers).
2. Merced County Environmental Health Department contact information. (serves as the inspection and enforcement agency for food services)
3. Log of sewers cleaned frequently due to a history of FOG.
4. Schedule for cleaning of identified sewer sections.
5. Sewer lift pumping station inspection and maintenance record form.
6. Public Outreach Brochures

## 4.3 FOG Control Discussion

The City has determined that a FOG control program is necessary per SSMP requirements. Over 90 food services (and other potential FOG producing facilities) are located within the City Limits and discharge to the City sewer system. Operations and maintenance staff have also noted the tendency for grease buildup in sewer lines and sewer lift pump station wet wells. This Section discusses measures that the City takes to control FOG.

The City's FOG control program consists of inspection, cleaning, and maintenance of identified sections of the sewer system. The following subsections discuss identification and cleaning of grease-prone areas, facility inspection, and public outreach.

### Identification and Sewer Cleaning

The core means of FOG control utilized by the City is the identification of trouble spots or sewer lines that are likely prone to grease accumulation, and targeted cleaning of these areas.

- a. Identification of Grease Problem Areas. The City collection staff identifies potential grease problem areas by routine weekly inspection of sewer system sections with a history of FOG buildup. The Wastewater Treatment Plant operations staff makes routine weekly inspections of all sewer-lift pumping stations to include an evaluation of the FOG buildup in the lift station wet well. Areas with grease-producing facilities are also considered likely potential problem areas.
- b. Focused Cleaning. Cleaning frequency depends on inspection and evaluation made by the maintenance crews, history of stoppages, and areas expected to be prone to grease buildup. Cleaning, by our City's maintenance crew, is accomplished largely by use of rodding cleaning equipped truck and vacuum equipment for the removal of grease, as well as other types of debris. The maintenance crew uses detailed maps of the collection system for an organized cleaning strategy, cleaning from lamp hole, through manholes and to lift station wet-wells. The lift pump maintenance crew utilizes a numerical evaluation system to monitor changes in the system and decide when wet well cleaning is necessary.

- c. Blockage Investigation. The City collection crew uses our CCTV Van for inspection of suspect areas and investigation of sources of FOG, when issues arise.

Additional information about cleaning and maintenance is included in Element 6: Measures & Activities

## Legal Authority

Legal measures available to the City control sources of FOG include the following:

- Authority to prohibit dischargers
  - Requirement of grease removal device
  - Authority to inspect grease-producing facilities
  - Enforcement measures, as appropriate
- a. Legal authority to prohibit dischargers. Section 6-5.04 subsection (c) & (e) of the City's municipal code prohibits grease disposal, as follows:

(c) Materials prohibited in sewers. No person shall discharge, or cause to be discharged, any of the following described waters or wastes to any public sewer:

(4) Solid or viscous substances which may precipitate, solidify, or become viscous at temperatures existing within the sewer collection system in quantities or of such size capable of causing obstructions to the flow in sewers or other interference with the proper operation of the sewage works.

(e) Materials the City Engineer may prohibit in sewers. No person shall discharge, or cause to be discharged, into any sewer, the following described substances, materials, waters or wastes if it appears likely, in the opinion of the City Engineer, that such wastes can harm either sewers, sewage treatment plant process, or equipment, have an adverse effect on the receiving area, or otherwise endanger life, limb, public property, or constitute a nuisance. In forming his opinion as to the acceptability of such waters, the City Engineer will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, the materials of construction of the sewers, the nature of the sewer treatment process, the capacity of the sewage treatment plant, the degree of treatability of wastes in the sewage treatment plant, and other pertinent factors:

(2) Any waters or wastes containing fats, wax, grease, or oils of animal origin, whether emulsified or not, in excess of 100 mg/L or containing substances which may solidify or become viscous at temperatures between thirty-two (32) degrees and 150 degrees Fahrenheit (zero and (65) degrees Centigrade);

- b. Requirement of grease removal device. Section 6-5.04 subsection (f) of the City's municipal code requires a grease removal device by all dischargers in order to comply with subsections (c) and (e), as quoted previously. The City's municipal code requires dischargers to comply with the most recent edition of the Uniform Plumbing Code, as follows:

(f) Interceptors and separators. Interceptors and separators required to comply with subsections (c) and (e) of this section or as required in the judgment of the City Engineer shall comply with the applicable sections of the most recently adopted edition of the Uniform Plumbing Code.

- c. Authority to inspect grease-producing facilities. Section 6-5.07 subsection (d) of the City's municipal code establishes the authority for the City to conduct inspections and monitor wastewater discharges, as follows:

(d) City inspections. The City may inspect the facilities of any discharger to ascertain whether the provisions of this chapter are being met and the wastewater discharge limits are being complied with. Such inspections shall be made with the consent of the owner or possessor of such facilities or, if such consent is refused, with a warrant duly issued pursuant to the procedure in accordance with general law; provided, however, in the event of any emergency effecting the public health or safety, such inspections may be made without consent or the issuance of a warrant. To verify the wastewater flows and strengths reported by dischargers or to determine compliance with this chapter, inspections, measurements, and samplings, may be conducted from time to time by the City. The City shall have the right to install, maintain, and operate the necessary sampling and measuring equipment on the premises of the discharger.

The City works in co-operation with the Merced County Environmental Health Department. They routinely inspect food service, commercial and industrial, establishments for proper operation, necessary cleaning of grease removal devices, and possible violations.

- d. Enforcement measures, as appropriate. Section 6-5.08 Subsections (a), (c) and (d) of the municipal code include enforcement measures for violations of any sewer protection measure, including grease discharge. These measures range from issuance of a notice of non-compliance to criminal penalties, as follows:

(a) Enforcement. The City may adopt procedures and rules for the implementation and administration of this chapter. The City shall enforce the provisions of this chapter, including requirements established or permits issued hereunder in this section.

(1) Requiring dischargers to submit schedules for remedial or preventive measures. When the City finds that a discharge of waste water is taking place or threatening to take place that violate the prohibitions or limits prescribed by this chapter or the waste water source control requirements or the provisions of a waste water discharge permit, the City may require the discharger to submit for approval, with such modifications as it deems necessary, a detailed time schedule of specific actions the discharger shall take to correct or prevent a violation of such requirements.

(2) Issuance of a cease and desist order. When the City finds that a discharger of waste water is taking place or threatening to take place in violation of the prohibitions or limits of this chapter or the waste water source control requirements or the provisions of waste water discharge permit, the City may issue an order to cease and desist and direct that those persons not complying with such prohibitions, limits, requirements, or provisions (1) comply forthwith; (2) comply in accordance with a time schedule set by the City; or (3) in the event of a threatened violation, take appropriate remedial or preventative action.

(c) Criminal penalties. Any person who intentionally discharges waste water in any manner in violation of any order issued by the City, which discharge results in contamination, pollution, or a nuisance, as defined in this chapter, shall be a misdemeanor.

(d) Civil enforcement remedies and penalties. The City may pursue any of the following alternative civil remedies against any discharger who violates the provisions of this chapter:

(1) Damages to facilities: When the discharge of wastewater causes an obstruction, damages, or other impairment to City disposal facilities, the City may assess a charge against the discharger for the work required to clean or repair the facility and add such charge to the discharger's sewage disposal charge.

(2) Fines. A fine of Six Thousand (6,000.00) Dollars per day may be assessed against any person who intentionally or negligently violates any order issued by the City for violations of the provisions of this chapter or regulating or prohibiting the discharger of wastewater which causes, or threatens to cause, a condition of contamination, pollution, or nuisance, as defined in this chapter. (§ 2, Ord. 615, eff. August 21, 1978)

### Public Outreach

The City uses brochures entitled "FOG Prevention" and "Fat-Free Sewers" in addition to other means of reducing backups or blockages. The brochure discusses grease and the roll of fats, oils, and grease in causing blockages. This brochure is displayed and available at the Public Works office counter and will be utilized at local outreach events, such as: County Fair booth, Senior Fair booth, and the Water Awareness student classroom presentations conducted annually by a team from our Public Works staff.

The City distributes letters to Restaurants outlining the required maintenance of grease removal devices. It covers maintenance, cleaning frequency, record keeping requirements and the right of inspection by the City. It also includes suggested pollution management practices and provides a cleaning record verification form.

The City mails letters to restaurants, auto shops, and retail outlets concerning FOG, BMPs and storm runoff practices annually.

**Table 4-2. Summary Table With Respect to Possible FOG Elements Identified by the State**

State Element	Los Banos
(a) An implementation plan and schedule for a public outreach education program that promotes proper disposal of FOG	Residential FOG not currently a major SSO factor. The brochures and outreach events are sufficient at this time. Merced County Environmental Health Department routinely inspects commercial establishments.
(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	The educational materials direct residents to utilize a proper container for disposal in the trash. Commercial establishments must have FOG removed from their grease interceptor by a grease removal company and trucked off site. The City does not accept loads from grease hauling companies. The nearest WWTP accepting FOG is the City of Merced WWTP approximately 30 miles to the northeast.
(c) The legal authority to prohibit dischargers to the system and identify measures to prevent SSOs and blockages caused by FOG	Los Banos FOG program includes adequate legal authority to prohibit dischargers and to identify measures to prevent SSOs and blockages from FOG. The City distributes letters to restaurants, auto shops, & retail outlets concerning FOG and BMPs.
(d) Requirements to install grease removal devices (such as traps or interceptors) design standards for the grease removal devices, maintenance requirements, record keeping and report requirements.	Los Banos Municipal Code requires grease interceptors for all new or remodeled food service facilities. The Municipal Code also requires construction to conform to the Uniform Plumbing Code
(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the City has sufficient staff to inspect and enforce the FOG ordinance	Los Banos has adequate authority to inspect and enforce the Municipal Code requirements in respect to FOG. Merced County Environmental Health Department routinely inspects commercial establishments.
(f) An identification of sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section	Los Banos Public Works crews routinely identify areas prone to FOG accumulation. They inspect sewer mains, maintain a cleaning schedule and log all cleaning activities to include sewer lines and lift station wet wells.
(g) Development and implementation of source control measures, for all sources of FOG discharged to the sewer system, for each sewer system section identified in (f) above	At this time the cleaning schedule appears sufficient to reduce FOG blockages and prevent FOG related overflows.



## Element 5: Legal Authority

This element of the SSMP discusses the City's Legal Authority, including its Municipal Code. This section fulfills the Legal Authority requirement for the RWQCB (element 5) and the SWRCB (element 3).

### 5.1 Regulatory Requirements for Legal Authority Element

The requirements for the Legal Authority element of the SSMP are summarized below:

#### RWCB Requirement

The City must demonstrate that it has the legal authority (through ordinances, service agreements, and other bidding procedures) to control infiltration and inflow (I/I) from satellite collection systems and private service laterals; require proper design, construction, installation, testing, and inspection of new and rehabilitated sewers and laterals; and enforce violation of ordinances.

The SSMP should describe specific applicable legal mechanisms, with citations of names and code numbers of ordinances. If legal authority does not currently exist for a required element, the SSMP should indicate a schedule of activities to obtain the proper legal authority.

#### SWRCB Requirement

The City must demonstrate, through collection system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- (a) Prevent illicit discharges into the wastewater collection system (examples may include infiltration and inflow (I/I), storm water, chemical dumping, unauthorized debris and cut roots, etc.);
- (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 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.

### 5.2 Element 5 Appendix

Supporting information for element 5 is included in Appendix D. This appendix includes the following document:

Chapter 5 (Sewer System) of the Municipal Code

### 5.3 Municipal Code

The legal authority required for the SSMP by the SWQCB and the SWRCB is contained within Section 6-5.01 through 6-5.12, of the City's municipal code dedicated to the sewer system, all included within Chapter 5:

- 6-5.01 Definitions
- 6-5.02 Use of public sewers required: Exceptions
- 6-5.03 Building sewers and connections
- 6-5.04 Discharges to public sewers
- 6-5.05 Discharger classifications and calculations of sewage disposal charges
- 6-5.06 Wastewater discharge permits
- 6-5.07 Administration
- 6-5.08 Enforcement and penalties
- 6-5.09 Charger: Amendments
- 6-5.10 Prohibited activities involving wastewater facilities
- 6-5.11 Severability
- 6-5.12 Wastewater collection and treatment fees

Sections 6-5.02, 6-5.03, 6-5.04, 6-5.07, 6-5.08, 6-5.09, and 6-5.12 as listed above pertain to the legal authority required for fulfillment of SSMP requirements. These sections are included in full in Appendix D, Chapter 5 (Sewer System). Portions of this Chapter are discussed in the following subsections as they pertain to prevention of illicit discharges, proper design and construction of sewer and connections, maintenance access, and enforcement measures.

#### Prevention of Illicit Discharges

All measures prohibiting illicit discharges are included in section 6-5.04, Discharges to Public Sewers. The specific purpose of this section is to prevent the discharge of any pollutant into the sewers that would obstruct or damage the collection system, interfere with treatment, or threaten harm to human health or the environment. Examples of discharges covered are included below. Refer to the municipal code included in Appendix D for the complete text.

- Storm Water and I/I. Section 6-5.04 (a), Prohibits discharge of storm water, clear water, ground water, roof runoff, subsurface drainage, uncontaminated cooling water, or uncontaminated process water to any sanitary or industrial sewer or natural outlet; (b) accept by approval of the City Engineer. Furthermore, Section 6-5.04 (b) expressly requires that storm water and other unpolluted drainage be discharged into a storm sewer or approved natural outlet.
- Chemical Dumping. Section 6-5.04 (c), Prohibits discharge of gasoline, benzene, naphtha, fuel, oil, flammable, explosive, toxic or poisonous, liquid, solid or gas, or waters that interfere with the treatment process, or constitute a hazard to humans or animals, or create a public nuisance.
- Industrial Waste. Section 6-5.06, Requires all industrial waste dischargers to obtain a permit and prohibits discharge in excess of the permit allowance. The permit issued may include provisions for wastewater quality and quantity. Additionally, regulations may require periodic testing, reporting, and notification of discharges.

- **Other Discharges.** Section 6-5.04 (c)(4), Prohibits the discharge of various debris such as, but not limited to, ashes, bones, cinders, glue, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, un-ground garbage, whole blood, manure, hair, ground paper, and the like.

## Proper Design and Construction of Sewers and Connections

Regulations pertaining to the design, construction, and inspection of private sewer systems, building sewers, and connections are included in Chapter 5, Section 6-5.03 of the Municipal Code.

- **Permit Required.** A permit is required prior to construction of any private sewage disposal system (section 6-5.02, (d)). A permit is also required prior to constructing a building or lateral sewer or connecting to a public sewer (section 6-5.03). This section also lays out the requirements for obtaining a permit and provides for review of plans and specifications by the City.
- **Design Requirements.** Section 6-5.03, (g), specifies the minimum size and slope of a building sewer, as well as connections allowed to the building sewer. This section states that the design and materials shall conform to the current requirements of the Uniform Building Code.
- **Construction Requirements.** Section 6-5.02, (i), requires that construction of building sewers conform to the requirements of the Building and Plumbing Codes, as well as the Improvement Standards and Specifications currently in effect.
- **Inspecting and Testing.** All building sewers shall be tested and inspected, (section 6-5.03, (j)). connection to the public sewer shall be made in the presence and under the inspection of the Inspector or his representative.

## Lateral Maintenance Access

Property owners are responsible for maintaining the building sewer (lateral), per section 6-5.04, (d) of the Municipal Code. The “building sewer” (section 6-5.01, (b), is defined as “the extension from the building drain to the public sewer”.

## Limit Discharge of FOG and Other Debris

As discussed under Element 4: Fats, Oils, and Grease (FOG) Control Program, Section 6-5.04 of the Municipal Code prohibits grease disposal, including discharge to any public or private sanitary sewer. This section requires a grease removal device for commercial or industrial grease generators. Section 6-5.08 outlines enforcement and penalties for violation of the code requirements.

Discharge of debris is covered in section 6-5.04 of the Municipal Code, which among other things, prohibits discharge of any waste that could cause a nuisance, cause damage to the sewer system, or cause extra collection, treatment, or disposal costs. Additionally, prohibits discharge of solids that will obstruct or damage the collection system and prohibits discharge of any substance into a manhole.



This section of the SSMP discusses the City's operations, maintenance and other related measures and activities. This section fulfills the Measures and Activities SSMP requirement for the RWQCB (Element 6) and the Operation and Maintenance Program SSMP requirement for the SWRCB (Element 4).

### 6.1 Regulatory Requirements for the Measures and Activities

The requirements for the Measures and Activities element of the SSMP are summarized below. Since requirements for this SSMP element contain several categories, this summary is organized by category, with RWQCB and SWQCB requirements described for each category as applicable.

#### Collection System Map

RWQCB Requirement: The wastewater agency must maintain up-to-date maps of its collection system facilities. The SSMP should describe the types of maps currently being used, along with procedures for updating the maps with new and rehabilitated facilities.

SWRCB Requirement: As appropriate and applicable to the system, the wastewater agency must maintain up-to-date maps of the sanitary sewer system, showing all gravity line segments, manholes, pumping facilities, pressure pipes, valves and stormwater conveyance facilities.

#### Resources and Budget

RWQCB Requirement: The wastewater agency shall allocate adequate resources for the operation, maintenance, and repair of its collection system. The SSMP should demonstrate that the resources are adequate for an acceptable delivery of the agency's services.

SWRCB Requirement: None.

#### Prioritized Preventive Maintenance

RWQCB Requirement: The wastewater agency shall prioritize its preventive maintenance activities. The SSMP should describe the system currently used for prioritized preventive maintenance and any plans, as needed, to maintain the integrity of the system and reduce frequency of SSOs.

SWRCB Requirement: As appropriate and applicable to the system, the wastewater agency must 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 preventive maintenance program should have a system to document scheduled and conducted activities, such as work orders.

## Scheduled Inspections and Condition Assessment

**RWQCB Requirement:** The wastewater agency shall identify and prioritize structural deficiencies and implement a program of prioritized short-term and long-term actions to address them. The SSMP should describe the approach used for scheduled inspections and condition assessment of the sewer collection system. The approach should address criteria and results for short-term and long-term prioritization of corrective actions, based on identified structural or other deficiencies.

**SWRCB Requirement:** As appropriate and applicable to the system, the wastewater agency must 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 manhole and sewer pipes, and a system for ranking the condition of the sewer pipes and scheduled rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to 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.

## Contingency Equipment and Replacement Inventories

**RWQCB Requirement:** The wastewater agency shall provide contingency equipment to handle emergencies, and spare/replacement parts intended to minimize equipment downtime. The SSMP should summarize the agency's critical spare parts inventory and list major equipment used for sewer system operation and maintenance.

**SWRCB Requirement:** As appropriate and applicable to the system, the wastewater agency must provide equipment and replacement part inventories, including identification of critical replacement parts

## Training

**RWQCB Requirement:** The wastewater agency shall provide training on regular basis for its staff in collection system operations, maintenance, and monitoring. The SSMP should include a description of the agency's training program and whether any changes or improvements are anticipated in the near future.

**SWRCB Requirement:** As appropriate and applicable to the system, the wastewater agency must provide training on regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained.

## Outreach to Plumbing and Building Contractors

RWQCB Requirement: The wastewater agency must implement an outreach program to educate commercial entities involved in sewer construction or maintenance about the proper practices for preventing blockages in private laterals. This requirement can be met by participating in a region-wide outreach program.

SWRCB Requirement: None.

## 6.2 Element 6 Appendix

Supporting information for element 6 is included in Appendix E. This appendix includes the following documents:

1. City Council Resolution for the adoption of the 2008 Wastewater Collection System Master Plan
2. Equipment list
3. Wastewater Budget

Additional related documents to support Element 6 are located in Appendix C

4. Log of sewers cleaned frequently due to a history of FOG
5. Schedule for cleaning of identified sewer sections
6. Sewer lift pumping station inspection and maintenance record form

## 6.3 Collection System Map Discussion

The City has block book maps of their sewer and storm systems, with block book sheets covering approximately 0.25 sq. mile. Maps are printed into a map book for use by maintenance and engineering staff. Each grid has a page assigned based on the grids location. The block book map shows flow direction, pipe diameter, street names, parcels, and sewer lift station locations within the system.

The City has a map room where maps are indexed and filed. Both paper and Mylar maps are maintained for the entire sewer system and sewer lift stations. These maps are design maps, as well as the as-built maps that show more detail than the working crew's block book maps. These maps include: pipe inverts, manhole inverts, manhole depth, and complete sewer lift station details.

The City recently prepared and approved the Wastewater Collection System Master Plan (adopted by City Council Resolution on 9/3/2008). The Master Plan details the collection system sewer lines, trunk lines, and sewer lift stations both current and for future planned development. The plan also evaluates the system capacity and identifies areas of planned upgrade and rehabilitation.

The City Inspection staff reviews and updates the maps with any new development or corrections, as needed.

## 6.4 Resources and Budget Discussion

The City funds the sewer system services including operations, maintenance, and capital projects, through a sewer enterprise fund. This fund is user-supported; it uses revenue from ratepayers to fund sewer related work. The City currently has adequate resources and budget to provide sufficient operations, maintenance, and repair of the collection system as required by the SSMP, and the City re-evaluates its budgets annually. The current budget is included in Appendix E.

New Infrastructure required for new construction projects are funded by developers, development fees, and impact fees as related to the project, and the impact on the sewer collection system. These fees are reviewed and updated to assure adequate funding as necessary.

In the Wastewater Collection System Master Plan, the City has identified several capital improvement projects for the maintenance of the collection system. These projects include both improvements to the existing system, as well as new infrastructure. The Master Plan discusses the funding sources as they relate to these projects and recommends that the user benefiting from the project, pay the costs related to the project. A breakdown of the existing and future user cost share of the proposed projects, by phase, is summarized in Table 7.3 of the Wastewater Collection System Master Plan.

The Capital Improvement Projects are prioritized based on their urgency to mitigate existing deficiencies and for servicing anticipated growth. The implementation phases are separated into 5-year increments as described in table 7.2 and 7.3, of the Wastewater Collection System Master Plan.

## 6.5 Prioritized Preventive Maintenance Discussion

### Sewer Cleaning

The City prioritizes its preventive maintenance activities. The preventive maintenance includes scheduled focused cleaning and routine preventative maintenance of the entire collection system, to include 13 sewer lift pump stations. More frequent cleaning is scheduled on identified problem areas as shown on the Schedule for Cleaning Sewer Sections, in Appendix C. Other areas of concern are scheduled for cleaning based on routine weekly inspections, or daily as the need arises. The Public Works crew uses a Cleaning Record (log) to document activities, included in Appendix C.

The City owns and operates three water-jet rodding equipped trucks for sewer main cleaning. Two of these vehicles are also equipped with vacuum units for the removal of grease and debris within the sewer collection system. The Public Works collection crew uses detailed maps of the collection system to aid in the organization and strategy of their cleaning activities.

### Pump Station Maintenance

The City Wastewater Treatment Plant staff performs weekly inspections of the City's thirteen sewer lift pump stations. These visits include: a visual inspection of the station, log and evaluation of pump hours, wet well level verification, an assessment of the wet-well cleaning needs (using a numerical system), and documentation of these assessments. The crew also schedules maintenance of the stations various service needs, wet-well cleaning, filter replacement, vacuum pump testing and replacement, etc. as well as weed abatement and debris removal needs. This crew also responds to all immediate issues related to the lift stations, to include: high level alarms (received by cell phone from the station alarm systems), respond to problems related to the station, or to a complaint concerning odors or noise issues.

These stations currently include seven above ground and six underground. The underground stations are non-permitted confined space entry spaces. Confined space entry procedures are followed, as required, and the crew services these stations in teams to insure safety.

The Public Works Department follows a "Confined Space Manual" outlining proper procedures. All entries include proper ventilation, testing of the environment air quality, safety hazards observed, and evacuation when called for, as well as other requirements. The City Fire Department is available upon request for assistance and is instrumental in the continued training of the crew for both non-permitted and permitted confined space entries.

### Odor Control

The City receives only a few isolated odor complaints a year. The complaints are usually for the area near the Crest Hills sewer lift station. This station is situated between two homes and also in a high foot traffic area, directly on the walk path to the City's Rail Trail. All complaints are responded to in a timely manner. Mitigation of the problem have included: cleaning of the wet-well, cleaning of the sewer lines, sealing of the wet-well opening, and installation of odor masking spray equipment. Any other areas that receive odor complaints are treated with the same sense of urgency and all measures possible are taken to resolve the problem.

### Investigation of Customer Complaints

The City responds to all customer complaints about sewer service. The collection system staff responds during work hours and the standby worker responds after hours. Response includes assessing the complaint and resolving the problem. Additional staff is called out as needed.

Complaints are generally related to sewer stoppages. Some stoppages are related to the sewer main, but most stoppages occur in laterals. The City has the equipment to clean laterals and the crew will maintain any sewer line within the city's easement. Although crews respond to all stoppage complaints, they are not responsible for cleaning stoppages in the property owner's laterals.

### Maintenance Management and Service Requests

All maintenance of the collection system is scheduled by utilizing inspection information, known areas prone to blockages, complaints, and service requests. The activities are documented by the use of cleaning logs, service request forms, and complaint forms. These records are filed as a permanent record, as well as reference for future assessment.

## 6.6 Scheduled Inspections and Condition Assessment

The City has recently approved and adopted the Wastewater Collection System Master Plan. This Master Plan outlines an assessment of the collection system, identifies areas in need of upgrade or rehabilitation, and addresses infrastructure needed for anticipated growth. The Master Plan also includes long-term and short-term capital improvement projects for the protection of the infrastructure assets.

### Manhole and Pipeline Inspection

The collection crew schedules weekly visual inspections of manholes as a routine maintenance activity. A selected area of the system is inspected, as well as targeted locations of known areas prone to blockages. The purpose of this inspection is to assess the condition of the system and its components.

The City owns and operates a closed circuit television camera van equipped with all necessary equipment required for inspection and documentation of the collection system condition. Inspections of all new construction are made prior to approval of a project. Inspections of sections with suspected defects or problem areas are also inspected.

### Pump Station Inspections and Assessment

The mechanical and electrical condition of the City's thirteen sewer lift pumping stations is evaluated on a regular basis. The stations are visited weekly, inspected and maintained regularly, and assessed for service needs. The City has an electrician at its disposal 24/7 with a vast knowledge of our system and many years of experience with our electrical needs.

Pumping stations are included in the Collection System Master Plan. Assessment of the lift stations was made, capacity of each station was evaluated, and recommendations for long-term and short-term capital improvements are stated.

## 6.7 Contingency Equipment and Replacement Inventories

The City maintains a fleet of vehicles and equipment required for the operation and maintenance of the sewer collection system. The collection division has 2 vacuum/rodding trucks, 1 rodding truck, 1 snake van, 1 closed circuit television/camera van, 2 dump trucks, 2 flat bed trucks, 2 backhoes, 1 portable pump, and 3 portable generators (capable of running any of our sewer lift pump stations).

The City's other departments and divisions have additional equipment available should the need arise. Local vendors have agreed to make pumps or additional equipment available to us 24 hours a day. The City also maintains an adequate inventory of other gas-powered equipment, electrical equipment, and the tools necessary to operate and maintain the system. The crews perform their routine maintenance in utility/pickup trucks that are well equipped and stocked with the proper tools, parts, and safety equipment for the work they need to perform.

The City maintains an equipment inventory. All sewer maintenance equipment and replacement parts are stored at the City's Public Works Yard on Madison Avenue. Equipment and replacement parts are periodically replaced based on the estimated usefulness and remaining life. The City's equipment list is included in Appendix E

The City keeps spare/replacement parts in inventory to minimize facility down time in the event of an unplanned failure. Spare parts include: spare manhole lids, hoses, valves, sewer pipe and fittings.

The lift stations have redundant pumping at each pump site to reduce impacts of a failure, however, the City maintains a vast inventory of spare parts for each station to include motors; pump impellers, compressors, vacuum pumps, valves, repair kits, filters, relays, timers, switches, and a variety of the necessary electrical components. The pumping stations are of various brands. Each brand has some unique parts requirements, and most parts are unavailable at a local vender. The City has a large investment in this parts inventory.

## 6.8 Training Discussion

The City budgets for training its sewer maintenance staff each year. The Training Program includes scheduled weekly safety and training meetings. The training includes the operation of equipment to include vehicles, pumps, generators, vacuum/rodding truck, backhoe and other related equipment. A record of training is maintained. Staff also receives training for confined space entry, trenching safety, as well as other related training, such as, SSO response and protection of public health and the environment.

The City encourages sewer staff to become CWEA certified, and provides training opportunities to enable all sewer maintenance staff to become and remain certified. The City assists with certification by paying for the preparation courses needed, certification exams, and required continuing education. The City also provides training tapes and manuals for employees for both work and home study. Currently, three of the city staff members are certified.

New employees and maintenance crew work directly with and under the supervision of an experienced senior worker until they can demonstrate competency in the skill sets required.

The City uses numerous outside sources and programs, as well as providing in house and on-the-job training for sewer maintenance crews. Training sources that the City uses are listed below:

- CWEA (California Water Environment Association)
- CRWA (California Rural Water Association)
- APWA (American Public Works Association)
- PG&E (Pacific Gas and Electric)
- Los Banos Fire Department
- Vendor sponsored training
- In-house training by supervisors
- Safety meetings by staff or vendors
- Video and printed media

## 6.9 Outreach to Plumbers and Building Contractors Discussion

City personnel are in constant contact and interaction with plumbing companies and contractors on sewer related maintenance and construction within the city. We maintain a good working relationship; provide guidance when needed and handout our standards upon application or request.

All plumbers, contractors and developers are required to maintain a level of construction consistent with the City's Municipal Code, the current Design and Improvement Standards, and the Uniform Plumbing Code. Copies of these documents are made available to all, at the Public Works Office. The City's Design Improvement Standards and Specifications are available online at <http://www.usspecbook.com>.



## Element 7: Design and Construction Standards

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This section of the SSMP discusses the City's design and construction standards. This section fulfills the Design and Construction Standards SSMP requirement for the RWQCB (Element 7) and the Design and Performance Provisions SSMP requirement for the SWRCB (Element 5).

### 7.1 Regulatory Requirements for Design & Construction Standards

The requirements for the design and Construction elements of the SSMP are summarized below.

#### RWQCB Requirement

The City shall identify minimum design and construction standards and specifications for the installation of new sewer systems and for the rehabilitation and repair of existing sewer systems. The City should evaluate whether the existing design standards are appropriate and up to date. If the City believes its current standards are appropriate, the City can refer to the documentation that already exists.

The City shall also identify procedures and standards for inspection and testing the installation of new sewers, pump stations, and other appurtenances; and for rehabilitation and repair projects. The SSMP may refer to existing documents.

#### SWRCB Requirement

The City must have design and construction standards and specifications for the installation of new sewer systems, pump stations, and other appurtenances; and for the rehabilitation and repair of existing sewer systems. The City must also have procedures and standards for inspection and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

### 7.2 Element 7 Appendix

Supporting information for Element 7 is included in Appendix F. This appendix includes the following documents:

1. Table of Contents of the City of Los Banos Improvement Standards and Specifications, approved by City Council Resolution No. 4539, October 6, 2004 (February 2007 Draft)
2. Standard Details (drawings) Table of Contents of the City of Los Banos Improvement Standards and Specifications, approved by City Council Resolution No. 4539, October 6, 2004 (February 2007 Draft)

### 7.3 Design and Construction Standards Discussion

The City's current "Improvement Standards and Specifications" were approved by the City Council on October 6, 2004, by Resolution No. 4539. These standards shall be followed in any work for acceptance by the City. Improvement plans and supplemental information shall be approved by the City Engineer for all projects that are subject to the approval of the Department of Public Works prior to the issuance of permits allowing construction to begin.

Part II, section 4 of the Improvement Standards and Specifications addresses Sanitary Sewer facilities designed for installation within a public right-of-way or public utility easement in the City. This section includes specifications on pipes, manholes, force mains, flow rates, lift stations, and services.

Part III, Division 5 of the Improvement Standards and Specifications addresses pipelines. Section 5 covers Sanitary Sewer Pipelines including: lateral connections to sanitary sewers, cleaning and flushing, testing, and closed circuit TV inspection.

The City owns, operates and maintains thirteen sewer lift stations within its service area. These pumping stations have been evaluated for design and capacity in the Master Plan for Wastewater Collection System. Design and improvement standards are outlined in Part II, Section 4, page 6/7.



## Element 8: Capacity Management

This section of the SSMP discusses the City's capacity management measures, including the most recent Master Plan and recommended capacity improvement projects. This section fulfills the Capacity Management SSMP requirement for the RWQCB (element 8) and the System Evaluation and Capacity Assurance Plan SSMP requirement for the SWRCB (element 8).

### 8.1 Regulatory Requirements for Capacity Management

The requirements for the Capacity Management element are summarized below.

#### RWQCB Requirement

The RWQCB Capacity Management requirement is divided into two sections:

- a) **Capacity Assessment:** The wastewater collection system agency shall establish a process to assess the current and future capacity requirements for the collection facilities. The SSMP should describe whether a current capacity assessment has been prepared, and if not, provide a schedule of activities for completing an assessment.
- b) **System Evaluation and Capacity Assurance Plan:** The wastewater collection system agency shall prepare and implement a capital improvement plan to provide hydraulic capacity of key sewer system elements under peak flow conditions. Once the capacity assessment described in (a) above has been completed, a capital improvement program must be implemented to address any capacity needs. The SSMP should briefly describe the capital improvements anticipated and be updated as implementation occurs and priorities change.

#### SWRCB Requirement

The wastewater collection agency shall prepare and implement a capital improvement plan that will provide hydraulic capacity of key sewer system elements under peak flow conditions. This plan must include:

- a) **Evaluation:** The agency must identify actions needed to evaluate those portions of the sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows, estimates of the capacity of key system components, hydraulic deficiencies, 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, the agency should undertake the evaluation identified in (a) above to establish appropriate design criteria.

- c) Capacity Enhancement Measures: The agency must identify the steps needed to establish a short and long-term capital improvement plan (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 the pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- d) Schedule: The agency shall develop a schedule of completion dates for all portions of the CIP developed in (a) through (c) above. This schedule shall be revised and updated at least every five years.

## 8.2 Element 8 Appendix

Supporting information for Element 8 is included in appendix G. This appendix includes the following documents:

1. Schedule of proposed Sewer Capital Improvement Projects.

## 8.3 Capacity Evaluation Discussion

The City completed a comprehensive Master Plan for Wastewater Collection System in September 2008. This Master Plan includes a capacity evaluation and identifies capacity related improvement projects. The Master Plan is a separate document from the SSMP. This section of the SSMP summarizes key capacity related portions of the Master Plan. The complete Master Plan is available on line at <http://www.losbanos.org/index>.

The capacity assessment completed as part of the City's Wastewater Collection System Master Plan was based on hydraulic modeling of the City's collection system under current and future design flows. The following subsections provide a brief summary of the modeled system, flow estimates, and evaluation criteria used for the City's sewer system capacity evaluation.

Note that the City has not experienced any sanitary sewer overflows due to hydraulic deficiencies in the sewer system. Likewise, modeling of the City's sewer system conducted during the preparation of the 2008 Master Plan showed the wastewater collection system to have sufficient capacity to convey existing design flows.

### Hydraulic Model

As a part of the City's Master Plan for Wastewater Collection System, a hydraulic model was developed based on data collected from the City's AutoCAD database, developer design drawings, lift station design summaries, and field studies. Refer to Chapter 5 (5.3) of the Master Plan for complete discussion of the model development.

In total, there are more than 130 miles of sewer mains and trunk sewers in the City's collection system. The sewer system model generally includes pipelines with a diameter of 10-inches or greater, all associated manholes, and lift stations.

### Flow Estimates

Existing flows were estimated by measuring flow from different areas of the collection system. The flow was monitored for approximately one week at 16 strategically selected monitoring sites. Future flows were estimated based on the City's 2007-2030 General Plan and the City's 2007 Wastewater Strategic Plan.

Flow projections through the year 2055 are shown in the following table:

Planning Year	WWTP Average Day Flow (mgd)
Existing	3.55
2010	4.16
2015	5.06
2020	6.15
2025	7.48
2030	9.10
2035	9.47
2040	9.85
2045	10.24
2050	10.65
2055	11.10

Information from the Master Plan for Wastewater Collection System (September 2007) Table 4.9.

### Design and Planning Criteria

The capacity of the City's wastewater collection system was evaluated in the Master Plan based on the planning criteria as defined in Chapter 3. The planning criteria address the collection system capacity, gravity sewer slopes, maximum depth of flow within the sewer, average wastewater flow coefficients, and wastewater peaking factors.

