

# City of Stockton



## **Sewer System Management Plan (SSMP) 2016-2020**



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## Abbreviations and Acronyms

< = Less than

≤ = Less than or equal to

> = Greater than

≥ = Greater than or equal to

ADWF - Average Dry Weather Flow

BMP - Best Management Practice

Cal/EPA - California Environmental Protection Agency. State cabinet level agency comprised of six departments / boards: Air Resources Board, Department of Pesticide Regulations, Department of Toxic Substances Control, Integrated Waste Management Board, Office of Environmental Health Hazard Assessment, and the State Water Resources Control Board.

CCSD – Country Club Sanitary District

CCTV - Closed- Circuit Television

CHCF – California Health Care Facility

CIP - Capital Improvement Project

City - City of Stockton

CIWQS - California Integrated Water Quality System, State online database for reporting SSOs

COS - City of Stockton

CMMS - Computerized Maintenance Management System

CVCWA - Central Valley Clean Water Agency

DWQ - Department of Water Quality, a Department within SWRCB

EC - Environmental Control

ECO – Environmental Control Officer

FOG - Fats, Oils, and Grease

FSE - Food Service Establishment

GI - Grease Interceptor (an underground multi-chambered vault to trap FOG)

GIS - Geographic Information Systems

I&I - Infiltration and Inflow. Groundwater or surface water entering sewer pipes through illegal connections, cracks, breaks, or loose pipe joints.

LRO – Legally Responsible Official

MGD - Million gallons per day, a measurement of flow

MUD - City of Stockton, Municipal Utilities Department

MUTCD – Manual on Uniform Traffic Control Devices

MRP - Monitoring and Reporting Program

NASSCO - National Association of Sewer Service Companies

NCYCC – Northern California Youth Correctional Center

O&M - Operations and Maintenance

OES - Office of Emergency Services

Order/General Order - SWRCB Order 2006-003-DWQ; also referred to as WDR

OSHA - Occupational Safety and Health Administration

PACP – Pipeline Assessment Certification Program

PM - Preventative Maintenance

Port – Port of Stockton

RWCF - Regional Wastewater Control Facility the Stockton sewage treatment plant at 2500 Navy Drive

SJCUMD – San Joaquin County Utility Maintenance Division

SJR - San Joaquin River

SOP - Standard Operating Procedures

SSMP - Sewer System Management Plan (required by SWRCB in 2006)

SSO - Sanitary Sewer Overflow (Sewage Spill)

SSOERP - Sanitary Sewer Overflow Emergency Response Plan

SWRCB - State Water Resources Control Board, also called State Board, a department within Cal/EPA

WDR – General Waste Discharge Requirement (in this context refers to SWRCB Order 2006-003-DWQ; also called General Order).

## **1 Chapter 1 - Introduction**

The City of Stockton's (City) Sewer System Management Plan (SSMP) was developed in compliance with the requirements of the State Water Resources Control Board (SWRCB) Order No. 2006-003-DWQ, Statewide General Waste Discharge Requirement (WDR), dated May 2, 2006 (Appendix I, Attachment # B). The WDR is intended to provide a consistent statewide approach for reducing Sanitary Sewer Overflows (SSOs) and applies to all publicly owned collection system agencies consisting of more than one mile of pipe or sewer lines and which convey untreated wastewater to a publicly owned treatment facility. Each agency is required to develop and implement an SSMP that describes the procedures and activities necessary to effectively operate and maintain their wastewater collection system in order to prevent SSOs and to ensure proper notification should an SSO occur.

### **1.1 Organization of SSMP**

The structure of this document follows the element numbering and nomenclature specified in the WDR. The SSMP includes an introduction as well as prohibitions and provisions stated in the WDR in addition to the eleven elements discussed in the following chapters:

Chapter 1 - Introduction

Chapter 2 – Prohibitions and Provisions

Chapter 3 - Goal

Chapter 4 - Organization

Chapter 5 – Legal Authority

Chapter 6 – Operation and Maintenance Program

Chapter 7 – Design and Performance Provisions

Chapter 8 – Overflow Emergency Response Plans

Chapter 9 - Fats, Oils, and Grease (FOG) Program

Chapter 10 – System Evaluation and Capacity Assurance Plan

Chapter 11 – Monitoring and Program Modifications

Chapter 12 – SSMP Program Audits

Chapter 13 – Communication Program

Appendix 1 provides the City Council Resolution 07-0327 that documents the steps that the City took to ensure that it complies with the WDR requirement of the development and implementation of an SSMP.

This SSMP is intended to comply with the requirements of the WDR. Each section is organized into sub-sections as follows:

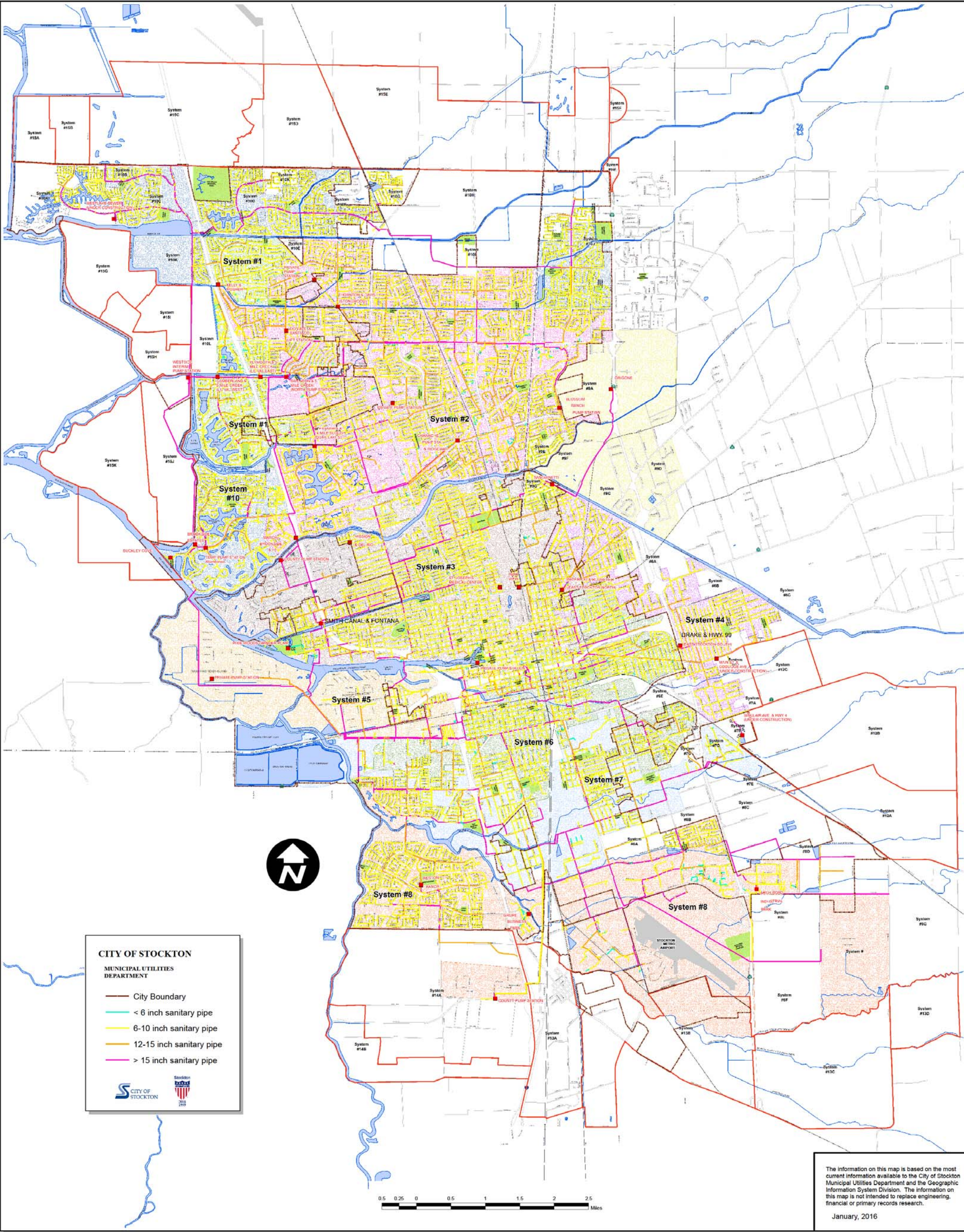
1. The WDR requirement for that element
2. Discussion of that element
3. Supporting documents associated with the discussion of the element, such as a list of supporting information or reference to the appendix (as applicable)

Elements within the City's SSMP are updated as needed to reflect the most up-to-date and accurate information available as well as to identify and document significant program changes. In compliance with Section D.14 of the WDR, the SSMP will be reviewed and updated every five years. Significant program updates will be recertified by the City's governing board, as required.

## **1.2 City of Stockton Service Area and Sewer System**

The City, located in San Joaquin County (County), California, owns and operates a wastewater collection, treatment and disposal system which provides sewer service to the City, Port of Stockton, and the surrounding urbanized County areas. The City's Regional Wastewater Control Facility (RWCF) is located on the San Joaquin River (SJR) and consists of the main treatment plant, which has a designed average dry weather flow (ADWF) of 48 million gallons per day (MGD), and the tertiary treatment plant, which has a designed ADWF of 55 MGD. The tertiary treatment plant includes approximately 630 acres of facultative oxidation ponds surrounded by distribution canals and groundwater interceptor ditches; an engineered wetland; disinfection facilities; and a river outfall discharge system. The City's sewage collection system consists of approximately 30 miles of forced mains and other pressure systems and 884 miles of gravity sewers (in addition to approximately 554 miles of lateral lines) currently in use. The City's sewer collection system serves a population of approximately 315,592 (CIWQS Questionnaire Updated 3/30/17).





SANITARY



The City conveys and treats waste discharges from five (5) satellite agencies. The satellite agencies and their respective waste discharge identification (WDID) numbers, if applicable, are as follows:

- Country Club Sanitary Maintenance District – WDID: N/A
- San Joaquin County Maintenance Division – WDID: 5SSO11035, 5SSO11471, 5SSO11480, 5SSO11482, 5SSO11483, 5SSO11484, 5SSO11485, 5SSO11486
- Port of Stockton – WDID: 5SSO18100
- Northern California Youth Correctional Center – WDID: 5SSO11488
- California Health Care Facility – WDID: 5SSO18099

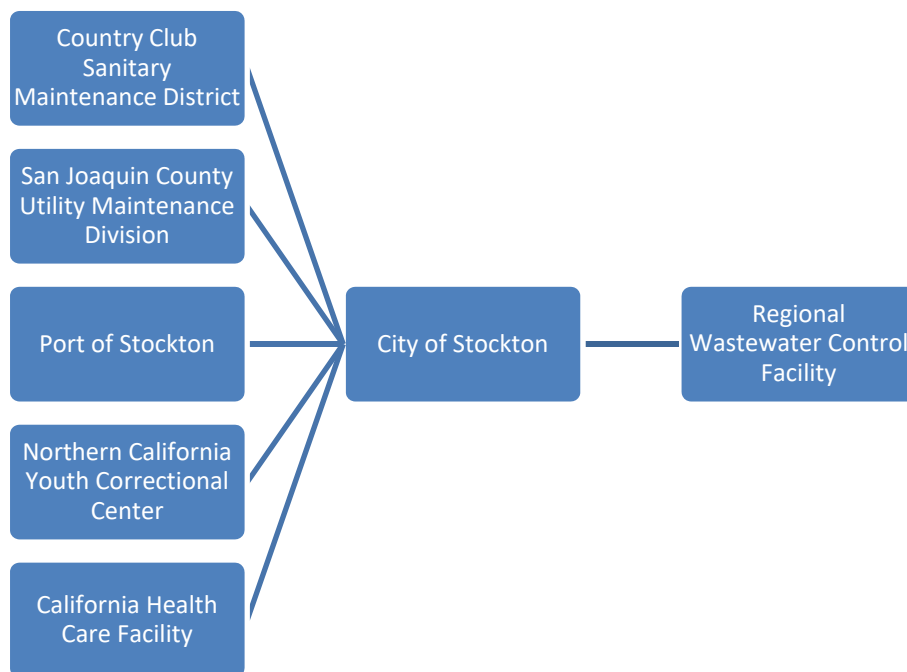


Figure 1-1 - Satellite Agencies

### 1.3 Supporting Documents

Appendix 1: City of Stockton, City Council Resolution 07-0327, authorizing the approval and implementation of the Sewer System Management Plan Task Development Schedule.