### Capacity Evaluation Results

The capacity evaluation is summarized below. Refer to Chapter 6 of the Master Plan for a complete discussion of the capacity evaluation and proposed improvements.

#### Existing Deficiencies

In the City's down town area, existing storm drain connections cause sudden increases in wastewater flow during a storm event.

#### Future Improvement

The addition of future sewer users on the existing sewer system will require capacity expansion of the existing sewer mains and lift stations.

## 8.4 Recommended Capacity Projects

### Existing

The City has planned a storm drain project to separate the storm runoff from the wastewater collection system in the City's downtown area. This project is discussed in more detail in the Storm Drainage Master Plan.

### Future

The Master Plan outlines several projects to increase the capacity of the collection system. These projects are phased by priority and planned in conjunction with the City's General Plan. The projects include upgrading existing sewers and lift stations to serve future users and building new sewers necessary for future growth. The Master Plan has identified projects through the year 2025 and beyond.

## 8.5 Capital Improvement Projects Schedule

Chapter 7 of the Master Plan outlines proposed collection capital improvement projects. The implementation phases of these projects are separated into 5-year increments. Table 7.2 of the Master Plan lists each project by type, location, project size, and the phasing. Refer to Appendix G for the Schedule of proposed Sewer Capital Improvement Projects.

## 8.6 Financial and Economic Analysis

The vast majority of the Master Plan improvements will serve future users, even when an improvement calls for the upgrade of an existing facility. Future improvements will be funded by developers or through development impact fees. All projects fall into one of the three following categories:

- **Existing Improvements:** Existing improvements correct existing deficiencies or rehabilitate/replace existing facilities that have reached their useful life. These projects are funded through user rates.
- **Developer Improvements:** Future improvements that serve new users. These improvements will be developer funded and/or may be a part of a reimbursement agreement between developers.
- **Regional Improvements:** Future improvements that serve new users. These improvements will be funded through wastewater development impact fees collected by the city.

The Schedule of proposed Sewer Capital Improvement Projects, in Appendix G, lists the estimated cost and a reimbursement category for each project. The Association for the Advancement of Cost Engineering (AACE) guideline was used for estimating costs in December 2007 dollars.



## Element 9: Monitoring, Measurement, & Program Modifications

This section of the SSMP discusses parameters the City tracks to monitor the success of the SSMP, and how the City plans to keep the SSMP current. This section fulfills both the RWQCB (Element 9) and the SWQCB (Element 9) SSMP Monitoring, Measurement and Program Modifications requirements.

### 9.1 Regulatory Requirements for Monitoring, Measurement, and Program Modifications

The requirements for the Monitoring, Measurement and Program Modifications element of the SSMP are summarized below:

#### RWQCB Requirement

The City must monitor the effectiveness of each SSMP element and update and modify SSMP elements to keep them current, accurate, and available for audit as appropriate. The SSMP should discuss performance indicators to be tracked and a description of how the City plans to keep the SSMP up-to-date.

#### SWRCB Requirement

The City shall:

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

### 9.2 Element 9 Appendix

Supporting information for Element 9 is included in Appendix H. This appendix includes the following documents:

1. Element 9: SSMP Monitoring Tracking Sheet

### 9.3 Monitoring and Measurement Discussion

The City already tracks several performance measures through logs and reports, including but not limited to location and cause of stoppages; number, cause, location, and volume of SSOs; SSO response time; length of pipe cleaned and type of debris found. The City intends to continue tracking all performance measures that are currently tracked.

In order to monitor the effectiveness of the SSMP, however, the City has selected certain, specific parameters that can be documented and compared on an annual basis in a simple format. These parameters were selected because they are straightforward, quantitative, and focused on results. Although the parameters may not track everything associated with the SSMP implementation, changes in these parameters over time will indicate the overall success of the SSMP or, conversely, underlying problems that can than be investigated further.

Table 9-1 lists each SSMP element, the overall purpose of the SSMP element, and the specific parameters that the City plans to track that will help in evaluating the effectiveness of the SSMP. Appendix H includes a tracking sheet listing each of these parameters, which the City will fill out annually in conjunction with completing the SSMP audit (Element 10).

**Table 9-1, SSMP Monitoring Parameters, by SSMP Element**

<b>SSMP Element</b>	<b>Summary of Element Purpose</b>	<b>Parameters for Tracking Effectiveness (Annually)</b>
Goals	Establish priorities of City and provide focus for City staff	None needed
Organization	Document organization of City staff and chain of communication for SSO response	None needed
Overflow Emergency Response Plan	Provide timely and effective response to SSO emergencies and comply with regulatory reporting requirements	<ul style="list-style-type: none"> <li>▪ Average and minimum response time</li> <li>▪ Percent of SSO contained or returned</li> </ul>
Fats, Oils, & Grease Control Program	Minimize blockages and overflows due to FOG	<ul style="list-style-type: none"> <li>▪ Number of blockages due to FOG</li> <li>▪ Number of SSOs due to FOG</li> </ul>
Legal Authority	Ensure the City has sufficient legal authority to properly maintain the system	None needed
Measures and Activities	Minimize blockages and SSOs by properly maintaining the system and keeping the system in good condition	<ul style="list-style-type: none"> <li>▪ Total number of SSOs</li> <li>▪ Volume of SSOs</li> <li>▪ Repeat SSOs</li> <li>▪ Total number of mainline blockages</li> <li>▪ Total Number of pump station failures</li> <li>▪ Number of pipe failures</li> <li>▪ Length of pipe CCTV'd</li> </ul>
Design & Construction Standards	Ensure new facilities are properly designed and constructed	None needed
Capacity Management	Minimize SSOs due to insufficient capacity by evaluating system capacity and implementing necessary projects	<ul style="list-style-type: none"> <li>▪ Number of SSOs due to capacity limitations</li> <li>▪ Number of SSOs due to wet weather</li> <li>▪ Date of completion of the last capacity evaluation</li> </ul>

<b>SSMP Element</b>	<b>Summary of Element Purpose</b>	<b>Parameters for Tracking Effectiveness (Annually)</b>
Monitoring, Measurement, & Program Modifications	Evaluate effectiveness of SSMP, keep SSMP up-to-date, and identify necessary changes	None needed
SSMP Audits	Formally identify SSMP effectiveness, limitations, and necessary changes on an annual basis	<ul style="list-style-type: none"> <li>▪ Date of completion of last annual audit</li> </ul>
Communication	Communicate with the public and satellite agencies	None needed

The City will use the specific tracking parameters listed in Table 9-1 and documented in Appendix H to assist in completion of the annual SSMP audit described in element 10. As noted above, the City will also continue to collect data for all performance measures currently tracked. This additional information will be used to support or further evaluate the successes and limitations of the SSMP as needed.

#### 9.4 SSMP Modifications

The SSMP needs to be updated periodically to maintain current information, and programs need to be enhanced or modified if it is determined that they are less effective than needed. The City will review the success and needed improvements of the SSMP as part of the SSMP annual audit, described in Element 10.

City staff will update critical information, such as contact numbers and SSO response chain of communication, as needed. A capacity CIP comprehensive SSMP update will occur every 5 years, as required by the SWQCB.



This section of the SSMP discusses the City's SSMP audit program. This section fulfills both the RWQCB (Element 10) and the SWQCB (Element 10) SSMP audit requirement.

### 10.1 Regulatory Requirements for SSMP Audits

#### RWQCB Requirement

The City shall conduct an annual audit of their SSMP that includes any deficiencies and steps to correct them that are appropriate to the size of the City's system and number of overflows. The City must submit a report of the audit to the RWQCB by March 15 of the year following the calendar year for which the analysis applies.

#### SWRCB Requirement

The City shall conduct periodic internal audits appropriate to the size of the City's system and 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, including identification of any deficiencies in the SSMP and steps to correct them.

### 10.2 Element 10 Appendix

Completed SSMP audits are stored in Appendix I.

### 10.3 SSMP Audits Discussion

The City will complete audits of the SSMP each year, and will include a report on the audit with the annual SSO report to the RWQCB submitted by March 15. The audit will include the following:

- Review of the progress made on development of SSMP elements
- Review of monitoring and measurements tracking under Element 9
- Identification of success of implementing SSMP elements and needed improvements
- Description of system improvements during the past year
- Description of system improvements planned for the upcoming year, with an estimated schedule for implementation

Upon completion of the audit, the City will keep a report of the audit on file to fulfill the SWQCB audit requirement. A copy of each audit will be stored in Appendix I of the SSMP.



## Element 11: Communication

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This section of the SSMP discusses the City's communication with the public and satellite agencies. This section fulfills the communication Program requirement for the SWQCB (Element 11). The RWQCB has no equivalent requirement.

### 11.1 Regulatory Requirements for Communication

The requirement for the Communication element of the SSMP are summarized below:

#### RWQCB Requirement

None.

#### SWRCB 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 City as the program is developed and implemented. The City shall also create a plan of communication with systems that are tributary and/or satellite to the City's sanitary sewer system.

### 11.2 Appendix

There is no appendix associated with Element 11

#### Communication Discussion

The City maintains a website (<http://www.losbanos.org>) to inform the public about City activities. The City's website is an effective communication tool for providing alerts and news to the public. The website has department specific information and contact telephone numbers. The Water Distribution System Master Plan, Storm Drainage System Master Plan, and Wastewater Collection Master Plan are published on website. Additionally, various Public Works documents are available for public review.

The City Council Meetings are televised on public access cable TV (channel 96). The agenda and supporting documents are posted on the internet-website prior to all City Council Meetings. The public is given an opportunity to address the City Council at every Council Meeting and is encouraged to express their opinion on any item. These public comments are also televised.

The City Council Meeting agenda for the approval /adoption of the SSMP will also be posted outside City Hall prior to the Council Meeting and supporting documents will be made available upon request.



### April 29, 2009 – Updates:

- Page 3 Updated - with current data
- Page 6 Removed - Associate Civil Engineer & Inspector Trainee
- Page 7 Removed - Associate Civil Engineer & Inspector Trainee  
Updated - the job description for Assistant Director

### February 5, 2010 – Audit (copy in Appendix I) – Updates:

- Appendix A Updated - WWTP phone number on the Contact List
- Page 7 Moved, - “Investigates sewer related complaints from the general public.” from WWTP Supervisor to Forman Responsibilities
- Page 25 Added - item 3, Wastewater Budget
- Page 25 Removed - “annually or semi-annually,” from the last sentence
- Page 26 Added - The current budget is included in appendix E. to the first paragraph
- Page 29 Changed – “maintenance staff has” to Training Program includes in the first paragraph of 6.8
- Page 30 Added – the following paragraph to 6.9:  
City personnel are in constant contact and interaction with plumbing companies and contractors on sewer related maintenance and construction within the city. We maintain a good working relationship; provide guidance when needed and handout our standards upon application or request
- Page II Added - Wastewater Budget to the Table of Contents II, Appendix E

### March 2, 2011 – Audit (copy in Appendix I) – Updates:

- Page III Added- Glossary of Terms / Acronyms to the Table of Contents
- Page 6 Added- City Council and City Manager Responsibilities:

**City Council.** Responsible for the approval, adoption and resolution of the SSMP, Master Plan for Wastewater Collections, Improvement Standards & Specifications, Municipal Code, budgets and other documents directing and pertaining to the sewer system management.

**City Manager.** Oversees the Public Works Department through the Public Works Director/Engineer

- Page 8 Changed- (209) 827-7041 to (209) 827-7052

**February 16, 2012 – Audit (copy in Appendix I) – Updates:**

- Page 1 Changed – “acted at it’s meeting” to “enacted”
- Page 3 Population change - 2007 to 2010 & 35,211 to 36,525.
- Page 34 Changed – 124 miles to 130 miles

**February 21, 2013 – Audit (copy in Appendix I) – Updates:**

- Appendix A Updated - Contact List
- Appendix E Updated - Inserted the current collections system budget
- Appendix H Updated - SSMP Monitoring Tracking Sheet – 2012 data
- Page 3 Updated, - Population to: 36,546 as of September 2012
- Page 25 Added - .”Little or no change has occurred to date.”
- Page 18 Added - “The City distributes letters to Restaurants outlining the required maintenance of grease removal devices. It covers maintenance, cleaning frequency, record keeping requirements and the right of inspection by the City. It also includes suggested pollution management practices and provides a cleaning record verification form.
- The City mails letters to restaurants, auto shops, and retail outlets concerning FOG, BMPs and storm runoff practices annually.”
- Page 19 Added - To c: “The City distributes letters to restaurants, auto shops, & retail outlets concerning FOG and BMPs.”

Changes and Updates 1 through 7 reviewed and approved by:  
 Royal Lloyd, Wastewater Treatment Plant Supervisor  
 Mark Fachin, Public Works Director/City Engineer

**March 10, 2014 – Audit (copy in Appendix I) – Updates:**

- Appendix A Updated - Contact List
- Appendix E Updated - Inserted the current collections system budget
- Appendix H Updated - SSMP Monitoring Tracking Sheet – 2012 data
- Page 3 Updated, - Population to: As of May 2013... 37,017 & updated Collection system information “as of July 2013”
- Appendix B Updated - Pages 8,9 & 10 of the Sanitary Sewer Overflow Response Plan changed to meet the amended SWRCB requirements
- Appendix B Addition - Added the SWRCB Order No. WQ 2013-0058-EXEC Amendment as an appendix to the Sanitary Sewer Overflow Response Plan
- Appendix B Updated - Added Phone number for Santa Barbara Sewer Lift Station alarm to page 20 of the Standard Operating Procedures for Sewer Pump Station Failure Manuel

# Appendix A

Contains:

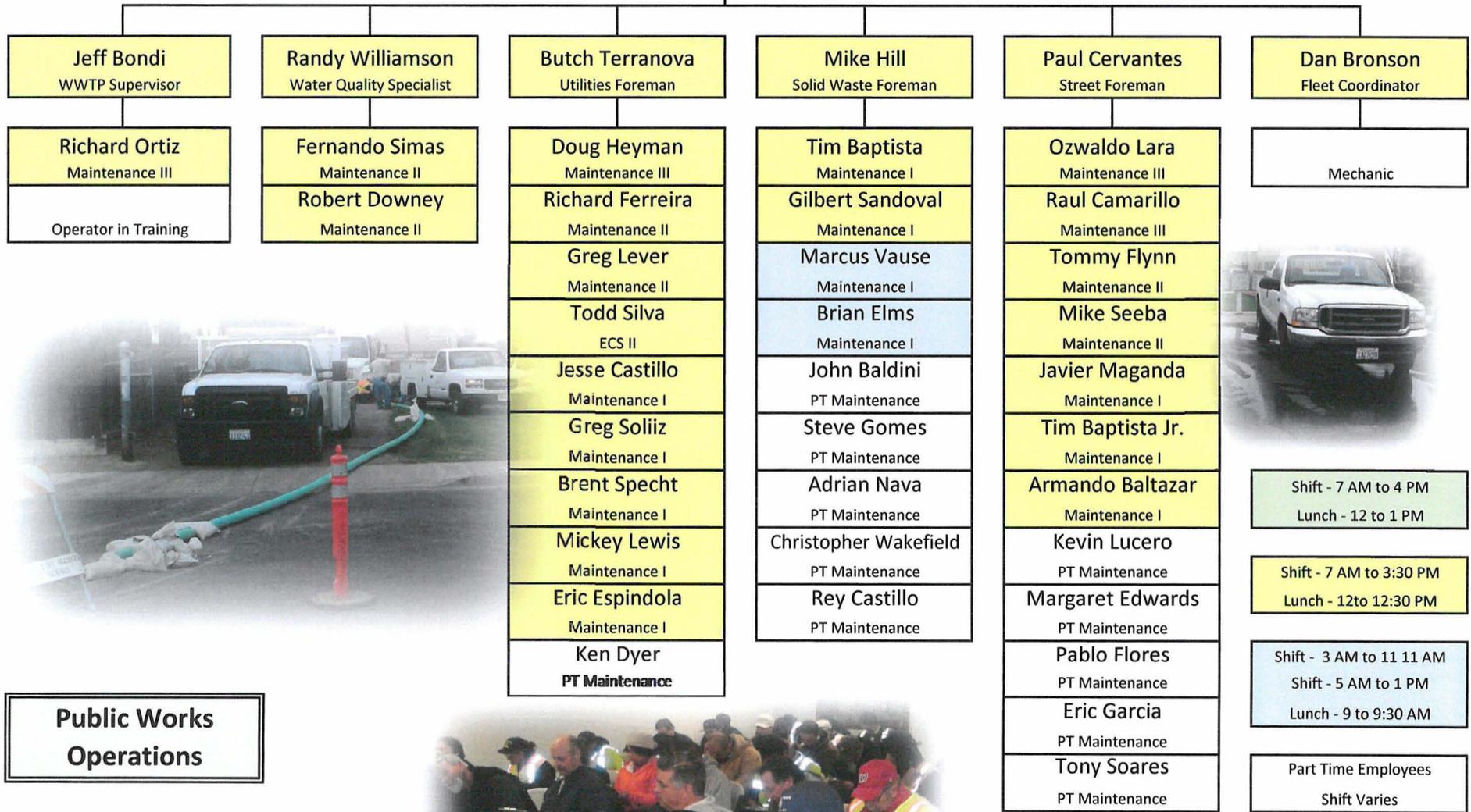
- Names and Phone Numbers of Public Works Staff



**Royal Lloyd**  
Operations Manager

Rachel Ruiz  
PT Admin Clerk

PT Admin Clerk



**Public Works  
Operations**

Updated - May 19, 2014



Shift - 7 AM to 4 PM  
Lunch - 12 to 1 PM

Shift - 7 AM to 3:30 PM  
Lunch - 12to 12:30 PM

Shift - 3 AM to 11 11 AM  
Shift - 5 AM to 1 PM  
Lunch - 9 to 9:30 AM

Part Time Employees  
Shift Varies



# Appendix B

Contains:

- Sewer System Overflow Response Plan
- Standard Operating Procedures for Sewer Pump Station Failure



City of  
**Los Banos**  
*At the Crossroads of California*

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Public Works Department

**Sanitary Sewer  
Overflow Response  
Plan**

## **I. Authority**

The purpose of this Sanitary Sewer Overflow Response Plan is to insure that the City of Los Banos Collection Maintenance personnel follow established guidelines in containing, cleaning up, decontaminating and reporting sanitary sewer spills which occur within the City's service area. The City will follow reporting procedures in regards to sewer spills as set forth by Proposition 65 and the California Code of Regulations Title 19.

## **II. General**

The Sewer Overflow Response Plan (SORP) is designed to insure that every report of a confirmed sewage overflow is immediately dispatched to the appropriate crews, so that the effects of the overflow can be minimized, with respect to impacts to public health and adverse effects on water quality. The SORP further includes provisions to insure that notification and reporting is made to the appropriate local, state and federal authorities. For the purposes of this SORP, "confirmed sewage spill" is also referred to as "sewer overflow," "overflow," or "SSO."

### **A. Objectives**

The primary objectives of the SORP are to protect public health and the environment, satisfy regulatory agencies' conditions, and minimize the risk of enforcement actions against the City.

Additional objectives of the SORP are as follows:

- Provide appropriate customer service
- Protect wastewater treatment plant and collection personnel
- Protect the collection system and wastewater treatment facility
- Protect private and public property

This plan shall not supersede existing emergency plans or standard operating procedures.

### **B. Organization of Plan**

The key elements of the SORP are addressed individually as follows:

Section III	Overflow Response Procedure
Section IV	Public Advisory Procedure
Section V	Regulatory Agency Notification Procedures
Section VI	Media Notification Procedure
Section VII	Distribution and Maintenance of SORP
Appendix	Support documents and forms

### **C. SSO Tracking**

The procedure to track the frequency and location of SSOs shall comply with current federal, state and local regulations.

### III. Overflow Response Procedure

The Overflow Response Procedure presents a strategy for the City to mobilize labor, materials, tools and equipment to correct or repair any condition that may cause or contribute to an un-permitted discharge. The plan considers a wide range of potential system failures that could create an overflow to surface waters, land or buildings.

#### A. Receipt of Information Regarding an SSO

Generally, telephone calls from the public reporting possible overflows are received by, or forwarded to, the public works utilities office at Madison Ave., (209) 827-7056 Monday through Friday from 8:00 am to 5:00 pm. The Los Banos Police Department Dispatch Center (209) 827-7070 receives after-hours emergency calls and notifies our standby personnel for immediate response. The P.D. will notify standby personnel at (209) 587-1013. The standby cell phone is handed off to the assigned personnel.

1. The Madison office staff receiving the call should obtain all relevant information available regarding the overflow including:
  - a. Time and date call was received
  - b. Specific location
  - c. Description of problem
  - d. Time possible overflow was noticed by the caller
  - e. Callers name and phone number
  - f. Observations of the caller (e.g., odor, source, type of debris)
  - g. Other relevant information that could assist the responder in locating, assessing, and stopping the overflow.
  - h. Create a complaint form.
2. Pump station failures trigger a high-level alarm at seven of the City's thirteen pump stations. This alarm directly calls the standby cell phone, and the Wastewater Treatment Plant personnel for immediate response. All thirteen stations are scheduled for installation of high-level alarms.
3. Sewer overflows detected by any personnel in the course of their normal duties shall be reported immediately. Staff receiving the call should record the information listed in (1) above.
4. Sewer personnel shall confirm the overflow. Until verified, the report of a possible spill will not be referred to as a "sewer overflow"
5. Sewer personnel (first responder) must complete a Sewer System Overflow – Field Report form. The Wastewater Treatment Plant Supervisor is responsible for reviewing, updating, signing the report and continuing with other notification and reporting requirements. The Public Works Director/City Engineer serves as the Legally Responsible Official (LRO).

**B. Dispatch of Appropriate Crews to Site of Sanitary Sewer Overflow**

Crews and equipment shall be available to respond immediately to any SSO location. Crews will be dispatched immediately, and additional personnel shall be “on call” should extra crews be needed.

1. Dispatching Crews
  - ❑ Dispatchers should receive notification of overflows as outlined in section A, 1.
  - ❑ Dispatchers shall notify the supervisor/foreman by cell phone/direct connects.
  - ❑ Dispatchers shall convey all details received concerning the overflow.
2. Crews Instructions
  - ❑ The supervisor or the first responder should dispatch the necessary crews.
  - ❑ All employees being dispatched shall immediately assemble the necessary needed equipment and proceed directly to the overflow site, as directed.
  - ❑ Responder should report their findings to the appropriate superior and give updated reports.
3. Additional Resources
  - ❑ Supervisor/foreman shall request and utilize all available personnel, materials, supplies, and equipment necessary to minimize, contain, and clean up the overflow, as well as, control the site area.
4. Preliminary Assessment of Damages to Private and Public Property
  - ❑ The priority should remain the actions required to minimize, contain, and clean up the overflow. However, when time and personnel permit, the overflow site, including all damage, shall be documented with photographs (if available) and a complete Sewer System Overflow – Field Report.
5. Field Supervision and Inspection
  - ❑ The supervisor/foreman shall confirm the overflow as a “sewer system overflow” and visit the site to confirm that the provisions of the overflow response plan and other directives are met.
  - ❑ The supervisor/foreman is responsible for reporting to superiors.
6. Coordination with Hazardous Material Response
  - ❑ If the responder should suspect a substance other than water or sewer, e.g., oil, gas, fuel, chemical, foam, sheen etc., they should immediately contact the supervisor/foreman.
  - ❑ Should the supervisor/foreman determine the need for a hazardous material response team, the Fire Department shall be contacted. Remember that any flame, spark, electrical device, vehicle use, etc. can provide ignition, or an explosion, of flammable vapors or liquids. Keep a safe distance, protect the site, and observe caution until assistance arrives.
  - ❑ In a potential hazardous or unsafe condition, crews shall stand-down until the responding authority determines that it is safe to proceed.

### **C. Overflow Correction, Containment, and Cleanup**

Sanitary Sewer Overflows (SSO) of various volumes occur from time to time in spite of concerted prevention efforts. Spills may result from blocked sewers, pipe failures, or mechanical malfunctions among other natural or man-made causes. The City of Los Banos is constantly on alert and should be ready to respond upon notification of an overflow.

This section describes specific actions to be performed by the crew during an SSO.

The objectives of these actions are as follows:

- To protect public health, property, and the environment from sewer overflows
- To contain and remove the overflow to the maximum extent possible
- To make every effort to prevent discharge into storm or surface waters
- To restore surrounding area back to normal as soon as possible
- To establish perimeters, and control zones
- To provide appropriate traffic control
- To promptly notify the appropriate and required regulatory agencies
- To minimize the City's exposure to any regulatory agency penalties or fines

Caution should be used to insure that actions taken to correct or repair the cause of an overflow do not cause other potential backups or overflows. For example, plugging a line or turning off a lift pumping station to mitigate one problem can cause other overflows.

Under most circumstances, City crews will handle all response actions. They have the skills, training, and equipment best suited for the most appropriate action. However, circumstances may arise when the City could benefit from the support of the private sector. A superior shall approve any use of outside labor or equipment.

#### **1. Responsibilities of Response Crew Upon Arrival**

It is the responsibility of the first personnel who arrive at a site of an overflow to protect the health and safety of the public, by mitigating the impact of the overflow to the extent possible.

Should the overflow not be the responsibility of the City of Los Banos but there is imminent danger to public health, public or private property, or to the quality of waters of the United States, then prudent emergency actions should be taken until the responsible party assumes responsibility and takes appropriate measures.

#### **2. Upon arrival at an SSO, the response crew should do the following:**

- ❑ Determine the cause of the overflow
- ❑ Request, if necessary, assistance in determination of the problem
- ❑ Take immediate steps to stop the overflow, e.g. clear the blockage, manually operate pumps, repair pipe, etc.
- ❑ Request additional personnel, materials, or equipment as needed

3. Initial Measures for Containment
  - ❑ Determine the immediate destination of the overflow, e.g. storm drain, curb, gutter, body of water, canal, etc.
  - ❑ Use the necessary materials to contain, isolate or divert the overflow. Use materials from utility vehicle, surrounding area (dirt), or request supplies, to be delivered, as needed.
  - ❑ Take immediate steps to block or bag storm drains, divert into downstream manhole, or recover through vacuum truck.
4. Sample and Lab Tests
  - ❑ Samples should be taken, if possible
  - ❑ Samples should be taken 500 feet upstream of the spill and 500 and 1000 feet downstream.
  - ❑ Ask the lab to test for coliform
  - ❑ If unacceptable levels are observed, continue composite sampling until coliform levels are within limits.
5. Additional Measures Under Potentially Prolonged Overflow Conditions

In the event of a prolonged sewer line blockage or collapse, a determination should be made to set up a portable by-pass pumping operation around the obstruction.

  - ❑ Determine the proper size and number of pumps required to handle the sewage flow. Pipe length, size, and necessary fittings must be considered.
  - ❑ Monitoring of the pumping operation shall be implemented as required.
  - ❑ Regulatory agency's clean-up, and decontamination requests shall be addressed.
6. Cleanup

Sewer overflow sites are to be thoroughly cleaned after an overflow. No readily identified residue (i.e., sewage solids, paper, rags, plastics, rubber products) is to remain.

  - ❑ Where practical, the area is to be flushed and cleaned of any sewage or wash-down water. Solids and debris are to be swept, raked, picked-up, and transported for proper disposal.
  - ❑ The site is to be secured from the public until thoroughly cleaned. Posting signs may be required pursuant to Section IV.
  - ❑ Where appropriate, the site is to be disinfected and deodorized.
  - ❑ If ponding has occurred causing contamination, pump or vacuum the area or soil until dried and treat with lime or chlorine. Follow all agencies' guidelines.
  - ❑ If sewage has discharged into any body of water or tributary, containing fish or other aquatic life, disinfectants cannot be applied and the Fish and Wildlife Agency must be notified.
7. Public Contact
  - ❑ Refrain from any comment, opinion, response or any other contact with the public or the media. The Public Works Operations Manager or the superior shall serve as the media contact. Refer all questions or concerns to that office.

#### D. Overflow Report

The Wastewater Treatment Plant Supervisor shall complete an overflow report utilizing the Sewer System Overflow – Field Report, photographs and other information gathered concerning the incident. Supervisor shall promptly notify superiors when the overflow is eliminated.

Information regarding the overflow should include the following:

- ❑ Indication that the sewage overflow had reached surface waters.
- ❑ Indication that the sewage overflow had not reached surface waters.  
Guidance in characterizing these overflows to include:
  - a. Sewage overflows to covered drains where personnel verify that the entire volume is contained and where complete cleanup occurs, leaving no residue.
  - b. Planned or emergency jobs involving bypass pumping, where no spill reaches surface waters and complete cleanup occurs, leaving no residue. Public access must be restricted. Any preplanned bypass under these circumstances will not be considered an overflow.
  - c. Overflows where observation or on-site evidence clearly indicates all sewage was retained on land and did not reach surface waters, and where complete cleanup occurs leaving no residue.
- ❑ Determination of the start time of the overflow by one of the following methods:
  - a. Date and time from the initial report information, as verified by responder
  - b. Visual observation
  - c. Pump station flow charts, hour meters, and other such records
- ❑ Determination of the stop time of the overflow by one of the following methods:
  - a. When the blockage is cleared or flow is controlled or contained
  - b. The arrival time of the first responder, if the overflow stopped between the time it was reported and the time of arrival
- ❑ Visual observations  
An estimation of the rate of overflow in gallons per minute (GPM) by one of the following:
  - a. Direct observations of the overflow
  - b. Measurement of the actual overflow from the sewer main
- ❑ Determination of the volume of the sewer overflow
  - a. When the rate of overflow is known, multiply the duration by the overflow rate
  - b. Investigate the area for ponding and calculate the containment volume
  - c. By use of “Flow Estimation Pictures” and “Methods for Estimating Spill Volume” documents contained in appendix of this document
- ❑ Photographs of the event, when possible
- ❑ Assessment of any damage to the exterior areas of public/private property. Personnel should not enter private property for the purpose of estimating damage to structures, floors, wall coverings, and personal property.

#### **IV. Public Advisory Procedure**

This section describes the actions the City of Los Banos should take to limit public access to areas potentially impacted by un-permitted discharges of pollutants to surface waters from the wastewater collection system.

##### **A. Temporary Signage**

The City of Los Banos has the primary responsibility for determining when to post notices of polluted surface water bodies or ground water surfaces that result from uncontrolled wastewater discharges from its facilities. The postings do not necessarily prohibit use of recreation areas, unless posted otherwise, but provide a warning of potential public health risks due to sewer contamination.

The Public Works Operations Manager, or the superior, shall determine if postings of a confirmed overflow is undertaken or if there is reasonable potential for an overflow to occur, thus the need to post in advance. If posting is deemed necessary, The Merced County Environmental Health Department shall be notified.

##### **B. Other Public Notification**

Should the posting of polluted surface water bodies or ground water surfaces subjected to a sewer overflow be deemed necessary by the Public Works Operations Manager or the superior, he / she shall also determine the need for further public notification through the use of pre-scripted notices made available to the printed or electronic news media for immediate publication or airing, or by other measures (e.g., front door hangers).

The Public Works Operations Manager or the superior shall serve as the media contact. All media release, comments, and response will be directed to that office. All subordinates shall refrain from any comment, opinion, response or any other contact with the media.

#### **V. Regulatory Agency Notification Plan**

Per the State Water Resources Control Board Monitoring and Reporting Program No. 2006-2003-DWQ (as revised by Order No. WQ 2008-2002-EXEC), for any Category 1 discharge of sewer that results in a discharge to a drainage channel or surface water, the Legally Responsible Official (LRO) shall, as soon as possible, but no later than two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services (OES), the Merced County Environmental Health Department and the Fresno Region 5 Water Quality Control Board.

As soon as possible, but no later than twenty-four (24) hours after becoming aware of the discharge to drainage channel or surface water, the Legally Responsible Official (LRO) or his designee shall submit to the Fresno Region 5 Water Quality Control Board, a certification that the State OES and Merced County Environmental Health Department has been notified of the discharge. This certification should be done through the California Integrated Water Quality System (CIWQS) web site.

### Sanitary Sewer Overflow Reporting

For reporting purposes under this program, there are four categories for Sanitary Sewer Overflows:

1. Category 1 – all discharges of sewage resulting from a failure in the City’s sewer system that:
  - a. Equal to or exceed 1000 gallons, or
  - b. Result in a discharge to a drainage channel and/or surface water; or
  - c. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.
2. Category 2 – Discharges of sewage resulting from a failure in the City’s sewer system of 1,000 gallons or greater that do not reach surface waters and/or was fully recovered.
3. Category 3 – All other discharges of sewer resulting from a failure of the City’s sanitary sewer system.
4. Private Lateral Sewage Discharge (PLSD) – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

(For further clarification, Amended Monitoring and Reporting Program for Statewide General Waste Discharge Requirements are included in the Appendix)

### SSO Reporting Timeframes:

Category 1 SSOs – Except as noted above, all SSOs that meet the above criteria for Category 1 SSOs must be reported:

- a. **Within 2 hours** of becoming aware of the category 1 status of **greater than 1,000 gallons – call OES (800) 852-7550**
- b. As soon as reporting is possible, and
- c. Reporting can be provided without impeding cleanup or other emergency measures.

Initial reporting of the category 1 SSOs must be reported to the online CIWQS system as soon as possible, but no later than 3 business days after the City is made aware of the SSO, certify within 15 days and if over 5,000 gallons a Technical Report within 45 days..

Category 2 SSOs - Must be reported to the online CIWQS database within 3 calendar days and certified within 15 calendar days after the SSO occurs.

Category 2 SSOs - Must be reported to the online CIWQS database within 30 days after the end of the calendar month in which the SSO occurs.

Private Lateral Sewage Discharges (PLSD) -May not, be reported to the online CIWQS database at the City of Los Banos discretion.

### Mandatory Information to be Included in SSO Online CIWQS Reporting:

At a minimum, the following mandatory information must be included prior to finalizing and certifying an SSO report for each category of SSO. The report form on the CIWQS online site is a (fill in the blank) preformed report. All blanks must be filled with the proper information. This section will aid in obtaining the necessary information required to complete the online report. The categories are listed out of order to avoid repetition of the required information. The required information is as follows:

Category 2 & 3 SSOs:

- Location of SSO, requires GPS coordinates (utilize Google Earth or GPS unit)
- Applicable Regional Water Board (Region 5)
- County where SSO occurred (Merced)
- Whether or not the SSO entered a drainage channel and/or surface water
- Whether or not the SSO discharged to a storm-drain and not fully captured
- Estimated SSO volume in gallons
- SSO source (manhole, cleanout, etc.)
- SSO cause (mainline blockage, roots, FOG, etc.)
- Time of SSO notification or discovery
- Estimated operator arrival time
- SSO destination
- Estimated SSO end time
- SSO certification. CIWQS database will issue a final SSO Identification Number

Private Lateral Sewage Discharges (should the City wish to report):

- All information above (if applicable and known)
- Identification of sewage discharge as a private lateral discharge
- Responsible party contact information (if known)

Category 1 SSO:

- All information listed for category 2 SSOs
- Estimated SSO volume that reached surface water, drainage channel, or not recovered
- Estimated SSO amount recovered
- Response and corrective action taken
- Agency receiving samples taken (if applicable) or N/A
- Parameters that samples were analyzed for (if applicable) or N/A
- Identification of whether or not health warnings were posted
- Beach impacted (if applicable) or N/A
- Whether or not there is an ongoing investigation
- Steps taken or planned to reduce, eliminate, and prevent reoccurrences
- OES control number as issued when reported (if applicable)
- Date OES was called (if applicable)
- Time OES was called (if applicable)
- Identification of whether or not County Health Officers were called
- Date County Health Officers was called (if applicable)
- Time County Health Officers was called (if applicable)

**Reporting to Regulatory Agencies**

These reporting requirements do not preclude the City of Los Banos from reporting to other regulatory agencies pursuant to California state law. These requirements do not replace the Fresno Region 5 Water Quality Control Board telephone-reporting requirements for SSOs.

**Reporting Summary and Contact Information**

The following is a list of contacts and telephone numbers for SSO reporting:  
(This information is also included as an attachment)

***Private Lateral Sewage Discharge***

Reporting is optional – at our discretion

- Merced County Environmental Health Dept. (209) 826-0166
- RWQCB – Fresno, Region 5 (559) 445-5116

**Category 3 SSO** – (less than 1,000 gallons, all contained and returned to sewer)

Agency to Contact	Timeframe Requirements	Method of Contact
State Water Board	Within 30 days after the end of the month in which the SSO occurs	Electronic (only) To CIWQS <a href="http://ciwqs.waterboards.ca.gov/">http://ciwqs.waterboards.ca.gov/</a>

**Category 2 SSO** – (less than 1,000 gallons, all contained and returned to sewer)

Agency to Contact	Timeframe Requirements	Method of Contact
State Water Board	Within 3 calendar days Certify within 15 calendar days of the SSO occurrence	Electronic (only) To CIWQS <a href="http://ciwqs.waterboards.ca.gov/">http://ciwqs.waterboards.ca.gov/</a>

**Category 1 SSO** – (more than 1,000 gallons, not fully captured, drained to other waters)

Agency to Contact	Timeframe Requirements	Method of Contact
Regional Water Quality Control Board (Region 5) <b>Office of Emergency Services</b>	To be reported within two (2) hours <b>If greater than 1,000 gal.</b>	Fresno Branch Office (559) 445-5116 <b>OSE (800) 852-7550</b>
Merced County Environmental Health Dept.	To be reported within two (2) hours	(209) 826-0166 (209) 381-1087
State Water Board	Within 3 business days Certify within 15 calendar days	Electronic (only) To CIWQS <a href="http://ciwqs.waterboards.ca.gov/">http://ciwqs.waterboards.ca.gov/</a>

Other agencies may also require notification or reporting as required (if affected):

- Department of Fish and Game, CCID, Grasslands Water District, U. S. Fish and Wildlife,
- Any others as necessary

**Record keeping**

SSO records shall be maintained for five years from the date of the SSO or as required by the RWQCB. All records shall be available for review upon state or Regional Board request.

## **VI. Media Notification Procedures**

The Public Works Operations Manager or the superior shall serve as the media contact. All media release, comments, and response will be directed to that office. All subordinates shall refrain from any comment, opinion, response or any other contact with the media.

## **VII. Distribution and Maintenance of SORP**

Annual Updates to the Sanitary Sewer Overflow Response Plan should be made to reflect all changes in policies and procedures as may be required to achieve its objectives.

### **A. Submittal and Availability of SORP**

Copies of the SORP and any amendments should be distributed to the following departments and functional positions:

1. Public Works Department
1. Engineering Department
2. Police Department
3. Fire Department

All other personnel who may be come incidentally involved in responding to overflows should be familiar with the SORP.

### **B. Review and update of SORP**

To maintain the collection system, minimize SSOs, and respond to problems in a timely manner, three basic processes are required. First, a plan must be created. Second, the plan must be complete. Third, the plan must to be followed.

The SORP should be reviewed annually and amended as appropriate:

- Update with the issuance of revised NPDES permit or Waste Discharge Permit
- Review contact list, equipment inventory, etc., and update as needed
- Conduct annual training sessions with appropriate personnel

## **Appendix**

Contains:

1. Public Works Telephone Contact List
2. Sewer System Overflow – Field Report
3. SSO Response Chain of Command - Flow Chart
4. Flow Estimation Pictures
5. Methods for Estimating Spill Volume
6. Equipment Rental Vendor List
7. SSO Report – Required Agency Contact List
8. Posting Signs (English and Spanish)
9. Amended Monitoring and Reporting Program



City of  
**Los Banos**  
*At the Crossroads of California*

**WARNING!**

**RAW SEWAGE SPILL**

**AREA CLOSED**

**PUBLIC ACCESS RESTRICTED**

**KEEP CHILDREN AND PETS**

**OUT OF AREA**

**Public Works Department**  
**(209) 827-7056**



City of  
**Los Banos**  
*At the Crossroads of California*

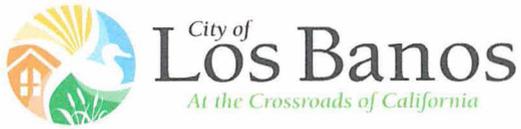
**PELIGRO!**

**DRENAGE DERRAMADO**

**AREA CERRADO**

**MANTENGAN NINOS Y  
MASCOTAS FUERA DEL AREA**

**Public Works Department  
(209) 827-7056**



## Public Works Department

### SSO - Sewer System Overflow - Field Report

Name: \_\_\_\_\_ Crew: \_\_\_\_\_

Date: \_\_\_\_\_

Time of notification: \_\_\_\_\_ Spill time ( if known): \_\_\_\_\_ Arrival time: \_\_\_\_\_ End time: \_\_\_\_\_

Spill location - intersection, cross street or address \_\_\_\_\_

How were you notified of the SSO \_\_\_\_\_

Determine spill type \_\_\_\_\_

Cause of the SSO \_\_\_\_\_

Did the spill discharge to a drain channel and/or surface water? Yes No If yes, Receiving water name: \_\_\_\_\_

Did the spill discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system? Yes No

Did the spill come from a private lateral? Yes No

If spill is from a private lateral - give address: \_\_\_\_\_

If spill is from a private lateral - give the name of responsible party (if known): \_\_\_\_\_

Estimate spill volume: \_\_\_\_\_ gallons Be observant - (diagrams and charts are available to double check your estimate)

Spill details -(what happened - be specific) \_\_\_\_\_

Final spill destination: \_\_\_\_\_

Explanation of response activities: \_\_\_\_\_

If the spill was released to receiving waters was a sample of receiving waters taken: Yes No

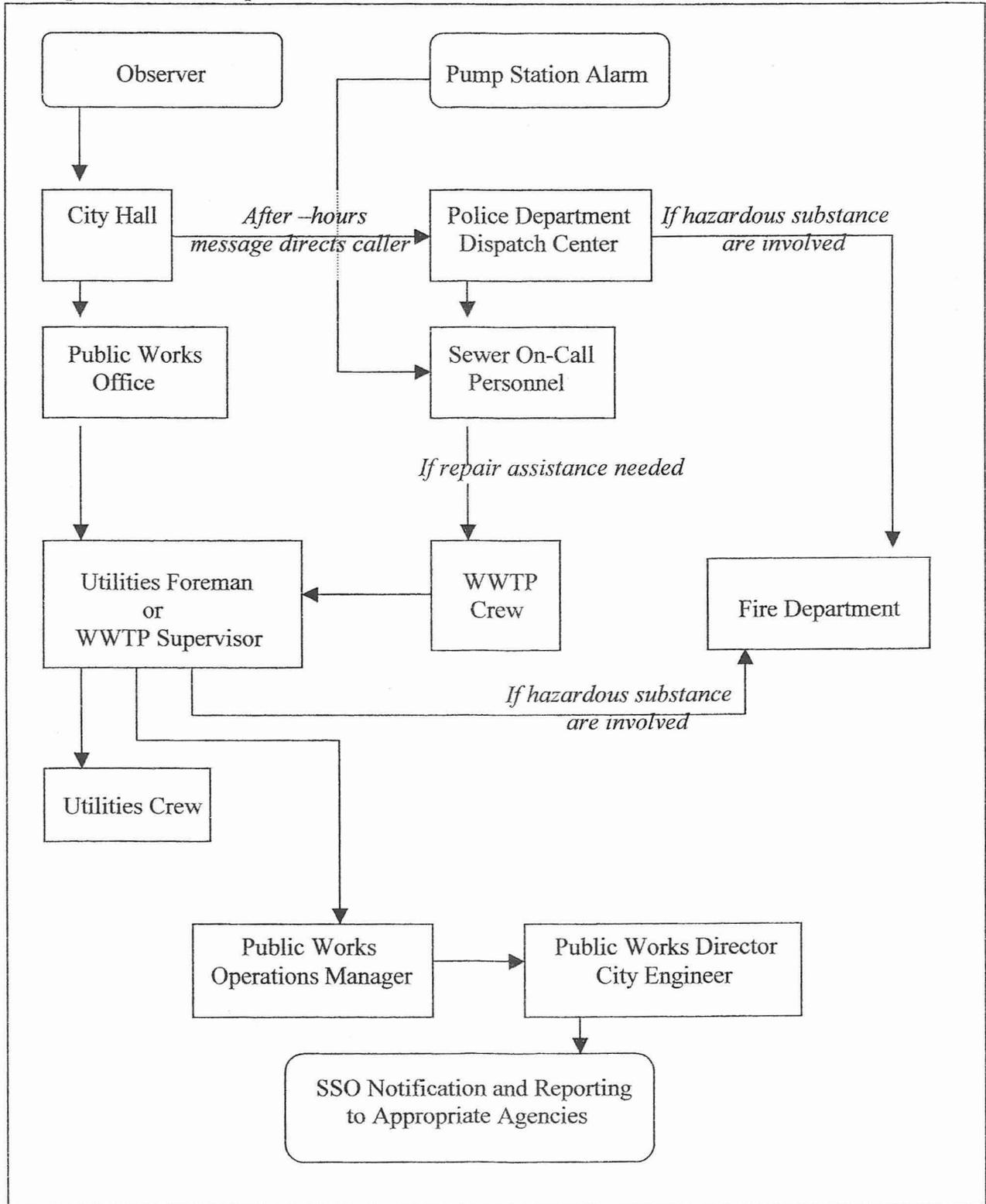
If the spill was the result of a blockage - estimate the age of the sewer pipe \_\_\_\_\_

If the spill was the result of a Sewer Lift Station - Name of station (if known) \_\_\_\_\_

Were Pictures taken Yes No

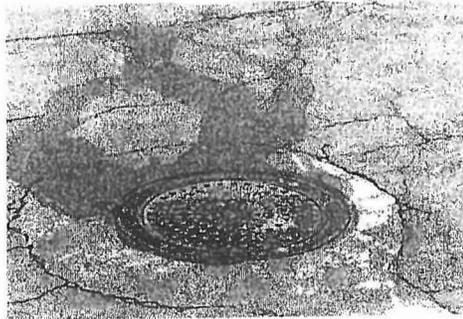
**Immediately - turn this form in to your supervisor**

### SSO Response Chain of Communication



Reference Sheet for Estimating Sewer Spills  
from Overflowing Sewer Manholes  
*All estimates are calculated in gallons per minute (gpm)*

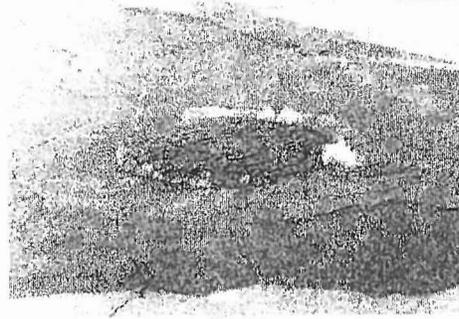
Wastewater Collection Division



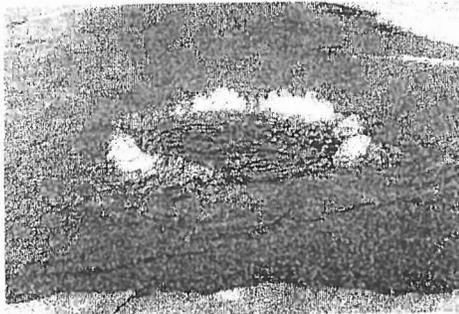
5 gpm



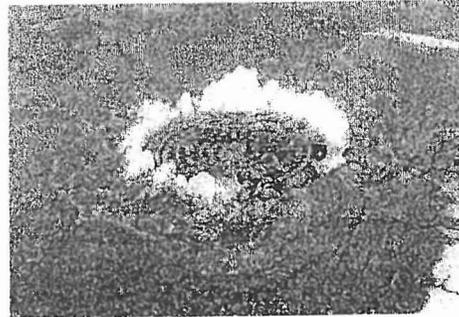
25 gpm



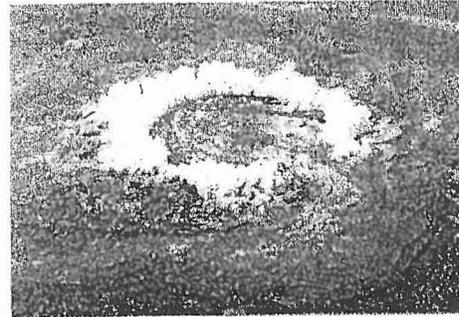
50 gpm



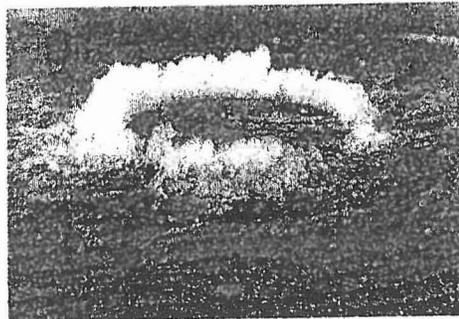
100 gpm



150 gpm



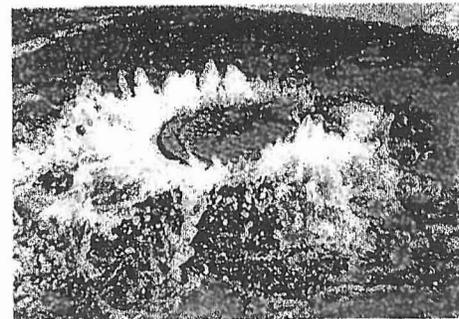
200 gpm



225 gpm



250 gpm



275 gpm

Flow Estimation Pictures

Collection System Collaborative Benchmarking Group  
Best Practices for Sanitary Sewer Overflow (SSO) Prevention and  
Response Plan

# SSO- WDR Compliance Workshop

## Electronic Reporting: Reporting Requirements & Tips

### Methods for Estimating Spill Volume

A variety of approaches exist for estimating the volume of a sanitary sewer spill. Three methods that are most often employed. The person preparing the estimate should use the method most appropriate to the sewer overflow in question and use the best information available.

#### **Method 1 Eyeball Estimate**

The volume of small spills can be estimated using an “eyeball estimate”. To use this method imagine the amount of water that would spill from a bucket or a barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to break the standing water into barrels and then multiply by 50 gallons. This method is useful for contained spills up to approximately 200 gallons.

#### **Method 2 Measured Volume**

The volume of most small spills that have been contained can be estimated using this method. The shape, dimensions, and the depth of the contained wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume.

Step 1 Sketch the shape of the contained sewage (see Figure 1).

Step 2 Measure or pace off the dimensions.

Step 3 Measure the depth at several locations and select an average.

Step 4 Convert the dimensions, including depth, to feet.

Step 5 Calculate the area in square feet using the following formulas:

Rectangle:  $\text{Area} = \text{length (feet)} \times \text{width (feet)}$

Circle:  $\text{Area} = \text{radius (feet)} \times \text{radius (feet)} \times 3.14$

Triangle:  $\text{Area} = \text{base (feet)} \times \text{height (feet)} \times 0.5$

Step 6 Multiply the area (square feet) times the depth (in feet) to obtain the volume in cubic feet.

Step 7 Multiply the volume in cubic feet by 7.5 to convert it to gallons

#### **Method 3 Duration and Flowrate**

Calculating the volume of larger spills, where it is difficult or impossible to measure the area and depth, requires a different approach. In this method, the separate estimates are made of the duration of the spill and the flowrate. The methods of estimating duration and flowrate are:

**Duration:** *The duration is the elapsed time from the time the spill started to the time that the flow was restored.*

**Collection System Collaborative Benchmarking Group  
Best Practices for Sanitary Sewer Overflow (SSO) Prevention and  
Response Plan**

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**TABLE 'C'  
ESTIMATED SSO FLOW OUT OF M/H PICK HOLE**

Height of spout above M/H cover H in inches	SSO FLOW Q in gpm	Height of spout above M/H cover H in inches	SSO FLOW Q in gpm
1/8	1.0	5 1/8	6.2
1/4	1.4	5 1/4	6.3
3/8	1.7	5 3/8	6.3
1/2	1.9	5 1/2	6.4
5/8	2.2	5 5/8	6.5
3/4	2.4	5 3/4	6.6
7/8	2.6	5 7/8	6.6
1	2.7	6	6.7
1 1/8	2.9	6 1/8	6.8
1 1/4	3.1	6 1/4	6.8
1 3/8	3.2	6 3/8	6.9
1 1/2	3.4	6 1/2	7.0
1 5/8	3.5	6 5/8	7.0
1 3/4	3.6	6 3/4	7.1
1 7/8	3.7	6 7/8	7.2
2	3.9	7	7.2
2 1/8	4.0	7 1/8	7.3
2 1/4	4.1	7 1/4	7.4
2 3/8	4.2	7 3/8	7.4
2 1/2	4.3	7 1/2	7.5
2 5/8	4.4	7 5/8	7.6
2 3/4	4.5	7 3/4	7.6
2 7/8	4.6	7 7/8	7.7
3	4.7	8	7.7
3 1/8	4.8	8 1/8	7.8
3 1/4	4.9	8 1/4	7.9
3 3/8	5.0	8 3/8	7.9
3 1/2	5.1	8 1/2	8.0
3 5/8	5.2	8 5/8	8.0
3 3/4	5.3	8 3/4	8.1
3 7/8	5.4	8 7/8	8.1
4	5.5	9	8.2
4 1/8	5.6	9 1/8	8.3
4 1/4	5.6	9 1/4	8.3
4 3/8	5.7	9 3/8	8.4
4 1/2	5.8	9 1/2	8.4
4 5/8	5.9	9 5/8	8.5
4 3/4	6.0	9 3/4	8.5
4 7/8	6.0	9 7/8	8.6
5	6.1	10	8.7

Unrestrained  
M/H cover will  
start to lift

Note: This chart is based on a 7/8 inch diameter pick hole

Disclaimer: This sanitary sewer overflow table was developed by Ed Euyen, Civil Engineer, P.E. No. 33955, California, for County Sanitation District 1. This table is provided as an example. Other Agencies may want to develop their own estimating tables.

**Collection System Collaborative Benchmarking Group  
Best Practices for Sanitary Sewer Overflow (SSO) Prevention and  
Response Plan**

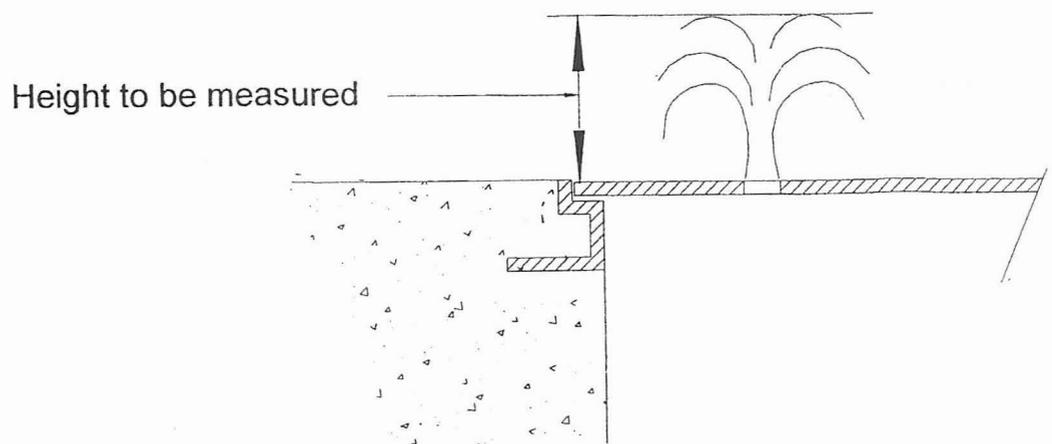
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The formula used to develop Table C is  $Q=C_cVA$ , where Q is equal to the quantity of the flow in gallons per minute,  $C_c$  is equal to the coefficient of contraction (.63), V is equal to the velocity of the overflow, and A is equal to the area of the pick hole.<sup>2</sup> If all units are in feet, the quantity will be calculated in cubic feet per second, which when multiplied by 448.8 will give the answer in gallons per minute. (One cubic foot per second is equal to 448.8 gallons per minute, hence this conversion method).

**Example Overflow Estimation:**

The maintenance hole cover is in place and the height of water coming out of the pick hole seven-eighths of an inch in diameter (7/8") is 3 inches (3"). This will produce an SSO flow of approximately 4.7 gallons per minute.

**FLOW OUT OF VENT OR PICK HOLE (TABLE "C")**



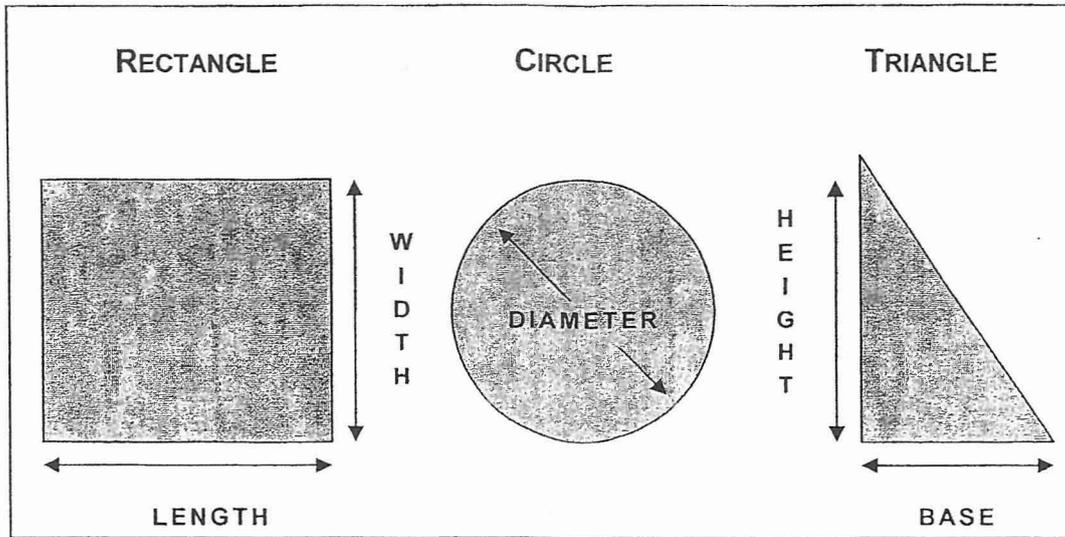
This sanitary sewer overflow drawing was developed by Debbie Myers, Principal Engineering Technician, for Ed Euyen, Civil Engineer, P.E. No. 33955, California, of County Sanitation District 1.

<sup>2</sup> Velocity for the purposes of this formula is calculated by using the formula  $h = v^2 / 2G$ , where h is equal to the height of the overflow, v is equal to velocity, and G is equal to the acceleration of gravity.

# SSO- WDR Compliance Workshop

## Electronic Reporting: Reporting Requirements & Tips

Figure 1: Common Shapes and Dimensions



**Start time:** The start time is sometimes difficult to establish. Here are some approaches:

- Local residents can be used to establish start time. Inquire as to their observations. Spills that occur in rights-of-way are usually observed and reported promptly. Spills that occur out of the public view can go on longer. Sometimes observations like odors or sounds (e.g. water running in a normally dry creek bed) can be used to estimate the start time.
- Changes in flow on a downstream flowmeter can be used to establish the start time. Typically the daily flow peaks are “cut off” or flattened by the loss of flow. This can be identified by comparing hourly flow data during the spill event with flow data from prior days.
- Conditions at the spill site change over time. Initially there will be limited deposits of toilet paper and other sewage solids. After a few days to a week, the sewage solids form a light-colored residue. After a few weeks to a month, the sewage solids turn dark. The quantity of toilet paper and other materials of sewage origin increase over time. These observations can be used to estimate the start time in the absence of other information. Taking photographs to document the observations can be helpful if questions arise later in the process.
- It is important to remember that spills may not be continuous. Blockages are not usually complete (some flow continues). In this case the spill would occur during the peak flow periods (typically 10:00 to 12:00 and 13:00 to 16:00 each day). Spills that occur due to peak flows in excess of capacity will occur only during, and for a short period after, heavy rainfall.

**End time:** The end time is usually much easier to establish. Field crews on-site observe the “blow down” that occurs when the blockage has been removed. The “blow down” can also be observed in downstream flowmeters.

# SSO- WDR Compliance Workshop

## Electronic Reporting: Reporting Requirements & Tips

**Flow Rate:** The flowrate is the average flow that left the sewer system during the time of the spill. There are three common ways to estimate the flowrate:

- The San Diego Manhole Flowrate Chart: This chart, included as Appendix VII-G, shows sewage flowing from manhole covers at a variety of flowrates. The observations of the field crew can be used to select the appropriate flowrate from the chart. If possible, photographs are useful in documenting basis for the flowrate estimate.
- Flowmeter: Changes in flows in downstream flowmeters can be used to estimate the flowrate during the spill.
- Counting Connections: Once the location of the spill is known, the number of upstream connections can be determined from the sewer maps. Multiply the number of connections by 200 to 250 gallons per day per connection or 8 to 10 gallons per hour per connection.

For example: 22 upstream connections x 9 gallons per hour per connection  
= 198 gallons per hour / 60 minutes per hour  
= 3.3 gallons per minute

**Spill Volume:** Once duration and flowrate have been estimated, the volume of the spill is the product of the duration in hours or days and the flowrate in gallons per hour or gallons per day.

For example:

Spill start time = 11:00

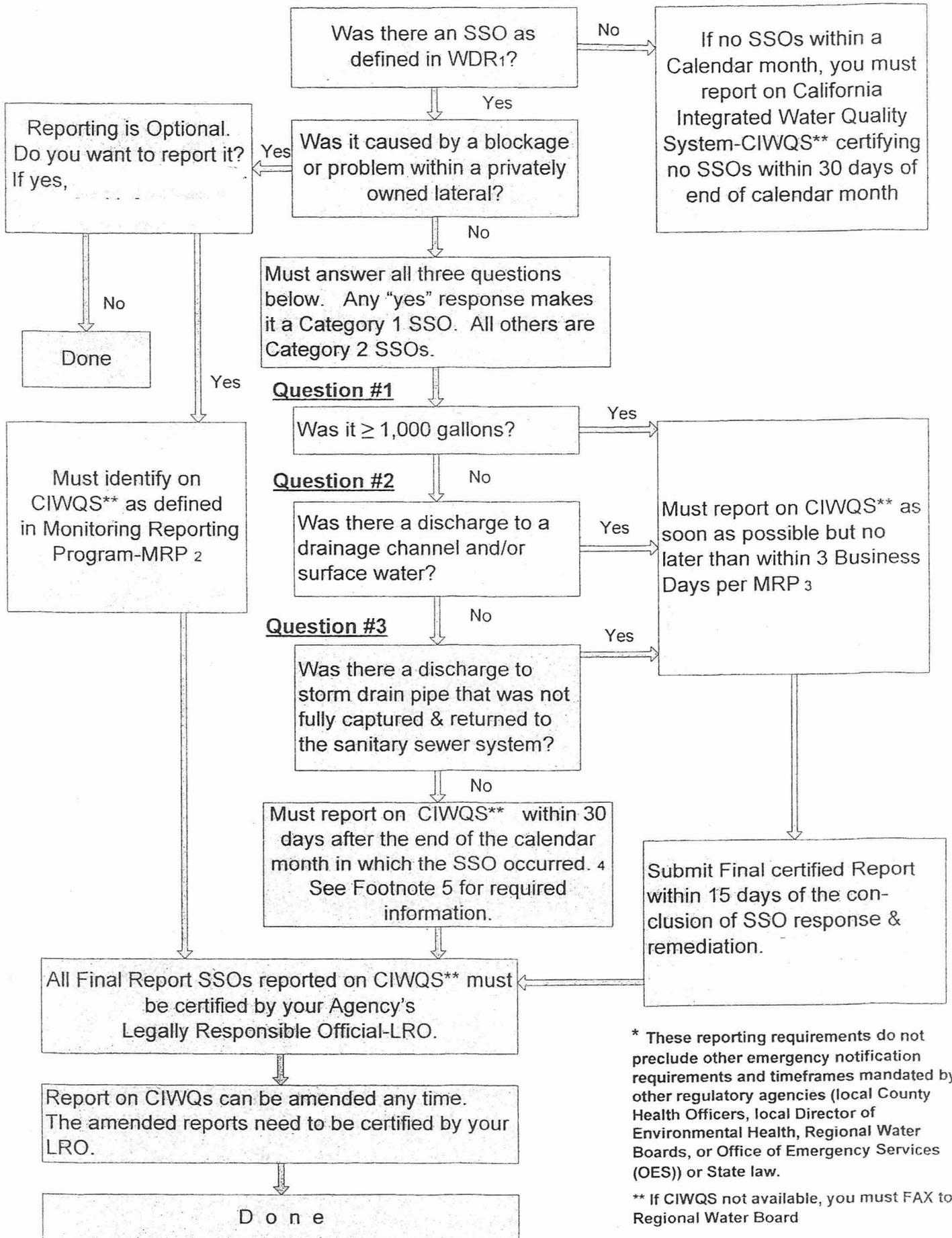
Spill end time = 14:00

Spill duration = 3 hours

3.3 gallons per minute X 3 hours X 60 minutes per hour

= 594 gallons

# State Waste Discharge Requirements-WDR SSO Reporting Requirements \*



\* These reporting requirements do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local County Health Officers, local Director of Environmental Health, Regional Water Boards, or Office of Emergency Services (OES)) or State law.

\*\* If CIWQS not available, you must FAX to Regional Water Board



City of  
**Los Banos**  
*At the Crossroads of California*

City of Los Banos  
Public Works Department  
411 Madison Avenue  
Los Banos, CA 93635  
Telephone: 209-827-7056  
Fax: 209-827-7069

## **ADDITIONAL EMERGENCY GENERATORS**

### **Generator Needed:**

**240 3 Phase & 50' cable with lugs on one end**

**480 3 Phase & 50' cable with lugs on one end**

### **Contacts for Emergency Generator:**

#### **First Contact:**

#### **Second Contact:**

#### **Third Contact:**

STATE OF CALIFORNIA  
WATER RESOURCES CONTROL BOARD  
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM  
FOR  
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR  
SANITARY SEWER SYSTEMS

The State of California, Water Resources Control Board (hereafter State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general Waste Discharge Requirements (WDRs) for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to Water Code section 13263(i).
2. Water Code section 13193 *et seq.* requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) to gather Sanitary Sewer Overflow (SSO) information and make this information available to the public, including but not limited to, SSO cause, estimated volume, location, date, time, duration, whether or not the SSO reached or may have reached waters of the state, response and corrective action taken, and an enrollee's contact information for each SSO event. An enrollee is defined as the public entity having legal authority over the operation and maintenance of, or capital improvements to, a sanitary sewer system greater than one mile in length.
3. Water Code section 13271, *et seq.* requires notification to the California Office of Emergency Services (Cal OES), formerly the California Emergency Management Agency, for certain unauthorized discharges, including SSOs.
4. On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ, "Statewide Waste Discharge Requirements for Sanitary Sewer Systems"<sup>1</sup> (hereafter SSS WDRs) to comply with Water Code section 13193 and to establish the framework for the statewide SSO Reduction Program.
5. Subsection G.2 of the SSS WDRs and the Monitoring and Reporting Program (MRP) provide that the Executive Director may modify the terms of the MRP at any time.
6. On February 20, 2008, the State Water Board Executive Director adopted a revised MRP for the SSS WDRs to rectify early notification deficiencies and ensure that first responders are notified in a timely manner of SSOs discharged into waters of the state.
7. When notified of an SSO that reaches a drainage channel or surface water of the state, Cal OES, pursuant to Water Code section 13271(a)(3), forwards the SSO notification information<sup>2</sup> to local government agencies and first responders including local public health officials and the applicable Regional Water Board. Receipt of notifications for a single SSO event from both the SSO reporter

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<sup>1</sup> Available for download at:

[http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2006/wqo/wqo2006\\_0003.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf)

<sup>2</sup> Cal OES Hazardous Materials Spill Reports available Online at:

[http://w3.calema.ca.gov/operational/mal haz.nsf/\\$defaultview](http://w3.calema.ca.gov/operational/mal haz.nsf/$defaultview) and <http://w3.calema.ca.gov/operational/mal haz.nsf>

and Cal OES is duplicative. To address this, the SSO notification requirements added by the February 20, 2008 MRP revision are being removed in this MRP revision.

8. In the February 28, 2008 Memorandum of Agreement between the State Water Board and the California Water and Environment Association (CWEA), the State Water Board committed to re-designing the CIWQS<sup>3</sup> Online SSO Database to allow "event" based SSO reporting versus the original "location" based reporting. Revisions to this MRP and accompanying changes to the CIWQS Online SSO Database will implement this change by allowing for multiple SSO appearance points to be associated with each SSO event caused by a single asset failure.
9. Based on stakeholder input and Water Board staff experience implementing the SSO Reduction Program, SSO categories have been revised in this MRP. In the prior version of the MRP, SSOs have been categorized as Category 1 or Category 2. This MRP implements changes to SSO categories by adding a Category 3 SSO type. This change will improve data management to further assist Water Board staff with evaluation of high threat and low threat SSOs by placing them in unique categories (i.e., Category 1 and Category 3, respectively). This change will also assist enrollees in identifying SSOs that require Cal OES notification.
10. Based on over six years of implementation of the SSS WDRs, the State Water Board concludes that the February 20, 2008 MRP must be updated to better advance the SSO Reduction Program<sup>4</sup> objectives, assess compliance, and enforce the requirements of the SSS WDRs.

**IT IS HEREBY ORDERED THAT:**

Pursuant to the authority delegated by Water Code section 13267(f), Resolution 2002-0104, and Order 2006-0003-DWQ, the MRP for the SSS WDRs (Order 2006-0003-DWQ) is hereby amended as shown in Attachment A and shall be effective on September 9, 2013.

Date

8/6/13

  
Thomas Howard  
Executive Director

<sup>3</sup> California Integrated Water Quality System (CIWQS) publicly available at <http://www.waterboards.ca.gov/ciwqs/publicreports.shtml>

<sup>4</sup> Statewide Sanitary Sewer Overflow Reduction Program information is available at: [http://www.waterboards.ca.gov/water\\_issues/programs/ssol/](http://www.waterboards.ca.gov/water_issues/programs/ssol/)

## ATTACHMENT A

### STATE WATER RESOURCES CONTROL BOARD ORDER NO. WQ 2013-0058-EXEC

#### AMENDING MONITORING AND REPORTING PROGRAM FOR STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (SSS WDRs). This MRP shall be effective from September 9, 2013 until it is rescinded. The Executive Director may make revisions to this MRP at any time. These revisions may include a reduction or increase in the monitoring and reporting requirements. All site specific records and data developed pursuant to the SSS WDRs and this MRP shall be complete, accurate, and justified by evidence maintained by the enrollee. Failure to comply with this MRP may subject an enrollee to civil liabilities of up to \$5,000 a day per violation pursuant to Water Code section 13350; up to \$1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. The State Water Resources Control Board (State Water Board) reserves the right to take any further enforcement action authorized by law.

#### A. SUMMARY OF MRP REQUIREMENTS

**Table 1 – Spill Categories and Definitions**

CATEGORIES	DEFINITIONS [see Section A on page 5 of Order 2006-0003-DWQ, for Sanitary Sewer Overflow (SSO) definition]
CATEGORY 1	Discharges of untreated or partially treated wastewater of <b>any volume</b> resulting from an enrollee's sanitary sewer system failure or flow condition that: <ul style="list-style-type: none"> <li>• Reach surface water and/or reach a drainage channel tributary to a surface water; or</li> <li>• Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).</li> </ul>
CATEGORY 2	Discharges of untreated or partially treated wastewater of <b>1,000 gallons or greater</b> resulting from an enrollee's sanitary sewer system failure or flow condition that <b>do not</b> reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
CATEGORY 3	All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.
PRIVATE LATERAL SEWAGE DISCHARGE (PLSD)	Discharges of untreated or partially treated wastewater resulting from blockages or other problems <b>within a privately owned sewer lateral</b> connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be <b>voluntarily</b> reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.

**Table 2 – Notification, Reporting, Monitoring, and Record Keeping Requirements**

ELEMENT	REQUIREMENT	METHOD
<b>NOTIFICATION</b> (see section B of MRP)	<ul style="list-style-type: none"> <li>• Within two hours of becoming aware of any Category 1 SSO <b>greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water</b>, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number.</li> </ul>	Call Cal OES at: <b>(800) 852-7550</b>
<b>REPORTING</b> (see section C of MRP)	<ul style="list-style-type: none"> <li>• Category 1 SSO: Submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date.</li> <li>• Category 2 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date.</li> <li>• Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which SSO the occurred.</li> <li>• SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters.</li> <li>• “No Spill” Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred.</li> <li>• Collection System Questionnaire: Update and certify every 12 months.</li> </ul>	Enter data into the CIWQS Online SSO Database ( <a href="http://ciwqs.waterboards.ca.gov/">http://ciwqs.waterboards.ca.gov/</a> ), certified by enrollee’s Legally Responsible Official(s).
<b>WATER QUALITY MONITORING</b> (see section D of MRP)	<ul style="list-style-type: none"> <li>• Conduct water quality sampling <b>within 48 hours</b> after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.</li> </ul>	Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
<b>RECORD KEEPING</b> (see section E of MRP)	<ul style="list-style-type: none"> <li>• SSO event records.</li> <li>• Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP.</li> <li>• Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters.</li> <li>• Collection system telemetry records if relied upon to document and/or estimate SSO Volume.</li> </ul>	Self-maintained records shall be available during inspections or upon request.