- Attachment A: City Council Resolution 07-0327, Sewer System Management Plan Schedule.
- Attachment B: City Council Resolution 07-0327, State Water Resources Control Board Order 2006-0003.
- Attachment C: City Council Resolution 11-0108, Sewer System Management Plan 2010-2015.
- Attachment D: City Council Resolution 2016-03-26-0302, Sewer System Management Plan Updates 2016-2020

## **2 Chapter 2 – Prohibitions and Provisions**

This chapter describes the sewage discharge prohibitions and provisions as stated in the WDR.

### **2.1 Prohibition**

To meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the City is required to comply with the following prohibitions:

- Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited, and
- Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

### **2.2 Provisions**

As stated in the Order, the City agrees to meet the following provisions:

1. The City must comply with all conditions in the Order. Any noncompliance with the Order constitutes a violation of the California Water Code and is grounds for enforcement action.
2. Nothing in the general WDR shall be:
  - i. Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
  - ii. Interpreted or applied to authorize a SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
  - iii. Interpreted or applied to prohibit a Regional Water Board from issuing an individual National Pollutant Discharge Elimination System permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
  - iv. Interpreted or applied to supersede any more specific or more stringent WDR or enforcement order issued by a Regional Water Board.
3. The City shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the City shall take all feasible steps to contain and mitigate the impacts of an SSO.
4. In the event of an SSO, the City shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

5. The City shall report SSOs in accordance with Section G of the general WDR.
6. The City understands that in any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy, and, consistent with this policy, must consider the City's efforts to contain, control, and mitigate SSOs when considering the California Water Code 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider additional factors listed in Provision 6 of the WDR.
7. When an SSO occurs, the City shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The City shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- i. Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure.
  - ii. Vacuum truck recovery of sanitary sewer overflows and washdown water.
  - iii. Cleanup of SSO-related debris at the overflow site.
  - iv. System modifications to prevent another SSO at the same location.
  - v. Adequate sampling to determine the nature and impact of the release.
  - vi. Adequate public notification to protect the public from exposure to the SSO.
8. The City shall properly manage, operate, and maintain all parts of the sanitary sewer it owns and operates, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
  9. The City shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally accepted accounting practices.
  10. The City shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the City's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the City.

11. The City shall develop and implement a written SSMP and make it available to the State and/or Regional Water Board upon request. A copy of this document must be made available to the public at the Enrollee's office and/or available on the internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.
12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.
13. The elements of the SSMP include:
  - i. Goal
  - ii. Organization
  - iii. Legal Authority
  - iv. Operations and Maintenance Program
  - v. Design and Performance Provisions
  - vi. Overflow Emergency Response Plan
  - vii. FOG Control Program
  - viii. System Evaluation and Capacity Assurance Plan
  - ix. Monitoring, Measurement, and Program Modifications
  - x. SSMP Program Audits
  - xi. Communication Program
14. The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the City is required when significant updates to the SSMP are made. To complete the re-certification process, the City shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described in Section D.14 of the Order.

The City has met all the mandatory elements of the SSMP as specified in the SSMP Task Development Schedule provided as Attachment A of Appendix 1. The final SSMP was approved by City Council Resolution No. 11 on May 10, 2011. Resolution No. 11 is included as Attachment C of Appendix 1.

The City Council approved Resolution No. 2016-03-26-0302 SSMP 2016-2020. Resolution is included as Attachment D of Appendix 1.

### **3 Chapter 3 - Goal**

This chapter describes the goal of this SSMP document.

#### **3.1 Purpose**

The purpose of the General Order No. 2006-0003-DWQ (Order) is to prevent SSOs. The City has prepared and implemented this SSMP to support this purpose. The City will monitor the effectiveness of this SSMP and the SSMP implementation to determine if deficiencies exist in the SSMP or SSMP implementation and will take appropriate steps to correct them.

#### **3.2 Goal**

The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the City's sanitary sewer system to prevent SSOs and mitigate any SSOs that do occur. A copy of the Order and the certified SSMP is available to personnel operating and maintaining the City's sanitary sewer system. A copy of the Order is also included as Attachment B of Appendix 1 of this SSMP. Pursuant to California Water Code Section 13267(b), the City will also comply with the SSO "Monitoring and Reporting Program No. 2006-0003 DWQ" (MRP) and all future revisions, included by reference in the Order. A copy of Order No. WQ 2013-0058-EXEC which amends the MRP requirements is included in Appendix 2 of this SSMP.

## **4 Chapter 4 - Organization**

This chapter identifies the Authorized Representative to meet the SWRCB requirements for completing and certifying spill reports and the implementation and development of the SSMP. This chapter also includes City staff responsible for managing and maintaining the wastewater collection system and the responders to SSO events.

The organization elements of the City's SSMP and SSOERP are designed to ensure that every report of a SSO is dispatched to the appropriate response personnel to minimize the effects of the overflow with respect to its adverse impacts on public health, the environment, and property. This chapter fulfills the Organization Requirement of the SSMP as mandated by the GWDR.

### **4.1 Regulatory Requirements**

The WDR section D.13(ii) requirements for the Organization of the SSMP are listed below:

- (a) The name of the responsible or authorized representative*
- (b) The names and telephone numbers for management, administrative and maintenance positions responsible for implementing specific measures in the SSMP program including lines of authority, and.*
- (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board and/or State Office of Emergency Services (OES)).*

### **4.2 Authorized Representative**

The City's authorized representative in all wastewater collection system matters is the Director of Municipal Utilities (Director). The Director is responsible for implementing and maintaining all elements of this SSMP. The Assistant Director of Municipal Utilities (Assistant Director) is authorized to act in the Director's absence. In turn, the Deputy Municipal Utilities Director of Collections is authorized to act in the absence of both the Director and Assistant Director.

The authorized representative for the City of Stockton is:

John Abrew, Director of Municipal Utilities: office telephone 209-937-8700

### **4.3 Responsibility for SSMP Development and Implementation**

The City staff responsible for the SSMP development and implementation is listed in Table 4-1 below.

**Table 4-1: Staff Responsible for SSMP Development and Implementation**

<b>SSMP Element</b>	<b>Name</b>	<b>Position</b>	<b>Phone Number</b>
Goals & Organization Structure Section D 13 (i) & (ii)	John Abrew	Director	(209) 937-8700
Legal Authority Section D 13 (iii)	John Abrew	Director	(209) 937-8700
Operation and Maintenance Program Section D 13 (iv)	Vacant Ken Merkle Tom Watkins Jeffrey Telmo Eric Johnson	Deputy Director Senior Supervisor Collections Supervisor Collections Supervisor Collections Senior Plant Maintenance Supervisor	(209) 937-8792 (209) 937-5425 (209) 937-8725 (209) 937-5647 (209) 937-5422
Design and Performance Section D 13 (v)	Lorin Gardner	Engineering Services Manager	(209) 937-5428
Overflow Emergency Response Program Section D 13 (vi)	Debbie Livermore Richard Stiffler Tom Watkins	Regulatory Compliance Officer Environmental Control Technical Service Manager Supervisor Collections	(209) 937-8852 (209) 937-8740 (209) 937-8725
Grease Control Program Section D 13 (vii)	Richard Stiffler	Environmental Control Technical Service Manager	(209) 937-8740
System Evaluation & Capacity Assurance Plan Section D 13 (viii)	Lorin Gardner	Engineering Services Manager	(209) 937-5428
Monitoring & Program Modifications Section D 13 (ix)	Ken Merkle Tom Watkins Jeffrey Telmo	Senior Supervisor Collections Supervisor Collections Supervisor Collections	(209) 937-5425 (209) 937-8725 (209) 937-5647
SSMP Program Audits Section D 13 (x)	Ken Merkle	Senior Supervisor Collections	(209) 937-5425
Communication Program Section D 13 (xi)	Debbie Livermore	Regulatory Compliance Officer	(209) 937-8852

#### **4.4 SSO Response and Reporting Chain of Communication**

The City currently maintains SSO Response Forms that provide the required chain of communication information and are available for review in the City's SSOERP. Chapter 8 – Overflow Emergency Response Plan details the procedures and responsibilities during an SSO event, and the process is briefly summarized below. Once a detection of an SSO is reported, either by the public or City personnel, MUD personnel will be dispatched to the scene. Once at the scene MUD staff will:

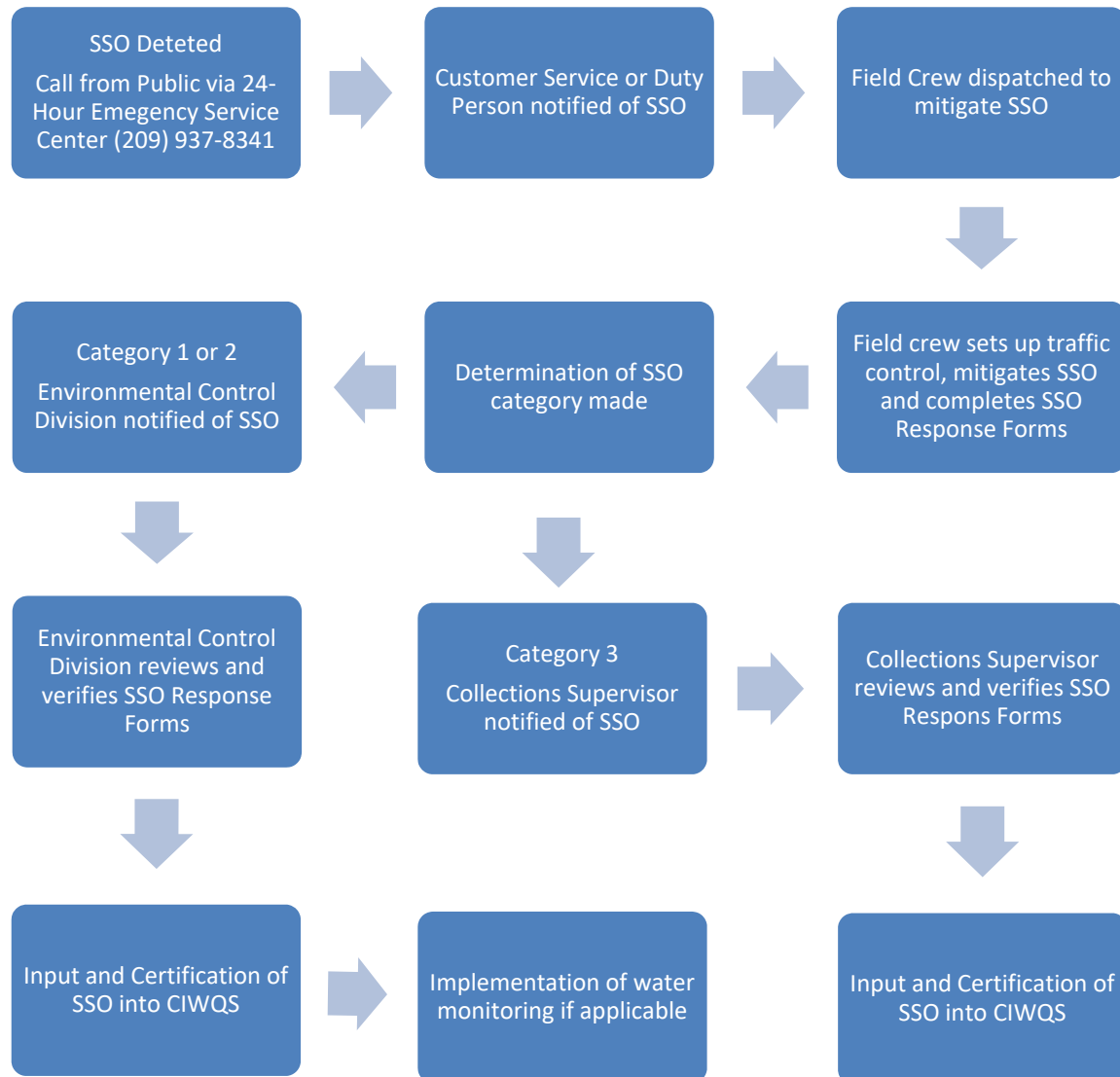
- Investigate the site
- Determine the cause of the problem
- Request reinforcement, if necessary
- If possible, notify the responsible party if SSO is not caused by the City's collection system
- Contain and mitigate
- Correct the SSO and clean-up
- Notify the proper agencies (RWQCB, San Joaquin County Public Works, Delta Water Supply Project, Alameda County Water District, Contra Costa Water District, Santa Clara Valley Water District), as appropriate
- Document response actions
- Complete the internal SSO Response Forms
- Report the SSO in the CIWQS SSO Online Reporting Database

No later than the next business day, the internal SSO Response Forms are forwarded to the Collection System Supervisor and the Environmental Control Officer (ECO) as appropriate. Any debriefings of the respondents to the SSO will be conducted by the ECO. The internal SSO Response Forms are utilized to document the SSO event, communicate SSO event to all appropriate City staff internally, enter all required information into the CIWQS on-line database, and to certify the SSO by the Legally Responsible Official (LRO).