## **B. NOTIFICATION REQUIREMENTS**

Although Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) staff do not have duties as first responders, this MRP is an appropriate mechanism to ensure that the agencies that have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any Category 1 SSO greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, the enrollee shall, as soon as possible, but not later than two (2) hours after (A) the enrollee has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, notify the Cal OES and obtain a notification control number.
2. To satisfy notification requirements for each applicable SSO, the enrollee shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:
  - i. Name of person notifying Cal OES and direct return phone number.
  - ii. Estimated SSO volume discharged (gallons).
  - iii. If ongoing, estimated SSO discharge rate (gallons per minute).
  - iv. SSO Incident Description:
    - a. Brief narrative.
    - b. On-scene point of contact for additional information (name and cell phone number).
    - c. Date and time enrollee became aware of the SSO.
    - d. Name of sanitary sewer system agency causing the SSO.
    - e. SSO cause (if known).
  - v. Indication of whether the SSO has been contained.
  - vi. Indication of whether surface water is impacted.
  - vii. Name of surface water impacted by the SSO, if applicable.
  - viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
  - ix. Any other known SSO impacts.
  - x. SSO incident location (address, city, state, and zip code).
3. Following the initial notification to Cal OES and until such time that an enrollee certifies the SSO report in the CIWQS Online SSO Database, the enrollee shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).
4. PLSDs: The enrollee is strongly encouraged to notify Cal OES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral or from other private sewer asset(s) if the enrollee becomes aware of the PLSD.

**C. REPORTING REQUIREMENTS**

1. **CIWQS Online SSO Database Account:** All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS. These accounts allow controlled and secure entry into the CIWQS Online SSO Database.
2. **SSO Mandatory Reporting Information:** For reporting purposes, if one SSO event results in multiple appearance points in a sewer system asset, the enrollee shall complete one SSO report in the CIWQS Online SSO Database which includes the GPS coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the flow condition that caused the SSO, and provide descriptions of the locations of all other discharge points associated with the SSO event.
3. **SSO Categories**
  - i. **Category 1** – Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee's sanitary sewer system failure or flow condition that:
    - a. Reach surface water and/or reach a drainage channel tributary to a surface water; or
    - b. Reach a MS4 and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
  - ii. **Category 2** – Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from an enrollee's sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO volume discharged to the storm drain system is fully recovered and disposed of properly.
  - iii. **Category 3** – All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.
4. **Sanitary Sewer Overflow Reporting to CIWQS - Timeframes**
  - i. **Category 1 and Category 2 SSOs** – All SSOs that meet the above criteria for Category 1 or Category 2 SSOs shall be reported to the CIWQS Online SSO Database:
    - a. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS Online SSO Database within three (3) business days of the enrollee becoming aware of the SSO. Minimum information that shall be reported in a draft Category 1 SSO report shall include all information identified in section 8.i.a. below. Minimum information that shall be reported in a Category 2 SSO draft report shall include all information identified in section 8.i.c below.
    - b. A final Category 1 or Category 2 SSO report shall be certified through the CIWQS Online SSO Database within 15 calendar days of the end date of the SSO. Minimum information that shall be certified in the final Category 1 SSO report shall include all information identified in section 8.i.b below. Minimum information that shall be certified in a final Category 2 SSO report shall include all information identified in section 8.i.d below.

- ii. **Category 3 SSOs** – All SSOs that meet the above criteria for Category 3 SSOs shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30). Minimum information that shall be certified in a final Category 3 SSO report shall include all information identified in section 8.i.e below.
- iii. **“No Spill” Certification** – If there are no SSOs during the calendar month, the enrollee shall either 1) certify, within 30 calendar days after the end of each calendar month, a “No Spill” certification statement in the CIWQS Online SSO Database certifying that there were no SSOs for the designated month, or 2) certify, quarterly within 30 calendar days after the end of each quarter, “No Spill” certification statements in the CIWQS Online SSO Database certifying that there were no SSOs for each month in the quarter being reported on. For quarterly reporting, the quarters are Q1 - January/ February/ March, Q2 - April/May/June, Q3 - July/August/September, and Q4 - October/November/December.  
  
If there are no SSOs during a calendar month but the enrollee reported a PLSD, the enrollee shall still certify a “No Spill” certification statement for that month.
- iv. **Amended SSO Reports** – The enrollee may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. SSO reports certified in the CIWQS Online SSO Database prior to the adoption date of this MRP may only be amended up to 120 days after the effective date of this MRP. After 120 days, the enrollee may contact the SSO Program Manager to request to amend an SSO report if the enrollee also submits justification for why the additional information was not available prior to the end of the 120 days.

## 5. **SSO Technical Report**

The enrollee shall submit an SSO Technical Report in the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

- i. **Causes and Circumstances of the SSO:**
  - a. Complete and detailed explanation of how and when the SSO was discovered.
  - b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
  - c. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
  - d. Detailed description of the cause(s) of the SSO.
  - e. Copies of original field crew records used to document the SSO.
  - f. Historical maintenance records for the failure location.
- ii. **Enrollee’s Response to SSO:**
  - a. Chronological narrative description of all actions taken by enrollee to terminate the spill.
  - b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.

- c. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.

iii. **Water Quality Monitoring:**

- a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
- b. Detailed location map illustrating all water quality sampling points.

6. **PLSDs**

Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee's sanitary sewer system or from other private sanitary sewer system assets may be voluntarily reported to the CIWQS Online SSO Database.

- i. The enrollee is also encouraged to provide notification to Cal OES per section B above when a PLSD greater than or equal to 1,000 gallons has or may result in a discharge to surface water. For any PLSD greater than or equal to 1,000 gallons regardless of the spill destination, the enrollee is also encouraged to file a spill report as required by Health and Safety Code section 5410 et. seq. and Water Code section 13271, or notify the responsible party that notification and reporting should be completed as specified above and required by State law.
- ii. If a PLSD is recorded in the CIWQS Online SSO Database, the enrollee must identify the sewage discharge as occurring and caused by a private sanitary sewer system asset and should identify a responsible party (other than the enrollee), if known. Certification of PLSD reports by enrollees is not required.

7. **CIWQS Online SSO Database Unavailability**

In the event that the CIWQS Online SSO Database is not available, the enrollee must fax or e-mail all required information to the appropriate Regional Water Board office in accordance with the time schedules identified herein. In such event, the enrollee must also enter all required information into the CIWQS Online SSO Database when the database becomes available.

8. **Mandatory Information to be Included in CIWQS Online SSO Reporting**

All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS which can be reached at [CIWQS@waterboards.ca.gov](mailto:CIWQS@waterboards.ca.gov) or by calling (866) 792-4977, M-F, 8 A.M. to 5 P.M. These accounts will allow controlled and secure entry into the CIWQS Online SSO Database. Additionally, within thirty (30) days of initial enrollment and prior to recording SSOs into the CIWQS Online SSO Database, all enrollees must complete a Collection System Questionnaire (Questionnaire). The Questionnaire shall be updated at least once every 12 months.

i. **SSO Reports**

At a minimum, the following mandatory information shall be reported prior to finalizing and certifying an SSO report for each category of SSO:

- a. **Draft Category 1 SSOs:** At a minimum, the following mandatory information shall be reported for a draft Category 1 SSO report:
1. SSO Contact Information: Name and telephone number of enrollee contact person who can answer specific questions about the SSO being reported.
  2. SSO Location Name.
  3. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.
  4. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
  5. Whether or not the SSO reached a municipal separate storm drain system.
  6. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.
  7. Estimate of the SSO volume, inclusive of all discharge point(s).
  8. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.
  9. Estimate of the SSO volume recovered (if applicable).
  10. Number of SSO appearance point(s).
  11. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
  12. SSO start date and time.
  13. Date and time the enrollee was notified of, or self-discovered, the SSO.
  14. Estimated operator arrival time.
  15. For spills greater than or equal to 1,000 gallons, the date and time Cal OES was called.
  16. For spills greater than or equal to 1,000 gallons, the Cal OES control number.
- b. **Certified Category 1 SSOs:** At a minimum, the following mandatory information shall be reported for a certified Category 1 SSO report, in addition to all fields in section 8.i.a :
1. Description of SSO destination(s).
  2. SSO end date and time.
  3. SSO causes (mainline blockage, roots, etc.).
  4. SSO failure point (main, lateral, etc.).
  5. Whether or not the spill was associated with a storm event.
  6. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
  7. Description of spill response activities.
  8. Spill response completion date.
  9. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.

10. Whether or not a beach closure occurred or may have occurred as a result of the SSO.
11. Whether or not health warnings were posted as a result of the SSO.
12. Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.
13. Name of surface water(s) impacted.
14. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.
15. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.
16. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.
17. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.

c. **Draft Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 2 SSO report:

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO.

d. **Certified Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 2 SSO report:

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-9, and 17 in section 8.i.b above for Certified Category 1 SSO.

e. **Certified Category 3 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 3 SSO report:

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-5, and 17 in section 8.i.b above for Certified Category 1 SSO.

ii. **Reporting SSOs to Other Regulatory Agencies**

These reporting requirements do not preclude an enrollee from reporting SSOs to other regulatory agencies pursuant to state law. In addition, these reporting requirements do not replace other Regional Water Board notification and reporting requirements for SSOs.

iii. **Collection System Questionnaire**

The required Questionnaire (see subsection G of the SSS WDRs) provides the Water Boards with site-specific information related to the enrollee's sanitary sewer system. The enrollee shall complete and certify the Questionnaire at least every 12 months to facilitate program implementation, compliance assessment, and enforcement response.

iv. **SSMP Availability**

The enrollee shall provide the publicly available internet web site address to the CIWQS Online SSO Database where a downloadable copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP is posted. If all of the SSMP documentation listed in this subsection is not publicly available on the Internet, the enrollee shall comply with the following procedure:

- a. Submit an **electronic** copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP to the State Water Board, within 30 days of that approval and within 30 days of any subsequent SSMP re-certifications, to the following mailing address:

State Water Resources Control Board  
Division of Water Quality  
Attn: SSO Program Manager  
1001 I Street, 15<sup>th</sup> Floor, Sacramento, CA 95814

**D. WATER QUALITY MONITORING REQUIREMENTS:**

To comply with subsection D.7(v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).
3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.
5. Within 48 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
  - i. Ammonia
  - ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

**E. RECORD KEEPING REQUIREMENTS:**

The following records shall be maintained by the enrollee for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request:

1. General Records: The enrollee shall maintain records to document compliance with all provisions of the SSS WDRs and this MRP for each sanitary sewer system owned including any required records generated by an enrollee's sanitary sewer system contractor(s).
2. SSO Records: The enrollee shall maintain records for each SSO event, including but not limited to:
  - i. Complaint records documenting how the enrollee responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not

result in SSOs. Each complaint record shall, at a minimum, include the following information:

- a. Date, time, and method of notification.
  - b. Date and time the complainant or informant first noticed the SSO.
  - c. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains.
  - d. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.
  - e. Final resolution of the complaint.
- ii. Records documenting steps and/or remedial actions undertaken by enrollee, using all available information, to comply with section D.7 of the SSS WDRs.
  - iii. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
3. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.
  4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
    - i. Supervisory Control and Data Acquisition (SCADA) systems
    - ii. Alarm system(s)
    - iii. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

#### **F. CERTIFICATION**

1. All information required to be reported into the CIWQS Online SSO Database shall be certified by a person designated as described in subsection J of the SSS WDRs. This designated person is also known as a Legally Responsible Official (LRO). An enrollee may have more than one LRO.
2. Any designated person (i.e. an LRO) shall be registered with the State Water Board to certify reports in accordance with the CIWQS protocols for reporting.
3. Data Submitter (DS): Any enrollee employee or contractor may enter draft data into the CIWQS Online SSO Database on behalf of the enrollee if authorized by the LRO and registered with the State Water Board. However, only LROs may certify reports in CIWQS.
4. The enrollee shall maintain continuous coverage by an LRO. Any change of a registered LRO or DS (e.g., retired staff), including deactivation or a change to the LRO's or DS's contact information, shall be submitted by the enrollee to the State Water Board within 30 days of the change by calling (866) 792-4977 or e-mailing [help@ciwqs.waterboards.ca.gov](mailto:help@ciwqs.waterboards.ca.gov).

5. A registered designated person (i.e., an LRO) shall certify all required reports under penalty of perjury laws of the state as stated in the CIWQS Online SSO Database at the time of certification.

### CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order amended by the Executive Director of the State Water Resources Control Board.

7/30/13  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Jeanine Townsend  
Clerk to the Board

# Sewer System Overflow Reporting

By order WQ 2008-0002-EXEC of the  
State Water Resources Control Board

## Sewer discharges to any drainage channel or surface water must:

1. Be reported within two (2) hours to:

Regional Water Quality Control Board	Fresno branch (559) 445-5116
	Sacramento (916) 361-5600

State Office of Emergency Services	(800) 852-7550
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Merced County Environmental Health Dept.	Los Banos (209) 826-0166
	Merced (209) 381-1087

2. As soon as possible, but no later than twenty-four (24) hours submit certification to the RWQCB that the appropriate agencies (above) have been notified.

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**Category 1 SSO** – Sewer resulting from a sanitary sewer system that:

- A. Equal or exceed 1000 gallons, or
- B. Drains to channel or surface water, or
- C. Discharges to storm and not fully captured and returned to sewer system.

Must be reported (on line) to the RWQCB as soon as possible but no later than 3 business days after being made aware of the report.

**Category 2 SSO** – All other discharges from sewage resulting from the sanitary sewer system.

Must be reported (on line) to the RWQCB within 30 days after the end of the month in which the SSO occurs.

**Private Lateral Sewage Discharges** - All sewage discharges that meet the above criteria, resulting from a private sewer lateral.

Reporting is optional – at our discretion.



City of  
**Los Banos**  
*At the Crossroads of California*

**WARNING!**

**RAW SEWAGE SPILL**

**AREA CLOSED**

**PUBLIC ACCESS RESTRICTED**

**KEEP CHILDREN AND PETS**

**OUT OF AREA**

**Public Works Department**

**(209) 827-7056**



City of  
**Los Banos**  
*At the Crossroads of California*

**PELIGRO!**

**DRENAGE DERRAMADO**

**AREA CERRADO**

**MANTENGAN NINOS Y  
MASCOTAS FUERA DEL AREA**

**Public Works Department  
(209) 827-7056**



City of  
**Los Banos**  
*At the Crossroads of California*

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Public Works Department

**Standard Operating Procedures  
For  
Sewer Pump Station  
Failure**

## Standard Operating Procedures for Sewer Pump Station Failure

The purpose of this “Standard Operating Procedures for Sewer Pump Station Failure” is to provide guidance to the maintenance crew in the event of a sewer lift pump station failure, to insure a rapid response, to help prevent Sewer System Overflows (SSOs), and to identify key personnel as deemed required by the responder. This manual should also serve as a training guide for periodic instruction of the maintenance crew.

### **Sewer Lift Station Locations**

The City currently operates 13 sewer lift stations through out the City of Los Banos. Some of the older sections of the collection system are gravity fed directly to the Wastewater Treatment Plant. However, much of the collection system is serviced by sewer lift pumping stations, which lift the wastewater so that it can continue gravity flow through the system. This is necessary to maintain the collection system piping at a shallower, more manageable depth and to provide the proper connection to the Wastewater Treatment Plant.

The designated name, address and location of the sewer lift stations are as follows:

<b>Station Name</b>	<b>Address</b>	<b>Location</b>
<b>Cresthills</b>	750 Bluff Dr.	Bluff Dr. (across from Rainier Dr.)
<b>Gardens 5</b>	1664 Mesquite Ct.	Cardoza Rd. or end of Mesquite Court
<b>Jo-Lyn</b>	2088 Greenbriar Dr.	End of Greenbriar Dr. (across from Park Warren)
<b>Meadowlands</b>	2454 San Luis St.	San Luis Street (east of Snow Goose Dr.)
<b>Merced College</b>	22240 W. Pacheco Blvd.	Merced College Campus (east edge of campus)
<b>Northgate</b>	556 Rockport Dr.	Rockport and Regency Dr.
<b>Orchard Terrace</b>	100 Willmott Ave.	Willmott Rd. (west of 2 <sup>nd</sup> St.)
<b>Ranchwood</b>	434 Stonewood Dr.	Stonewood Dr. (south of Santa Barbara)
<b>Santa Barbara</b>	1164 Santa Barbara St.	Santa Barbara Dr. (west of Santa Ana)
<b>St. Francis</b>	1701 San Simeone Way	San Simeone Way (east of El Pinal Lane)
<b>Stone Creek</b>	1575 Ortigalita Rd.	Orteglita Rd. (corner of Prairie Springs Rd.)
<b>Valley Meadows</b>	1498 E. B St.	B St. (east of Wisteria Ave.)
<b>West I</b>	325 West I St.	West I St. (across from Illinois Ave.)
<b>Badger Flat</b>	Badger Flat Rd.	Future

### **Notification and Identification of Lift Station Failure**

Notification of pump station failure is most likely received through one of three means:

- **Sewer Lift Station Alarm** received from the failed lift station
  - Seven of the stations currently have high level alarms installed (see the alarm section of the manual)
  - Alarms are received by City cell phone to key personnel
- A call received by a passer-by, reporting a **High-Level Light** on, at the station
  - All stations have a high-level indicator light located at the stations
- Notification of **Water in the Street** at specific low spots in the collection system
  - These locations are identified in this manual

If the on call person is unable to respond in a timely manner, they must seek help.

### *Sewer Lift Station Alarms*

Currently seven of the sewer lift stations have high-level, cell phone, alarms installed. These alarms notify key personnel of the high-level condition, this condition is caused by an equipment failure of various origins. The level at which the alarm trips is above the stations normal operating range, yet well before a Sewer System Overflow (SSO) can occur, allowing for ample time to respond, investigate, repair or obtain other forces to correct the problem. The alarms at these stations will call two times per event to insure contact, as well as leave a recorded message and reset automatically.

For reference purposes, the following is a list of the alarm cell phone numbers:

<b>Phone</b>	<b>Cell Phone Number</b>	<b>Location</b>
1	209 509-9568	Northgate
2	209 509-9491	Orchard Terrace
3	209 509-5739	Valley Meadows
4	209 829-9541	Jo-Lyn
5	209 829-9540	Ranchwood
6	209 829-9539	Crest Hills
7	209 829-9538	St. Francis
8	209 509-6538	Santa Barbara

Sewer Lift Station Alarm Setup Instructions are included in the Appendix.

### *High-Level Light*

Each lift station is equipped with an alarm light. This light is activated by various conditions, depending on the station setup. The light may be energized by high-level, low-level, vacuum pump timeout, check valve closed, etc. All these conditions can eventually cause high-level and a possible overflow condition. Notification of this light should be responded to immediately, as the duration of the failed condition, prior to notification, is unknown and an overflow may be rapidly approaching.

All employees should be aware of the purpose of this lift station alarm light and report to the Public Works office as soon as possible.

### *Water in the Street*

The public is not expected to identify the type of water being discharged. Any report of water in the street should initially be treated as a Sewer System Overflow Response and those procedures should be followed to minimize wastewater going to the storm system and to other receiving waters. In an effort to rapidly respond to all SSOs, the proper equipment and personnel should be dispatched, unless the spill has been clearly identified as something other than a SSO. The containment and clean-up time and procedures will be reduced or prevented by a rapid response.

## Standard Operating Procedures for Sewer Pump Station Failure

A report of water in the street may be attributed to a lift station failure. Lift stations service sections, of the sewer system, are identified by use of the sewer infrastructure maps. A lift pump station failure causes the sewer to back up in the entire section and an overflow will occur at the same (lowest surface elevation) point every time. The crew has identified these specific locations within each section.

Location of possible SSOs caused by lift station failures, are as follows:

<b>Station Name</b>	<b>Sections lowest points</b>
<b>Cresthills</b>	Rainier & Bluff
<b>Gardens 5</b>	Fir & Cardoza
<b>Jo-Lyn</b>	Greenbrier & Park Sharon
<b>Meadowlands</b>	Snowgoose & San Lewis (closer to the highway)
<b>Merced College</b>	In the college parking lot
<b>Northgate</b>	Chenin Blanc & Stonewood? (unknown, not sure)
<b>Orchard Terrace</b>	Honeybell (near Overland)
<b>Ranchwood</b>	Stonewood near lift station (Parkwood Dr.)
<b>Santa Barbara</b>	Loirelwood near Santa Barbara
<b>St. Francis</b>	El Cajon or Del Rio
<b>Stone Creek</b>	Manhole next to lift station
<b>Valley Meadows</b>	Pintail & Wisteria
<b>West I.</b>	I Street & Arizona
<b>Badger Flat</b>	??

### **Sewer Lift Station Power Failure**

The cause of a lift station failure may be a power outage. This type of failure will not trigger a high-level alarm, as the lights, cell phones, and relays used to operate these systems will be powerless. If a known or reported power outage is scheduled or reported, an immediate investigation should be conducted to assess the situation and the appropriate action should be taken.

The City has generators configured for use at all of the lift stations. Training has been conducted and testing for proper operation has been completed at each site. A generator should be dispatched to a lift station experiencing a power failure, for use when needed.

PG&E should be notified of a power failure as soon as possible and made aware that a City sewer lift pump station is down and sewer must not be allowed to overflow. This should be treated as an emergency situation.

The following is a list of PG&E contact phone numbers:

PG&E 24 Hour power outage line      **(800) 743-5000**  
Local PG&E emergency number      **(209) 509-5973**      (Jonathan)  
Local PG&E emergency number      **(209) 726-6481**

Standard Operating Procedures for Sewer Pump Station Failure

The PG&E representative should be given as much information as possible to aid in their response; the address, as listed in the previous section (address numbers are clearly marked at each station), the physical location (cross street), and the PG&E meter number.

The following is a list of lift station PG&E meter numbers:

<b>Lift Station</b>	<b>PG&amp;E Meter Number</b>
Gardens 5	4554T0
Cresthills	1748T6
Jo-Lyn	50752R
Meadowlands	9139R3
Northgate	93195R
Orchard Terrace	844T77
Ranchwood	206T84
Santa Barbara	8T2717
St. Francis	06R278
Stone Creek	75M279
Valley Meadows	558R56
West I	50T104

### **Power Problems Within The Station**

**Electrical components within the lift stations contain high voltage and can be deadly**

The sewer lift stations have a vast amount of electrical components that can be difficult to diagnose or repair, even for the most experienced operator. Many electrical problems can be resolved by resetting main breakers, control breakers, component breakers, or reset buttons. You are justified and encouraged to seek help from an operator with the experience required to solve the problem and avoid a SSO. The help of outside sources may also be required. Problems of this severity should be reported to your foreman/supervisor. However, your focus should remain on actions required to avoid an SSO, protection of public health, and protection of the environment. A SSO will be reported to state agencies, as required, and may result in fines or penalties.

The following are electrical technicians and vendors:

<b>Frank Silveria</b>	<b>826-3010</b>	cell phone	<b>769-6191</b>
A&A Electric	826-6250		
Wille Electric	527-6800	101 S 7 <sup>th</sup> Modesto	
Electric Drives	387-4700	Emergency	769-0343

## Operation and Maintenance Strategies

All stations receive weekly inspection and maintenance.

- Weekly inspection.
- Scheduled maintenance on an as needed basis.
- Additional maintenance and repair as needed.
- Maintenance records are maintained at each station detailing operation, needs and action taken.
  1. Master Check List - Includes all stations with notations made of maintenance and repairs completed and additional needs. This form is turned into the supervisor at the end of the shift, for review.
  2. Location Check List - Kept at each site as a record of operation, maintenance and repairs for review by other maintenance personnel.
- A supply of commonly used and critical parts is maintained at the Madison Yard sewer room, in the lift station parts cabinet.
- Cleaning of wet-wells is done as needed, based on the evaluation at the time of inspection.
- Below ground stations are treated as a non-permitted confined space entry. Confined space manuals are kept at each site, air monitors are used, personnel are trained and proper procedures are followed.

## Personnel Experienced in Lift Station Repair

These individuals have the knowledge and experience for help with lift station repairs:  
(In no particular order)

**Jeff Bondi**  
**Royal Lloyd**

**Todd Silva**  
**Stan Silva**

**Doug Heyman**  
**Richard Ortiz**

Contact should be made through the City cell phone system or by use of the contact list.

## Quick Fixes for Lift Station Failures

This section is intended to provide actions that can be taken to get a lift station operational. These actions may provide a temporary startup, yet may not repair the station to a level that will provide for the continued automatic operation of the station. Contacting maintenance personnel capable of performing the proper repairs may be necessary. All failures identified should be reported to the Wastewater Treatment Plant Supervisor for follow-up maintenance.

Above ground lift stations incur more frequent and more complex problems so the majority of this discussion will apply to them. The below ground stations may have electrical components accessible from the surface. "Confined Space Entry Manual" procedures must be followed on any entry into a lift station confined space. A second trained/responsible person must be present, and a record of the entry must be recorded. A copy of this manual is kept at each underground station for reference.

The following is a list of common failures and possible fixes:

**Electrical Failure** – Station appears to be off

- ❑ Investigate the cause, PG&E or station control box.
- ❑ Contact PG&E if necessary, see Power Failure section.
- ❑ Reset main, control, and component breakers, see Power Problems section.
- ❑ Resetting the control breaker will reset components that may have timed off.
- ❑ **Resetting the control breaker will reset the alarm and notification will resume.**

**Vacuum Failure** – Priming, vacuum pumps running but wastewater pumps not called

- ❑ Close the main valves. This will seal the system from a check valve leak.
- ❑ Check vacuum tubes for debris that may be blocking the vacuum flow.
- ❑ Check the vacuum tubing elbows for blockage.
- ❑ Check all vacuum lines & fittings for leaks and tighten or repair as needed.
- ❑ Look for water in the collector near the vacuum pump, solenoid valve not sealing.
- ❑ Feel the exhaust from the vacuum pump, should be ample volume. (bad pump)
- ❑ Vacuum can be traced using a vacuum gauge from the pump through the separate components of the vacuum system.

**Pump Running But Not Pumping** – Check valve not opening

- ❑ Pump may be plugged. (Will usually vibrate, or turn off and on as controlled by check valve switch). The pump will need to be pulled and cleared of debris.
- ❑ The probe may have debris on it. Moisture debris in the plastic dome, triggers the pump on in error. (Pump will probably turn off and on by the check valve switch).
- ❑ Backwashing the check valve may remove the debris inhibiting a proper seal.

**Level System Failure** – Levels gauge is inconsistent with the actual level

- ❑ The proper operating range may be noted in the station or see the appendix.
- ❑ Check the air compressor for proper operation.
- ❑ Check the compressor pressure switch for proper operation.
- ❑ Check the air regulator for proper setting (black ball floating at around .5).
- ❑ Check air lines for leaks.
- ❑ Check the wet-well for air bubbles.
- ❑ Pushing the “purge” button may clear a blockage in the bubbler line.
- ❑ Check the probes for debris or tangling. (Stone Creek only)

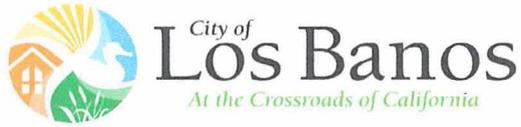
**False Alarm** - Everything appears normal

- ❑ The problem may have corrected itself.
- ❑ The other pump may have been called on.
- ❑ As the level in the wet-well rises it requires less vacuum to prime the pump.
- ❑ An excessive vibration sloshes the mercury switch and triggers the alarm.

**Appendix – Attached Documents**

Lift Station Specifications – including operational levels  
Sewer System Overflow Field Report  
Sewer Lift Station Alarm Setup Instructions





## Public Works Department

### SSO - Sewer System Overflow - Field Report

Name: \_\_\_\_\_ Crew: \_\_\_\_\_

Date: \_\_\_\_\_

Time of notification: \_\_\_\_\_ Spill time ( if known): \_\_\_\_\_ Arrival time: \_\_\_\_\_ End time: \_\_\_\_\_

Spill location - intersection, cross street or address \_\_\_\_\_

How were you notified of the SSO \_\_\_\_\_

Determine spill type \_\_\_\_\_

Cause of the SSO \_\_\_\_\_

Did the spill discharge to a drain channel and/or surface water? Yes No If yes, Receiving water name: \_\_\_\_\_

Did the spill discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system? Yes No

Did the spill come from a private lateral? Yes No

If spill is from a private lateral - give address: \_\_\_\_\_

If spill is from a private lateral - give the name of responsible party (if known): \_\_\_\_\_

Estimate spill volume: \_\_\_\_\_ gallons Be observant - (diagrams and charts are available to double check your estimate)

Spill details -(what happened - be specific) \_\_\_\_\_

Final spill destination: \_\_\_\_\_

Explanation of response activities: \_\_\_\_\_

If the spill was released to receiving waters was a sample of receiving waters taken: Yes No

If the spill was the result of a blockage - estimate the age of the sewer pipe \_\_\_\_\_

If the spill was the result of a Sewer Lift Station - Name of station (if known) \_\_\_\_\_

Were Pictures taken Yes No

**Immediately - turn this form in to your supervisor**

# *Sewer Lift Station Alarm Setup Instructions*

**Phones to be contacted:** (subject to change)

<u>Name</u>	<u>Phone Number</u>	<u>Dialing Position</u>
Royal Lloyd		P-1
WWTP		P-2
Jeff Bondi		P-3
P. W. Duty		P-4

**To program these numbers into the auto dialer:** (each number will be called twice)

1. Press **M** (slowly) to "Program: numbers"
2. Press **1** "Yes"
3. Press the numbers to be dialed
4. Press **P** (position) – Press **1** (for position 1)
  - For additional numbers repeat Steps 2 & 3, change Step 4 to additional dialing position 2 through 4 (only 4 numbers (positions) can be programmed).
  - Press **M** to return to "Off" or "Operate mode"
  - **To view** the stored numbers and positions - Press **M** to "Test: T-line", press **2** "No" to "Test: Channel", Press **1** "Yes", unit will display the information.
  - **To remove** a stored number complete steps 1,2, 3(do not enter any numbers), & 4.
  - **To Change** a stored number – store the new number in the old number position using steps 1 through 4. To find number position (1-4) use the view instruction.

**To record an outgoing message:** (recorded message will announce twice)

1. Press **M** (slowly) to "Program: numbers"
2. Press **2** twice to "Program: OGM"
3. Press **1** "Yes" - Get ready to record your message.
4. Press and hold down **\*** during the entire recording process (16 seconds max.)
  - "DONE" will be displayed - You are done!
  - Press **M** to return to "Off" or "Operate mode"
  - To change recorded message – record a new message using steps 1 through 4.

**Typical outgoing message:**

- High level alarm at (name of station) on (name of street near cross street)
- Use a short, to the point, message and repeat many times for the 16 seconds.

**Installation Procedures:**

- Attach wires to the 110-volt line that powers the high level light.
- Remove other sources that would trigger false alarms (vac. pump time out –etc)
- Plug unit into outlet for system to power up

**How it works:**

- 110 Volt (tied into high level light) opens a normally closed relay.
- Relay triggers the auto dialer to dial the programmed numbers and repeat the recorded message.
- Auto dialer goes through the alarms cell phone to complete the call to the numbers dialed.
- The goal is to notify crew and provide adequate time to respond to the problem prior to a sewer system overflow.