The organization chart identifies the steps taken when an SSO is identified. A copy of the City of Stockton's "Sanitary Sewer Overflow Emergency Response Plan" is available in Appendix 4.



**Figure 4-1: SSO Response and Reporting Chain of Communication**



#### 4.5 Supporting Documents

- Appendix 1: City of Stockton, Council Resolution No. 07-0327
- Appendix 3: Municipal Utilities Department Organization Charts
- Appendix 4: City of Stockton Sanitary Sewer Overflow Emergency Response Plan (SSOERP)

## **5 Chapter 5 – Legal Authority**

This chapter of the SSMP discusses the City's legal authority to comply with the SSMP requirements, as provided in its Municipal Code and agreements with satellite agencies. All Stockton Municipal Codes can be viewed and downloaded on the City's website: [www.stocktongov.com](http://www.stocktongov.com).

### **5.1 Regulatory Requirements**

The WDR section D.13(iii) requirements for the Legal Authority of the SSMP are summarized below:

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 its sanitary sewer system (examples may include I/I, stormwater, 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.*

### **5.2 Illicit Discharge Prevention**

Contained in the Stockton Municipal Code, Chapter 13, are provisions that restrict what may be put in the sanitary sewers and storm sewers. Stockton has a separate storm water and wastewater sewer system. The following list provides the pertinent Municipal Codes that prevent illicit discharges into the City's sanitary sewer system.

- Title 13, Chapter 13.08.100 – General Discharge Prohibition
- Title 13, Chapter 13.08.110 – Quantity of Discharge
- Title 13, Chapter 13.08.120 – Limitations on Point of Discharge
- Title 13, Chapter 13.08.140 – Excessive Discharge
- Title 13, Chapter 13.08.160 - Holding Tank Waste.
- Title 13, Chapter 13.08.170 - Wash Rack Waste.
- Title 13, Chapter 13.08.180 - Draining of Swimming Pools
- Title 13, Chapter 13.08.190 - Conditions of Laterals and Sewer Connections
- Title 13, Chapter 13.08.200 - Connection to Sanitary Sewerage System

### **5.3 Agreements with Other Agencies**

The City has additional legal requirements with other agencies, which are described in this section for reference.

#### **5.3.1 Country Club Sanitary District**

The City has an agreement with the Country Club Sanitary District (CCSD) to convey and treat all of its wastewater discharged into the City's collection system. CCSD provides wastewater collection services to approximately 1,100 residents in small County area bounded by Pershing Avenue to the east, Smith Canal to the south, Michigan Avenue to the north and Franklin Avenue to the west. As part of the regionalization of wastewater services, the City entered into an agreement with CCSD on 1979 to provide wastewater conveyance and treatment services.

#### **5.3.2 San Joaquin County Utility Maintenance Division**

The City has an agreement with the San Joaquin Utility Maintenance Division (SJCUMD) to convey and treat all of its wastewater discharged into the City's collection system from the Pacific Gardens Sanitary District, Lincoln Village Maintenance District and the Colonial Heights Maintenance District. As part of the regionalization of wastewater services, the City entered into an agreement with SJCUMD on 1976 to provide wastewater conveyance and treatment services.

#### **5.3.3 Port of Stockton**

The City has an agreement with the Port of Stockton (Port) to convey and treat all of its wastewater discharged into the City's collection system from Rough and Ready Island. The Port provides wastewater collection services to approximately 5 million square feet of warehouses, 1 million square feet of transit sheds and dock buildings fronting the Stockton Deep Water Channel. The City originally contracted with the Navy in 1973 when Rough and Ready Island was managed by the Navy. As part of the transfer of Rough and Ready Island from the Navy to the Port, the City entered into an updated agreement with the Port in 2000.

#### **5.3.4 Northern California Youth Correctional Center**

The City has an agreement with the Northern California Youth Correctional Center (NCYCC) to convey and treat all of its wastewater discharged into the City's collection system.

### **5.3.5 California Health Care Facility**

The City has an agreement with the California Health Care Facility (CHCF) to convey and treat all of its wastewater discharged into the City's collection system. CHCF is a 1.4 million square foot facility is certified to provide intermediate level care and to complement less acute treatment for the Department of Corrections and Rehabilitation. CHCF is comprised of 54 buildings that provides housing and treatment for approximately 1,700 inmate-patients and is staffed by approximately 2,500 people.

## **5.4 Sewer Construction Standards**

Contained in the Stockton Municipal Code, Chapter 13 and Chapter 15 are provisions that require sewers, connections, and laterals are properly designed and constructed.

- Title 13, Chapter 13.08.020 - Reference to Plumbing Ordinance
- Title 13, Chapter 13.50.040 – Standards for Maintenance of Laterals
- Title 13, Chapter 13.50.060 – Repair Requirements
- Title 15, Chapter 15.08.010 - Adoption of California Building Code
- Title 15, Chapter 15.16.010 - Adoption of California Plumbing Code
- Title 15, Chapter 15.20.010 - Adoption of California Mechanical Code

All plumbing Ordinances shall remain in full force an effect, and nothing contained herein shall be construed as to waive any requirements contained therein.

City of Stockton has Standard Specifications for Sewer construction adopted September 27, 2016: Section 71 – Sanitary Sewers and Storm Sewers and Section 74 – Storm and Sanitary Pumping Plant Equipment. The Standard Specifications may be found on the City's web page.

## **5.5 Collection System Access**

Contained in the Stockton Municipal Code, Chapter 13 are provisions that allow City access for maintenance, inspection, or repairs for portions of the laterals owned and maintained by the City.

- Title 13, Chapter 13.08.340 - Inspection, Sampling, and Photographs
- Title 13, Chapter 13.50.040 – Standards for Maintenance of Laterals
- Title 13, Chapter 13.50.060 – Repair Requirements

## **5.6 Fats, Oils and Grease Discharge Limitations**

Contained in the Stockton Municipal Code, Chapter 13, are provisions that limit the discharge of fats, oils, and grease into the wastewater collection system.

- Title 13, Chapter 13.40 - Discharges of Fats, Oils, and Grease from Food Service Establishments

## **5.7 Enforcement**

Contained in the Stockton Municipal Code, Chapter 13, are provisions that allow the City to enforce any violation of its sewer ordinances including the authority to refuse, discontinue or terminate service if appropriate. The Municipal Code also empowers the City to issue administrative, civil, and criminal penalties that may accrue to users that violate code provisions.

- Title 13, Chapter 13.08.380 - Suspension of Permit.
- Title 13, Chapter 13.08.390 – Refusal, Discontinuance or Termination of Service
- Title 13, Chapter 13.50.050 – Public Nuisance Conditions

**Table 5-1: Summary of Legal Authorities**

Requirement	Municipal Code	Standard Plans and Specifications
<b>Prevent Illicit Discharges</b>		
Prevent illicit discharges into the wastewater collection system	13.08.010, 13.08.100	
Limit the discharge of fats, oils, and grease and other debris that may cause blockages	13.40.010, 13.40.040	
Control infiltration and inflow (I/I) from private service laterals	13.08.160, 13.08.170, 13.08.180,	
<b>Proper Design and Construction</b>		
Require that sewers and connection be properly designed and constructed	13.08.020, 15.08.010, 15.16.010, 15.20.010	Section 71, Drawing S-1, S-2, S-3, S-4
Require proper installation, testing, and inspection of new and rehabilitated sewers	13.08.020, 13.08.340, 15.16.010	Section 71
<b>Access to Laterals</b>		
Require that laterals and connection be properly designed and constructed	13.08.190, 13.50.010	Section 71, Drawing S-16, S-17, S-18
Clearly define City responsibility and policies	13.50.030, 13.50.060	
Ensure access for maintenance, inspection, or repairs for portions of the service lateral owned or maintained by the City	13.50.040	
<b>FOG Source Control</b>		
Requirements to install grease removal devices (such as traps or interceptors)	13.40.080	
Design standards for the grease removal devices	13.40.100	Drawing S-19, S-20, S-21
Maintenance requirements, BMP requirements, record keeping and reporting requirements for grease removal devices	13.40.060	
Authority to inspect grease producing facilities	13.08.040, 13.40.010	
<b>Enforcement</b>		
Enforce any violations of its sewer ordinances	13.08.030, 13.08.040, 13.08.380, 13.08.390, 13.50.110	

## **6 Chapter 6 – Operation and Maintenance Program**

This chapter of the SSMP presents the City's wastewater collection system operations and maintenance (O&M) program.

### **6.1 Regulatory Requirements**

The WDR section D.13(iv) requirements for the Operations and Maintenance Program are:

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

### **6.2 Collection System Mapping**

The City of Stockton maintains "Cityworks" for use as the Computerized Maintenance Management System (CMMS) and "ArcGIS" (map software available to selected City Employees). Associated hard copy block map books for Stormwater and Sanitary Sewer are available for each field crew. The City utilizes a web based browser that allows a read only version of the maps to be viewed in digital format.

### **6.2.1 Map Corrections**

Maps are updated on an as needed basis with information obtained from field crews. The official map “office copy” is maintained at the MUD Collection Systems Office. When updates are found in the field, the field person notes on a copy of the map book page and informs the City’s GIS Technician. The GIS Technician then updates the map book and the digital map files.

### **6.2.2 Map Additions**

New subdivisions, and extensions to existing facilities are submitted by the Public Works Department to MUD, and the digital map files are updated after the system segment is accepted by the City.

## **6.3 Collection System Preventative Maintenance (PM)**

City of Stockton, Municipal Utilities Department (MUD) uses Cityworks Software to maintain a catalogue of the storm and sewer system assets: pipes, valves, maintenance holes, lamp holes and pump stations. This system can generate, track and print work orders for preventative maintenance, corrective maintenance, and emergency repairs.

### **6.3.1 Gravity Mains**

Collection system PM on sewer lines and storm water catch basins is done by the Collections Division. Sewer lines are put on a cleaning frequency based on historical information such as overflows, blockages, historical cleaning findings, and repairs. The historical information determines the cleaning frequency and is adjusted when necessary.

Preventative maintenance is scheduled on either a monthly, quarterly, semi-annual, annual or multi-annual cleaning frequency based on historical information. Cityworks produces work orders for the requested period with a due date of 14-days. Staff are assigned the work by the Collection Systems Supervisor. If a line has a service problem between PM work orders or a line with no previous history develops a problem; the line is cleaned and CCTV’d. The PM schedule is re-evaluated and the line may move to the next more frequent PM schedule, (semi-annual moves to quarterly, quarterly moves to monthly, etc), or be moved to the next less frequent PM schedule, repaired or scheduled for other appropriate corrective action.

Service calls are evaluated by Collections systems crews and if additional work is required the work is prioritized and assigned to City staff for repair. As an alternative, subcontractors may be contacted for extensive repair work, line rehabilitation or line replacement. MUD has contracts with local construction companies for backlog repair work as well as street and sidewalk restoration.

Gravity sanitary sewer cleaning schedule will be based on likely hood of failure analysis and pipe history for pipes 15-inches in diameter or smaller. Sewer mains larger than 15-inches in diameter will be cleaned on an as needed basis.

### **6.3.2 Pump Stations**

Preventative maintenance at sanitary lift and pump stations and storm water pump stations are done by Maintenance Division. Cleaning at sanitary lift/pump stations may



be done by Collections Division at the request of the Maintenance Division if a problem is noticed with the wet well or lines (i.e. “grease cap” in wet well).