# Appendix C

Contains:

- List of Food Services (potential FOG) establishments
- Department of Health Services Contact Information
- Sewer Cleaning Log
- Schedule for Cleaning Sewer Sections
- Sewer Lift Stations Inspection and Maintenance forms
- Fats, Oils, and Grease (FOG) Community Outreach Brochure

## Appendix C

### List of potential F.O.G. dischargers

5006 -	000A & A Auto Repair	3/3/2003 SCIN
5291 -	000American Rod And Automotive	8/20/1997 SCIN
	000Auto Zone	
5482 -	000Azul	8/20/1997 SCIN
	000Baby's Nutrition	
5517 -	001Baskin Robbins	5/10/2004 SCIN
5566 -	000Beacon Oil Company #535	3/21/2008 SCIN
5909 -	000Bruce's Tire	12/20/1998 SCIN
	000Caffe E'via Llc	
	000Carl's Jr., #649	
6238 -	000Carls Jr #2	8/20/1997 SCIN
6450 -	000Cecilia's Market	2/20/2001 SCIN
6496 -	000Central Valley Smog	8/20/1997 SCIN
6581 -	000Chili's/Brinker International	8/20/1997 SCIN
6605 -	000China Garden Rest.	9/29/2000 SCIN
6673 -	000Circle K Corporation #2703614	12/20/1998 SCIN
	000Circle K Corporation #2700712	
6773 -	000Circle K Corporation #2703621	8/20/1997 SCIN
	000Country Waffle	
7117 -	000Csk Auto/dba Kragen #1380	8/20/1997 SCIN
7152 -	000Cutija Taco Shop	6/20/2005 SCIN
7318 -	000D.E.S. Lodge	6/20/2004 SCIN
7425 -	000Eddie's - Lewis	8/20/1997 SCIN
7443 -	000El Grullense Jal Micliocano	7/6/2005 SCIN
7638 -	000El Pueblo Lynns's Market	8/20/1997 SCIN
7680 -	000España's Rest.& Canal Farm Inn	8/20/1997 SCIN
7892 -	000Foster Freeze	2/24/2005 SCIN
8799 -	000Harman-Doyle, Inc. KFC #211	8/20/1997 SCIN
	000H. G. Foods Dba Burger King	
	000Iniguez Bakery	
9417 -	000Jack In The Box	8/20/1997 SCIN
	000Jesus Mexican Restaurant	
	001Kagome Inc.	
9780 -	000La Esperanza #4	12/2/2005 SCIN
9781 -	000La Michocana Carnecería #2	8/20/1997 SCIN
9782 -	000La Michoacóna Market	4/16/2004 SCIN
	000La Morenita Tortillería	
9862 -	000La Region Meat Market	12/15/2000 SCIN
9866 -	000Las Palmas Rest.	2/21/2007 SCIN
	000Los Banos Donuts	
9911 -	000Los Banos Elks	8/1/2003 SCIN
9923 -	000Los Banos Express Oil & lube	9/20/2003 SCIN
	000LB Savemart Supermarkets	
10084 -	000Los Banos Drug Co.	8/20/1997 SCIN
10293 -	001The Lucky Strike Club	8/20/1997 SCIN
10370 -	000Masonic Hall Association	12/13/2007
10520 -	000Mc Donald's #11744	12/31/2008 SCIN

10523 -	000McDonald's #2775	9/26/2002 SCIN
10728 -	000Memorial Hall Association	8/20/1997
10804 -	000Me-n-Eds Pizzerias	8/20/1997 SCIN
	000Merced County Head Start	
10984 -	000Merced County Spring Fair	3/31/2006
10987 -	000Ming's	8/20/1997 SCIN
11108 -	000Mountain Mike's Pizza	11/1/2006
11441 -	000Ocat, Inc. #22389	2/1/2000 SCIN
	000Olinda Resturants Llc	
	000Pacheco Chevron	
	000Panda Express #830	
11748 -	000Papa Murphy's Pizza	2/4/2009 SCIN
11825 -	000Parreira's Performance	7/24/2003 SCIN
11902 -	000Peluso Cheese	9/15/2005
11912 -	000Peppers Auto Parts	6/20/2007
11943 -	000Pete's Automotive	8/20/1997 SCIN
12080 -	000California Pizza / Pizza Hut	8/20/1997 SCIN
12221 -	000Quizno's	8/20/1997
	000Ryans Place	SCIN
12957 -	000Sam's Tune-up Center	1/16/2007 SCIN
	000M.G. Santos	SCIN
13244 -	000Santos Ford- Lincoln Mercury	8/20/1997
	000Savoy, Restaurant	SCIN
13677 -	000South Land Corp. Mkt#22736	8/20/1997 SCIN
13847 -	000Subway Sandwiches	8/20/1997 SCIN
13898 -	000Taco Bell	8/20/1997
13912 -	000Taqueira El Rodeo	8/20/1997 SCIN
	000Tee-dee-us Automotive	SCIN
14020 -	000Tire World	12/20/1998 SCIN
14036 -	000Tmc Tire	8/31/2005 SCIN
	000Tony's Rendevous	SCIN
14200 -	000United Hispanic Markets, Inc.	8/20/1997 SCIN
	000Velasco Automotive Service	
14654 -	000Westside Transmission	8/20/1997
14691 -	000Windecker Inc.	5/2/2005
14693 -	000Woolgrowers Restaurant	8/20/1997
14802 -	000Xpress Motors Inc	8/20/1997 SCIN
	000Teriyaki House	SCIN
14852 -	000Fioguerora Tire Shop	2/4/2008
15381 -	000Panaderia La Colmena	6/23/2008
15664 -	000Denny's #8075	7/25/2008
19906 -	000Jack in the Box #4389	1/5/2009 SCIN
	000Star Car Wash #1	SCIN
19986 -	000Star Car Wash #2	2/3/2009 SCIN
	000Starbucks Corp #14504	SCIN



# Weekly Sewer System Check

Done prior to the start of Weekend Duty

1. Page Avenue and Sixth Street      Lines flow North      Paper plug can be removed with root cutter
2. 630 Monroe Avenue      Line flows West
3. Madison Avenue and Page Avenue      Lines flow East
4. Seventh Street and Madison Avenue      Lines flow North
5. Seventh Street and Adams Avenue      Lines flow North
6. Sixth Street and Adams Avenue      Lines flow East
7. Sixth Street and Washington Avenue      Line flows North      Manhole on South West corner
8. Sixth Street and Washington Avenue      Line flows East      Manhole in the middle of intersection
9. 638 Washington Avenue      Line flows East      Paper plug can be removed with root cutter
10. Seventh Street and Jefferson Avenue      Lines flow North      Grease and paper buildup look for flow from the east pipe
11. 1625 Tenth Street      Line flows East
12. 1521 Tenth Street      Line flows East
13. Alley on Tenth Street between Pacheco Boulevard and Washington Avenue      Lines flow West
14. Thirteenth Street      Lines flow North
15. Behind Las Margarita's      Line flows East
16. 1420 Tanner Road      Line flows North
17. 1339 Place Road      One of two manholes in south bound lane      Line flows North to Nickel Avenue
18. 858 Nickel Avenue      Line flows North
19. Nickel Avenue and Canal Farm Lane      Lines flow North
20. Nickel Avenue And San Luis Street      Line flows West
21. 1460 Pacheco Boulevard Espanas      Manhole in the empty lot east of the red motel rooms marked with metal stakes  
Lines flow East
22. Santa Rita Avenue between D Street and Romero Street      Lines flow East
23. 1100 D Street Central Valley Apartments      Manhole in parking lot in front of mail boxes      Line flows East
24. Cardinal Street and Meadowlark Avenue      Lines flow South      Check both sewer Manholes
25. Quail Street and Meadowlark Avenue      Lines flow South
26. 428 Santa Venetia Street      Line flows South
27. 324 Santa Ana Street      Line flows South      Slowly
28. 361 Santa Inez Street      Line flows South      Slowly
29. 1232 Overland Avenue      Line flows East
30. 357 Santa Paula Street      Line flows South
31. 1225 Santa Maria Road      Line flows West
32. 1219 Santa Maria Road      Lines flow East      Check for strong flow from the south pipe
33. 100 Block of North Santa Rita Street      Line flows North      Line does not have good fall
34. 100 Block of North Santa Rosa Street      Line flows North      Line does not have good fall
35. 1213 Santa Cruz Way      Lines flow North      Check for good flow from bottom of east pipe
36. North Santa Rita Street and Willmott      Lines flow North      Half pipe is a normal condition
37. Mandarin Avenue and North Second Street      Line flows East      Slowly
38. Chestnut Street and Lime Avenue      This Drop Manhole flows to Sewer Lift Station on Willmott it is typically high  
make sure no higher than the pipe coming in from the Manhole across the street
39. Fairgrounds between Grandstand and C Street      Line flows East from Fifth Street
40. Fairgrounds by the Grandstand      Lines flow North from Fifth Street and Third Street
41. Fairgrounds 150' off of D Street near a light pole      Line flows East from Third Street
42. 421 Third Street      Lines flow East
43. Alley on Tenth Street between H Street and I Street      Line flows West
44. Alley on Ninth Street between H Street and I Street      Line flows West
45. 1028 Ninth Street      Lines flow West      Line Smells Bad
46. Ninth Street and J Street      Line flows South      Line Smells Bad

47. Eighth Street and J Street Line flows North Large line lots of flow
48. Alley on Seventh Street between H Street and I Street Line flows West
49. Alley on Fifth Street between H Street and I Street Lines flow North Paper plug can be removed with root cutt
50. Alley on Fourth Street between H Street and I Street Line flows East
51. Alley on Fifth Street between I Street and J Street Lines flow North Paper plug can be removed with root cutt
52. Alley between Fifth Street and Fourth Street behind 422 J Street Line flows East Grease and paper build up  
check for flow into the east pipe
53. Alley on fourth between I Street and J Street Line flows East Grease slowly builds on pipe sides Flow is slow
54. Alley behind 1025 I Street Line flows West
55. Alley behind 945 I Street Line flows West
56. Alley between Pacheco Boulevard and M Street on Sixth Street Line flows North
57. Alley South of L Street behind 351 and 335 L Street Lines flow East
58. Alley between L Street and K Street on Fifth Street Lines flow North
59. Alley South of J Street behind 245 J Street Line flows East
60. 1024 Third Street Lines flow North from K Street and western alley
61. Third Street and J Street Lines flow East
62. 44 West I Street Lines flow East Check for fast flow from north pipe
63. Illinois Avenue and Pine Street Lines flow South
64. Delaware Avenue and Pine Street Lines flow East
65. 510 Madrone Street Line flows East
66. Juniper Court and Iowa Street Lines flow North
67. Maryland Avenue and Pine Street Line flows South slowly
68. Pennsylvania Avenue and Pine Street Line flows South
69. Vermont Avenue and Pine Street Lines flow South
70. 1006 Pine Street Lines flow East Typically half pipe
71. Colorado Avenue and West J Street Line flows East
72. Vermont Avenue and West J Street Lines flow East
73. Pennsylvania Avenue and West J Street Lines flow East Check both Manholes
74. Maryland Avenue and West J Street Lines flow East Check for good flow from Maryland
75. 500 Block of West J Street Line flows East Typically half pipe grease builds up slowly
76. 1029 Delaware Avenue Line flows East
77. 1019 Nevada Line flows East Check for fast flow
78. Illinois Avenue and West J Street Line flows South
79. Delaware Avenue and West J Street Lines flow South
80. 700 Block of West K Street Lines flow East
81. 600 Block of West K Street Lines flow East Typically on the high side
82. 500 Block of West K Street Lines flow East Typically on the high side
83. Bay Street and Ash Avenue Lines flow East
84. Ash Avenue and Cypress Place Lines flow East
85. Ash Avenue and Date Drive Lines flow East
86. West I Street and Hawthorne Drive Lines flow North Check both Manholes
87. 821 West Pacheco Boulevard Manhole behind address Line flows East
88. 1308 Souza Road Line flows East
89. Paradise Street and West Adams Avenue Lines flow East Very low flow
90. In front of Best Western Hotel Line flows East
91. 1400 Block of South Nevada Ave Lines flow North Check for fast flow from west pipe
92. West Adams Avenue and California Street Lines flow East Very low flow
93. West Adams Avenue and Center Ave Lines flow South
94. Adams Avenue and Center Avenue Lines flow East Half pipe is typical



Location \_\_\_\_\_

# Sewer Lift Station Check List



Underground Station Entry

Date	Checked By	First of Month Exercise Valves	December Grease Pumps	Change Basket	Check Blower	Well Level	Well Evaluation	Pump # 1 Hours	Pump # 2 Hours	Pump # 3 Hours	Entry Made ?		Air Monitor Readings				Survey Hazards	
											Yes	No	CO	H2S	LEL	OX		

Comments \_\_\_\_\_

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\_\_\_\_\_

Month : \_\_\_\_\_

## Sewer lift stations check list ✓

<b>Station</b>	Degreasser	Date	Wet well	Pump 1 hrs.	Pump 2 hrs	Pump 3 hrs	Remarks / Checked By
Cardoza							
Cresthills							
Jo-Lin							
Meadowlands							
Merced College							
Northgate							
Orch. Terrace							
Ranchwood							
Santa Barbara							
St. Francis							
Stone Creek							
Valley Meadows							
West I.							



City of  
**Los Banos**  
*At the Crossroads of California*

FOG build-up in sewer pipes (shown below) is costly to clean requiring local public works staff to go to the site and remove the blockage (shown above).

## Keep Drains Clear

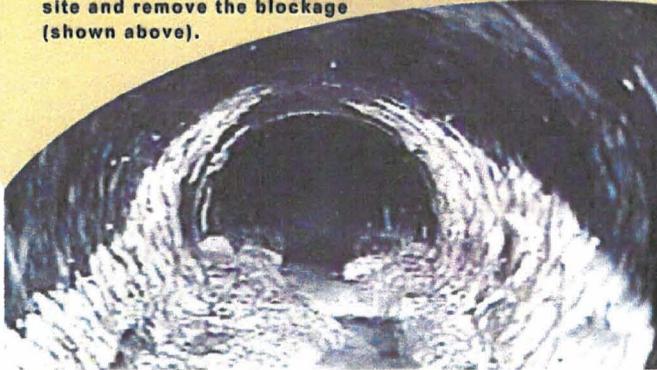
### Follow These Tips:

- Pour or scrape greasy or oily food waste into a container or jar.
- Allow grease to cool or freeze in the container before throwing it in the trash.
- Mix liquid vegetable oil with an absorbent material such as cat litter or coffee grounds in a sealable container before throwing it in the trash.
- Keep drains clean by pouring 1/2 cup baking soda down the drain followed by 1/2 cup vinegar. Wait 10 to 15 minutes and then rinse with hot water.

Share these tips with your family, friends and neighbors.

### Do Not:

- Pour fat, oil or grease down drains or garbage disposals.
- Use hot water to rinse grease off cookware, utensils, dishes or surfaces.



Cleaning FOG build-up from sewers increases maintenance costs for everyone in the sewer system. FOG can create sewer overflows. Keep our environment clean and avoid unnecessary maintenance costs by keeping fat, oil and grease out of our sewers.

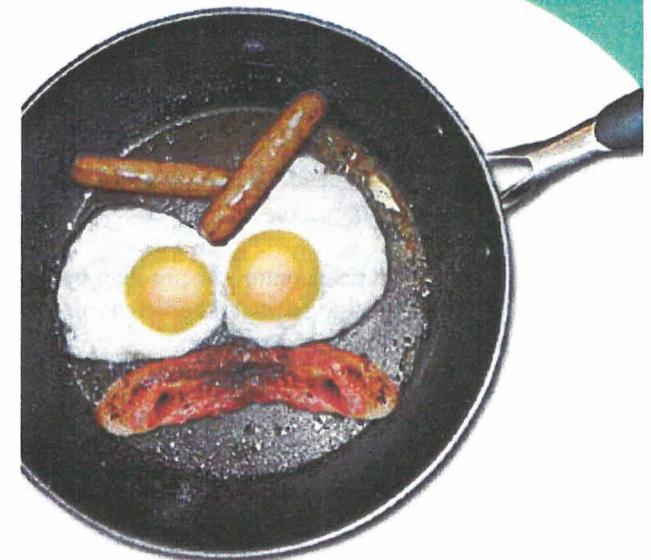
**For Additional  
Information Call  
(209) 827-1056**

**City of Los Banos  
Public Works Department**



City of  
**Los Banos**  
*At the Crossroads of California*

**Residents** **FOG Prevention**  
protect our environment and  
keep drains clear of Fat, Oil  
and Grease





**Fats, Oils, and Greases aren't just bad for arteries and waistlines; they're bad for sewers too.**

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**Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment.**

**An increasingly common cause of overflows is sewer pipes blocked by grease. Grease gets into the sewer from household drains as well as from poorly maintained grease traps in restaurants and other businesses.**



**The drain is not a dump.**



**Put fats, oils and grease where they belong.**

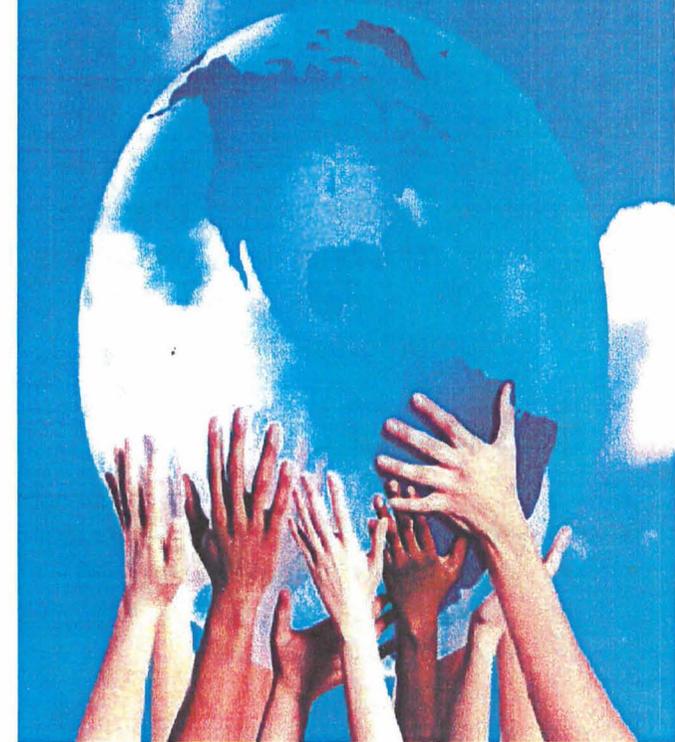
**For Additional  
Information Call  
(209) 827-7056**

**City of Los Banos  
Public Works Department**



**City of  
Los Banos**  
*At the Crossroads of California*

# **Fat-Free Sewers**



**How to  
Prevent Fats, Oils, and  
Greases from  
Damaging Your Home  
and the  
Environment**

## What is FOG?

Residual fats, oils, and grease (FOG) are by-products that food service establishments must constantly manage. Typically, FOG enters a facility's plumbing system from ware washing, floor cleaning, and equipment sanitation. Sanitary sewer systems are neither designed nor equipped to handle the FOG that accumulates on the interior of the sewer collection system pipes. The best way to manage FOG is to keep material out of the plumbing systems.

## The Results can be:

Raw sewage overflow in your home or neighbor's home

An expensive cleanup

Potential contact with disease-causing organisms

Raw sewage overflow into parks, yards and streets

An increase in operation and maintenance costs for local sewer departments which results in higher sewage bill

## What you can do to help:

Never pour grease or oil down the sink or toilet

Scrape grease material and food scraps from all cookware

Use strainers in sink drains to catch food scraps and empty the drain strainer into the trash

Do not put grease or greasy food in your home garbage disposal

Wipe cookware and dishes before washing

Clean kitchen exhaust system filters routinely

Talk with friends and neighbors about grease problems so that the community is aware



## Tips for Restaurants

Train employees to properly handle used fat, oil and grease

Dispose of all fat, oil and grease in an appropriate recycling bin

Install a grease interceptor or grease trap

Have an approved grease and oil removal company maintain your grease interceptor

## Tips for Automotive Sector

Use non-toxic soap to clean the floor

Perform vehicle maintenance where there are no floor drains

Use containers that are in good condition to store waste materials

Do not leave full drip pans lying around

Make sure oil storage containers are marked and leak free

Provide special bays for engine cleaning

# Appendix D

Contains:

- Municipal Code (Chapter 5) Sewer System

## Chapter 5

## SEWER SYSTEM

## Sections:

6-5.01	<b>Definitions.</b>
6-5.02	<b>Use of public sewers required: Exceptions.</b>
6-5.03	<b>Building sewers and connections.</b>
6-5.04	<b>Discharges to public sewers.</b>
6-5.05	<b>Discharger classifications and calculations of sewage disposal charges.</b>
6-5.06	<b>Waste water discharge permits.</b>
6-5.07	<b>Administration.</b>
6-5.08	<b>Enforcement and penalties.</b>
6-5.09	<b>Charges: Amendments.</b>
6-5.10	<b>Prohibited activities involving waste water facilities.</b>
6-5.11	<b>Severability.</b>
6-5.12	<b>Wastewater collection and treatment fees.</b>

\* Sections 6-5.01 through 6-5.10, codified from Ordinance No. 273, as amended by Ordinance No. 497, effective May 31, 1974, and urgency Ordinance No. 616, effective June 21, 1978, repealed by Section 1, Ordinance No. 615, effective August 21, 1978.

**Sec. 6-5.01 Definitions.**

For the purposes of this chapter, unless otherwise apparent from the context, certain words and phrases used in this chapter are defined as follows:

(a) "BOD" (biochemical oxygen demand) shall mean the quantity of oxygen utilized in biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at twenty (20) degrees Centigrade expressed in milligrams per liter.

(b) "Building drain" shall mean that part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer. The building drain ends where it connects to the building sewer two (2') feet outside the building wall.

(c) "Building sewer" shall mean the extension from the building drain to the public sewer or other place of disposal, including the connection to the public sewer.

(d) "Business classification code" shall mean a classification of discharges based on the 1972 Standard Industrial Classification Manual, Bureau of the Budget of the United States of America.

(e) "City" shall mean the City of Los Banos represented by its designated agent.

(f) "Council" shall mean the Council of the City.

(g) "City Engineer" shall mean that person or firm employed by the City for the purpose of rendering engineering services to the City.

(h) "COD" (chemical oxygen demand) shall mean the quantity of oxygen utilized in the chemical oxidation of inorganic and organic matter under standard laboratory procedures in milligrams per liter.

(i) "Combined sewer" shall mean a sewer receiving both surface runoff and waste water.

(j) "Contamination" shall mean an impairment of the quality of the waters of the United States by wastes to a degree which creates a hazard to the public health or safety through poisoning or through the spread of disease.

(k) "Critical industry" shall mean a discharger whose waste water requires special regulations or contains industrial wastes requiring source control or whose average waste water strength cannot be established on a business classification basis. (See subsection (i) of subsection (1) of subsection (a) of Section 6-5.06 of this chapter.

(l) "Discharger" shall mean any person who discharges or causes the discharge of waste water to the sewage collection system.

(m) "Director" shall mean the City Manager or his authorized deputy, agent, or representative.

(n) "Dwelling unit" shall mean each single-family house, each apartment, mobile home unit, or factory-built housing, or each living quarters having its own separate kitchen facility.

(o) "Garbage" shall mean putrescible solid wastes from the domestic and partial preparation, cooking, and dispensing of food and from the handling, storage, and sales of produce.

(p) "Industrial waste" shall mean the water-carried putrescible wastes from industrial manufacturing or industrial processing as distinct from sanitary sewage. "Industrial waste" shall include the trade wastes produced by, but not limited to, food processing and bottling plants, food manufacturing plants, slaughtering plants, tallow works, disposal services, industrial clearing plants, fertilizer plants, car and truck washes, laundries, cleaning establishments, cooling plants, industrial plants, factories, and chemical treatment installations. "Industrial waste" shall not include sanitary sewage, such as might be discharged from residences, hotels, or restaurants or from business establishments or premises engaged solely in the sale, storage, or repair of goods, wares, or merchandise, nor shall it include water of quality acceptable for discharge to the storm drainage system.

(q) "Industrial waste sewer" shall mean a sewer receiving industrial wastes only.

(r) "Inspector" shall mean the City Inspector or other authorized agent.

(s) "Natural outlet" shall mean any outlet into a watercourse, pond, ditch, lake, or other body of surface or ground water.

(t) "Nuisance" shall mean a discharge of waste water in violation of City regulations or orders, or which is or could be harmful to or unreasonably affect the sewage disposal facilities of the City, or which impairs or unreasonably affects the operation and maintenance of such facilities, or which violates the quantity, quality, or flow standards adopted by the City, and all waste water discharges which unreasonably affect the quality of the City's treatment plant effluent in such a manner that receiving water quality requirements established by law cannot be met by the City.

(u) "Person" shall mean any individual, firm, company, association, society, corporation, or group.

(v) "pH" shall mean the logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.

(w) "Premises" shall mean a parcel of real property, or portion thereof, including any improvement thereon, which is determined by the City to be a single unit for the purposes of receiving, using, and paying for sewage disposal service. In making such determination, the City shall take into consideration such factors as whether the unit could reasonably be subdivided, the number and location of side sewers, and whether the unit is being used for a single activity and, if not, what is the principal activity for sewage disposal services, but in any case the City determination shall be final.

(x) "Properly shredded garbage" shall mean the wastes from the preparation, cooking, and dispensing of foods which have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half (1/2") inch in any dimension.

(y) "Public sewer" shall mean a sewer in publicly-owned land or easements and controlled by the City and shall not include that portion of the building sewer lying within publicly-owned land or easement.

(z) "Sanitary sewage" shall mean the water-carried putrescible wastes from residences, hotels, restaurants, or eating houses or from business establishments or premises engaged solely in the sale, storage, or repair of goods, wares, or merchandise and which contains garbage, human wastes, or animal wastes.

(aa) "Sanitary sewer" shall mean a sewer which carries sanitary sewage and to which storm, surface, and ground waters are not intentionally admitted.

(ab) "Sewage" shall mean a combination of the water-carried wastes from residences, businesses, institutions, and industrial establishments, together with such ground and surface waters as may be present.

(ac) "Sewage treatment plant" shall mean any arrangement of devices and structures used for treating sewage.

(ad) "Sewage works" shall mean all facilities for collecting, pumping, treating, and disposing of sewage.

(ae) "Sewer" shall mean a pipe or conduit for carrying sewage.

(af) "Shall" shall be mandatory. "May" is permissive.

(ag) "Slug" shall mean any discharge of water, sewage, or industrial waste which, in concentration of any given constituent or in quantity of flows, exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration of flows during normal operations.

(ah) "Standard Methods" shall mean the procedures described in the latest edition of "Standard Methods for the Examination of Water and Wastewater", as published by the American Public Health Association, the American Water Works Association, and the Water Pollution Control Federation. Elements of waste water strength shall be measured by Standard Methods unless otherwise expressly stated.

(ai) "Storm drain" (sometimes termed "storm sewer") shall mean a sewer which carries storm and surface waters and drainage but which excludes sewage and industrial wastes other than uncontaminated cooling water.

(aj) "Suspended solid" shall mean the concentration of nonfilterable residue dried at 103 degrees to 105 degrees Centigrade on a filter in conformance with Standard Methods.

(ak) "Watercourse" shall mean the channel in which a flow of water occurs, either continuously or intermittently.

(al) "Waste" shall mean sewage and any and all other waste substances, liquid, solid, or gaseous, associated with human habitation, or of human or animal origin, or from any producing, manufacturing or processing operation of whatever nature.

(am) "Waste water" shall mean all sewage, industrial, and other wastes and waters, whether treated or untreated, discharged into or permitted to enter the sewage works for treatment. As used in this chapter, unless the context specifically indicates otherwise, "waste water" shall mean sewage and industrial wastes discharged to the sewage works by any person.

(an) "Waste water strength" shall mean the quality of waste water discharged as measured by its elements, including its constituents and characteristics.

(ao) "POTW" shall mean publicly-owned treatment works. (§ 2, Ord. 615, eff. August 21, 1978, as amended

by §§ 1, 2, 3, and 4, Ord. 757, eff. October 31, 1986 and § 1, Ord. 842, eff. March 22, 1991)

**Sec. 6-5.02 Use of public sewers required: Exceptions.**

(a) Unsanitary disposal of wastes prohibited. It shall be unlawful for any person to place, deposit, or permit to be deposited in any manner, on public or private property within the City or in any area under the jurisdiction of the City, any human or animal excrement or other objectionable waste, except in the public sewer; however, no prohibited waste shall be discharged to a public sewer or be held or disposed of in any manner within the City.

(b) Disposal of sewage to natural outlets prohibited. It shall be unlawful to discharge to any natural outlet any sewage or other polluted water, except where suitable treatment has been provided in accordance with the provisions of this chapter.

(c) Septic tanks and the like prohibited. It shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool, or other facility intended or used for the disposal of sewage, except as provided in this chapter.

(d) Public sewer use required. The owners of all houses, buildings, or properties used for human occupancy, employment, recreation, or other purposes, situated within the City and abutting on any street, alley, or right-of-way in which there is located or may in the future be located a public sanitary sewer of the City, are hereby required, at the expense of the owner, to install suitable toilet facilities directly connected with the proper public sewer, in accordance with the provisions of this chapter, within ninety (90) days after the date of official notice to do so, provided such public sewer is within 200 feet of the property line.

(e) Private waste water disposal systems. Where a public sanitary sewer is not available under the provisions of this section, the building sewer shall be connected to a private waste water disposal system complying with the provisions of this section. Before the commencement of the construction of a private waste water disposal system, the owner shall first obtain a written permit from the City. The application for such permit shall be made on a form furnished by the City which the applicant shall supplement by any plans, specifications, and other information as deemed necessary by the City. A permit and inspection fee of Twenty-Five and no/100ths (\$25.00) Dollars shall be paid to the City at the time the application is filed. A permit for a private waste water disposal system shall not become effective until the installation is complete and approved by the City. The City shall be allowed to inspect the work at any stage of construction, and, in any event, the applicant for the permit shall notify the City when the

work is ready for final inspection and before any underground portions are covered. The inspection shall be made within one working day after the receipt of notice by the City. The type, capacities, location, and layout of a private waste water disposal system shall comply with all the requirements and recommendations of the Department of Public Health of the State. No permit shall be issued for any private waste water disposal system employing subsurface soil absorption facilities where such facilities would endanger or affect the public water supply. No septic tank or cesspool shall be permitted to discharge to any natural outlet. At such time as a public sewer becomes available to a property served by a private waste water disposal system, a direct connection shall be made to the public sewer within ninety (90) days in compliance with this chapter, and any septic tank, cesspool, and similar private waste water disposal facility shall be cleaned of sludge and be filled with suitable material. The owner shall operate and maintain the private waste water disposal facilities in a sanitary manner at all times at no expense to the City. No statement contained in this section shall be construed to interfere with any additional requirement which may be imposed by a Health Officer. (§ 2, Ord. 615, eff. August 21, 1978, as amended by § 5, Ord. 757, eff. October 31, 1986)

**Sec. 6-5.03 Building sewers and connections.**

(a) Permits for sewer connections required. No person, except City employees or contractors directly employed by the City who are authorized to do so by the Director, shall uncover, make any connection with or opening into, use, alter, or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the Director. A building sewer permit shall be obtained before installing a building sewer or connecting a building sewer to the public sewer.

(b) Classes of building sewer permits. There shall be two (2) classes of building sewer permits. One class shall be for residential and commercial service, and the other class shall be for service to establishments producing industrial wastes.

(c) Application forms for sewer permits. The owner or his agent shall make an application for a residential or commercial building sewer permit, or for an industrial building sewer permit, on a form furnished by the City. Such form may be combined with forms for other permits required by the City. The permit application shall be supplemented by any plans, specifications, or other information considered pertinent in the judgment of the Director. The approval of the application shall be contingent upon the payment of connection fees to the City.

(d) Owners responsible for costs. All costs and expenses incident to the installation, connection, and maintenance of the building sewer shall be borne by the owner. The owner shall indemnify the City from any loss or damage which may directly or indirectly be occasioned by the installation of the building sewer.

→ (e) Building sewers required for each lot. A separate and independent building sewer shall be provided for every premises, except that the joint use of building sewers may be permitted at the discretion of the Director for developments, such as condominiums, where provisions have been made for joint maintenance by all owners served.

(f) Existing building sewers. Old building sewers may be used in connection with new buildings only when such sewers are found on examination and test by the Director to meet all the requirements of this chapter.

(g) Applicable construction Codes for building sewers. The size, slope, alignment, and materials of construction of a building sewer and the methods to be used in excavating, placing the pipe, jointing, testing, and backfilling the trench shall all conform to the requirements of the Uniform Plumbing Code and the Improvement Standards and specifications of the City currently in effect at the time of the installation. Permits for building sewers which do not conform in design to the Plumbing Code may be granted if the plans have been approved by the City Engineer.

(h) Surface runoff prohibited in sewers. No person shall make connections of roof down spouts, exterior foundation drains, areaway drains, or other sources of surface runoff or ground waters to a building sewer or building drain which in turn is connected directly or indirectly to the public sanitary sewer or industrial waste sewer.

(i) Applicable construction Codes for sewer connections. The connection of the building sewer into the public sewer shall conform to the requirements of the Building and Plumbing Codes currently in effect in the City and to the Improvement Standards and Specifications of the City currently in effect. All such connections shall be made gas-tight and water-tight and shall be tested in accordance with the Improvement Standards and Specifications of the City to insure a maximum allowable infiltration rate of two hundred gallons per day per inch of diameter of sewer per mile. Any deviation from the prescribed procedures and materials shall be approved by the Director before the installation. Each building sewer shall be provided with a one way cleanout at the property line.

(j) Inspections of building sewer construction. The applicant for the building sewer permit shall notify the Inspector when the building sewer is ready for inspection and connection to the public sewer. The connection shall be made during the presence and under the inspection of the Inspector or his representative.

(k) Protective devices required. All excavations for building sewer installations shall be adequately guarded with barricades and lights so as to protect the public from hazard. The permittee shall agree to assume responsibility for any public liability or property damages which may result from the work. Streets, sidewalks, parkways, or other public property disturbed in the course of the work shall be restored in accordance with the Improvement Standards and Specifications currently in effect. Permits for building sewers shall also be considered as encroachment permits as required by other provisions of this Code.

(l) Abandonment of building sewers. When sewer service is abandoned, the property owner shall be responsible for plugging the building sewer at the property line in accordance with City standards. If the property owner fails to plug the building sewer within thirty (30) days following abandonment, the City shall cause the building sewer to be plugged, and the costs thereof shall be billed to the property owner. (§ 2, Ord. 615, eff. August 21, 1978, as amended by §§ 6, 7, 8, 9, and 10, Ord. 757, eff. October 31, 1986, and §§ 2, 3, Ord. 842, eff. March 22, 1991)

#### Sec. 6-5.04 Discharges to public sewers.

(a) Clean water prohibited from sanitary sewers. No person shall discharge, or cause to be discharged, any storm water, surface water, ground water, roof runoff, subsurface drainage, uncontaminated cooling water, or uncontaminated industrial process water to any sanitary or industrial waste sewer.

(b) Storm water disposal. Storm water and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers or to a natural outlet approved by the City Engineer. Industrial cooling waters or uncontaminated process waters may be discharged on the approval of the City Engineer to a storm sewer or natural outlet.

(c) Materials prohibited in sewers. No person shall discharge, or cause to be discharged, any of the following described waters or wastes to any public sewer:

(1) Any gasoline, benzene, naphtha, fuel, oil, or other flammable or explosive liquid, solid, or gas;

(2) Any waters or wastes containing toxic or poisonous solids, liquids, or gases in sufficient quantity (either singly or interaction with other wastes) to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals, create a public nuisance, create any hazard in the receiving area of the sewage treatment plant, or exceeding the limitations set forth in a Categorical Pretreatment Standard;

(3) Any waters or wastes having a pH lower than five and five-tenths (5.5) or having any other corrosive property

capable of causing damages or hazards to the structures, equipment, or personnel of the sewage works;

(4) Solid or viscous substances or substances which may precipitate, solidify, or become viscous at temperatures existing within the sewer collection system in quantities or of such size capable of causing obstructions to the flow in sewers or other interference with the proper operation of the sewage works, such as, but not limited to, ashes, bones, cinders, glue, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, unground garbage, whole blood, paunch manure, hair and fleshings, entrails, and whole or ground paper dishes, cups, milk containers, and the like;

(5) Any waters containing agricultural spray residuals or wash water from commercial spraying operations;

(6) Any waters or wastes containing strong acids, iron pickling wastes, or concentrated plating solutions, whether neutralized or not;

(7) Any radioactive wastes or isotopes;

(8) Any excessive amount of petroleum or mineral based cutting oils, commonly called soluble oils, and which form persistent water emulsions;

(9) Any strongly odorous waste or waste tending to create odors;

(10) Any waste containing dissolved sulfides above a concentration of 0.1 milligrams per liter;

(11) Hospital or medical wastes which are defined as "infectious wastes" by the Hospital Council of Southern California;

(12) Disposable hypodermic needles, syringes, and associated articles following their use in hospitals, outpatient clinics, or medical and dental offices, whether ground or not;

(13) Upon the promulgation of the Federal Categorical Pretreatment Standards for a particular industrial subcategory, the Federal Standard, if more stringent than limitations imposed by this chapter for sources in such subcategory, shall immediately supersede the limitations imposed by this chapter;

(14) No person shall discharge waste water to the sewage works which waste water contains pollutants in excess of those limits set by the Council from time to time by separate resolution; and

(15) State requirements and limitations on discharges shall apply in any case where they are more stringent than Federal requirements and limitations or those set forth in this chapter.

(d) Disposal of prohibited materials. The materials set forth in subsection (c) of this section which are removed from waste water or which are prohibited from entering the sewers shall be legally disposed of. Satisfactory proof

of legal disposal shall be required and shall be submitted to the City.

(e) Materials the City Engineer may prohibit in sewers. No person shall discharge, or cause to be discharged, into any sewer the following described substances, materials, waters, or wastes if it appears likely, in the opinion of the City Engineer, that such wastes can harm either the sewers, sewage treatment plant process, or equipment, have an adverse effect on the receiving area, or otherwise endanger life, limb, public property, or constitute a nuisance. In forming his opinion as to the acceptability of such wastes, the City Engineer will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, the materials of construction of the sewers, the nature of the sewage treatment process, the capacity of the sewage treatment plant, the degree of treatability of wastes in the sewage treatment plant, and other pertinent factors:

(1) Any liquid or vapor having a temperature higher than 104 degrees Fahrenheit (forty (40) degrees Centigrade);

(2) Any waters or wastes containing fats, wax, grease, or oils of animal origin, whether emulsified or not, in excess of 100 mg/l or containing substances which may solidify or become viscous at temperatures between thirty-two (32) degrees and 150 degrees Fahrenheit (zero and sixty-five (65) degrees Centigrade);

(3) Any garbage which has not been properly shredded. The installation and operation of any garbage grinder equipped with a motor of three-fourths (3/4) HP (0.76 HP metric) or greater shall be subject to the review and approval of the Director:

(4) Any waters or wastes containing phenols or other paste or odor-producing substances which will cause offensive odors in the sewer collection system or at the sewage treatment plant;

(5) Any waters or wastes having a pH in excess of nine and five-tenths (9.5);

(6) Materials which exert or cause:

(i) Unusual concentrations of suspended solids (such as, but not limited to, Fullers earth, lime slurries and lime residues, and organic materials) or of dissolved solids (such as, but not limited to, starch, sugar, sodium chloride, and sodium sulfate);

(ii) Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions);

(iii) Unusual BOD, chemical oxygen demand, or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment works; and

(iv) Unusual volumes of flow or concentrations of wastes constituting slugs as defined in Section 6-5.01 of this chapter;

(7) Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage

treatment processes employed or which are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharges to the receiving area; and

(8) Any water added for the purpose of diluting wastes which would otherwise exceed applicable maximum concentration limitations set by the City, the Federal Categorical Pretreatment Standards, or any other applicable criteria, guidelines, or regulations affecting the discharge of wastes.

(f) Interceptors and separators. Interceptors and separators required in order to comply with subsections (c) and (e) of this section or as required in the judgment of the City Engineer shall comply with the applicable sections of the most recently adopted edition of the Uniform Plumbing Code.

(g) Accidental discharges. Each user shall provide protection from the accidental discharge of prohibited materials or other substances regulated by this chapter. Facilities to prevent the accidental discharge of prohibited materials shall be provided and maintained at the owner's or user's own cost and expense. Detailed plans showing the facilities and operating procedures to provide for such protection shall be submitted to the City for review and shall be approved by the City before the construction of the facility. No user who commences a contribution to the POTW after October 31, 1986, shall be permitted to introduce pollutants into the system until the accidental discharge procedures have been approved by the City. The review and approval of such plans and operating procedures shall not relieve the industrial user from the responsibility to modify the user's facility as necessary to meet the requirements of this chapter. In the case of an accidental discharge, it shall be the responsibility of the user to immediately telephone and notify the City of the incident. The notification shall include the location of the discharge, type of waste, concentration and volume, and corrective actions.

Within five (5) days following an accidental discharge, the user shall submit to the City a detailed written report describing the cause of the discharge and the measures to be taken by the user to prevent similar future occurrences. Such notification shall not relieve the user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, fish kills, or any other damage to persons or property; nor shall such notification relieve the user of any fine, civil penalty, or other liability which may be imposed by this chapter or other applicable laws.

A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees whom to call in the event of a dangerous discharge. Employers shall insure that all employees who may cause or

suffer such a dangerous discharge to occur are advised of the emergency notification procedure.

(h) Charges and fees. The City may impose charges and fees which may include:

(1) Fees for the reimbursement of costs of setting up and processing discharge permit applications;

(2) Fees for the reimbursement for monitoring, inspections, and surveillance procedures;

(3) Fees for reviewing accidental discharge procedures and construction;

(4) Fees for permit applications;

(5) Fees for filing appeals;

(6) Fees for consistent removal (by the City) of pollutants otherwise subject to Federal Pretreatment Standards; and

(7) Other fees as the City may deem necessary to carry out the requirements contained in this chapter.

Such fees shall relate solely to the matters covered by this chapter and shall be separate from all other fees chargeable by the City. (§ 2, Ord. 615, eff. August 21, 1978, as repealed and reenacted by §§ 11 and 12, Ord. 757, eff. October 31, 1986)

#### **Sec. 6-5.05 Discharger classifications and calculations of sewage disposal charges.**

(a) Discharger classifications. All dischargers shall be classified for sewage disposal purposes in accordance with the principal activity conducted upon the premises, as determined by the City Engineer. The purpose of classification is to facilitate the regulation of waste water dischargers based on quality, quantity, and flow, to provide an effective means of industrial waste source control, and to establish a system of sewage disposal service charges based upon the flow and waste strength which will insure an equitable recovery of City capital and operating costs.

(b) Calculation of user charges. All dischargers shall pay a user charge for City sewage disposal services. The charges will reflect the quantity, quality, and flow of the waste water of the dischargers and will be based on City capital and operating costs to collect, treat, and dispose of waste water.

Additionally, all industrial dischargers shall pay their share of the total amount of the grant fund awarded, divided by a thirty (30) year period. The determination of each industrial user's share of the grant funded facilities shall be determined by the utilization of unit rate formulas which are in compliance with subsection (1) of subsection (b) of Section 204 of the Federal Water Pollution Control Acts Amendments of 1972, in particular, Sections 35.928, 35.928-1, 35.928-2, and 35.935-13. (Copies of said sections of said Act are on file with the City Clerk.) Such unit charge

formulas are essentially as set forth in the revenue program attached as Appendix B to the City of Los Banos Amended Projected Report for Sewage Disposal System Enlargement, dated February, 1974, corrected to agree with the Federal Water Pollution Control Acts Amendments of 1972 and the final amount of the grant as estimated during the interim period of construction and as determined to be the final grant amount at the end of the construction period.

Flat charges and unit charges shall be established by the City from time to time and set forth in a schedule of rates and charges. Unit charges will be established for each element of waste water strength which incurs City costs of collection, treatment, and disposal. Commencing on August 21, 1978, such elements will be biochemical oxygen demand and suspended solids. Unit charges for additional elements, including chemical oxygen demand, may be established from time to time as the City incurs additional costs for collection, treatment, and disposal. A unit charge for volume also will be established which reflects City costs of collection, treatment, and disposal of the total volume of waste water.

The total sewage disposal charge for each discharger shall be calculated as follows:

(1) Dischargers from residential premises with four or less dwelling units. A uniform flat monthly charge per dwelling unit for sewage disposal service will be made to dischargers of waste water in this class, regardless of the source of water, except for mobile home subdivisions.

(2) Dischargers from residential premises with five or more dwelling units and dischargers from nonresidential premises. All dischargers of waste water in this class will be assigned a business classification code depending on the principal activity conducted on the premises, except for mobile home subdivisions which will be classed as residential. All dischargers conducting the same principal activity and discharging similar flows and loadings will receive the same business classification code. The City Engineer shall determine the typical waste water strength for each business classification code, and each discharger within that classification will be assumed, for sewage disposal charge purposes, to have the same typical waste water strength.

A classification charge shall be established by the City for each business classification code which will be based on the unit charges for the elements of waste water strength, including volume, as applied to the typical waste water strength of the particular classification.

The sewage disposal charge to a discharger in this class will be calculated by multiplying the classification charge by the volume of water used by the discharger. Any discharger in this class who is issued a waste water discharge

permit will thereafter pay a sewage disposal charge as a permit discharger.

(3) Permit dischargers. Dischargers of waste water who are required to obtain a permit under the provisions of this chapter, excluding permits issued solely for flow estimation, shall pay a sewage disposal charge which shall be the sum of the products of the following: the unit charge for each element of waste water strength, multiplied by the estimated or measured amount per volume of water of each element, multiplied by the volume of water used; and the unit charge for volume, multiplied by the volume of water used as determined herein. The sewage disposal charge for permit dischargers, including both waste water strength and water use, shall be calculated by an apportionment by the City Engineer of strength and use to each building sewer at the discharger's premises.

Dischargers requiring permits solely for flow estimation shall pay a sewage disposal charge calculated by multiplying the classification charge by the volume of water determined by the estimation.

In addition to a sewage disposal charge, the permit discharger shall pay all applicable City permit charges. Commencing on August 21, 1978, all dischargers required to obtain a permit shall pay a sewage disposal charge in accordance with their business classification code until a permit is issued. Dischargers receiving flow estimations on August 21, 1978, shall apply and be issued a permit before the expiration of the existing flow estimate.

(c) Determinations of water used. The applicable volume of water upon which sewage disposal charges shall be based will be determined as follows:

(1) Water discharged to sewers. For premises where no portion of the water received from any source is consumed in the principal activity of the discharger or removed from the premises by means other than sewers, the sewage disposal charge shall be applied against the total amount of water used from all sources. The amount of City water received will be determined from City records. The amount of water used from other sources will be determined by means of a meter installed at the expense of the discharger and approved by the City or by an estimate prepared by the City, after obtaining a permit in accordance with this chapter. The discharger shall report to the City the sources of all water used at his premises other than that supplied by the City and shall notify the City of any changes in such sources.

(2) Water not discharged to City sewers. For premises where a portion of the water received from any source does not flow into sewers because of the principal activity of the discharger or removal by other means, the charge for sewage disposal service will be applied against the volume of water discharging from such premises into sewers.

Written notification and proof of the diversion of water shall be provided by the discharger if he is to avoid the application of the sewage disposal charge against the total amount of water used from all sources. He may be required to install a meter, of a type and at a location approved by the City, at his own expense, to determine the quantity of water flowing into the sewers. However, where it is impractical to install meters and where the quantity of water diverted from the sewers amounts to more than twenty (20%) percent of the total water used, the charge for sewage disposal services may be based upon an estimate prepared by the City, after obtaining a permit in accordance with this chapter. (§ 2, Ord. 615, eff. August 21, 1978)

#### **Sec. 6-5.06 Waste water discharge permits.**

(a) Permits required. All dischargers, other than residential, whose waste water requires special regulation or contains industrial wastes requiring source control, and all dischargers requiring an estimation of water use, shall secure a waste water discharge permit.

(1) Mandatory permits. All dischargers in the following categories shall obtain a waste water discharge permit:

(i) Dischargers who are designated as critical industries and whose water use for any two (2) consecutive months during the preceding twelve (12) month period has equaled or exceeded a cumulative two (2) month volume of 1,500 cubic feet. A critical industry is a discharger whose waste water requires special regulation or contains industrial wastes requiring source control or whose average waste water strength cannot be established on a business classification basis. Critical industries, for the purposes of this chapter, are all dischargers whose business classification code is within the type of industries classified in Division D, Standard Industrial Classification Manual, Bureau of the Budget of the United States of America;

(ii) Dischargers whose average waste water strength cannot be established on a business classification basis because of seasonal or other variations in operations;

(iii) Dischargers whose waste water strength exceeds the normal range of waste water strength for the business classification code to which the discharger is assigned;

(iv) Dischargers using an unmetred source of water;

(v) Dischargers who have in their water toxic pollutants as defined pursuant to Section 307 of the Act or Chapter 3 of Title 23 of the California Administrative Code or are found by the City, the California Water Resources Control Board, or the Environmental Protection Agency (EPA) to have a significant impact on the sewage treatment system;

(vi) Other dischargers determined by the City to require special regulation or source control; and

(vii) Liquid waste haulers hauling liquids or materials resulting from liquid wastes or industrial wastes which

may be liquid borne and which are prohibited from discharge to the sewage treatment system shall obtain a waste discharge permit subject to the following additional permit conditions:

(aa) A liquid waste hauler shall prepare a manifest before transporting the waste off the site.

(ab) The manifest shall contain all the following information:

(1.1) The transporter's waste water discharge permit number, name, and address;

(1.2) The generator's name, mailing address, telephone number, and waste water discharge permit number;

(1.3) The name and address of the disposal site; and

(1.4) A description and the total quantity of waste hauled from the site.

(ac) The generator shall sign and date the manifest before transporting the waste.

(ad) The manifest shall consist of at least three (3) copies, one copy for the generator, one copy for the transporter, and one copy to be mailed to the City by the transporter within thirty (30) days after the acceptance of the waste, indicating by signature and date the acceptance of the waste.

(2) Optional permits. (Repealed by Section 13, Ordinance No. 757, effective October 31, 1986)

(b) Applications. Dischargers seeking a waste water discharge permit shall complete and file with the City a completed application form, accompanied by the applicable City fees, within sixty (60) days after notification by the City, unless such time is extended for good cause. The application may require the following information: estimated waste water strength, estimated waste water flow, and average and peak waste water discharge flow for each building sewer; a plot plan showing the locations of building sewers, sampling points, and pretreatment facilities; descriptions of activities, facilities, and plan processes on the premises, including raw materials, processes, and types of materials which are or could be discharged; the total product produced, by type; the number and type of employees; and any other information the City shall deem necessary to evaluate the permit application.

The City will evaluate the data furnished by the discharger and may require additional information. After the evaluation and approval of the data furnished, the City will determine the allowable average and maximum limits on the elements of the waste water strength and flow to each building sewer at the discharger's premises. The City may issue a waste water discharge permit subject to the terms and conditions provided in subsection (c) of this section.

(c) Terms and conditions.

(1) Terms. All waste water discharge permits shall be expressly subject to all the provisions of this chapter and all rates and charges established by the City. All permits shall be valid for one year and shall be renewed annually; provided, however, the City may establish renewal dates from twelve (12) to twenty-four (24) months after the issuance of the initial permits issued after August 21, 1978. All permits, except those issued solely for the estimation of water used, shall contain the following terms:

(i) The typical waste water strength and the water use for the flow in each building sewer; and

(ii) The average and maximum limits on the elements of the discharger's waste water strength.

(2) Conditions. Waste water discharge permits may contain any or all of the following conditions:

(i) Limits on the rate and time of discharge or requirements for flow regulation and equalization or other pre-treatment;

(ii) Requirements for inspection and sampling facilities, including City access to such facilities as set forth in this chapter;

(iii) Monitoring programs which may include sampling locations; frequency and method of sampling; number, types, and standard of tests; and establishing a reporting schedule. The discharger assigned a monitoring program in conformance with this chapter shall pay all applicable City charges;

(iv) The submission of technical reports or discharge reports;

(v) The maintenance of plant records relating to waste water discharges, as specified by the City, and affording City access thereto; and

(vi) Other conditions deemed appropriate by the City to insure compliance with this chapter and the terms and conditions of the permit.

(d) Change of terms and conditions. The City may change the terms and conditions of a waste water discharge permit, including changing the average limits on the elements of waste water strength, from time to time as circumstances may require. The City shall allow a discharger reasonable time to comply with any City required changes in the permit, except that a change in the average limits of waste water strength shall immediately affect the calculation of the sewage disposal charge.

(e) Transfer of permits prohibited. A waste water discharge permit shall not be assigned or transferred.

(f) Termination. The City Engineer may terminate any waste water discharge permit for the violation of the terms and conditions of the permit or the provisions of this chapter. A permit shall be terminated by the City if the discharger exceeds the maximum allowable discharge limits. A discharger whose permit has been terminated shall apply

for a new permit within thirty (30) days following a notice of termination.

Any discharger whose permit has been terminated shall pay sewage disposal charges based upon his former permit or on his assigned business classification code, whichever is higher, until a new permit has been applied for, approved, and issued. (§ 2, Ord. 615, eff. August 21, 1978, as amended by § 13, Ord. 757, eff. October 31, 1986)

#### Sec. 6-5.07 Administration.

(a) Authority. The City is charged with the responsibility for the City's waste water control program and the administration and enforcement of the provisions of this chapter.

(b) Waste water source control requirements. In order to effectively administer and enforce the provisions of this chapter, the City may require any discharger to comply with any or all of the following requirements:

(1) Discharge reports. The City may require discharge reports, including, but not limited to, questionnaires, technical reports, sampling reports, test analyses, and periodic reports of waste water discharges.

When a report filed by a person pursuant to this section is not adequate in the judgment of the City, the City may require such person to supply such additional information as the City deems necessary.

The discharge report may include, but not be limited to, the nature of the process, volume, and rates of waste water flow, elements, constituents, and characteristics of the waste water, together with any information required in an application for a waste water discharge permit.

(2) Monitoring programs. The City may require of dischargers such technical or monitoring programs, including the submission of periodic reports, as is deemed necessary; provided, however, the burden, including the costs, of such programs and reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained therefrom. The discharger shall pay the applicable City charge for the monitoring program, in addition to the sewage disposal and other charges established by the City.

The monitoring program may require the discharger to conduct a sampling and analysis program of a frequency and type specified by the City to demonstrate compliance with the prescribed waste water discharge limits. The discharger may either:

(i) Conduct his own sampling and analysis program provided he demonstrates to the City that he has the necessary qualifications and facilities to perform the work; or

(ii) Engage a private consulting firm or laboratory certified by the Department of Public Health of the State.

(3) Inspection facilities. The City may require any nonresidential discharger to construct, at his own expense,

a sampling facility or inspection manhole, together with the necessary related measuring and sampling equipment, in accordance with the Standard Specifications of the City. The sampling facility or inspection manhole shall be constructed on the building sewer of the discharger or other location approved by the City; provided, however, the City may permit the installation of such facilities on the premises of the discharger at a location which will permit City access to the facility at all times.

Such construction shall be completed within sixty (60) days following written notification from the City, unless such time is extended by the City for good cause. The City may require the discharger to install such sampling facilities or inspection manholes on each building sewer.

(4) Pretreatment facilities. Pretreatment systems or devices may be required by the City to treat waste water prior to its discharge to the public sewer when it is necessary to restrict or prevent the discharge to the public sewer of waste water having strength in violation of the prohibitions or exceeding the limits established by this chapter or to distribute waste water discharges over a period of time.

Pretreatment systems or devices shall be required to treat waste water prior to its discharge to the public sewers in order to comply with Federal pretreatment standards, pursuant to Section 307(B) of the Federal Water Pollution Control Act Amendments of 1972. Pretreatment standards for incompatible pollutants discharged into the public sewer shall be consistent with the "Effluent Limitation Guidelines" published pursuant to Sections 301(B) and 304(B) of said Act.

All pretreatment systems or devices shall be approved by the City, but such approval shall not relieve a discharger of the responsibility for taking all steps necessary to comply with the waste water limitations established by the City. All required pretreatment equipment shall be installed and operated at the discharger's expense.

(c) Trade secrets. When requested by the person furnishing a report or permit application or questionnaire, the portions of the report, or other document, which might disclose trade secrets or secret processes shall not be made available to governmental agencies for use in making studies; provided, however, such portions of a report, or other document, shall be available for use by the City or the State or any State agency in judicial review or enforcement proceedings involving the person furnishing the report.

(d) City inspections. The City may inspect the facilities of any discharger to ascertain whether the provisions of this chapter are being met and the waste water discharge limits are being complied with. Such inspections shall be made with the consent of the owner or possessor of such facilities or, if such consent is refused, with a warrant duly

issued pursuant to the procedure in accordance with general law; provided, however, in the event of any emergency affecting the public health or safety, such inspections may be made without consent or the issuance of a warrant.

To verify the waste water flows and strengths reported by dischargers or to determine compliance with this chapter, inspections, measurements, and samplings may be conducted from time to time by the City. The City shall have the right to install, maintain, and operate the necessary sampling and measuring equipment on the premises of the discharger.

(e) New connections. Dischargers will be assigned a business classification code and informed of the applicable prohibitions, limits, or conditions and the applicable rates and charges governing sewage disposal service at the time of an application for water service from the City.

All nonresidential dischargers seeking a new sewer connection to a public sewer and any new discharger requiring information prior to applying for water service shall contact the City. The City will inform the discharger of the regulations governing sewage disposal service and the applicability of requirements for inspections, samplings, and pretreatment facilities. (§ 2, Ord. 615, eff. August 21, 1978)

#### **Sec. 6-5.08 Enforcement and penalties.**

(a) Enforcement. The City may adopt procedures and rules for the implementation and administration of this chapter. The City shall enforce the provisions of this chapter, including requirements established or permits issued hereunder, as provided in this section.

(1) Requiring dischargers to submit schedules of remedial or preventive measures. When the City finds that a discharge of waste water is taking place or threatening to take place that violates or will violate the prohibitions or limits prescribed by this chapter or the waste water source control requirements or the provisions of a waste water discharge permit, the City may require the discharger to submit for approval, with such modifications as it deems necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of such requirements.

(2) Issuance of cease and desist orders. When the City finds that a discharge of waste water is taking place or threatening to take place in violation of the prohibitions or limits of this chapter or the waste water source control requirements or the provisions of a waste water discharge permit, the City may issue an order to cease and desist and direct that those persons not complying with such prohibitions, limits, requirements, or provisions (1) comply forthwith; (2) comply in accordance with a time schedule set by the City; or (3) in the event of a threatened violation, take appropriate remedial or preventative action.

(b) Appeal procedures. Any permit applicant, permit holder, or other discharger affected by any decision, action, or determination, including cease and desist orders, made by the City in interpreting or implementing the provisions of this chapter, or any permit issued hereunder, may file with the Council a written request for reconsideration within ten (10) days after such decision, action, or determination, setting forth in detail the facts supporting the request. The City may elect to hold a hearing on the request. The request for reconsideration shall be acted upon by the Council within thirty (30) days after the date of filing. The decision, action, or determination shall remain in effect during such period of review by the Council.

The Council may elect to hear the appeal or refer the matter to a neutral hearing officer for an advisory opinion. The Council shall make a final ruling on the appeal within thirty (30) days after the close of the hearing or receipt of the advisory opinion.

The City may adopt rules and regulations to implement the provisions of this section.

(c) Criminal penalties. Any person who intentionally discharges waste water in any manner in violation of any order issued by the City, which discharge results in contamination, pollution, or a nuisance, as defined in this chapter, shall be guilty of a misdemeanor.

(d) Civil enforcement remedies and penalties. The City may pursue any of the following alternative civil remedies against any discharger who violates the provisions of this chapter:

(1) Damages to facilities: Charges. When the discharge of waste water causes an obstruction, damages, or other impairment to City disposal facilities, the City may assess a charge against the discharger for the work required to clean or repair the facility and add such charge to the discharger's sewage disposal charge.

(2) Fines. A fine of Six Thousand and no/100ths (\$6,000.00) Dollars per day may be assessed against any person who intentionally or negligently violates any order issued by the City for violations of the provisions of this chapter or regulating or prohibiting the discharge of waste water which causes, or threatens to cause, a condition of contamination, pollution, or nuisance, as defined in this chapter. (§ 2, Ord. 615, eff. August 21, 1978)

#### **Sec. 6-5.09 Charges: Amendments.**

(a) Sewer rental charges shall be based in part upon the use of the City sewer system.

(b) The Council from time to time, in its discretion, and by ordinance and/or resolution, may fix, alter, change, amend, or revise the charges and rates for services and facilities in connection with the sanitation, sewer, and

drainage system of the City. (§ 2, Ord. 615, eff. August 21, 1978)

#### **Sec. 6-5.10 Prohibited activities involving waste water facilities.**

No person shall maliciously, wilfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, or equipment which is a part of the waste water facilities. Any person violating this provision shall be subject to immediate arrest under a charge of disorderly conduct. (§ 2, Ord. 615, eff. August 21, 1978)

#### **Sec. 6-5.11 Severability.**

If any provision of this chapter, or the application thereof to any person or circumstance, is held invalid, the remainder of this chapter, or the application of such provision to other persons or circumstances, shall not be affected thereby. (§ 2, Ord. 615, eff. August 21, 1978)

#### **Sec. 6-5.12 Wastewater collection and treatment fees.**

The City Council finds it necessary and proper to recoup, as near as possible, actual expenses incurred or that will be incurred in providing proper and adequate wastewater collection and treatment facilities. The City does hereby decree that appropriate fees shall be charged to cover the cost of operations, maintenance, repair, and construction of such wastewater collection and treatment facilities. The specific fees to be charged and the guidelines governing the manner of collection shall be in accordance with the provisions set forth by Council Resolution. (§ 1, Ord. 806, eff. September 1, 1989)

# Appendix E

Contains:

- City Council Resolution No. 5068, for the Adoption of the 2008 Wastewater Collections System Master Plan
- Equipment list
- Wastewater Budget

RESOLUTION NO. 5068

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LOS BANOS APPROVING THE CITY OF LOS BANOS MASTER PLANS FOR THE WATER DISTRIBUTION SYSTEM, WASTEWATER COLLECTION SYSTEM, AND STORM DRAINAGE SYSTEM PREPARED BY CAROLLO ENGINEERS DATED JULY 2008**

WHEREAS, the City Council of the City of Los Banos authorized a Request for Proposals on May 2, 2007 for updating the current Water Distribution, Wastewater Collection, and Storm Drain Master Plans; and

WHEREAS, the intent of the project was to update the Year 2000 Water Master Plan, the Year 2001 Storm Drainage Master Plan, and to generate a Wastewater Collection System Master Plan; and

WHEREAS, the City Council of the City of Los Banos awarded proposal for the City of Los Banos Master Plans project to Carollo Engineers on August 15, 2007; and

WHEREAS, the updated Utility Master Plans prepared by Carollo Engineers provide the City of Los Banos with the ability to fulfill the infrastructure needs for future development within the City; and

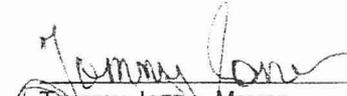
WHEREAS, the Planning Commission recommended approval of the Water, Wastewater, and Storm Water Master Plans dated July 2008 at their regular meeting held on August 13, 2008.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Los Banos does hereby approve the City of Los Banos Master Plans for the Water Distribution System, Wastewater Collection System, and Storm Drainage System prepared by Carollo Engineers dated July 2008.

The foregoing Resolution was introduced at a regular meeting of the City Council of the City of Los Banos held on the 3<sup>rd</sup> day of September 2008, by Council Member Sousa who moved its adoption, which motion was duly seconded by Council Member Faria and the Resolution adopted by the following vote:

AYES: Council Members Brooks, Faria, Sousa, Villalta, Mayor Jones  
NOES: None  
ABSENT: None

APPROVED:

  
\_\_\_\_\_  
Tommy Jones, Mayor

ATTEST:

\_\_\_\_\_  
Lucille L. Mallonee, City Clerk

Location	Dept	ID #	YR	Description	Make/Model	VIN/SER #	PLATE #	FUND
1015 F Street	Prk	3070		Scooter	John Deere			100-452-100-202
<b>Available</b>				<b>Available</b>				
520 J Street	Admin	4001	2005	Impala	Chevrolet			100-410-100-202
<b>Available</b>		4002		<b>Available</b>				
1015 F Street	Prk	4003	2003	Electric Cart				100-452-100-202
1015 F Street	Prk	4004	2003	Electric Cart				100-452-100-202
1015 F Street	Prk	4005	1990	VAN - 3/4 ton	Ford			100-452-100-202
1015 F Street	Prk	4006	1988	Club Wagon/Van	Ford			100-452-100-202
1015 F Street	Rec	4007	2002	VAN - 3/4 ton	Ford			100-452-100-202
1015 F Street	Sts	4008	1961	VAN - panel (utility)	Ford			100-431-210-202
411 Madison	Col	4009	1994	SEDAN - Full Size	Ford			502-432-100-202
411 Madison	Wtr	4010	1996	SUV	Chevy			501-461-100-202
411 Madison	Col	4011	1977	VAN - (sewer)	Chevy			502-432-100-202
<b>Available</b>		4012		<b>Available</b>				
1015 F Street	Prk	4013	1995	Crown Vic	Ford			100-452-100-202
411 Madison	Wtr	4014	2008	Explorer	Ford			501-461-100-202
<b>Available</b>		4015		<b>Available</b>				
520 J Street	IT	4016	1999	Explorer	Ford			610-410-100-202
1015 F Street	Prk	4017	2003	Century	Buick			100-452-100-202
1015 F Street	Swg	4018	2014	F250 Super Duty	Ford			510-490-100-202
1015 F Street	Swg	4019	2014	F350	Ford			510-490-100-202
411 Madison	Wtr	4020	2014	4 door	Gem			501-461-100-202
411 Madison	Wtr	4021	2014	Long Bed Truck	Gem			501-461-100-202
1015 F Street	Prk	4022	2014	Long Bed Truck	Gem			100-452-100-202
1015 F Street	Flt	4023	2014	Long Bed Truck	Gem			601-480-210-202
1015 F Street	Prk	4024	2014	Long Bed Truck	Gem			100-452-100-202
1015 F Street	Rec	4050	2004	PICKUP - 1/2 ton	GMC			100-452-100-202
1015 F Street	Prk	4051	2004	PICKUP - 1/2 ton	GMC			100-452-100-202
1015 F Street	Sts	4052	2000	PICKUP - 3/4 ton	Ford			100-431-210-202
1015 F Street	Prk	4053	1991	PICKUP - 1/2 ton	Ford			100-452-100-202
1015 F Street	Prk	4054	1985	PICKUP - 1/4 ton	Dodge			100-452-100-202
1015 F Street	Prk	4055	1993	PICKUP - 1/2 ton	Chevy			100-452-100-202
1015 F Street	Swg	4056	2002	PICKUP - 3/4 ton	Ford			510-490-100-202
1015 F Street	Prk	4057	2004	PICKUP - 1/2 ton	GMC			100-452-100-202
1015 F Street	Prk	4058	1979	PICKUP - 3/4 ton	Chevy			100-452-100-202
<b>Available</b>		4060		<b>Available</b>				
1015 F Street	Prk	4061	2002	PICKUP - 3/4 ton	Ford			100-452-100-202
1015 F Street	Prk	4062	1985	PICKUP - 1/4 ton	Dodge			100-452-100-202
1015 F Street	Prk	4063	1995	PICKUP - 1/2 ton	Ford			100-452-100-202
411 Madison	Wtr	4064	2003	PICKUP - 3/4 ton	Ford			501-461-100-202
411 Madison	Wtr	4065	2003	PICKUP - 3/4 ton	Ford			501-461-100-202
<b>Available</b>		4066		<b>Available</b>				
411 Madison	Trt	4067	2005	PICKUP - 3/4 ton	Ford			502-433-100-202
411 Madison	Wtr	4068	2005	PICKUP - 3/4 ton	Ford			501-461-100-202
411 Madison	Wtr	4069	1990	PICKUP - 1/2 ton	Ford			501-461-100-202
411 Madison	Wtr	4070	1990	PICKUP - 1/2 ton	Ford			501-461-100-202
1015 F Street	Swg	4071	2008	F250-8" Fleetside	Ford			510-490-100-202
1015 F Street	Fleet	4072	2008	F250 Fleetside	Ford			601-480-210-202
1015 F Street	Sts	4073	2008	TRUCK - Fleetside	Ford			100-431-210-202
1015 F Street	Swg	4074	2008	TRUCK - Tommylift	Ford			100-431-210-202
1015 F Street	Sts	4075	2008	F350-8" Fleetside w/Tommy Lift	Ford			510-490-100-202
1015 F Street	Sts	4076	2008	TRUCK - Fleetside	Ford			100-431-210-202
411 Madison	Wtr	4077	2013	Silverado 2500	Chevy			501-461-100-202
<b>Available</b>		4078		<b>Available</b>				
1015 F Street	Prk	4200	2005	PICKUP - 3/4 ton (utility)	GMC			100-452-100-202
1015 F Street	Prk	4201	2005	PICKUP - 3/4 ton (utility)	GMC			100-452-100-202
1015 F Street	Prk	4202	1990	PICKUP - 3/4 ton (utility)	Chevy			100-452-100-202
1015 F Street	Swg	4203	2008	F350-10" Service Body	Ford			510-490-100-202
1015 F Street	Prk	4204	1991	PICKUP - 3/4 ton (utility)	Ford			100-452-100-202
1015 F Street	Prk	4205	1994	Ranger	Ford			100-452-100-202
411 Madison	Col	4206	2001	PICKUP - 3/4 ton (utility)	Dodge			502-432-100-202
411 Madison	Wtr	4207	2001	PICKUP - 3/4 ton (utility)	Dodge			501-461-100-202

411 Madison	Wtr	4208	1991	PICKUP - 3/4 ton (utility)	Chevy		501-461-100-202
411 Madison	Wtr	4209	2002	PICKUP - 1 ton (utility)	Ford		501-461-100-202
411 Madison	Trt	4210	2003	PICKUP - 3/4 ton (utility)	Ford		502-432-100-202
411 Madison	Wtr	4211	1998	PICKUP - 3/4 ton (utility)	GMC		501-461-100-202
411 Madison	Wtr	4212	1991	PICKUP - 3/4 ton (utility)	Chevy		501-461-100-202
411 Madison	Wtr	4213	1991	PICKUP - 3/4 ton (utility)	Chevy		501-461-100-202
411 Madison	Wtr	4214	2005	PICKUP - 3/4 ton (utility)	Ford		501-461-100-202
411 Madison	Wtr	4215	2000	PICKUP - 3/4 ton (utility)	GMC		501-461-100-202
411 Madison	Wtr	4216	2013		Chevy		501-461-100-202
411 Madison	Wtr	4217	2013		Chevy		501-461-100-202
411 Madison	WWTP	4218	2014	C2500			502-433-100-202
411 Madison	Wtr	4219	2014	C2500			501-461-100-202
1015 F Street	Col	4220	2014	Utility Box Truck	Ford		502-432-100-202
Available		4221		Available			
1015 F Street	Sts	4300	1999	PICKUP - 1 ton (service)	GMC		100-431-210-202
1015 F Street	Sts	4301	2008	TRUCK - Flat bed	Ford		100-431-210-202
1015 F Street	Sts	4302	1999	PICKUP - 3/4 ton (construction)	Ford		100-431-210-202
1015 F Street	Sts	4303	2008	TRUCK - Flatbed	Ford		100-431-210-202
Available		4304		Available			
1015 F Street	Sts	4305	2006	PICKUP - 1 1/2 ton pickup (combo)	Ford		100-431-210-202
1015 F Street	Sts	4306	2014	1 1/2 ton Truck	Ford		100-431-210-202
1015 F Street	Sts	4307	2014	1 1/2 ton Truck	Ford		100-431-210-202
Available		4308		Available			
411 Madison	Col	4309	1994	PICKUP - 1 ton (flat bed) dump	Chevy		502-432-100-202
1015 F Street	Sts	4310	2008	1 1/2 ton w/12' flat bed contractors body	Ford		100-431-210-202
411 Madison	Wtr	4311	2004	VAN - 1 ton (Camera) cargo boxes	Ford		501-461-100-202
411 Madison	Wtr	4312	1983	PICKUP - 1 ton (flat bed)	Ford		501-461-100-202
1015 F Street	Sws	4313	2007	STREET SWEEPER	TYMCO		510-490-210-202
411 Madison	Col	4314	1980	TRUCK - sewer cleaner	Ford		502-432-100-202
1015 F Street	Sts	4315	2007	1 1/2 ton w/14' flat bed contractors body	Chevy		100-431-210-202
411 Madison	Col	4316	2012	F550	Ford		502-432-100-202
1015 F Street	Sws	4317	2012	STREET SWEEPER	TYMCO		510-490-210-202
015 F Street	Sws	4318	2012	STREET SWEEPER	TYMCO		510-490-210-202
Available		4319		Available			
Available		4320		Available			
1015 F Street	Sts	4400	2007	TRUCK - hook lift	International		100-431-210-202
		4401	2014	Dump Truck			
Available				Available			
Available				Available			
Available				Available			
1015 F Street	Sts	4405	1991	TRUCK - dump	Ford		100-431-210-202
Available		4406		Available			
1015 F Street	Sts	4407	1981	TRUCK - dump	International		100-431-210-202
Available		4408		Available			
1015 F Street	Sts	4409	2004	TRUCK - hook lift/ Patching bed	Freightliner		100-431-210-202
Available		4410		Available			
1015 F Street	Prk	4411	2002	Aerial Boom	Freightliner		100-452-100-202
1015 F Street	Prk	4412	2004	Hook Lift	Freightliner		100-452-100-202
1015 F Street	Sts	4413	2001	TRUCK - hook lift/oil distributor	Freightliner		100-431-210-202
411 Madison	Wtr	4414	1999	TRUCK - flat bed dump	GMC		501-461-100-202
411 Madison	Wtr	4415	2004	TRUCK - flat bed dump	Freightliner		501-461-100-202
411 Madison	Trt	4416	1983	TRUCK - flat bed dump	International		502-433-100-202
411 Madison	Wtr	4417	1988	TRUCK - dump	Chevy		501-461-100-202
411 Madison	Wtr	4418	2005	TRUCK - flat bed dump	GMC		501-461-100-202
411 Madison	Col	4419	1992	TRUCK - vactor	Ford		502-432-100-202
411 Madison	Col	4420	2007	Truck - PD Vacuum LT8500	Sterling		502-432-100-202
Available				Available			
411 Madison	Trt	4422	1985	Firetruck	GMC		502-433-100-202
		4423	2014	Sewer Truck			
Available		4424		Available			
Available		4425		Available			
1015 F Street	Sts	4500		Weed Spraying Trailer			
1015 F Street	Sts	4501		Emergency Stop Trailer			
Available		4502		Available			

1015 F Street	Prk	4503	1991	Trailer	Haullette		100-452-100-202
1015 F Street	SWG	4504	2005	Leaf Machine	ODB		510-490-100-202
1015 F Street	Swg	4505		Leaf Machine	ODB		510-490-100-202
1015 F Street	Prk	4506	1997	Brush Chipper	Bandit		100-452-100-202
1015 F Street	Prk	4507		Stump Grinder	Vermeer		100-452-100-202
1015 F Street	Sts	4508	1978	Trailer	Spens		100-431-210-202
1015 F Street	Sts	4509		Trailer			100-431-210-202
1015 F Street	Prk	4510	1994	Trailer	Moder		100-452-100-202
1015 F Street	Prk	4511		Trailer			100-452-100-202
1015 F Street	Swg	4512	2001	Trailer	Spens		510-490-100-202
1015 F Street	Swg	4513	2002	Trailer	Spens		510-490-100-202
1015 F Street	Swg	4514	2003	Recycling Trailer	Demps/Carrier		510-490-100-202
1015 F Street	Sts	4515	2006	Mounted Crack Filling Machine (Trailer)	Cimline		100-231-210-202
411 Madison	Wtr	4516	1995	Mounted 6 inch Water Pump (Trailer)	Jacobsen		501-461-100-202
411 Madison	WWTP	4517		Mounted Diesel Tank (Trailer)			502-433-100-202
411 Madison	WWTP	4518	1963	Portable Work Station (Trailer)	Atlas		502-433-100-202
1015 F Street	Prk	4519		Sweeper Trailer	Jacobsen		100-452-100-202
1015 F Street	Swg	4520	2006	Trailer			510-490-100-202
1015 F Street	Swg	4521	2006	Trailer			510-490-100-202
1015 F Street	Sts	4522	2006	Trailer			100-431-210-202
1015 F Street	Swg	4523	2001	Trailer			510-490-100-202
1015 F Street	Prk	4524	2008	Trailer			100-452-100-202
411 Madison	WWTP	4525		Boat Trailer			502-433-100-202
1015 F Street	Sts	4526	2006	Asphalt Heater			100-231-210-202
1015 F Street	Swg	4527	2008	Grinder/Mulcher			510-490-100-202
1015 F Street	Swg	4528		Trailer			510-490-100-202
1015 F Street	Prk	4529	2007	Leaf Machine			100-452-100-202
Available				Available			
Available		4531		Available			
Available		4532		Available			
Available		4533		Available			
Available		4534		Available			
Available		4535		Available			
1015 F Street	Prk	4600		Tractor			100-452-100-202
1015 F Street	Prk	4601		Loader			100-452-100-202
411 Madison	Wtr	4602	2014	Backhoe			501-461-100-202
411 Madison	Wtr	4603	2014	Backhoe			501-461-100-202
1015 F Street	Sts	4604		Grader			100-431-210-202
1015 F Street	Prk	4605		Backhoe			100-452-100-202
1015 F Street	Sts	4606	1999	Backhoe			100-431-210-202
1015 F Street	Sts	4607	1998	Backhoe			100-431-210-202
1015 F Street	Sts	4608	1964	Forklift			100-431-210-202
411 Madison	Wtr	4609	1988	Backhoe			501-461-100-202
411 Madison	WWTP	4610	2003	Backhoe			502-433-100-202
1015 F Street	Sts	4611	2001	Skid Steer			100-431-210-202
411 Madison	Wtr	4612	2003	Backhoe			501-461-100-202
1015 F Street	Sts	4613	2014	Grader			100-431-210-202
1015 F Street	Sts	4614		Loader			100-431-210-202
1015 F Street	Sts	4615	2002	Loader			100-431-210-202
1015 F Street	Sts	4616	1988	Steel Roller			100-431-210-202
1015 F Street	Sts	4617	2002	Tractor			100-431-210-202
1015 F Street	Sts	4618	2014	Loader			100-431-210-202
411 Madison	Wtr	4619		Forklift			501-461-100-202
411 Madison	Wtr	4620		Forklift			501-461-100-202
Available		4621		Available			
Available		4622		Available			
Available		4623		Available			
Available		4624		Available			
Available		4625		Available			
411 Madison	Wtr	4700	1998	Mounted			501-461-100-202
411 Madison	Wtr	4701	1997	Mounted			501-461-100-202
411 Madison	Wtr	4702	2004	Stand By			501-461-100-202
Available		4703		Available			
Available		4704		Available			