## **6.4 Rehabilitation and Replacement Plan**

The City of Stockton has conducted closed circuit television inspection, (CCTV) of nearly all its gravity sewer lines. The City conducts on-going CCTV inspection by collection system area to determine the overall condition of that respective area. The findings of the CCTV inspections are used to determine CIP projects and immediate rehabilitation and replacement needs.

### **6.4.1 Inspection and Condition Assessment**

CCTV inspections are conducted in accordance with the current professional practices for sewer line inspection as recommended by National Association of Sewer Service Companies (NASSCO), and the Pipeline Assessment Certification Program (PACP), guidelines.

Any sewer line found to have defects, such as stoppages or physical damage, from any cause, will be cleaned and/or repaired on a first priority basis. Stoppages and/or damage may be discovered by City crews doing regular maintenance or by the public at large. Citizens are encouraged to call the City of Stockton Hot Line, at (209) 937-8341, any time they witness or experience a sewer related problem.

### **6.4.2 Capital Improvement Plan**

City of Stockton has a capital improvement plan as well as Wastewater Master Plan for long term planning. The latest update to the Wastewater Master Plan was in October, 2008 and is available on the City of Stockton website. Additional discussion about the CIP is in chapter 10: Element 8 – System Evaluation and Capacity of this SSMP document.

## **6.5 Training Program**

MUD has established training programs for all employees in the department. Training records are maintained with the MUD OSHA Compliance Specialist.

### **6.5.1 Health and Safety Training**

The following training is provided to all Collections and Maintenance Division staff:

First Aid & CPR & AED	Trenching & Shoring
Lock Out/Tag Out Procedures	Blood-borne Pathogens
First Responder Awareness	Confined Space Entry
Traffic Control	Falls & Fall Protection
Hazard Communication	Hazardous Materials Management Plan
Overflow Emergency Response	Customer Service
Heat Stress Prevention	Hand Protection
Eye Safety	
Self-contained Breathing Apparatus (with Fit-testing in March every year)	

### **6.5.2 Equipment Training**

The following specific equipment training is offered as needed for appropriate staff:

Hydraulic Rodder	Combination hydro/vac
Backhoe Operation	Forklift Training
CCTV (use and repair)	Boom & Crane Training
	Arc Flash Protection

### **6.5.3 Ad Hoc Training**

The City field staff also conducts monthly tail-gate safety meetings. There is also available; computer and software training, pump and engine maintenance, electrical, mechanical, environmental course work and study.

### **6.5.4 SSO Training**

The City requires contractors to be properly trained with SSO procedures and all contractors are made aware of the City's SSO Emergency Response Plan (SSOERP) documents and procedures. All contractors are given a copy of the SSOERP prior to the start of work.

## **6.6 Equipment and Replacement Part Inventories**

Stockton MUD maintains a Stores Warehouse at 2501 Navy Drive with replacement parts such as maintenance hole covers, consumable parts such as gloves, lamps and batteries, and replacement parts for valves, pumps and motors. Replacement parts have been identified for pumps, motors, and valves and are in stock at MUD Stores.

### **6.6.1 Pump Station Redundancy**

The City's wastewater pump stations are designed with redundancy such that they have a backup pump available for immediate operation in the event of pump failure. The large capacity pump stations have spare mechanical seals stored on site.

## **6.7 Supporting Documents**

- Appendix 5: Map Book Sample
- Appendix 6: City of Stockton Work Order
- Appendix 7: Training Record Sample
- Appendix 8: Parts Inventory Sample
- 2035 Wastewater Master Plan

## **7 Chapter 7 – Design and Performance Provisions**

This chapter of the SSMP documents the City’s design and performance provisions.

### **7.1 Regulatory Requirements**

The WDR section D.13(v) requires the City to have the following design and performance provisions:

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

#### **7.1.1 Design and Construction Standards**

City of Stockton has Design and Construction Standard Specifications and Standard Drawings adopted by the City (latest revision September 2016) as a guide for standardization of Public Works projects within the City. These Standard Specifications and Standard Drawings are available on the City’s website: [www.stocktongov.com](http://www.stocktongov.com).

The Design and Construction Standard Specifications contain guidelines and requirements for the development plan and permit processing procedures under the following sections:

- Section 4 – Scope of Work
- Section 5 – Control of Work
- Section 6 – Control of Materials
- Section 7 – Legal Relations and Responsibility
- Section 8 – Prosecution and Progress
- Section 9 – Measurement and Payment

#### **7.1.2 Engineering Judgment Disclaimer**

The Standard Specifications and Standard Drawings are not intended to be a substitute for professional engineering knowledge, experience or judgment. Any deviations from what is contained in the documents must be approved by the City Engineer.

The City’s Design and Construction Standard Specifications and Standard Drawings, for use in all City construction contracts, include a comprehensive set of specifications for sewer system pipelines and facility construction. The City contracts with a design engineer, when needed, for the development of design drawings and specifications for sewer pipeline and pump station rehabilitation and replacement projects.

### **7.1.3 Sanitary Sewer**

The design and construction standards for sanitary sewer systems are addressed in section 71 of the Standard Specifications and Standard Drawings. Details for sanitary sewer systems are also provided in Standard Drawings S-1 thru S-22.

## **7.2 Pump Stations**

The design and construction standards for pump stations are prepared in accordance with the Municipal Utilities Department Engineering Division and approved by the Director of Municipal Utilities.

## **7.3 Inspection and Testing Standards**

Inspection and testing of new sewers, pumps and other appurtenances is addressed in the Standard Specifications and Standard Drawings document section 71. The following list provides the sections pertaining to inspection and testing of the sanitary sewer system:

- 71-1.11 – Testing
- 71-1.11A – Cleaning
- 71-1.11B – Deflection Test for ABS, PVC and HDPE Pipe
- 71-1.11C - General
- 71-1.11D – Water Exfiltration Test
- 71-1.11E – Water Infiltration Test
- 71-1.11F – Air Pressure Test
- 71-1.11G – Televising of Sanitary Sewers

## **7.4 Supporting Documents**

- City of Stockton Standard Specifications and Standard Drawings

## **8 Chapter 8 – Overflow Emergency Response Plan**

The City developed a Sanitary Sewer Overflow Emergency Response Plan (SSOERP) and a Sanitary Sewer Overflow Standard Operating Procedure (SOP) that are designed to support an orderly and effective response to SSOs. The SSOERP is included as Appendix 4 of this SSMP, the SOP is included as Attachment 5 of the SSOERP. The SSOERP provides guidelines for the City personnel to follow in responding to, cleaning up, and reporting SSOs that may occur within the City's service area.

### **8.1 Regulatory Requirements**

As required by WDR section D.13(vi), the City 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 the regulatory agencies are informed of all SSOs in a timely manner;*
- (b) A program to ensure an appropriate response to all overflows.*
- (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with the MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification.*
- (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained.*
- (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and*
- (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.*

### **8.2 SSO Detection**

The processes that are employed to notify the City of the occurrence of an SSO include: observation by the public, receipt of an alarm, or observation by City staff during the normal course of their work. The public can notify the City of an SSO by calling the 24-hour emergency service center at (209) 937-8341. The emergency service center then notifies Customer Service or the after hours Stand-by Duty Person to initiate the SSO response.

## **8.3 SSO Response**

When a report of a possible SSO is received, it triggers an immediate response to identify and correct the problem. The following sections outline the response procedures undertaken by the City during an SSO.

### **8.3.1 Investigation and Assessment**

Following notification of a possible sanitary sewer overflow, a crew is dispatched to conduct an investigation. The initial response team is responsible for assessing the cause of the problem and determining the level of effort needed to correct the problem. If the overflow is confirmed, the Supervisor or highest level staff person on-site documents the relevant spill information on the SSO response forms.

### **8.3.2 Notify Response Personnel**

The Supervisor or highest level staff person that initially arrives on site is responsible for immediately notifying appropriate SSO response personnel. Response personnel are dispatched to the site based on the following criteria:

- Source of the SSO
- Volume of the SSO
- Severity of the SSO

### **8.3.3 Stop and Contain SSO**

The response personnel are responsible for determining the most effective method(s) to:

- Control or limit the SSO volume discharged;
- Terminate the SSO as rapidly as possible; and
- Contain the spill as rapidly as possible.

The response personnel then begin to mitigate the SSO.

### **8.3.4 Traffic and Crowd Control**

During an SSO, traffic control or crowd control may be required depending on site conditions. The response personnel are responsible for determining the most effective method(s) to:

- Safely control traffic flow around the spill area; and
- Provide crowd control measures to ensure public safety at all times.

The following City Departments may be contacted to assist with traffic and crowd control measures:

- Stockton Police Department (209) 937-7911
- Stockton Public Works Department (209) 937-8341

Procedures to address operations, traffic and crowd control are contained in the SSOERP and SOP for "Short Term Traffic Control..." (TTZ). Procedures and guidance follow the recommendations of the Manual on Uniform Traffic Control Devices (MUTCD).

### **8.3.5 Cleanup and Remediation**

The response personnel are responsible for determining the most effective clean-up method and remediation procedures and determine when adequate remediation procedures have been completed.

### **8.3.6 Water Quality Monitoring Procedures**

The SSOERP outlines the water quality monitoring procedures if an SSO is discharged to surface water. The impact of the spill on water quality is assessed by visual inspection for abnormal conditions such as effects on aquatic life, abnormal color, and odors. A Receiving Water Inspection/Sampling Log is used to record the findings of the inspection. Photographs are also used to document the extent of the spill, including the discharge location, and any adverse effects to receiving water or surrounding areas.

For discharges to surface water, public health warning signs are posted to protect the public from exposure to potentially contaminated water:

- Signs are posted in the affected area at appropriate intervals on both sides of the banks, if possible, of the receiving water body.
- Due to the occurrence of posted signs periodically being vandalized, stolen, wind-blown, or removed, City staff will maintain a log and map of sign placement and removal. The signs are checked on a regular basis by City staff and replaced or repositioned as necessary to make certain they are visible to the public throughout the entire spill event.

For SSOs greater than 1,000 gallons in volume and which enter a surface water, public health warning notifications are distributed door-to-door in known areas where residents utilize the surface water source for landscape irrigation purposes.

## **8.4 SSO Documentation and Reporting**

All SSOs are thoroughly investigated and documented for use in managing the wastewater collection system and meeting established reporting requirements. The procedures for investigating and documenting SSOs are:

### **8.4.1 Internal SSO Reporting**

Internal SSO reporting process is dependent on the category of SSO as determined by the responding field crew.

#### ***8.4.1.1 Category 1 or 2***

For Category 1 and 2 SSOs, the response personnel complete the SSO Response Forms and turn them into the Environmental Control Division. An Environmental Control Officer (ECO) reviews the response forms and verifies the information pertaining to the SSO. The Regulatory Control Officer serves as the Legally Responsible Official (LRO) and is responsible for certifying and entering all required information into the State Water Resources Control Board (SWRCB) California Integrated Water Quality System (CIWQS) Online SSO Reporting System for category 1 and 2 SSOs.



### 8.4.1.2 Category 3

For Category 3 SSOs, the response personnel complete the SSO Response Forms and turn them into the Collections Supervisor. The Collections Supervisor reviews the response forms and verifies the information pertaining to the SSO. The Collections Supervisor serves as a backup Legally Responsible Official (LRO) and is responsible for certifying and entering all required information into the State Water Resources Control Board (SWRCB) California Integrated Water Quality System (CIWQS) Online SSO Reporting System for category 3 SSOs.

### 8.4.2 External SSO Reporting

CIWQS is used for reporting SSO information to the SWRCB. The City reports all SSOs in accordance with State Water Resources Control Board Order No. 2006-0003-DWQ, Monitoring and Reporting Program, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems; and State Water Resources Control Board Order No. WQ 2013-0058-EXEC, Amended Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems; and amendments thereto.

## 8.5 SSO Notification

The City notifies the following internal personnel and outside agencies as appropriate:

**Table 8-1 – SSO Notification Contacts**

<b>All Category 1 SSO's</b>	
<u>City of Stockton, Municipal Utilities Dept.:</u> Technical Services Supervisor, Regulatory Compliance Officer, Deputy Director of Collections, Assistant Director and Director	(209) 937-8700
Delta Water Supply Project	(209) 639-3972 (Senior) (209) 937-5633 (Office) (209) 639-4241 (Operator) (209) 768-8879 (CPO)
<u>City of Stockton, City Manager's Office:</u> Public Information Officer, Assistant to City Manager and Deputy City Manager	(209) 937-8700
Cal OES ( <b>1,000 gallons or greater only</b> )	(800) 852-7550
Alameda County Water District	(510) 656-3426 (M-F 8-4) Fax (510) 657-5944 (after hours) Fax
Alameda Co. Flood Control District, Zone 7	(925) 447-4517 Fax
Contra Costa Water District	(925) 688-8274 Fax
Santa Clara Valley Water District	(408) 395-5550 Fax
San Joaquin Co. Flood Chancel Maint. Div.	(209) 468-8457 Fax
State Water Resources Control Board Online SSO Reporting System (CIWQS)	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a>
<b>All Category 2 SSO's</b>	
<u>City of Stockton, Municipal Utilities Dept.:</u> Technical Services Supervisor, Regulatory Compliance Officer, Deputy Director of	(209) 937-8700



Collections, Assistant Director and Director	
City of Stockton, City Manager's Office: Public Information Officer Assistant to City Manager Deputy City Manager	(209) 937-8700
State Water Resources Control Board Online SSO Reporting System (CIWQS)	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a>
<b>All Category 3 SSO's</b>	
State Water Resources Control Board Online SSO Reporting System (CIWQS)	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a>
<b>All SSO Discharges to San Joaquin County Stormwater Collection System</b>	
San Joaquin County Public Works	(866) 755-4955
<b>All SSO Discharges to Reclamation District 1614 Stormwater Collection System</b>	
Reclamation District 1614	(209) 462-8061 / (209) 992-2827 Max Gallegos (209) 469-3133 Message

## 8.6 SSO Response Training

This section provides information on the training that is required to support the SSOERP.

### 8.6.1 City Personnel

Training in SSO procedures are conducted on an annual basis for all Collections and Environmental Control staff. Training records are maintained with the OSHA Compliance Specialist and as part of the employees' training record.

### 8.6.2 Non-City Personnel

The City requires contractors working on the collection system to be properly trained with SSO procedures and all contractors are made aware of the City's SSO Emergency Response Plan (SSOERP) documents and procedures. All contractors are given a copy of the SSOERP prior to the start of work.

## 8.7 Supporting Documents

- Appendix 4: City of Stockton Sanitary Sewer Overflow Emergency Response Plan (SSOERP)
- City of Stockton Sanitary Sewer Overflow Standard Operating Procedure (SOP)
- Appendix 9: Short Term Traffic Control Procedures (TTZ)
- MUTCD guidelines and procedures are available online

## 9 Chapter 9 – Fats, Oils and Grease (FOG) Program

This section of the SSMP presents the City's Fats, Oils, and Grease (FOG) control program to reduce the amount of FOG discharged into the sanitary sewer system.

### 9.1 Regulatory Requirements

The Statewide General WDR for Wastewater Collection Agencies (Order No. 2006-003) requires the development of a FOG source control program to reduce the amount of FOG discharged to the sanitary sewer system. The requirement in the WDR section D.13(vii) is as follows:

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

- (a) An implementation plan and schedule for 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.*
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSO and blockages caused by FOG.*
- (d) Requirements to install grease removal devices, design standards, maintenance requirements, BMP requirements, record keeping and reporting requirements.*
- (e) Authority to inspect grease producing facilities, enforcement authorities and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance.*
- (f) An Identification of sanitary sewer sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and*
- (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary system for sections identified.*

### 9.2 FOG Control Action Plan

The City has developed a comprehensive program to address sanitary sewer overflows associated with fats, oils, and grease (FOG). This FOG Control Action Plan (FCAP) outlines the elements of the City's FOG Control Program. The program consists of inspections, enforcement procedures, public education and public outreach to all Food Service Establishments (FSEs) in the City's regional sewer service area. The FOG Control Program is operated by the Pretreatment section of the Municipal Utilities Department. The program is implemented by the Technical Services Supervisor (FOG Program Manager) and consists of full-time Environmental Control Officers (FOG Inspectors). More than 700 FSEs are inspected annually under this program.

The FCAP is included as Appendix 10 of this SSMP document. All information about the City's FOG program can be found on its website: [www.stocktongov.com](http://www.stocktongov.com).

### **9.3 Public Outreach**

MUD currently conducts public outreach by both providing information on the City's website and distributing best management practices (BMP) fact sheets during restaurant inspections.

Collection System Operators and Environmental Control (EC) Officers also distribute a FOG Brochure to residences and businesses on an 'as needed basis'.

### **9.4 FOG Disposal**

The City of Stockton currently handles disposal of FOG at the Regional Wastewater Control Facility located at 2500 Navy Drive, Stockton, CA 95206.

### **9.5 FOG Program Legal Authority**

The City of Stockton has had an ordinance in place prohibiting the discharge of "substances which may cause obstruction to the flow in a sewer." The City of Stockton Municipal Code Title 13, Chapter 13.40, "Discharges of Fats, Oils and Grease from Food Service Establishments", contains all the provisions and legal authority pertaining to the prohibition to discharge of fats, oils and grease to the sanitary system. See Table 5-1 – Summary of Legal Authorities in this SSMP document. All Stockton Municipal Codes can be viewed and downloaded from the City's website: [www.stocktongov.com](http://www.stocktongov.com).

### **9.6 Grease Removal Device Design Standards and Requirements**

City of Stockton Municipal Code Title 13, Chapter 13.40 requires the installation of grease removal devices, provides minimum requirements for grease removal design standards, lists the required maintenance and record keeping associated with grease removal devices, and provides grease removal device BMPs. Reporting is conducted via on-site inspections conducted by MUD Environmental Control Officers.

### **9.7 FOG Program Enforcement**

The City of Stockton, Municipal Utilities Department currently employs multiple full-time Environmental Control Officers dedicated to the enforcement of the FOG Ordinance. The City uses AS400 (HTE) Database to schedule and manage the city-wide FOG inspection activities. The authority to inspect and enforce the provisions of the FOG Ordinance are contained in Title 13, Chapter 13.40.140 – Facilities Monitoring and Right of Entry Requirements, and the enforcement actions are detailed in the City's Fats, Oils, and Grease Enforcement Response Plan included in Appendix 11 of this SSMP document.

### **9.8 FOG Related Preventative Maintenance**

MUD has established a collection system cleaning schedule for all sewer lines of 15-inches in diameter and smaller. The cleaning frequency is based on historical pipe information. Please reference Chapter 6: Element IV - Operation and Maintenance Program, Section b of the SSMP for further details regarding preventative maintenance activities.

## **9.9 Source Control Measures**

MUD's existing source control program includes the requirement for grease interceptors for food service establishments, conducts FSE inspections, and engages in public outreach for both food service establishments and residences. MUD also conducts appropriate enforcement when the source of a sewer blockage is identified as being FOG related.

## **9.10 Supporting Documents**

- Appendix 10: Fats, Oils and Grease Control Action Plan
- Appendix 11: Fats, Oils, and Grease Enforcement Response Plan
- Restaurant BMP Brochures
- Restaurant BMP Posters
- FOG brochure distributed by EC Officer and Collections
- Title 13, Chapter 13.40 - Discharges of Fats, Oils and Grease from Food Service Establishments

## 10 Chapter 10 – System Evaluation & Capacity Assurance Plan

This chapter of the SSMP documents the City's system evaluation and capacity assurance provisions. The City has not incurred a capacity related SSO since the California Integrated Water Quality System (CIWQS) began tracking SSO data in 2007.

### 10.1 Regulatory Requirements

As required by the WDR section D.13(viii), the City shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

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

### 10.2 System Evaluation

The City has undertaken the following system evaluation actions and processes:

#### 10.2.1 Wastewater Master Plan

The collection system evaluation is undertaken as a part of the 2035 Wastewater Master Plan (Master Plan) development and subsequent CIP decisions. The Master Plan incorporates any capacity related projects that takes into account increases in flow and necessary system capacity increases due to projected population increases. The City has not experienced the projected population increase that was used to develop the Master Plan. Master Plan is available on the City's website: [www.stocktongov.com](http://www.stocktongov.com).

### **10.2.2 Smart Covers**

The City has also purchased and installed forty-one “Smart-Covers” which allow for real-time monitoring of flow conditions at specific maintenance holes (manholes). Use of the “Smart-Covers” has prevented several SSO from occurring. These units can be re-located as needed to monitor suspected problem areas.

### **10.3 Design Criteria**

City of Stockton has Design and Construction Standard Specifications and Standard Drawings adopted by the City (latest revision September, 2016) as a guide for standardization of Public Works projects within the City. Section 71 of the Standard Specifications and Standard Drawings pertain to the design and construction of sanitary sewers. These Standard Specifications and Standard Drawings are available on the City website: [www.stocktongov.com](http://www.stocktongov.com).

### **10.4 Capital Improvement Plan**

The City’s current CIP proposal is outlined in a spreadsheet available from the Engineering Division of the Municipal Utilities Department. The CIP proposals for wastewater includes projects related to the collection system, pump stations and system upgrades, improvements and additions.

The following types of CIP projects are in various stages of planning, design, or construction:

- 7702 Sanitary Sewer System Repairs
- 7703 Sanitary Pump Station Additions
- 7709 RWCF Modifications and Replacement
- 7713 Oversizing Collection Lines
- 7714 Infiltration and Inflow Study
- 7784 Sanitary Telemetry
- 7785 Sanitary Pump Station Rehabilitation
- 7787 Sanitary System Deficiency Improvements
- 7790 Sanitary System Street Improvements
- 7792 Capital Asset Replacements

The CIP projects adopted were/are based in part on recommendations in the City of Stockton’s 2035 Wastewater Master Plan. The 2035 Wastewater Master Plan was developed taking into account present population size, current infrastructure and treatment plant capacity; and looking at projected growth in the next 25 years (2035 build-out). Existing systems were evaluated against design and performance criteria, using hydraulic modeling to predict where infrastructure improvements, upgrades or additions would be required. Capital costs were estimated and a phased program for capital projects scheduling proposed.

Additionally, some minor, short term, CIP is scheduled and completed on an as-needed basis. The short term CIP projects are typically unexpected emergency related projects.

### **10.5 CIP Schedule**

The CIP schedule is subject to appropriation and reprioritization of funds authorized by the City Council and reviewed annually during budget preparations. Progress of each CIP, once started, is tracked by the Engineering Division in the CIP Budget spreadsheet.

Short term CIP work is added into the Cityworks Computerized Maintenance Management System after completion of the work.

### **10.6 Supporting Documents**

- 2035 Wastewater Master Plan
- City of Stockton Standard Specifications and Standard
- CIP Budget (Engineering Division CIP spreadsheet)

## **11 Chapter 11 – Monitoring and Program Modifications**

This chapter of the SSMP presents the City’s approach to Monitoring, Measurement, and Program Modifications.

### **11.1 Regulatory Requirements**

The WDR section D.13(ix) requirements for the Monitoring, Measurement, and Program Modifications of the SSMP are that the City shall:

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

### **11.2 Performance Measures**

Cityworks serves as the CMMS used by the City to generate work orders, track in progress and completed work on cleaning, repair, CCTV inspection, customer service requests and SSOs information. This collection system information is tied to the collection system asset or residence and is used to determine changes to the sewer main cleaning frequency. The City uses the information to monitor and measure the performance of the SSMP and SSMP implementation.

The City monitors sewer overflow performance to accomplish the following:

- Establish and prioritize appropriate SSMP activities
- Monitor the implementation and effectiveness of the SSMP
- Assess the success of the preventative maintenance program
- Identify and illustrate SSO trends including frequency, volume, and location

In addition to the usage of California Integrated Water Quality System (CIWQS) to obtain SSO data, the City has the capability to transfer data from the Cityworks CMMS to a GIS format whereby spills can be graphically illustrated as an overlay on digital maps. The information can be coded by color, shape or symbol and size to illustrate the desired SSO data. A sample of this can be seen in Appendix 12.



### **11.3 Performance Monitoring and Program Changes**

Monthly status reports and figures are generated from Cityworks CMMS data to provide monitoring of collection system activities. Activities such as cleaning, CCTV inspection, repairs, SSOs, and FOG inspection information are included in the report.