Available		4705		Available			
Available		4706		Available			
Available		4707		Available			
411 Madison	WWC	4708		Generator (White)			502-432-100-202
Available		4709		Available			
1015 F Street	Sts	4710		Honda			100-431-210-202
1015 F Street	Sts	4711		Honda			100-431-100-202
Available		4712		Available			
411 Madison	WWTP	4713		Portable			502-433-100-202
Available		4714		Available			
Available		4715		Available			
Available		4716		Available			
1015 F Street	Prk	4717		620 Generator			100-452-100-202
1015 F Street	Swg	4718		Mower			501-461-100-202
1015 F Street	Sts	4719		Flat bed sides			100-431-210-202
1015 F Street	Sts	4720		Workman Dump			100-431-210-202
1015 F Street	Sts	4721		Lowside Dump			100-431-100-202
1015 F Street	Sts	4722		Water Tank			100-431-210-202
1015 F Street	Sws	4723		Refuse Box			501-490-210-202
1015 F Street	Sts	4724	2003	Asphalt Patcher			100-431-210-202
1015 F Street	Sts	4725	2001	Fog Seal Machine			100-431-210-202
1015 F Street	Sts	4726		Sand Spreader			100-431-210-202
1015 F Street	Sws	4727		High Side Dump			510-490-210-202
1015 F Street	Sws	4728		High Side Dump			510-490-210-202
1015 F Street	Sws	4729		Leaf Box			510-490-210-202
1015 F Street	Sws	4730		Leaf Box			510-490-210-202
Available		4731		Available			
Available		4732		Available			
Available		4733		Available			
Available		4734		Available			
Available		4735		Available			
1015 F Street	Sts	4740		Generator			100-431-210-202
1015 F Street	Sts	4741		Generator			100-31-210-202
Available		4742		Available			
Available		4743		Available			
Available		4744		Available			
Available		4745		Available			
1015 F Street	Sts	4800	1985	Altas Copa			100-431-210-202
1015 F Street	Sts	4801		Tile Saw			100-431-210-202
1015 F Street	Sts	4802	1998	Atlas Copa			100-431-210-202
1015 F Street	Sts	4803		Paint Sprayer			100-431-210-202
1015 F Street	Sws	4804	2002	Mower			510-490-210-202
1015 F Street	Sts	4805		Vibrating Sled			100-431-210-202
1015 F Street	Sts	4806		Vibrating Sled			100-431-210-202
411 Madison	Wtr	4807		Vibrating Sled			501-461-100-202
1015 F Street	Prk	4808	2001	Mule			100-452-100-202
411 Madison	WWTP	4809	1991	ATV			502-433-100-202
1015 F Street	Prk	4810		Scooter			100-452-100-202
1015 F Street	Prk	4811	2008	Gator			100-452-100-202
411 Madison	WWTP	4812	2005	ATV			502-433-100-202
1015 F Street	Prk	4813	2014	Drag Scraper			100-452-100-202
1015 F Street	Prk	4814		Gator			100-452-100-202
1015 F Street	Sts	4815		Concrete Sign			100-431-210-202
1015 F Street	Sws	4816	1995	Von Arx			510-490-210-202
1015 F Street	Sts	4817		Roto Trowel			100-431-210-202
1015 F Street	Sts	4818		Earth Compactor			100-431-210-202
1015 F Street	Sts	4819		Concrete Saw			100-431-210-202
1015 F Street	Sts	4820	2000	Concrete Saw			100-431-210-202
1015 F Street	Sts	4821	2007	Compressor			100-431-210-202
1015 F Street	Sts	4822		Cut Off Saw			100-431-210-202
1015 F Street	Sts	4823		Line Lazer Striper			100-431-210-202
1015 F Street	Sts	4824		Asphalt Grinder			100-431-210-202
1015 F Street	Sts	4825		Wacker Compactor			100-431-210-202
1015 F Street	Sts	4826		Line Lazer Striper			100-431-210-202

1015 F Street	Sts	4827	2006	Concrete Profiler				100-431-210-202
1015 F Street	Sts	4828		Bomag Roller				100-431-210-202
1015 F Street	Sts	4829	2003	Wacker Compactor				100-431-210-202
1015 F Street	Sts	4830	2004	Profiler				100-431-210-202
1015 F Street	Sts	4831		Compressor				100-431-210-202
1015 F Street	Swg	4832		Boaring Machine				510-490-100-202
411 Madison	Wtr	4833	2004	Weed Sprayer				501-461-100-202
1015 F Street	Prk	4834	2009	Portable Pressure Washer				100-452-100-202
		4835		Dymo Drill				
		4836		Cobra Combi				
1015 F Street	Sts	4837		Disc				100-431-210-202
1015 F Street	Sts	4838		Concrete Finisher				100-431-210-202
1015 F Street	Prk	4839		Mower				100-452-100-202
1015 F Street	Sts	4840	2004	Grinder				100-431-210-202
1015 F Street	Prk	4841		Spray Rig				100-452-100-202
411 Madison	Wtr	4842	2009	Spray Rig				501-461-100-202
1015 F Street	Swg	4843		Spray Rig				510-490-100-202
1015 F Street	Prk	4844	2007	Mower				100-452-100-202
411 Madison	WWTP	4845	2000	9.9 Disc				502-433-100-202
1015 F Street	Prk	4846	2004	Gator				100-452-100-202
1015 F Street	Prk	4847		Mower				100-452-100-202
1015 F Street	Prk	4848	2009	Quad				100-452-100-202
411 Madison	WWTP	4849	2005	Tow Sprayer				502-433-100-202
411 Madison	Wtr	4850		Compactor				501-461-100-202
1015 F Street	Sts	4851	2006	Cut Off Saw				100-431-210-202
1015 F Street	Prk	4852	1995	Mower				100-452-100-202
1015 F Street	Sws	4853		String Mower				510-490-100-202
1015 F Street	Prk	4854	2014	Lazer Scraper				100-452-100-202
1015 F Street	Sts	4855	2013	Walkbehind Saw				100-431-210-202
1015 F Street	Sts	4856	2014	Welder/Cart				100-431-210-202
1015 F Street	Sts	4857	2011	Handheld Saw				100-431-210-202
1015 F Street	Sts	4858		Wobble Wheel Roller				100-431-210-202
<b>Available</b>		4859		<b>Available</b>				
<b>Available</b>		4860		<b>Available</b>				
411 Madison	WWTP	4864	2001	Pak Tank Sprayer				502-433-100-202
<b>Available</b>		4865		<b>Available</b>				
<b>Available</b>		4866		<b>Available</b>				
<b>Available</b>		4867		<b>Available</b>				
<b>Available</b>		4868		<b>Available</b>				
<b>Available</b>		4869		<b>Available</b>				
<b>Available</b>		4870		<b>Available</b>				
1015 F Street	Sts	4871		Cut Off Saw				100-431-210-202
<b>Available</b>		4872		<b>Available</b>				
<b>Available</b>		4873		<b>Available</b>				
411 Madison	WWTP	4874	2000	Mower				502-433-100-202
411 Madison	WWTP	4875		Pump				502-433-100-202
1015 F Street	Sts	4876	2002	Fork Attachment				100-431-210-202
1015 F Street	Sts	4877	2002	Post Hole Digger				100-431-210-202
1015 F Street	Sts	4878	2002	Trench Attachment				100-431-210-202
1015 F Street	Sts	4879	2002	Bucket Attachment				100-431-210-202
1015 F Street	Sts	4880	2004	Rottery Brush				100-431-210-202
1015 F Street	Sts	4881	2000	Profiler/Grinder				100-431-210-202
1015 F Street	Sts	4882	2002	Fork Attachment				100-431-210-202
411 Madison	WWTP	4883		Pull Type Scraper				502-433-100-202
1015 F Street	Sts	4884	2013	Atlas Copco				100-431-210-202
1015 F Street	Swg	4885	2014	Mower				510-490-100-202
1015 F Street	Sts	4886	2014	Wacker Neuson				100-431-210-202
<b>Available</b>		4887		<b>Available</b>				
<b>Available</b>		4888		<b>Available</b>				
<b>Available</b>		4889		<b>Available</b>				
<b>Available</b>		4890		<b>Available</b>				

Available  
Using for Parts  
Auction 2014  
Auction 2015  
Auction 2016

ARB out of compliance 12-31-14

# ***Wastewater Services (continued)***

## **Future Outlook**

- Ground water study to be conducted.
- Update the Sewer System Management Plan to meet the new Water Quality Board requirements as set forth in the National Pollution Discharge Elimination System Permit and submit to the City Council for approval/adoption.
- Continued Sewer and Storm System Management Plan training to the Public Works crew.
- Continue the solar-powered mixer (Solar Bee) pilot test program.
- Design and construct several storm drain line for the elimination of storm water in the sewer lines.
- Replace/repair several manhole upper cone and covers near the plant.

## **Performance Measures**

### **Wastewater Collection**

Maintained sewer mains: Approximately 130 miles

Lift Stations: 13

Sewer Manholes: 1,260

Sewer Clean Outs: 245

### **Wastewater Treatment**

Ponds: 7 ponds totaling 512 acres

Agricultural ground maintained: approximately 600 acres of pasture, 185 acres alfalfa

Influent: 2.9 million gallons per day

### **Storm Drainage**

Maintained storm drain lines: over 83 miles

Storm Drain Manholes: 350

Storm Pump Stations: 20 stations, 49 pumps

Storm basins: 16

# *Wastewater Services*

## **Mission Statement**

The City of Los Banos Public Works Department is committed to preserving and securing the health and safety of residents by providing quality collection and management of wastewater services.

## **Overview of Services and Programs**

The Public Works Department operates and maintains the wastewater and storm drain infrastructure for the City of Los Banos. This includes 20 storm drain lift stations, hundreds of miles of pipelines and a wastewater treatment plant consisting of over 1000 acres. Through vigilant maintenance of our miles of utility service lines, wastewater services remains committed to the health and well being of the residents of the City of Los Banos.

## **Major Accomplishments/Service Efforts**

- Entered into a service agreement with Solar Bee to maintain the Wastewater Treatment Plant (WWTP) pond Solar Bee mixers.
- Ongoing replacement of treatment plant head works grating.
- Repair of levee erosion as needed.
- Abandonment of WWTP irrigation canal lift pump due to water shortage of the canal owner.
- Addition of Ag well for irrigation of WWTP Ag land.
- Replacement of the Treatment Plant influent pump variable speed drive unit.
- Annual Sewer System Management Plan review and audit report.
- Annual Storm Water Management Plan evaluation and Water Quality Control Board report.
- Conducted best management practices (BMP) inspections of Public Works corporation yards.
- Conducted Sewer System Management Plan training with the Public Works crew, as follows:
  - Municipal Storm Water Pollution Prevention – BMP's
  - Illicit Discharge Detection and Elimination
  - Fats, Oils & Grease (FOG) control
  - Sewer System Overflow Response Plan training
  - Sewer Lift Station Response/Repair

# City of Los Banos

## Business-Type Fund 2013-2014 Adopted Budget

	2010-2011 Actual	2011-2012 Actual	2012-2013 Projected	2013-2014 Adopted
<b>Wastewater - Fund 502</b>				
<b>Wastewater Collection - Department 432</b>				
<b>General Services - Activity 100</b>				
101 Salaries	\$354,207	\$353,518	\$347,225	\$348,225
102 Part Time	3,198	3,000	4,000	4,000
103 Overtime	10,642	10,764	17,000	18,000
120 Employee Benefits	251,135	280,291	297,308	314,115
<b>Personnel Services</b>	<b>\$619,182</b>	<b>\$647,573</b>	<b>\$665,533</b>	<b>\$684,340</b>
202 Fleet Repair & Maint.	\$17,681	\$20,607	\$34,700	\$25,000
203 Equipment Repair & Maint.	7,181	15,346	13,000	15,000
204 Fleet Services	16,937	16,717	20,603	17,000
205 Facility Maintenance	779	982	1,500	1,500
206 Property Lease	2,946	2,946	3,000	3,000
208 Rental - Equipment	5,713	8,734	7,000	11,000
231 Professional Services	614	1,575	1,500	2,000
235 City Engineer	0	0	0	20,000
236 Medical Services	148	193	700	1,600
237 Recruitment	0	0	145	500
238 Technical Services	3,982	5,030	5,000	5,000
240 IT Services	5,317	2,720	3,967	4,991
250 Insurances	9,854	3,925	8,936	13,491
251 Memberships & Dues	60	0	0	300
252 Communications	977	1,490	2,000	2,000
253 Advertising	0	0	0	300
256 Permits, Fees, & Charges	120,839	123,941	125,000	130,000
257 Travel & Training	1,028	602	1,400	1,500
260 Office Supplies	1,054	1,423	1,500	1,800
262 Uniform Expenses	3,462	3,636	3,000	3,000
264 Electricity & Gas	50,992	61,176	48,000	49,440
265 Gasoline & Oil	15,028	15,231	20,818	21,000
267 General Materials & Supplies	24,512	19,150	28,855	40,000
273 Special Departmental Exp.	0	161,656	0	0
<b>Supplies &amp; Services</b>	<b>\$289,104</b>	<b>\$467,080</b>	<b>\$330,624</b>	<b>\$369,422</b>
710 Land Purchase	\$46,352	\$0	\$0	\$0
714 Storm Drain Improvement	66,888	1,717,065	115,648	520,000
735 Master Plan	16,991	2,533	0	0
739 Master Plan	0	0	0	506,000
753 Specialized Equipment	0	0	34,359	195,000
770 Computer Equipment	0	0	0	1,510
<b>Capital Outlay</b>	<b>\$130,231</b>	<b>\$1,719,598</b>	<b>\$150,007</b>	<b>\$1,222,510</b>
825 Charge Out	\$0	\$0	(\$3,187)	\$0
<b>Total: WW Collection</b>	<b>\$1,038,517</b>	<b>\$2,834,251</b>	<b>\$1,142,977</b>	<b>\$2,276,272</b>

# Appendix F

Contains:

- Table of Contents of the City of Los Banos Improvement Standards and Specifications, approved by City Council Resolution No. 4539, October 6, 2004 (February 2007 Draft)
- Standard Details (drawings) Table of Contents of the City of Los Banos Improvement Standards and Specifications, approved by City Council Resolution No. 4539, October 6, 2004 (February 2007 Draft)

**CITY OF LOS BANOS**

**IMPROVEMENT STANDARDS  
AND SPECIFICATIONS**

Approved by  
Council Resolution No. 4539  
October 6, 2004

CITY OF LOS BANOS  
DEPARTMENT OF PUBLIC WORKS  
411 Madison Avenue  
Los Banos, California 93635  
(209) 827-7056

# CITY OF LOS BANOS IMPROVEMENT STANDARDS

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FEBRUARY 2007

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RESOLUTION 4840

ORDINANCE NO. 10559

# Appendix G

Contains:

- Schedule of proposed Sewer Capital Projects

Table 7.2 Capital Improvement Projects

Wastewater Collection System Master Plan  
City of Los Banos

Figure No.	Type of Improvement	Description/ Street	Description / Limits	Project Length/Size and Cost			Capital Improvement Cost <sup>(1)(2)</sup> (\$)	Capital Improvement Phasing					Future Users Benefit (%)	Improvement Reimbursement Category			
				Ex. Size/ Diam. (in)	New Size/ Diam. (in)	Replace/ New		Length (ft)	Phase 1 2008-10 (\$)	Phase 2 2011-15 (\$)	Phase 3 2016-2020 (\$)	Phase 4 2021-2025 (\$)		Phase 5 2026+ (\$)	Existing Improvements (\$)	Future Improvements Developer (\$)	Regional (\$)
<b>Wastewater Treatment Plant</b>																	
WWTP-1	Pipe	WWTP	WWTP	36	New	2,265	\$ 1,271,000					\$ 1,271,000	100%	\$ -	\$ -	\$ 1,271,000	
WWTP-1A	Casing <sup>(1)</sup>	WWTP	Casing under San Luis Canal	36/48	New	200	\$ 524,000					\$ 524,000	100%	\$ -	\$ -	\$ 524,000	
WWTP-1C	Casing <sup>(1)</sup>	WWTP	Casing under future H-152 Bypass	36/48	New	365	\$ 956,000					\$ 956,000	100%	\$ -	\$ -	\$ 956,000	
WWTP-1B	Casing <sup>(1)</sup>	WWTP	Casing under San Luis Master Drain	36/48	New	200	\$ 524,000					\$ 524,000	100%	\$ -	\$ -	\$ 524,000	
WWTP-2	Pipe	WWTP	WWTP	36	New	475	\$ 267,000	\$ 267,000					100%	\$ -	\$ -	\$ 267,000	
WWTP-2A	Casing <sup>(1)</sup>	WWTP	Casing under Santa Fe Canal	36/48	New	150	\$ 393,000	\$ 393,000					100%	\$ -	\$ -	\$ 393,000	
<b>Downtown Sewer</b>																	
DT-1	Pipe	J Street	East of Linda Vista	8	New	465	\$ 64,000	\$ 64,000					0%	\$ 64,000	\$ -	\$ -	
<b>Pioneer Trunk</b>																	
P-1	Pipe	Future road	New development	24	New	8,114	\$ 3,037,000	\$ 1,518,500	\$ 1,518,500				100%	\$ -	\$ -	\$ 3,037,000	
P-1A	Casing <sup>(1)</sup>	152	Casing under Highway 152	24/42	New	187	\$ 429,000	\$ 214,500	\$ 214,500				100%	\$ -	\$ -	\$ 429,000	
P-2	Pipe	Pioneer	East of 165 along Pioneer and curving northward	21	New	7,135	\$ 2,337,000		\$ 1,445,000	\$ 892,000			100%	\$ -	\$ -	\$ 2,337,000	
P-3	Pipe	Pioneer	Plow Camp to 165	21	New	2,623	\$ 860,000				\$ 860,000		100%	\$ -	\$ -	\$ 860,000	
P-3A	Casing <sup>(1)</sup>	Canal	Casing under Main Canal	21/42	New	200	\$ 459,000				\$ 459,000		100%	\$ -	\$ -	\$ 459,000	
P-4	Pipe	Pioneer	Diana to Plow Camp	18	New	1,348	\$ 379,000				\$ 379,000		100%	\$ -	\$ -	\$ 379,000	
P-5	Pipe	Pioneer	West of Diana	15	New	3,755	\$ 967,000				\$ 967,000		100%	\$ -	\$ 967,000	\$ -	
P-6	Pipe	Pioneer	East of Ortigalita	12	New	2,927	\$ 602,000					\$ 602,000	100%	\$ -	\$ 602,000	\$ -	
P-7	Pipe	Pioneer	West of Ortigalita	10	New	2,142	\$ 368,000					\$ 368,000	100%	\$ -	\$ 368,000	\$ -	
P-8	Pipe	Future road	New development	12	New	719	\$ 148,000			\$ 148,000			100%	\$ -	\$ 148,000	\$ -	
P-9	Pipe	Future road	New development	10	New	2,071	\$ 356,000			\$ 356,000			100%	\$ -	\$ 356,000	\$ -	
P-10	Pipe	Phillips	Runs partially along Phillips and to the north of Phillips	10	New	4,557	\$ 782,000			\$ 782,000			100%	\$ -	\$ 782,000	\$ -	
P-11	Pipe	165	South of Pioneer	10	New	1,302	\$ 223,000			\$ 223,000			100%	\$ -	\$ 223,000	\$ -	
P-12	Pipe	Plow Camp	South of Pioneer	12	New	1,323	\$ 273,000				\$ 273,000		100%	\$ -	\$ 273,000	\$ -	
P-13	Pipe	Plow Camp	South of Pioneer	10	New	1,327	\$ 228,000				\$ 228,000		100%	\$ -	\$ 228,000	\$ -	
P-14	Pipe	Center	South of Pioneer	12	New	1,384	\$ 285,000				\$ 285,000		100%	\$ -	\$ 285,000	\$ -	
P-15	Pipe	Center	South of Pioneer	10	New	1,299	\$ 223,000				\$ 223,000		100%	\$ -	\$ 223,000	\$ -	
P-16	Pipe	Future road	New development	10	New	2,719	\$ 466,000				\$ 466,000		100%	\$ -	\$ 466,000	\$ -	
P-17	Pipe	Ortigalita	South of Pioneer	10	New	2,623	\$ 451,000					\$ 451,000	100%	\$ -	\$ 451,000	\$ -	
<b>North Trunk</b>																	
N-1	Pipe	152 bypass	Southeast of lift station	24	New	980	\$ 367,000	\$ 367,000					100%	\$ -	\$ -	\$ 367,000	
N-2	Intentionally left blank																
N-3	Pipe	152 bypass	Northwest of lift station, to Nantes	30	New	10,332	\$ 4,834,000	\$ 4,834,000					100%	\$ -	\$ -	\$ 4,834,000	
N-4	Pipe	152 bypass	West of Nantes	30	New	5,501	\$ 2,574,000				\$ 2,574,000		100%	\$ -	\$ -	\$ 2,574,000	
N-5	Pipe	152 bypass	South of 152 bypass	30	New	5,742	\$ 2,688,000				\$ 2,688,000		100%	\$ -	\$ -	\$ 2,688,000	
N-6	Pipe	Ingomar	South of 152 bypass	12	New	4,527	\$ 933,000					\$ 933,000	100%	\$ -	\$ 933,000	\$ -	
N-6A	Casing <sup>(1)</sup>	Canal	Casing under Main Canal	12/24	New	200	\$ 262,000					\$ 262,000	100%	\$ -	\$ 262,000	\$ -	
N-6B	Casing <sup>(1)</sup>	River	Casing under Los Banos Creek	12/24	New	200	\$ 262,000					\$ 262,000	100%	\$ -	\$ 262,000	\$ -	
N-7	Pipe	Quail	East of Westminster	10	New	681	\$ 117,000	\$ 117,000					100%	\$ -	\$ 117,000	\$ -	
N-8	Pipe	Mercy Springs	South of 152 bypass	12	New	627	\$ 129,000	\$ 129,000					100%	\$ -	\$ 129,000	\$ -	
N-9	Pipe	Future road	New development	12	New	2,314	\$ 477,000	\$ 477,000					100%	\$ -	\$ 477,000	\$ -	
N-10	Pipe	Nantes	South of 152 bypass	12	New	2,119	\$ 437,000	\$ 437,000					100%	\$ -	\$ 437,000	\$ -	
N-11	Pipe	Johnson	South of 152 bypass	12	New	1,786	\$ 368,000				\$ 368,000		100%	\$ -	\$ 368,000	\$ -	
N-12	Pipe	Future road	New development	10	New	2,513	\$ 431,000					\$ 431,000	100%	\$ -	\$ 431,000	\$ -	

Table 7.2 Capital Improvement Projects																	
Wastewater Collection System Master Plan																	
City of Los Banos																	
Figure No.	Type of Improvement	Description/ Street	Description / Limits	Project Length/Size and Cost				Capital Improvement Cost <sup>(2),(3)</sup> (\$)	Capital Improvement Phasing					Future Users Benefit (%)	Improvement Reimbursement Category		
				Ex. Size/ Diam. (in)	New Size/ Diam. (in)	Replace/ New	Length (ft)		Phase 1 2008-10 (\$)	Phase 2 2011-15 (\$)	Phase 3 2016-2020 (\$)	Phase 4 2021-2025 (\$)	Phase 5 2026+ (\$)		Existing Improvements (\$)	Future Improvements Developer (\$)	Regional (\$)
N-13	Pipe	Future road	New development	10	New	2,630	\$ 451,000					\$ 451,000	100%	\$ -	\$ 451,000	\$ -	
N-LS	Lift Station	Quail	New development	6.6 mgd	New		\$ 3,198,000		\$ 3,198,000				100%	\$ -	\$ -	\$ 3,198,000	
		Land Acquisition		0.25 acres	New		\$ 60,000		\$ 60,000				100%	\$ -	\$ -	\$ 60,000	
<b>Meadowlands</b>																	
Meadowlands-LS	Lift Station	NE Los Banos	NE Los Banos	2.8 mgd	Upsize		\$ 1,482,000			\$ 1,482,000			100%	\$ -	\$ -	\$ 1,482,000	
M-1	Pipe	Ward Road/Future Road	Within industrial Area Plan	12	New	2,341	\$ 482,000		\$ 482,000				100%	\$ -	\$ 482,000	\$ -	
M-2	Pipe	Future Road	Within industrial Area Plan	10	New	852	\$ 147,000		\$ 147,000				100%	\$ -	\$ 147,000	\$ -	
M-3	Pipe	Industrial Parkway/Future Road	Within industrial Area Plan	12	New	2,932	\$ 604,000		\$ 604,000				100%	\$ -	\$ 604,000	\$ -	
<b>Vineyard Trunk</b>																	
V-1	Pipe	Nantes	South of Burgundy	15	New	810	\$ 209,000		\$ 209,000				100%	\$ -	\$ 209,000	\$ -	
V-2	Pipe	Future road	New development	12	New	1,871	\$ 385,000		\$ 385,000				100%	\$ -	\$ 385,000	\$ -	
V-3	Pipe	Future road	New development	10	New	829	\$ 142,000		\$ 142,000				100%	\$ -	\$ 142,000	\$ -	
V-4	Pipe	Johnson	South of Capri	10	New	1,467	\$ 251,000		\$ 251,000				100%	\$ -	\$ 251,000	\$ -	
<b>Provinces Trunk</b>																	
PR-1	Pipe	Overland	New development	12	New	2,200	\$ 452,000	\$ 452,000					100%	\$ -	\$ 452,000	\$ -	
PR-2	Pipe	Palermo	New development	12	New	500	\$ 103,000		\$ 103,000				100%	\$ -	\$ 103,000	\$ -	
<b>Southeast Trunk</b>																	
SE-1	Pipe	Pine	New development	10	New	2,973	\$ 510,000		\$ 510,000				100%	\$ -	\$ 510,000	\$ -	
SE-2	Pipe	Future road	New development	10	New	1,538	\$ 264,000		\$ 264,000				100%	\$ -	\$ 264,000	\$ -	
<b>Badger Flat Trunk</b>																	
BF-1	Pipe	Badger Flat	New development	12	New	2,169	\$ 446,000		\$ 446,000				100%	\$ -	\$ 446,000	\$ -	
BF-2	Pipe	Badger Flat	New development	10	New	2,131	\$ 365,000		\$ 365,000				100%	\$ -	\$ 365,000	\$ -	
<b>College Trunk</b>																	
C-1	Pipe	Future road	New development	10	New	1,974	\$ 339,000			\$ 339,000			100%	\$ -	\$ 339,000	\$ -	
<b>Stone Creek Trunk</b>																	
SC-1	Pipe	Future road	New development	10	New	1,426	\$ 245,000		\$ 245,000				100%	\$ -	\$ 245,000	\$ -	
<b>West Trunk</b>																	
W-1	Pipe	Future road	New development	21	New	2,784	\$ 913,000			\$ 913,000			100%	\$ -	\$ -	\$ 913,000	
W-1A	Casing <sup>(1)</sup>	Future road	Casing under Los Banos Creek	21/42	New	81	\$ 184,000			\$ 184,000			100%	\$ -	\$ -	\$ 184,000	
W-2	Pipe	Future road	New development	18	New	4,326	\$ 1,215,000				\$ 1,215,000		100%	\$ -	\$ -	\$ 1,215,000	
W-3	Forcemain	Future road	New development	10	New	98	\$ 17,000				\$ 17,000		100%	\$ -	\$ 17,000	\$ -	
W-4	Pipe	Future road	New development	15	New	1,905	\$ 490,000				\$ 490,000		100%	\$ -	\$ 490,000	\$ -	
W-5	Pipe	Future road	New development	12	New	1,941	\$ 399,000				\$ 399,000		100%	\$ -	\$ 399,000	\$ -	
W-6	Pipe	Future road	New development	12	New	2,951	\$ 608,000			\$ 608,000			100%	\$ -	\$ 608,000	\$ -	
W-7	Pipe	Future road	New development	10	New	1,037	\$ 178,000			\$ 178,000			100%	\$ -	\$ 178,000	\$ -	
W-8	Pipe	Future road	New development	10	New	680	\$ 151,000			\$ 151,000			100%	\$ -	\$ 151,000	\$ -	
W-9	Pipe	Future road	New development	10	New	848	\$ 145,000			\$ 145,000			100%	\$ -	\$ 145,000	\$ -	
W-10	Pipe	Future road	New development	10	New	868	\$ 150,000			\$ 150,000			100%	\$ -	\$ 150,000	\$ -	
W-11	Pipe	Future road	New development	10	New	953	\$ 164,000			\$ 164,000			100%	\$ -	\$ 164,000	\$ -	
W-12	Pipe	Breunig	New development	12	New	2,935	\$ 604,000				\$ 604,000		100%	\$ -	\$ 604,000	\$ -	
W-13	Pipe	Breunig	New development	10	New	1,054	\$ 181,000				\$ 181,000		100%	\$ -	\$ 181,000	\$ -	

Table 7.2 Capital Improvement Projects																		
Wastewater Collection System Master Plan																		
City of Los Banos																		
Figure No.	Type of Improvement	Description/ Street	Description / Limits	Project Length/Size and Cost			Capital Improvement Cost <sup>(2),(3)</sup> (\$)	Capital Improvement Phasing					Future Users Benefit (%)	Improvement Reimbursement Category				
				Ex. Size/ Diam. (in)	New Size/ Diam. (in)	Replace/ New		Length (ft)	Phase 1 2008-10 (\$)	Phase 2 2011-15 (\$)	Phase 3 2016-2020 (\$)	Phase 4 2021-2025 (\$)		Phase 5 2026+ (\$)	Existing Improvements (\$)	Future Improvements Developer (\$)	Regional (\$)	
W-14	Pipe	Future road	New development		10	New	2,257	\$ 387,000						\$ 387,000	100%	\$ -	\$ 387,000	\$ -
W-15	Pipe	Future road	New development		10	New	2,224	\$ 382,000						\$ 382,000	100%	\$ -	\$ 382,000	\$ -
W-16	Pipe	Future road	New development		12	New	2,943	\$ 605,000						\$ 605,000	100%	\$ -	\$ 605,000	\$ -
W-17	Pipe	Future road	New development		10	New	1,290	\$ 222,000						\$ 222,000	100%	\$ -	\$ 222,000	\$ -
W-18	Pipe	Future road	New development		10	New	1,087	\$ 187,000						\$ 187,000	100%	\$ -	\$ 187,000	\$ -
W-19	Pipe	Future road	New development		10	New	1,037	\$ 178,000						\$ 178,000	100%	\$ -	\$ 178,000	\$ -
W-20	Pipe	Future road	New development		15	New	2,542	\$ 654,000						\$ 654,000	100%	\$ -	\$ 654,000	\$ -
W-20A	Casing <sup>(1)</sup>	152	Casing under Highway 152		15/30	New	82	\$ 136,000						\$ 136,000	100%	\$ -	\$ 136,000	\$ -
W-21	Pipe	Future road	New development		12	New	1,789	\$ 368,000						\$ 368,000	100%	\$ -	\$ 368,000	\$ -
W-22	Pipe	Future road	New development		12	New	2,107	\$ 434,000						\$ 434,000	100%	\$ -	\$ 434,000	\$ -
W-23	Pipe	Volta	New development		10	New	3,106	\$ 534,000						\$ 534,000	100%	\$ -	\$ 534,000	\$ -
W-24	Pipe	Future road	New development		10	New	1,321	\$ 226,000						\$ 226,000	100%	\$ -	\$ 226,000	\$ -
W-LS	Lift Station	West of Breunig	New development		2.2 mgd	New		\$ 1,248,000						\$ 1,248,000	100%	\$ -	\$ 1,248,000	\$ -
	Land Acquisition				0.25 acres	New		\$ 60,000						\$ 60,000	100%	\$ -	\$ 60,000	\$ -
<b>Existing System Rehabilitation and Replacement</b>																		
	Pipe	Various Locations	Sewer main rehabilitation program			Rehab		\$ 700,000		\$ 200,000	\$ 200,000	\$ 200,000	\$ 100,000	0%	\$ 700,000	\$ -	\$ -	\$ -
	Lift Station	Various Locations	Lift station rehabilitation or replacement			Replace/Rehab		\$ 2,840,000		\$ 710,000	\$ 710,000	\$ 710,000	\$ 710,000	0%	\$ 2,840,000	\$ -	\$ -	\$ -
	Pipe	Various Locations	Sewer main replacement program. Average size is 10-inch diameter		10	10	Replace	58,080	\$ 9,967,000	\$ 907,000	\$ 2,265,000	\$ 2,265,000	\$ 2,265,000	0%	\$ 9,967,000	\$ -	\$ -	\$ -
	Manhole	Various Locations	Manhole replacement program			Replace		\$ 600,000		\$ 200,000	\$ 200,000	\$ 100,000	\$ 100,000	0%	\$ 600,000	\$ -	\$ -	\$ -
<b>Storm Drain Cross Connection Removal</b>																		
A1-1	Pipe	K Street, California Avenue	California Avenue to Iowa Avenue, and s/o L Street to K Street		-	18	New	2,300	\$ 581,000	\$ 581,000				0%	\$ 581,000	\$ -	\$ -	\$ -
A1-2	Pipe	Idaho Ave, I St, Texas Ave	L St to I St, west to Texas Ave, then northeast to H St		15	36	New/Replace	4,050	\$ 2,047,000	\$ 2,047,000				0%	\$ 2,047,000	\$ -	\$ -	\$ -
A1-3	Pipe	L Street	Delaware Avenue to Idaho Avenue		-	18	New	300	\$ 76,000	\$ 76,000				0%	\$ 76,000	\$ -	\$ -	\$ -
CC-6	Pipe	6th Street, K Street	sw/o M Street to K Street, then 6th Street to 7th Street		-	18	New	1,150	\$ 291,000	\$ 291,000				0%	\$ 291,000	\$ -	\$ -	\$ -
CC-7	Pipe	Center Avenue, Jefferson Avenue	Madison Avenue to Jefferson Avenue, then to 6th Street		-	18	New	1,850	\$ 468,000	\$ 468,000				0%	\$ 468,000	\$ -	\$ -	\$ -
CC-8	Pipe	Pacheco Blvd, Paradise Lane	I Street to Paradise Lane, then south to Adams Avenue		-	12	New	2,300	\$ 426,000	\$ 426,000				0%	\$ 426,000	\$ -	\$ -	\$ -
CC-9	Pipe	Murielta Street	Page Street to Monro Street, then east to 7th Street		-	18	New	600	\$ 152,000	\$ 152,000				0%	\$ 152,000	\$ -	\$ -	\$ -
								<b>CIP Total</b>	<b>\$ 70,054,000</b>	<b>\$ 7,133,000</b>	<b>\$ 21,049,000</b>	<b>\$ 8,694,000</b>	<b>\$ 15,656,000</b>	<b>\$ 17,522,000</b>	<b>\$ 18,212,000</b>	<b>\$ 22,891,000</b>	<b>\$ 28,951,000</b>	
<b>Notes:</b>																		
1. Proposed casings size and carrier pipe size.																		
2. Baseline Construction Cost plus 20% to account for unforeseen events and unknown conditions.																		
3. Estimated Construction Cost plus 30% to cover other costs including Engineering, Construction Management, and Program Implementation.																		
5. Land acquisition costs were included for lift stations, but not for pipelines, which will be located within public right of way.																		
6. Costs are based on the Engineering News Record Construction Cost Index 20-city average of 8090.																		