The City will evaluate the performance of its wastewater collection system at least annually using the performance measures identified in Table 11-1. The City will update the data and analysis of performance measures at the time of the evaluation. The City may use other performance measures in its evaluation.

**Table 11-1: Performance Metrics**

<b>Type</b>	<b>Performance Measure</b>	<b>Source</b>
System Statistics	Total Miles of Gravity Sewer	GIS
	Total Miles of Force Main	GIS
	Total Number of Pump Stations	GIS
SSO Measures	SSO Category	CIWQS
	SSO Date	CIWQS
	SSO Cause	CIWQS
	SSO Line Type	CIWQS
	Number of SSOs per 100 miles of sewer per year	CIWQS
	SSO Location	CIWQS
	SSO Volume	CIWQS
	SSOs that reach surface water	CIWQS
Maintenance Program	Count of Lateral Repairs	CMMS
	Linear Feet of Lateral Repairs	CMMS
	Count of Main Repairs	CMMS
	Linear Feet of Main Repairs	CMMS
	Count of Manholes Repaired	CMMS
	Count of Taps Repaired	CMMS
	Count of Mains Hydro-flushed	CMMS
	Linear Feet of Mains Hydro-flushed	CMMS
	Count of Mains Rodded	CMMS
	Linear Feet of Mains Rodded	CMMS
	Laterals Foamed	CMMS
	Linear Feet of Laterals Foamed	CMMS
	Count of Service Calls	CMMS
	Count of Mains Inspected	POSM
	Linear Feet of Mains Inspected	POSM
	Count of Laterals Inspected	CMMS
	Linear Feet of Laterals Inspected	CMMS
	Count of Pump Station Mechanical Work Orders	CMMS
	Count of Pump Station Electrical Work Orders	CMMS
FOG Program	Count of Initial FSE Inspections	AS400
	Count of Enforcement Actions	AS400
	Count of Follow-Up Inspections	AS400

## 11.4 SSMP Updates

All program elements are reviewed during an annual meeting with collection system Supervisors and engineering staff to determine if any updates to the SSMP are warranted. During the meeting, the annual report is used to evaluate the collection system activities to identify areas of process improvement. Any changes to the SSMP are documented in the Updates Log and implemented. SSMP updates are submitted to the State database when recertification is required. The SSMP Update Log is provided in Table 11-2 below.

**Table 11-2: SSMP Update Log**

<b>Element</b>	<b>Date</b>
Entire SSMP	November 2007
Entire SSMP	February 2011
VI – Overflow Emergency Response Plan	September 2013
I – Goals	October 2013
II – Organization	October 2013
VII – Fats, Oils, and Grease (FOG) Program	October 2013
III – Legal Authority	December 2013
IX – Monitoring and Program Modifications	December 2013
X – SSMP Program Audits	December 2013
Entire SSMP	March 2016

## 11.5 Supporting Documents

- Appendix 6: Cityworks work order
- Appendix 12: GIS SSO Display Sample
- City of Stockton Sewer System Management Plan
- Monthly Collection System Status Report
- SSMP Update Log

## 12 Chapter 12 - SSMP Program Audits

This chapter of the SSMP presents the process the City will follow to audit its SSMP and related programs.

### 12.1 Regulatory Requirements

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

### 12.2 SSMP Audits

The City of Stockton has obtained thru the Central Valley Clean Water Agency (CVCWA) an audit checklist and has developed an internal audit checklist. These forms will be a guidance to help audit the SSMP's effectiveness, but City of Stockton's assigned auditor, or the contracted 3<sup>rd</sup> party auditor, shall select the format of the audit forms they deem appropriate, using selected questions off the CVCWA check list and internal audit checklist as desired to assist in completing the SSMP audit. At a minimum, the City will conduct an SSMP audit on a biennial basis and all audit reports will be maintained on file.

**Table 12-1: SSMP Audit Log**

<b>Audit Date</b>	<b>Auditor</b>	<b>Comments</b>
October 2013	MUD Staff	Complete, Audit on File
November 2015	HDR Engineering	Complete, Audit on File
November 2017	MUD Staff	Complete, Audit on File
November 2019		Future Audit
November 2021		Future Audit

### 12.3 Supporting Documents

- Appendix 13: City of Stockton Audit Checklist
- Appendix 14: SSMP Audits

## **13 Chapter 13 – Communication Program**

This section of the SSMP is intended to outline the process involved in communicating with interested members of the public and satellite agencies regarding the development, implementation, and performance of this plan.

### **13.1 Regulatory Requirements**

The WDR section D.13(xi) states that:

*The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.*

*The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.*

### **13.2 Communication with Public**

The City has multiple outlets to keep the public informed about its activities and plans.

#### **13.2.1 Website Announcements**

The City maintains a website ([www.stocktongov.com](http://www.stocktongov.com)) to inform the public about City activities. The City's website is an effective communication channel for providing alerts and news to the public. The main page of the website provides important announcements, with links to agendas and minutes for City Council meetings, and other key information for City residents. Various documents are published on the City's Municipal Utilities Department website:

#### **13.2.2 Reports**

Municipal Utilities Department (MUD) produces a quarterly report and annual report and puts a PDF copy on the City website. This document highlights operational and maintenance activities including a summary of SSOs, and capital improvement project progress.

#### **13.2.3 Sewer System Master Plan**

The City's website also includes links to the Sewer System Management Plan and the 2035 Wastewater Master Plan.

#### **13.2.4 Public Input**

The public also has the opportunity to comment and ask questions through the "Ask Stockton" button on the City's homepage: [www.stocktongov.com](http://www.stocktongov.com).

### 13.3 Satellite Agencies

The City Regulatory Compliance Officer and/or Senior Supervisor is in contact with representatives of each satellite agency when announcement or notifications are issued. Meetings with satellite agencies are held on an as-needed basis. The City has five (5) satellite systems that connect to City's sewers:

1. Country Club Sanitary Maintenance District  
4330 N. Pershing Ave, Suite B-1  
Ms. Ginger Root, Clerk of the Board  
(209) 956-3516 e-mail: ginger.root@att.net
2. San Joaquin County Utility Maintenance Division  
(various Maintenance Districts, including Lincoln Village,  
Colonial Heights, County Hospital)  
San Joaquin County, Public Works Department  
Sanitary Sewer System Operation and Maintenance  
Ben Guzman, Water Superintendent  
(209) 468-3090 e-mail: b.guzman@sjgov.org
3. Port of Stockton  
West Complex, Rough and Ready Island  
2201 W. Washington St  
Juan Villanueva  
(209) 946-0246 e-mail: jvillanueva@stocktonport.com
4. Northern California Youth Correctional Center  
7650 South Newcastle Rd  
Derrick Bowler, Chief of Plant Operations III  
(209) 944-6513 e-mail: derrick.bowler@cdcr.ca.gov
5. California Health Care Facility  
7707 Austin Rd  
Philip Albee, Correctional Plant Manager II  
(209) 831-0726 e-mail: phil.albee@cocr.ca.gov

# City of Stockton



# Sewer System Management Plan (SSMP) Appendices



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## **Appendices**

- Appendix 1 - City of Stockton, City Council Resolution 07-0327
  - SWRCB Order No. 2006-0003-DWQ
  - City Council Resolution 11-0108, 2011-2015 SSMP Approval
- Appendix 2 - SWRCB Order No. WQ 2013-0058 EXEC
- Appendix 3 - MUD Organizational Charts
- Appendix 4 - City of Stockton Sanitary Sewer Overflow Emergency Response Plan
- Appendix 5 - Map Book Sample
- Appendix 6 - Cityworks Work Order
- Appendix 7 - Training Record Sample
- Appendix 8 - Parts Inventory Sample
- Appendix 9 - Short Term Traffic Control Procedures
- Appendix 10 - FOG Control Action Plan
- Appendix 11 - FOG Enforcement Response Plan
- Appendix 12 - GIS SSO Display Sample
- Appendix 13 - Central Valley Clean Water Agency Audit Checklist
- Appendix 14 - Internal Audit Checklist

Appendix 1  
City of Stockton, City Council Resolution 07-0327  
SWCRB Order No. 2006-0003-DWQ  
City Council Resolution 07-0108, 2011-2015 SSMP  
Approval

July 31, 2007

TO: Mayor and City Council

FROM: Mark J. Madison, Director of Municipal Utilities

SUBJECT: **APPROVAL AND IMPLEMENTATION OF THE CITY OF STOCKTON'S  
SEWER SYSTEM MANAGEMENT PLAN TASK DEVELOPMENT  
SCHEDULE**

---

### **RECOMMENDATION**

Authorize the approval and implementation of the Sewer System Management Plan Task Development Schedule as required by State Water Resources Control Board Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirement, dated May 2, 2006.

### **Summary**

The City of Stockton (City), along with all public entities that provide sanitary sewer collection services, is subject to Sanitary Sewer Overflow Wastewater Discharge Requirements imposed by State Water Resources Control Board Order No. 2006-0003-DWQ Statewide General Waste Discharge Requirement, adopted May 2, 2006.

The State requires the City to prepare and implement a Sewer System Management Plan in order to effectively manage its wastewater collection system. The State Regional Board has mandated specific time frames in which to complete the various portions of the Sewer System Management Plan. All sections of the Sewer System Management Plan must be certified as complete by an Authorized Representative; and the City Council must approve the Sewer System Management Plan Development Plan and Schedule, and final Sewer System Management Plan prior to certification as complete and in compliance.

By this action, the Council will approve the development of a plan and schedule for completing the initial mandates of the General Waste Discharge Requirements. The Sewer System Management Plan Task Development Schedule for the City of Stockton's Sewer System Management Plan (Attachment A) includes milestone dates and the persons responsible for completing them. This Task Development Schedule is required to be placed in the first section of the plan as it is developed, and that it be periodically updated as each section of the Sewer System Management Plan is completed.

**APPROVAL AND IMPLEMENTATION OF THE CITY OF STOCKTON'S SEWER  
SYSTEM MANAGEMENT PLAN TASK DEVELOPMENT SCHEDULE**      **Page 2 of 4**

**DISCUSSION**

**Background**

Following the Regional Board's adoption of the General Waste Discharge Requirements on May 2, 2006, collection systems became the last major component of the wastewater management system to be regulated. Treatment plants, including pretreatment programs, have been regulated for some time. These requirements apply to all public collection system agencies in California that own or operate collection systems comprised of more than one mile of pipe or sewer lines, which convey untreated wastewater to a publicly owned treatment facility, and requires each agency to prepare and implement a Sewer System Management Plan. The Sewer System Management Plan is a document that describes the procedures and activities each agency must implement in order to properly operate and maintain their wastewater collection system effectively in order to prevent sewer system overflows and to ensure proper notification should such an overflow occur.

Sewer system overflows are spills from sanitary sewer systems of domestic wastewater as well as industrial and commercial wastewater (depending on land use). These overflows often contain high levels of pollutants and pathogenic organisms which may cause a public nuisance, particularly when raw untreated wastewater is discharged to water bodies used for recreation purposes. Sewer system overflows may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters. Many sewer system overflows are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

**Current Situation**

The following list summarizes the required elements of an Sewer System Management Plan as per Order No. 2006-0003-DWQ:

1. Collection system management goals (November 2, 2007)
2. Organization of personnel, including the chain of command and communications (November 2, 2007);
3. Legal authority for permitting flows into the system, inflow/infiltration control as well as enforcement of proper design, installation, and testing standards, and inspection requirements for new and rehabilitated sewers (November 2, 2008);
4. Operations and maintenance activities to maintain the wastewater collection system (November 2, 2008);
5. Design and performance provisions (May 2, 2009);
6. Overflow emergency response plan (November 2, 2008);

**APPROVAL AND IMPLEMENTATION OF THE CITY OF STOCKTON'S SEWER  
SYSTEM MANAGEMENT PLAN TASK DEVELOPMENT SCHEDULE**      **Page 3 of 4**

7. Fats, oils, and grease control program (November 2, 2008);
8. System evaluation and capacity assurance program (May 2, 2009);
9. Monitoring, measurement, and modifications plan for Sewer System Management Plan program effectiveness (May 2, 2009);
10. Periodic internal Sewer System Management Plan audits; and,
11. Sewer System Management Plan communication program (May 2, 2009).

Each agency is required to certify that their final Sewer System Management Plan and its constituent subparts are in compliance with the State Order within the time frames specified by the Regional Board and shown in Attachment A. Each agency is also required to obtain their governing board's approval of the Sewer System Management Plan Development Plan and Schedule and final Sewer System Management Plan at a public meeting prior to certification as complete. The Regional Board does not require that an agency submit their Sewer System Management Plan to the State or Regional Water Boards for review or approval; however, the document must be made available upon request.

Adoption of the final Sewer System Management Plan will require a number of actions to maintain and upgrade the City's sewer collection system at a level that would require dedicated sewer crews and additional capital improvement projects. The Regional Board estimates the costs associated with compliance to the average utility rate payer for the final plan will be an additional \$6 to \$40 per month per connection. A revenue plan shall be developed as part of the Sewer System Management Plan that describes the costs associated with implementing the Sewer System Management Plan and how the City will finance each item.

**FINANCIAL SUMMARY**

Currently there will be no cost impact to the City. Although once the Sewer System Management Plan is finally implemented there will be a future cost to the City. This increase will be included in a future budgeting process. The new requirement may result in a rate study being required to project the revenue needed for implementation of the final program costs.

July 31, 2007

APPROVAL AND IMPLEMENTATION OF THE CITY OF STOCKTON'S SEWER  
SYSTEM MANAGEMENT PLAN TASK DEVELOPMENT SCHEDULE Page 4 of 4

Prepared by: Steve Gittings

Respectfully submitted,



MARK J. MADISON  
DIRECTOR OF MUNICIPAL UTILITIES

MJM:SG:as

Reviewed and approved by:



J. GORDON PALMER, JR.  
CITY MANAGER

Resolution No. \_\_\_\_\_

## STOCKTON CITY COUNCIL

### RESOLUTION TO APPROVE AND IMPLEMENT THE CITY OF STOCKTON'S SEWER SYSTEM MANAGEMENT PLAN TASK DEVELOPMENT SCHEDULE

WHEREAS, the City of Stockton is required by State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirement (GWDR), dated May 2, 2006, to develop a Sewer System Management Plan Task Development Schedule; and

WHEREAS, the State Water Resources Control Board has mandated specific time frames in which to complete the various portions of the Sewer System Management Plan; and

WHEREAS, by this action, the City Council will approve the development of a plan and schedule for completing the initial requirements of the General Waste Discharge Requirement; now, therefore,

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF STOCKTON, AS FOLLOWS:

1. The foregoing recitals are true and correct and the City Council so finds and determines.
2. The City Council authorizes the approval and implementation of the Sewer System Management Plan (SSMP) Task Development Schedule (Attachment A).

PASSED, APPROVED and ADOPTED \_\_\_\_\_.

\_\_\_\_\_  
EDWARD J CHAVEZ  
Mayor of the City of Stockton

ATTEST:

\_\_\_\_\_  
KATHERINE GONG MEISSNER  
City Clerk of the City of Stockton

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City Atty:  
Review \_\_\_\_\_  
Date JUL 25 2007



**ATTACHMENT A**

**Sewer System Management Plan (SSMP) Schedule**  
**State Water Resources Control Board Order No. 2006-0003-DWQ**

<b>SSMP Task Development Schedule</b>					
<b>Main Task/Sub-Task</b>	<b>Comments</b>	<b>Status/Due Date</b>	<b>Date Completed</b>	<b>Responsible Party</b>	<b>City Council Approval Date</b>
<b>Application for coverage</b>	Submit Notice of Intent (NOI) to the state identifying the agency's authorized representative including required permit fee.	<b>Nov 2, 2006</b>		<b>Director of Municipal Utilities</b> (Mark J. Madison)	
<b>SSO electronic reporting program</b>	Agency must report all SSOs to the statewide SSO database via the Internet.	<b>Sept. 2, 2007</b>	Continuous	<b>Director of Municipal Utilities</b> (Mark J. Madison)	
<b>SSMP Development Plan and Schedule</b>	Initial plan on how the agency intends to develop and implement their SSMP.	<b>Aug. 2, 2007</b>		<b>Director of Municipal Utilities</b> (Mark J. Madison) <b>OMI</b> (Randy Cornell)	
<b>1.0 Goal</b> <i>Section D 13(i)</i>		<b>Nov. 2, 2007</b>		<b>Director of Municipal Utilities</b> (Mark J. Madison)	
<b>SSMP Goals</b>	Stated goals for the SSMP				
<b>2.0 Organizational Structure</b> <i>Section D 13(ii)</i>		<b>Nov. 2, 2007</b>		<b>Director of Municipal Utilities</b> (Mark J. Madison)	
Agency Organizational Structure	Names and staff positions responsible for developing and implementing the SSMP including the chain of communications for reporting SSOs.				
<b>3.0 Legal Authority</b> <i>Section D 13(iii)</i>	Agency's legal authority to operate and maintain its sewage collection system.	<b>Nov. 2, 2008</b>		<b>Director of Municipal Utilities</b> (Mark J. Madison)	

SSMP Task Development Schedule					
Main Task/Sub-Task	Comments	Status/Due Date	Date Completed	Responsible Party	City Council Approval Date
<b>4.0 Operation and Maintenance</b> <i>Section D 13(vi)</i>		<b>Nov. 2, 2008</b>		<b>Director of Municipal Utilities</b> (Mark J. Madison)	
Mapping	Up to date mapping of the sewage collection system facilities including appropriate storm water systems.				
Preventive maintenance program	Written description of the preventative maintenance activities the agency employs.				
Rehabilitation and replacement program	Short and long term plan for the rehabilitation or replacement due to system deficiencies including funding (CIP).				
Inspection program	Program for the regular visual and CCTV inspection of the system.				
Staff training	Staff O&M training and assurance that contractors are adequately trained.				
Equipment and parts inventory	Equipment and parts inventory including the identification of critical replacement parts.				
<b>5.0 Design and Performance</b> <i>Section D 13(v)</i>		<b>May 2, 2009</b>		<b>Director of Municipal Utilities</b> (Mark J. Madison)	
Design standards	Design standards for new and rehabilitated systems.				
Inspection and testing standards	Inspection and testing standards for new and rehabilitated systems.				
<b>6.0 Overflow Emergency Response Plan</b> <i>Section D 13(vi)</i>	Written procedures defining how the agency responds to SSOs.	<b>Nov. 2, 2008</b>		<b>Director of Municipal Utilities</b> (Mark J. Madison)	
<b>7.0 Fats, Oils &amp; Grease Control Program</b> <i>Section D 13(vii)</i>		<b>Nov. 2, 2008</b>		<b>Director of Municipal Utilities</b> (Mark J. Madison)	
FOG ordinance	Legal authority to prevent the discharge of FOG into the system.				

## **ATTACHMENT B**

**STATE WATER RESOURCES CONTROL BOARD  
ORDER NO. 2006-0003-DWQ**

**STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS  
FOR  
SANITARY SEWER SYSTEMS**

The State Water Resources Control Board, hereinafter referred to as "State Water Board", finds that:

1. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to comply with the terms of this Order. Such entities are hereinafter referred to as "Enrollees".
2. Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater, as well as industrial and commercial wastewater, depending on the pattern of land uses in the area served by the sanitary sewer system. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. SSOs may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.
3. Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.
4. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

### **SEWER SYSTEM MANAGEMENT PLANS**

5. To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
6. Many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with this Order. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.
7. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.
8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.
9. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. 2006-0003-DWQ, are necessary to assure compliance with these waste discharge requirements (WDRs).
10. Information regarding SSOs must be provided to Regional Water Boards and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion.
11. Some Regional Water Boards have issued WDRs or WDRs that serve as National Pollution Discharge Elimination System (NPDES) permits to sanitary sewer system owners/operators within their jurisdictions. This Order establishes minimum requirements to prevent SSOs. Although it is the State Water Board's intent that this Order be the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Boards may issue more stringent or more

prescriptive WDRs for sanitary sewer systems. Upon issuance or reissuance of a Regional Water Board's WDRs for a system subject to this Order, the Regional Water Board shall coordinate its requirements with stated requirements within this Order, to identify requirements that are more stringent, to remove requirements that are less stringent than this Order, and to provide consistency in reporting.

## **REGULATORY CONSIDERATIONS**

12. California Water Code section 13263 provides that the State Water Board may prescribe general WDRs for a category of discharges if the State Water Board finds or determines that:

- The discharges are produced by the same or similar operations;
- The discharges involve the same or similar types of waste;
- The discharges require the same or similar treatment standards; and
- The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

This Order establishes requirements for a class of operations, facilities, and discharges that are similar throughout the state.

13. The issuance of general WDRs to the Enrollees will:

- a) Reduce the administrative burden of issuing individual WDRs to each Enrollee;
- b) Provide for a unified statewide approach for the reporting and database tracking of SSOs;
- c) Establish consistent and uniform requirements for SSMP development and implementation;
- d) Provide statewide consistency in reporting; and
- e) Facilitate consistent enforcement for violations.

14. The beneficial uses of surface waters that can be impaired by SSOs include, but are not limited to, aquatic life, drinking water supply, body contact and non-contact recreation, and aesthetics. The beneficial uses of ground water that can be impaired include, but are not limited to, drinking water and agricultural supply. Surface and ground waters throughout the state support these uses to varying degrees.

15. The implementation of requirements set forth in this Order will ensure the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each region and take into account the environmental characteristics of hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect



water quality in the area, costs associated with compliance with these requirements, the need for developing housing within California, and the need to develop and use recycled water.

16. The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. In addition, many Basin Plans adopted by the Regional Water Boards contain discharge prohibitions that apply to the discharge of untreated or partially treated wastewater. Finally, the California Water Code generally prohibits the discharge of waste to land prior to the filing of any required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs.
17. California Water Code section 13263 requires a water board to, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. The requirements shall, among other things, take into consideration the need to prevent nuisance.
18. California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
  - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
  - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
  - c. Occurs during, or as a result of, the treatment or disposal of wastes.
19. This Order is consistent with State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) in that the Order imposes conditions to prevent impacts to water quality, does not allow the degradation of water quality, will not unreasonably affect beneficial uses of water, and will not result in water quality less than prescribed in State Water Board or Regional Water Board plans and policies.
20. The action to adopt this General Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt

this Order is exempt from CEQA pursuant to Cal.Code Regs., title 14, §15301 to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in Section 15301, and §15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

21. The Fact Sheet, which is incorporated by reference in the Order, contains supplemental information that was also considered in establishing these requirements.
22. The State Water Board has notified all affected public agencies and all known interested persons of the intent to prescribe general WDRs that require Enrollees to develop SSMPs and to report all SSOs.
23. The State Water Board conducted a public hearing on February 8, 2006, to receive oral and written comments on the draft order. The State Water Board received and considered, at its May 2, 2006, meeting, additional public comments on substantial changes made to the proposed general WDRs following the February 8, 2006, public hearing. The State Water Board has considered all comments pertaining to the proposed general WDRs.

**IT IS HEREBY ORDERED**, that pursuant to California Water Code section 13263, the Enrollees, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

**A. DEFINITIONS**

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
  - (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
  - (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
  - (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.
2. **Sanitary sewer system** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

For purposes of this Order, sanitary sewer systems include only those systems owned by public agencies that are comprised of more than one mile of pipes or sewer lines.

3. **Enrollee** - A federal or state agency, municipality, county, district, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order.
4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.
5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.
6. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.
7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
  - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
  - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
  - c. Occurs during, or as a result of, the treatment or disposal of wastes.

## B. APPLICATION REQUIREMENTS

1. **Deadlines for Application** – All public agencies that currently own or operate sanitary sewer systems within the State of California must apply for coverage under the general WDRs within six (6) months of the date of adoption of the general WDRs. Additionally, public agencies that acquire or assume responsibility for operating sanitary sewer systems after the date of adoption of this Order must apply for coverage under the general WDRs at least three (3) months prior to operation of those facilities.
2. **Applications under the general WDRs** – In order to apply for coverage pursuant to the general WDRs, a legally authorized representative for each agency must submit a complete application package. Within sixty (60) days of adoption of the general WDRs, State Water Board staff will send specific instructions on how to

apply for coverage under the general WDRs to all known public agencies that own sanitary sewer systems. Agencies that do not receive notice may obtain applications and instructions online on the Water Board's website.

3. Coverage under the general WDRs – Permit coverage will be in effect once a complete application package has been submitted and approved by the State Water Board's Division of Water Quality.