# Appendix H

Contains:

- SSMP Monitoring Tracking Sheet

## Element 9: SSMP Monitoring Tracking Sheet

Parameter Year ( <i>RWCQB SSMP Element</i> )	Year				
	2009	2010	2011	2012	2013
Total number of SSOs ( <i>Element 6</i> )	0	0	1	1	4
Total volume of SSOs ( <i>Element 6</i> )	0	0	10 gal.	20 gal	706 gal
Number of repeat SSOs ( <i>Element 6</i> )	0	0	0	0	0
Number of SSOs due to FOG ( <i>Element 4</i> )	0	0	1	1	0
Number of SSOs due to wet weather ( <i>Element 8</i> )	0	0	0	0	0
Number of SSOs due to capacity limitations ( <i>Element 8</i> )	0	0	0	0	0
Total number of mainline blockages ( <i>Element 6</i> )	43	34	17	33	31
Number of mainline blockages due to FOG ( <i>Element 4</i> )	14	22	13	22	16
Number of pump station failures ( <i>Element 6</i> )	0	0	0	0	1
Number of pipe failures ( <i>Element 6</i> )	0	0	0	0	0
Average emergency response time ( <i>Element 3</i> )	N/A	N/A	2 min.	0 min.	4 min
Maximum emergency response time ( <i>Element 3</i> )	N/A	N/A	2 min.	0 min.	8 min
% of SSO volume contained or returned to sewer ( <i>Element 3</i> )	N/A	N/A	100%	100%	100%
Length of pipe CCTV'd ( <i>Element 6</i> )	1000'	2443'	1289'	0'	0'
Completion date of most recent capacity assessment ( <i>Element 8</i> )	Management Plan date				
Completion date of annual audit ( <i>Element 10</i> )	2/11/10	3/2/11	2/16/12	2/21/13	3/10/14
Completion of RWQCB audit report ( <i>due by March 15<sup>th</sup> annually</i> ) ( <i>Element 10</i> )	2/11/10	3/2/11	2/16/12	2/21/13	Internal only
Completion date of SWQCB required capacity CIP update ( <i>Element 8, Section 8.1, SWRCB requirement d</i> )	Annually	Annually	Annually	Annually	Annually

**Element 9: SSMP Monitoring Tracking Sheet**

Parameter Year (RWQCB SSMP Element)	Year				
	2015	2016	2017	2018	2019
Total number of SSOs (Element 6)					
Total volume of SSOs (Element 6)					
Number of repeat SSOs (Element 6)					
Number of SSOs due to FOG (Element 4)					
Number of SSOs due to wet weather (Element 8)					
Number of SSOs due to capacity limitations (Element 8)					
Total number of mainline blockages (Element 6)					
Number of mainline blockages due to FOG (Element 4)					
Number of pump station failures (Element 6)					
Number of pipe failures (Element 6)					
Average emergency response time (Element 3)					
Maximum emergency response time (Element 3)					
% of SSO volume contained or returned to sewer (Element 3)					
Length of pipe CCTV'd (Element 6)					
Completion date of most recent capacity assessment (Element 8)					
Completion date of annual audit (Element 10)					
Completion of RWQCB audit report (due by March 15 <sup>th</sup> annually) (Element 10)					
Completion date of SWQCB required capacity CIP update (Element 8, Section 8.1, SWRCB requirement d)					

# Appendix I

Contains:

- Completed SSMP audits



**CITY OF LOS BANOS  
PUBLIC WORKS DEPARTMENT  
SEWER SYSTEM MANAGEMENT PLAN (SSMP)  
2013 ANNUAL AUDIT REPORT**

*The purpose of the Annual SSMP Audit is to evaluate the effectiveness of the City of Los Banos SSMP and to identify deficiencies, if any, and steps to correct them. The audit is submitted pursuant to the Central Valley Regional Water Quality Control Board's Sewer System Management Plan Development Guide, July 2005. Information collected in the SSMP Monitoring & Tracking Sheet was used in preparing this audit.*

Directions: Please check Yes or No for each question. If NO is answered for any question, describe the updates/changes needed and the timeline to complete those changes.

**ELEMENT 1 - GOALS**

A. Are the Goals stated in the SSMP still appropriate and accurate?

YES	NO
✓	

**ELEMENT 2 - ORGANIZATION**

A. Is the SSMP Staff Organization Chart current?

YES	NO
✓	

B. Are the position descriptions an accurate portrayal of staff responsibilities?

✓	
---	--

C. Is the Sanitary Sewer Overflow Reporting Chain of Communication telephone list current?

✓	
---	--

D. Is the SSO Response Chain of Communication accurate and up to date?

✓	
---	--

**ELEMENT 3 - OVERFLOW EMERGENCY RESPONSE PLAN**

A. Does the City's Sanitary Sewer Overflow Response Plan establish procedures for the emergency response, notification and reporting of sanitary sewer overflows (SSOs)?

YES	NO
✓	

B. Are Wastewater services staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow Response Plan?

✓	
---	--

C. Considering the data in the SSMP Monitoring and Tracking Sheet, is the Sanitary Sewer Overflow Response Plan effective in handling SSOs in order to safeguard public health and the environment?

✓	
---	--

**ELEMENT 4 - FATS, OILS AND GREASE (FOG) CONTROL PROGRAM**

A. Does the Fats, Oils and Grease (FOG) Control Program include efforts to educate the public on the proper handling and disposal of FOG?

YES	NO
✓	

B. Does the City's FOG Control Program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?

✓	
---	--

C. Are requirements for grease removal devices, record keeping and reporting established in the City's FOG Control Program?

✓	
---	--

D. Does the City have sufficient legal authority to implement and enforce the FOG Control Program?

✓	
---	--

E. Is the current FOG Program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?

✓	
---	--

**ELEMENT 5 - LEGAL AUTHORITY**

Does the SSMP contain excerpts from the current City of Los Banos Municipal Code documenting the City's legal authority to:

A. Prevent illicit discharge?

YES	NO
✓	

B. Require proper design and construction of sewers and connections?

✓	
---	--

C. Ensure access for maintenance, inspection or repairs for portions of the sewer main lines owned or maintained by the City?

✓	
---	--

D. Limit discharges of fats, oil and grease?

✓	
---	--

**ELEMENT 6 - MEASURES AND ACTIVITIES**

***Collection System Maps***

A. Does the SSMP reference the current process and procedures for maintaining the City's wastewater collection system maps?

YES	NO
✓	

B. Are the City's wastewater collection system maps complete, current and sufficiently detailed?

✓	
---	--

***Resources and Budget***

C. Does the City allocate sufficient funds for the effective operation, maintenance and repair of wastewater collection system and is the current budget structure documented in the SSMP?

✓	
---	--

***Prioritized Preventative Maintenance***

D. Does the SSMP describe current preventative maintenance activities and the system for prioritizing the cleaning of sewer lines?

✓	
---	--

E. Based upon information in the SSMP Monitoring Tracking Sheet, are the City's preventative maintenance activities sufficient and effective in minimizing SSOs and blockages?

✓	
---	--

***Scheduled Inspections and Condition Assessments***

F. Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP?

✓	
---	--

***Contingency Equipment and Replacement Inventory***

G. Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system?

✓	
---	--

H. Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?

✓	
---	--

***Training***

I. Is the training calendar current?

✓	
---	--

J. Does the SSMP document current training expectations and programs within the City's Wastewater Services?

✓	
---	--

***Outreach to Plumbers and Building Contractors***

K. Does the SSMP have a current outreach effort to plumbers and building contractors?

✓	
---	--

**ELEMENT 7 - DESIGN AND CONSTRUCTION STANDARDS**

A. Does the SSMP contain current design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?

YES	NO
✓	

B. Does the SSMP document contain current procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and the rehabilitation and repair of existing sewer lines?

✓	
---	--

**ELEMENT 8 - CAPACITY MANAGEMENT**

A. Does the City of Los Banos Sanitary Sewer Master Plan evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long term capacity enhancement and improvement projects?

YES	NO
✓	

B. Does the City's Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?

✓	
---	--

**ELEMENT 9 - MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS**

A. Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?

YES	NO
✓	

B. Is the City able to sufficiently evaluate the effectiveness of SSMP elements based on relevant information?

✓	
---	--

**ELEMENT 10 - SSMP AUDITS**

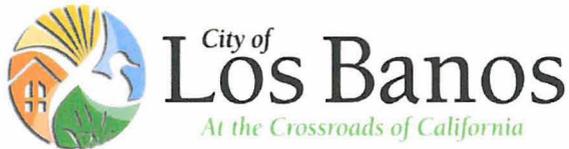
A. Will the SSMP Audit be submitted to the Regional Water Quality Control Board by March 15th of the year following the end of the calendar year being audited?

YES	NO
✓	

**ELEMENT 11 - COMMUNICATION PROGRAM**

A. Does the City effectively communicate with the public and other agencies about the development and implementation of the SSMP and continue to address any feedback?

YES	NO
✓	



Mark,

2/28/2014

The Sewer System Management Plan audit has been completed. An audit of the SSMP must be completed by March 15, of the year following the year in which the data was collected or operations were performed. A copy of this audit will be mailed to the RWQCB. This year the audit was conducted by myself only as we are in a personnel transition phase and departments are short handed.

The audit was conducted on February 27<sup>th</sup> & 28<sup>th</sup> and consisted of the following actions:

- Complete review of the City's SSMP
  - For accuracy in describing our operations
  - For accuracy in documenting our maps, ordinances, resources, capacity...
  - For consistency in meeting the requirements of each of the 11 elements
- Review of the many attachments and supporting documents
  - Review of our operational forms
  - Review of current contact lists and chain of communication
  - Review of SSO Response Plan & SOP for Sewer Pump Station Failure
  - Review and update the equipment list
- Completion of a Monitoring Tracking Sheet to evaluate the plans performance
  - Reviewed SSO reporting
  - Reviewed sewer system cleaning records to evaluate blockages
  - Reviewed CCTV inspection records
  - Reviewed sewer lift station records
  - Reviewed our response to reports of SSOs
- Preparation of the 2013 SSMP Annual Audit Report
  - Last years audit format was used as a model for this audit documentation
- Actions / Corrections
  - Updated Telephone Contact list in Appendix A,
  - Update the equipment list in Appendix E
  - Updated the Sanitary Sewer Overflow Response Plan to meet SWRCB requirements
  - Added the SWRCB GWDR amendment as an appendix to the SSORP
  - Changes to the SSMP to keep it current (see Log of Audits and Updates)
- Goals
  - Continue documentation of the numerous camera inspections in lateral sewer connections
  - Renew our co-operative outreach/education with Allied Waste
  - Continue Fog educational brochures in our restaurants & Auto shop SWMP mailings
  - Letters to Restaurants advising them of Grease Removal Device required maintenance, record keeping and the City's right to inspect.
  - Re-certify the adoption of the SSMP by City Council approval prior to July 1, 2014

I'm pleased to report to you that the audit resulted in only a few minor changes in the SSMP document to update current information. On July 30, 2013 the permit was amended to change SSO reporting and classifications. These changes have been made within the SSMP. The audit review indicated that the SSMP does meet the requirements of both water boards. The evaluation of our operations (and many documents) supports the fact that our sewer system is managed in accordance with our SSMP.

The SSMP will need to be re-certified by the City Council this year (July 1, 2014)

I have attached a copy of the 2013 SSMP Audit Report and the revised pages for replacement in the SSMP document, for your approval.

Respectfully,  
**Royal Lloyd**  
Interim Public Works Operations Manager



**CITY OF LOS BANOS  
PUBLIC WORKS DEPARTMENT  
SEWER SYSTEM MANAGEMENT PLAN (SSMP)  
2012 ANNUAL AUDIT REPORT**

*The purpose of the Annual SSMP Audit is to evaluate the effectiveness of the City of Los Banos SSMP and to identify deficiencies, if any, and steps to correct them. The audit is submitted pursuant to the Central Valley Regional Water Quality Control Board's Sewer System Management Plan Development Guide, July 2005. Information collected in the SSMP Monitoring & Tracking Sheet was used in preparing this audit.*

Directions: Please check Yes or No for each question. If NO is answered for any question, describe the updates/changes needed and the timeline to complete those changes.

**ELEMENT 1 - GOALS**

A. Are the Goals stated in the SSMP still appropriate and accurate?

YES	NO
✓	

**ELEMENT 2 - ORGANIZATION**

- A. Is the SSMP Staff Organization Chart current?
- B. Are the position descriptions an accurate portrayal of staff responsibilities?
- C. Is the Sanitary Sewer Overflow Reporting Chain of Communication telephone list current?
- D. Is the SSO Response Chain of Communication accurate and up to date?

YES	NO
✓	
✓	
✓	
✓	

**ELEMENT 3 - OVERFLOW EMERGENCY RESPONSE PLAN**

- A. Does the City's Sanitary Sewer Overflow Response Plan establish procedures for the emergency response, notification and reporting of sanitary sewer overflows (SSOs)?
- B. Are Wastewater services staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow Response Plan?
- C. Considering the data in the SSMP Monitoring and Tracking Sheet, is the Sanitary Sewer Overflow Response Plan effective in handling SSOs in order to safeguard public health and the environment?

YES	NO
✓	
✓	
✓	

**ELEMENT 4 - FATS, OILS AND GREASE (FOG) CONTROL PROGRAM**

- A. Does the Fats, Oils and Grease (FOG) Control Program include efforts to educate the public on the proper handling and disposal of FOG?
- B. Does the City's FOG Control Program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?
- C. Are requirements for grease removal devices, record keeping and reporting established in the City's FOG Control Program?
- D. Does the City have sufficient legal authority to implement and enforce the FOG Control Program?
- E. Is the current FOG Program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?

YES	NO
✓	
✓	
✓	
✓	
✓	

**ELEMENT 5 - LEGAL AUTHORITY**

Does the SSMP contain excerpts from the current City of Los Banos Municipal Code documenting the City's legal authority to:

- A. Prevent illicit discharge?
- B. Require proper design and construction of sewers and connections?
- C. Ensure access for maintenance, inspection or repairs for portions of the sewer main lines owned or maintained by the City?
- D. Limit discharges of fats, oil and grease?

YES	NO
✓	
✓	
✓	
✓	

**ELEMENT 6 - MEASURES AND ACTIVITIES**

***Collection System Maps***

A. Does the SSMP reference the current process and procedures for maintaining the City's wastewater collection system maps?

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

B. Are the City's wastewater collection system maps complete, current and sufficiently detailed?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

***Resources and Budget***

C. Does the City allocate sufficient funds for the effective operation, maintenance and repair of wastewater collection system and is the current budget structure documented in the SSMP?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

***Prioritized Preventative Maintenance***

D. Does the SSMP describe current preventative maintenance activities and the system for prioritizing the cleaning of sewer lines?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

E. Based upon information in the SSMP Monitoring Tracking Sheet, are the City's preventative maintenance activities sufficient and effective in minimizing SSOs and blockages?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

***Scheduled Inspections and Condition Assessments***

F. Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

***Contingency Equipment and Replacement Inventory***

G. Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

H. Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

***Training***

I. Is the training calendar current?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

J. Does the SSMP document current training expectations and programs within the City's Wastewater Services?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

***Outreach to Plumbers and Building Contractors***

K. Does the SSMP have a current outreach effort to plumbers and building contractors?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

**ELEMENT 7 - DESIGN AND CONSTRUCTION STANDARDS**

A. Does the SSMP contain current design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

B. Does the SSMP document contain current procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and the rehabilitation and repair of existing sewer lines?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

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A. Does the City of Los Banos Sanitary Sewer Master Plan evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long term capacity enhancement and improvement projects?

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<input checked="" type="checkbox"/>	<input type="checkbox"/>

B. Does the City's Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

**ELEMENT 9 - MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS**

A. Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

B. Is the City able to sufficiently evaluate the effectiveness of SSMP elements based on relevant information?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
-------------------------------------	--------------------------

**ELEMENT 10 - SSMP AUDITS**

A. Will the SSMP Audit be submitted to the Regional Water Quality Control Board by March 15th of the year following the end of the calendar year being audited?

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ELEMENT 11 - COMMUNICATION PROGRAM**

A. Does the City effectively communicate with the public and other agencies about the development and implementation of the SSMP and continue to address any feedback?

YES	NO
<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Claire Hughes

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**From:** webcustomerservice@ontrac.com  
**Sent:** Friday, March 01, 2013 9:31 AM  
**To:** Claire Hughes  
**Subject:** OnTrac Package Delivery Confirmation: D10010556798797

Hello,

This is an automated email response from OnTrac. The package tracking number D10010556798797 has been confirmed as delivered.

Delivery Name : CA REGIONAL WTR.QUALITY BD.  
POD Signature : karen  
Delivery Time : 03/01/2013 09:29 AM  
Status Code : DELIVERED  
Reference : ANNUAL SSMP AUDIT REPORT

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City of  
**Los Banos**  
*At the Crossroads of California*

Mark,

2/21/2013

The Sewer System Management Plan audit team has completed the review of the plan. An audit of the SSMP must be completed by March 15, of the year following the year in which the data was collected or operations were performed. A copy of this audit will be mailed to the RWQCB. The team consisted of the following people:

*Trisha Nelson*

*Royal Lloyd*

*Rand Williamson*

*Eric Espindola*

The team met on two separate occasions (2/13/13 & 2/21/13). Each member displayed a true interest in the system / process and played a vital roll in achieving our goal. Successes and suggestions for improvement were discussed.

The audit consisted of the following actions:

- Complete review of the City's SSMP
  - For accuracy in describing our operations
  - For accuracy in documenting our maps, ordinances, resources, capacity...
  - For consistency in meeting the requirements of each of the 11 elements
- Review of the many attachments and supporting documents
  - Review of our operational forms
  - Review of current contact lists and chain of communication
  - Review of SSO Response Plan & SOP for Sewer Pump Station Failure
- Completion of a Monitoring Tracking Sheet to evaluate the plans performance
  - Reviewed SSO reporting
  - Reviewed sewer system cleaning records to evaluate blockages
  - Reviewed CCTV inspection records
  - Reviewed sewer lift station records
  - Reviewed our response to reports of SSOs
- Preparation of the 2012 SSMP Annual Audit Report
  - Last years audit format was used as a model for this audit documentation
- Actions / Corrections
  - Updated Telephone Contact list in Appendix A,
  - Add restaurant grease removal device maintenance letter to page 19 and 20 of the SSMP
  - Changes to the SSMP to keep it current (see Log of Audits and Updates)
- Goals
  - Begin documentation of the numerous camera inspections in lateral sewer connections
  - Renew our co-operative outreach/education with Allied Waste
  - Continue Fog educational brochures in our restaurants & Auto shop SWMP mailings
  - Letters to Restaurants advising them of Grease Removal Device required maintenance, record keeping and the City's right to inspect.

I'm pleased to report to you that the audit resulted in only a few minor changes in the SSMP document to update current information. The audit review indicated that the SSMP does meet the requirements of both water boards. The evaluation of our operations (and many documents) supports the fact that our sewer system is managed in accordance with our SSMP.

I have attached a copy of the 2012 SSMP Audit Report and the revised pages for replacement in the SSMP document, for your approval.

Respectfully,

**Royal Lloyd**

Wastewater Treatment Plant Supervisor



**CITY OF LOS BANOS  
PUBLIC WORKS DEPARTMENT  
SEWER SYSTEM MANAGEMENT PLAN (SSMP)  
2011 ANNUAL AUDIT REPORT**

*The purpose of the Annual SSMP Audit is to evaluate the effectiveness of the City of Los Banos SSMP and to identify deficiencies, if any, and steps to correct them. The audit is submitted pursuant to the Central Valley Regional Water Quality Control Board's Sewer System Management Plan Development Guide, July 2005. Information collected in the SSMP Monitoring & Tracking Sheet was used in preparing this audit.*

Directions: Please check Yes or No for each question. If NO is answered for any question, describe the updates/changes needed and the timeline to complete those changes in the "Description of Scheduled Updates/Changes to the SSMP" section on Page 5 of this form.

<b>ELEMENT 1 - GOALS</b>		<b>YES</b>	<b>NO</b>
A.	Are the Goals stated in the SSMP still appropriate and accurate?	✓	
<b>ELEMENT 2 - ORGANIZATION</b>		<b>YES</b>	<b>NO</b>
A.	Is the SSMP Staff Organization Chart current?	✓	
B.	Are the position descriptions an accurate portrayal of staff responsibilities?	✓	
C.	Is the Sanitary Sewer Overflow Reporting Chain of Communication telephone list current?	✓	
D.	Is the SSO Response Chain of Communication accurate and up to date?	✓	
<b>ELEMENT 3 - OVERFLOW EMERGENCY RESPONSE PLAN</b>		<b>YES</b>	<b>NO</b>
A.	Does the City's Sanitary Sewer Overflow Response Plan establish procedures for the emergency response, notification and reporting of sanitary sewer overflows (SSOs)?	✓	
B.	Are Wastewater services staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow Response Plan?	✓	
C.	Considering the data in the SSMP Monitoring and Tracking Sheet, is the Sanitary Sewer Overflow Response Plan effective in handling SSOs in order to safeguard public health and the environment?	✓	
<b>ELEMENT 4 - FATS, OILS AND GREASE (FOG) CONTROL PROGRAM</b>		<b>YES</b>	<b>NO</b>
A.	Does the Fats, Oils and Grease (FOG) Control Program include efforts to educate the public on the proper handling and disposal of FOG?	✓	
B.	Does the City's FOG Control Program indentify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?	✓	
C.	Are requirements for grease removal devices, record keeping and reporting established in the City's FOG Control Program?	✓	
D.	Does the City have sufficient legal authority to implement and enforce the FOG Control Program?	✓	
E.	Is the current FOG Program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?	✓	
<b>ELEMENT 5 - LEGAL AUTHORITY</b>		<b>YES</b>	<b>NO</b>
Does the SSMP contain excerpts from the current City of Los Banos Municipal Code documenting the City's legal authority to:			
A.	Prevent illicit discharge?	✓	
B.	Require proper design and construction of sewers and connections?	✓	
C.	Ensure access for maintenance, inspection or repairs for portions of the sewer main lines owned or maintained by the City?	✓	
D.	Limit discharges of fats, oil and grease?	✓	

**ELEMENT 6 - MEASURES AND ACTIVITIES**

	YES	NO
<b>Collection System Maps</b>		
A. Does the SSMP reference the current process and procedures for maintaining the City's wastewater collection system maps?	✓	
B. Are the City's wastewater collection system maps complete, current and sufficiently detailed?	✓	
<b>Resources and Budget</b>		
C. Does the City allocate sufficient funds for the effective operation, maintenance and repair of wastewater collection system and is the current budget structure documented in the SSMP?	✓	
<b>Prioritized Preventative Maintenance</b>		
D. Does the SSMP describe current preventative maintenance activities and the system for prioritizing the cleaning of sewer lines?	✓	
E. Based upon information in the SSMP Monitoring Tracking Sheet, are the City's preventative maintenance activities sufficient and effective in minimizing SSOs and blockages?	✓	
<b>Scheduled Inspections and Condition Assessments</b>		
F. Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP?	✓	
<b>Contingency Equipment and Replacement Inventory</b>		
G. Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system?	✓	
H. Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?	✓	
<b>Training</b>		
I. Is the training calendar current?	✓	
J. Does the SSMP document current training expectations and programs within the City's Wastewater Services?	✓	
<b>Outreach to Plumbers and Building Contractors</b>		
K. Does the SSMP have a current outreach effort to plumbers and building contractors?	✓	

**ELEMENT 7 - DESIGN AND CONSTRUCTION STANDARDS**

	YES	NO
A. Does the SSMP contain current design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?	✓	
B. Does the SSMP document contain current procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and the rehabilitation and repair of existing sewer lines?	✓	

**ELEMENT 8 - CAPACITY MANAGEMENT**

	YES	NO
A. Does the City of Los Banos Sanitary Sewer Master Plan evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long term capacity enhancement and improvement projects?	✓	
B. Does the City's Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?	✓	

**ELEMENT 9 - MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS**

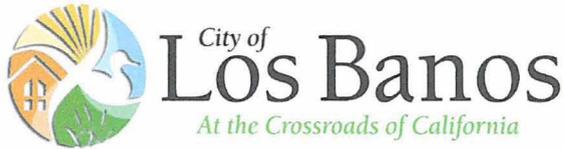
	YES	NO
A. Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?	✓	
B. Is the City able to sufficiently evaluate the effectiveness of SSMP elements based on relevant information?	✓	

**ELEMENT 10 - SSMP AUDITS**

	YES	NO
A. Will the SSMP Audit be submitted to the Regional Water Quality Control Board by March 15th of the year following the end of the calendar year being audited?	✓	

**ELEMENT 11 - COMMUNICATION PROGRAM**

	YES	NO
A. Does the City effectively communicate with the public and other agencies about the development and implementation of the SSMP and continue to address any feedback?	✓	



Mark,

2/16/12

The Sewer System Management Plan audit team has completed the review of the plan. An audit of the SSMP must be completed by March 15, of the year following the year in which the data was collected or operations were performed. A copy of this audit will be mailed to the RWQCB. The team consisted of the following people:

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*Greg Lever*

*Reyes Porras*

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  - Review of SSO Response Plan & SOP for Sewer Pump Station Failure
- Completion of a Monitoring Tracking Sheet to evaluate the plans performance
  - Reviewed SSO reporting
  - Reviewed sewer system cleaning records to evaluate blockages
  - Reviewed CCTV inspection records
  - Reviewed sewer lift station records
  - Reviewed our response to reports of SSOs
- Preparation of the 2011 SSMP Annual Audit Report
  - Last years audit format was used as a model for this audit documentation
- Actions / Corrections
  - Updated the PM list for routine manhole/main inspection in Appendix C
  - Changes to the SSMP to keep it current (see Log of Audits and Updates)
- Goals
  - Provide better FOG education materials for our Water Awareness classroom presentations
  - Update our ongoing outreach/education through a co-operative effort with Allied Waste
  - Include Fog educational brochures in our restaurants & Auto shop SWMP mailings
  - Enact a semiannual cleaning schedule for all sewer lift stations

I'm pleased to report to you that the audit resulted in only a few minor changes in the SSMP document to update current information. The audit review indicated that the SSMP does meet the requirements of both water boards. The evaluation of our operations (and many documents) supports the fact that our sewer system is managed in accordance with our SSMP.

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Respectfully,

***Royal Lloyd***

Wastewater Treatment Plant Supervisor



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PUBLIC WORKS DEPARTMENT  
SEWER SYSTEM MANAGEMENT PLAN (SSMP)  
2010 ANNUAL AUDIT REPORT**

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<b>ELEMENT 2 - ORGANIZATION</b>		<b>YES</b>	<b>NO</b>
A.	Is the SSMP Staff Organization Chart current?	✓	
B.	Are the position descriptions an accurate portrayal of staff responsibilities?	✓	
C.	Is the Sanitary Sewer Overflow Reporting Chain of Communication telephone list current?	✓	
D.	Is the SSO Response Chain of Communication accurate and up to date?	✓	
<b>ELEMENT 3 - OVERFLOW EMERGENCY RESPONSE PLAN</b>		<b>YES</b>	<b>NO</b>
A.	Does the City's Sanitary Sewer Overflow Response Plan establish procedures for the emergency response, notification and reporting of sanitary sewer overflows (SSOs)?	✓	
B.	Are Wastewater services staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow Response Plan?	✓	
C.	Considering the data in the SSMP Monitoring and Tracking Sheet, is the Sanitary Sewer Overflow Response Plan effective in handling SSOs in order to safeguard public health and the environment?	✓	
<b>ELEMENT 4 - FATS, OILS AND GREASE (FOG) CONTROL PROGRAM</b>		<b>YES</b>	<b>NO</b>
A.	Does the Fats, Oils and Grease (FOG) Control Program include efforts to educate the public on the proper handling and disposal of FOG?	✓	
B.	Does the City's FOG Control Program indentify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?	✓	
C.	Are requirements for grease removal devices, record keeping and reporting established in the City's FOG Control Program?	✓	
D.	Does the City have sufficient legal authority to implement and enforce the FOG Control Program?	✓	
E.	Is the current FOG Program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?	✓	
<b>ELEMENT 5 - LEGAL AUTHORITY</b>		<b>YES</b>	<b>NO</b>
Does the SSMP contain excerpts from the current City of Los Banos Municipal Code documenting the City's legal authority to:			
A.	Prevent illicit discharge?	✓	
B.	Require proper design and construction of sewers and connections?	✓	
C.	Ensure access for maintenance, inspection or repairs for portions of the sewer main lines owned or maintained by the City?	✓	
D.	Limit discharges of fats, oil and grease?	✓	

<b>ELEMENT 6 - MEASURES AND ACTIVITIES</b>		<b>YES</b>	<b>NO</b>
<b>Collection System Maps</b>			
A.	Does the SSMP reference the current process and procedures for maintaining the City's wastewater collection system maps?	✓	
B.	Are the City's wastewater collection system maps complete, current and sufficiently detailed?	✓	
<b>Resources and Budget</b>			
C.	Does the City allocate sufficient funds for the effective operation, maintenance and repair of wastewater collection system and is the current budget structure documented in the SSMP?	✓	
<b>Prioritized Preventative Maintenance</b>			
D.	Does the SSMP describe current preventative maintenance activities and the system for prioritizing the cleaning of sewer lines?	✓	
E.	Based upon information in the SSMP Monitoring Tracking Sheet, are the City's preventative maintenance activities sufficient and effective in minimizing SSOs and blockages?	✓	
<b>Scheduled Inspections and Condition Assessments</b>			
F.	Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP?	✓	
<b>Contingency Equipment and Replacement Inventory</b>			
G.	Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system?	✓	
H.	Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?	✓	
<b>Training</b>			
I.	Is the training calendar current?	✓	
J.	Does the SSMP document current training expectations and programs within the City's Wastewater Services?	✓	
<b>Outreach to Plumbers and Building Contractors</b>			
K.	Does the SSMP have a current outreach effort to plumbers and building contractors?	✓	
<b>ELEMENT 7 - DESIGN AND CONSTRUCTION STANDARDS</b>		<b>YES</b>	<b>NO</b>
A.	Does the SSMP contain current design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?	✓	
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A.	Does the City of Los Banos Sanitary Sewer Master Plan evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long term capacity enhancement and improvement projects?	✓	
B.	Does the City's Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?	✓	
<b>ELEMENT 9 - MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS</b>		<b>YES</b>	<b>NO</b>
A.	Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?	✓	
B.	Is the City able to sufficiently evaluate the effectiveness of SSMP elements based on relevant information?	✓	
<b>ELEMENT 10 - SSMP AUDITS</b>		<b>YES</b>	<b>NO</b>
A.	Will the SSMP Audit be submitted to the Regional Water Quality Control Board by March 15th of the year following the end of the calendar year being audited?	✓	
<b>ELEMENT 11 - COMMUNICATION PROGRAM</b>		<b>YES</b>	<b>NO</b>
A.	Does the City effectively communicate with the public and other agencies about the development and implementation of the SSMP and continue to address any feedback?	✓	



Mark,

3/2/11

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  - Reviewed SSO reporting
  - Reviewed sewer system cleaning records to evaluate blockages
  - Reviewed CCTV inspection records
  - Reviewed sewer lift station records
  - Reviewed our response to reports of SSO (process was reviewed as none reported)
- Preparation of the 2009 SSMP Annual Audit Report
  - Last years audit format was used as a model for this audit documentation
- Actions / Corrections
  - A Glossary of Terms / Acronyms was added as page III of the Table of Contents
  - Element 2 (2.3) Description of Responsibilities was updated
  - Element 2 (2.6) Contact information was updated
  - SOP for Sewer Pump Station Failure, Electrician emergency call list was updated
- Goals (This years audit team also set some goals for the upcoming year)
  - Provide a digital camera in the weekend duty case for SSO report documentation
  - Improve our outreach/education through a co-operative effort with Allied Waste
  - Develop an education poster for display at City buildings, Public library etc.
  - Update the sewer collection system grid maps, as we are financially able

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B.	Does the City's FOG Control Program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?	✓	
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**ELEMENT 6 - MEASURES AND ACTIVITIES**

	YES	NO
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B. Are the City's wastewater collection system maps complete, current and sufficiently detailed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Resources and Budget</b>		
C. Does the City allocate sufficient funds for the effective operation, maintenance and repair of wastewater collection system and is the current budget structure documented in the SSMP?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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F. Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Contingency Equipment and Replacement Inventory</b>		
G. Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H. Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Training</b>		
I. Is the training calendar current?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	YES	NO
A. Does the SSMP contain current design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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A. Will the SSMP Audit be submitted to the Regional Water Quality Control Board by March 15th of the year following the end of the calendar year being audited?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ELEMENT 11 - COMMUNICATION PROGRAM**

	YES	NO
A. Does the City effectively communicate with the public and other agencies about the development and implementation of the SSMP and continue to address any feedback?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Sent by On Trac  
for delivery on  
Mon., 2/22/10

**City of Los Banos**  
**Public Works Department**  
**411 Madison Avenue**  
**Los Banos, CA 93635**  
**Telephone: (209) 827-7056**  
**Fax: (209)827-7069**

**TRANSMITTAL**

<p><b>Attention:</b> Regional Water Quality Control Board Attn: Debbie Bates</p> <p><b>Documents:</b> SSMP Annual Audit</p> <p><b>Date:</b> February 17, 2010</p>	<p>THE FOLLOWING ITEMS ARE BEING SENT: Attached <b>X</b> Under Separate Cover:</p> <p>For your use <b>X</b></p> <p>As Required by Permit <b>X</b></p>
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Originals	Date	Item
1	02/17/10	<i>First Annual Sewer System Management Plan Audit for the City of Los Banos, as required by Permit.</i>

***Deadline date for this annual audit is March 15, 2010.***



Mark Fachin, P.E.  
Public Works Director/City Engineer

cc: Royal Lloyd, Wastewater Treatment Plant Supervisor



City of  
**Los Banos**  
At the Crossroads of California

Mark,

2/11/10

The Sewer System Management Plan audit team has completed the review of the plan. An audit of the SSMP must be completed by March 15, of the year following the year in which the data was collected or operations were performed. A copy of this audit is to be mailed to the RWQCB. The team consisted of the following people:

*Greg Pimentel*      *Royal Lloyd*      *Grace Brandi*      *Reyes Poras*  
*Gary Hutsell* – was available for support and checked in from time to time.

The team met on three separate occasions. Each member was present at all of the meetings and each played a vital roll in achieving our goal.

The audit consisted of the following actions:

- Complete review of the City's SSMP
  - For accuracy in describing our operations
  - For accuracy in documenting our maps, ordinances, resources, capacity...
  - For consistency in meeting the requirements of each of the 11 elements
- Review of the many attachments and supporting documents
  - Review of our operational forms
  - Review of current contact lists and chain of communication
  - The addition our the collections budget to document resources
- Completion of a Monitoring Tracking Sheet to evaluate the plans performance
  - Reviewed SSO reporting
  - Reviewed sewer system cleaning records to evaluate blockages
  - Reviewed sewer lift station records
  - Reviewed our response to reports of SSO
- Preparation of the 2009 SSMP Annual Audit Report
  - Other cities reports were reviewed as an example
  - Other agencies were contacted for guidance (Modesto, Livermore, CWEA)
  - The State & Regional boards were contacted for guidance  
(The SWQCB, *Nova Clemea 916-464-4647*, advised that Livermore is very thorough & proactive and that there example would most likely be adequate. They would prefer that it be brief. They have received only a few audits to date)

I'm pleased to report to you that the audit resulted in only a few minor changes in the wording of the SSMP document and the addition of the budget as an appendix. (this is a living document) The audit review indicated that the SSMP does meet the requirements of both water boards and the evaluation of our operations (and many documents) support the fact that our sewer system is managed in accordance with our SSMP.

I have attached a copy of the 2009 SSMP Audit Report and the revised pages for replacement in the SSMP document, for your approval.

Respectfully,

***Royal Lloyd***

Wastewater Treatment Plant Supervisor