#### **C. PROHIBITIONS**

1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.
2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

#### **D. PROVISIONS**

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.
2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs shall be:
  - (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
  - (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
  - (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
  - (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.
3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.
4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into

flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

5. All SSOs must be reported in accordance with Section G of the general WDRs.
6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:
  - (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;
  - (ii) The Enrollee can identify the cause or likely cause of the discharge event;
  - (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.
  - (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;
  - (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
    - Proper management, operation and maintenance;
    - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);
    - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
    - Installation of adequate backup equipment; and
    - Inflow and infiltration prevention and control to the extent practicable.
  - (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

(vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.

7. When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
  - (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
  - (iii) Cleanup of debris at the overflow site;
  - (iv) System modifications to prevent another SSO at the same location;
  - (v) Adequate sampling to determine the nature and impact of the release; and
  - (vi) Adequate public notification to protect the public from exposure to the SSO.
8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.
10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.
11. The Enrollee shall develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.

12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.
13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

#### **Sewer System Management Plan (SSMP)**

- (i) **Goal:** The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.
- (ii) **Organization:** The SSMP must identify:
  - (a) The name of the responsible or authorized representative as described in Section J of this Order.
  - (b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
  - (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).
- (iii) **Legal Authority:** Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:
  - (a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);



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

- (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

(v) **Design and Performance Provisions:**

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

(vi) **Overflow Emergency Response Plan** - Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

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

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

- (a) 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 discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- (d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
- (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

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

- (a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs

that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

- (b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
  - (c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
  - (d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.
- (ix) **Monitoring, Measurement, and Program Modifications:** The Enrollee shall:
- (a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
  - (b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
  - (c) Assess the success of the preventative maintenance program;
  - (d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
  - (e) Identify and illustrate SSO trends, including: frequency, location, and volume.
- (x) **SSMP Program Audits** - As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the

Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

- (xi) **Communication Program** – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

14. Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15, below.

In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

State Water Resources Control Board  
Division of Water Quality  
Attn: SSO Program Manager  
P.O. Box 100  
Sacramento, CA 95812

The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the Enrollee shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. The Enrollee shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

**Sewer System Management Plan Time Schedule**

Task and Associated Section	Completion Date			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Application for Permit Coverage <b>Section C</b>	6 months after WDRs Adoption			
Reporting Program <b>Section G</b>	6 months after WDRs Adoption <sup>1</sup>			
SSMP Development Plan and Schedule <b>No specific Section</b>	9 months after WDRs Adoption <sup>2</sup>	12 months after WDRs Adoption <sup>2</sup>	15 months after WDRs Adoption <sup>2</sup>	18 months after WDRs Adoption <sup>2</sup>
Goals and Organization Structure <b>Section D 13 (i) &amp; (ii)</b>	12 months after WDRs Adoption <sup>2</sup>		18 months after WDRs Adoption <sup>2</sup>	
Overflow Emergency Response Program <b>Section D 13 (vi)</b>	24 months after WDRs Adoption <sup>2</sup>	30 months after WDRs Adoption <sup>2</sup>	36 months after WDRs Adoption <sup>2</sup>	39 months after WDRs Adoption <sup>2</sup>
Legal Authority <b>Section D 13 (iii)</b>				
Operation and Maintenance Program <b>Section D 13 (iv)</b>				
Grease Control Program <b>Section D 13 (vii)</b>	36 months after WDRs Adoption	39 months after WDRs Adoption	48 months after WDRs Adoption	51 months after WDRs Adoption
Design and Performance <b>Section D 13 (v)</b>				
System Evaluation and Capacity Assurance Plan <b>Section D 13 (viii)</b>				
Final SSMP, incorporating all of the SSMP requirements <b>Section D 13</b>				

1. In the event that by July 1, 2006 the Executive Director is able to execute a memorandum of agreement (MOA) with the California Water Environment Association (CWEA) or discharger representatives outlining a strategy and time schedule for CWEA or another entity to provide statewide training on the adopted monitoring program, SSO database electronic reporting, and SSMP development, consistent with this Order, then the schedule of Reporting Program Section G shall be replaced with the following schedule:

Reporting Program <b>Section G</b>	
Regional Boards 4, 8, and 9	8 months after WDRs Adoption
Regional Boards 1, 2, and 3	12 months after WDRs Adoption
Regional Boards 5, 6, and 7	16 months after WDRs Adoption

If this MOU is not executed by July 1, 2006, the reporting program time schedule will remain six (6) months for all regions and agency size categories.

2. In the event that the Executive Director executes the MOA identified in note 1 by July 1, 2006, then the deadline for this task shall be extended by six (6) months. The time schedule identified in the MOA must be consistent with the extended time schedule provided by this note. If the MOA is not executed by July 1, 2006, the six (6) month time extension will not be granted.

#### **E. WDRs and SSMP AVAILABILITY**

1. A copy of the general WDRs and the certified SSMP shall be maintained at appropriate locations (such as the Enrollee's offices, facilities, and/or Internet homepage) and shall be available to sanitary sewer system operating and maintenance personnel at all times.

#### **F. ENTRY AND INSPECTION**

1. The Enrollee shall allow the State or Regional Water Boards or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:
  - a. Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

**G. GENERAL MONITORING AND REPORTING REQUIREMENTS**

1. The Enrollee shall furnish to the State or Regional Water Board, within a reasonable time, any information that the State or Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Enrollee shall also furnish to the Executive Director of the State Water Board or Executive Officer of the applicable Regional Water Board, upon request, copies of records required to be kept by this Order.
2. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2006-0003 and future revisions thereto, as specified by the Executive Director. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2006-0003. Unless superseded by a specific enforcement Order for a specific Enrollee, these reporting requirements are intended to replace other mandatory routine written reports associated with SSOs.
3. All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within 30 days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding a Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.
4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

Any SSO greater than 1,000 gallons discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services pursuant to California Water Code section 13271.



**H. CHANGE IN OWNERSHIP**

1. This Order is not transferable to any person or party, except after notice to the Executive Director. The Enrollee shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of this Order's responsibility and coverage between the existing Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date forward.

**I. INCOMPLETE REPORTS**

1. If an Enrollee becomes aware that it failed to submit any relevant facts in any report required under this Order, the Enrollee shall promptly submit such facts or information by formally amending the report in the Online SSO Database.

**J. REPORT DECLARATION**

1. All applications, reports, or information shall be signed and certified as follows:
  - (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)
  - (ii) An individual is a duly authorized representative only if:
    - (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and
    - (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

**K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS**

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.
2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

falsifying any information provided in the technical or monitoring reports is subject to civil monetary penalties.

**L. SEVERABILITY**

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

**CERTIFICATION**

The undersigned Clerk to the State Water Board does hereby certify that the foregoing is a full, true, and correct copy of general WDRs duly and regularly adopted at a meeting of the State Water Resources Control Board held on May 2, 2006.

AYE: Tam M. Doduc  
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None



Song Her  
Clerk to the Board

## **STATE WATER RESOURCES CONTROL BOARD**

### **MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ 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 No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

#### **A. SANITARY SEWER OVERFLOW REPORTING**

##### **SSO Categories**

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
  - A. Equal 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 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.
3. Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

##### **SSO Reporting Timeframes**

4. Category 1 SSOs – All SSOs that meet the above criteria for Category 1 SSOs must be reported as soon as: (1) the Enrollee has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of Category 1 SSOs must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Enrollee is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 9.K. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.

The above 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.

5. Category 2 SSOs – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).
6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Enrollee) should be identified, if known.
7. If there are no SSOs during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.
8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

#### **Mandatory Information to be Included in SSO Online Reporting**

All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSOs into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding an Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

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

9. Category 2 SSOs:
  - A. Location of SSO by entering GPS coordinates;
  - B. Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
  - C. County where SSO occurred;
  - D. Whether or not the SSO entered a drainage channel and/or surface water;
  - E. Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;

- F. Estimated SSO volume in gallons;
- G. SSO source (manhole, cleanout, etc.);
- H. SSO cause (mainline blockage, roots, etc.);
- I. Time of SSO notification or discovery;
- J. Estimated operator arrival time;
- K. SSO destination;
- L. Estimated SSO end time; and
- M. SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.

10. Private Lateral Sewage Discharges:

- A. All information listed above (if applicable and known), as well as;
- B. Identification of sewage discharge as a private lateral sewage discharge; and
- C. Responsible party contact information (if known).

11. Category 1 SSOs:

- A. All information listed for Category 2 SSOs, as well as;
- B. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
- C. Estimated SSO amount recovered;
- D. Response and corrective action taken;
- E. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
- F. Parameters that samples were analyzed for (if applicable);
- G. Identification of whether or not health warnings were posted;
- H. Beaches impacted (if applicable). If no beach was impacted, NA must be selected;
- I. Whether or not there is an ongoing investigation;
- J. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
- K. OES control number (if applicable);
- L. Date OES was called (if applicable);
- M. Time OES was called (if applicable);
- N. Identification of whether or not County Health Officers were called;
- O. Date County Health Officer was called (if applicable); and
- P. Time County Health Officer was called (if applicable).

**Reporting to Other Regulatory Agencies**

These reporting requirements do not preclude an Enrollee from reporting SSOs to other regulatory agencies pursuant to California state law. These reporting requirements do not replace other Regional Water Board telephone reporting requirements for SSOs.

1. The Enrollee shall report SSOs to OES, in accordance with California Water Code Section 13271.

Office of Emergency Services  
Phone (800) 852-7550

2. The Enrollee shall report SSOs to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.
3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the appropriate Regional Water Board.

**B. Record Keeping**

1. Individual SSO records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer.
3. All records shall be made available for review upon State or Regional Water Board staff's request.
4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;
5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:
  - a. Record of Certified report, as submitted to the online SSO database;
  - b. All original recordings for continuous monitoring instrumentation;
  - c. Service call records and complaint logs of calls received by the Enrollee;
  - d. SSO calls;
  - e. SSO records;
  - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
  - g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
  - h. A list and description of complaints from customers or others from the previous 5 years; and
  - i. Documentation of performance and implementation measures for the previous 5 years.
6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical technique or method used; and,
- f. The results of such analyses.

**C. Certification**

1. All final reports must be certified by an authorized person as required by Provision J of the Order.
2. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

Monitoring and Reporting Program No. 2006-0003 will become effective on the date of adoption by the State Water Board.

**CERTIFICATION**

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Board held on May 2, 2006.



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Song Her  
Clerk to the Board

## **ATTACHMENT C**



May 10, 2011

TO: Mayor and City Council

FROM: Jeff Willett, Interim Director of Municipal Utilities

SUBJECT: **FINAL APPROVAL OF THE CITY OF STOCKTON'S SEWER SYSTEM  
MANAGEMENT PLAN**

### RECOMMENDATION

It is recommended that the City Council authorize the final approval and certification of the 2011–2015 Sewer System Management Plan as required by State Water Resources Control Board Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

### Summary

The City of Stockton (City), along with all public entities that provide sanitary sewer collection services, is subject to discharge requirements imposed by the State Water Resources Control Board Order No. 2006-0003-DWQ Statewide General Waste Discharge Requirements, adopted May 2, 2006 (Order).

The Order requires the City to prepare and implement a Sewer System Management Plan (SSMP) in order to effectively manage its wastewater collection system. All sections of the SSMP must be certified as complete by an Authorized City Representative; and the City Council must approve the SSMP Development Plan and Schedule, and final SSMP prior to certification as complete and in compliance. As each section of the SSMP has been drafted, it has been certified by Municipal Utilities Department staff. Now that the SSMP is complete, the final Order requirement is that the SSMP "...must be presented to the Enrollee's governing board for approval at a public meeting." The final SSMP (Exhibit 1 to the Resolution) does not contain the referencing documents, since those documents are not part of the SSMP which is now being considered for final approval. Once approved by Council, the SSMP and all referencing documents will be accessible to the public on the City's website.

### DISCUSSION

#### Background

In 2007, City Council Resolution 07-0327 authorized the approval and implementation of the SSMP Development Plan and Schedule. All subparts of the SSMP have been appropriately certified and are in compliance with the Order. The final requirement is

## **FINAL APPROVAL OF THE CITY OF STOCKTON'S SEWER SYSTEM MANAGEMENT PLAN**

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(Page 2)

that the Municipal Utilities Department (Enrollee) submits the SSMP to its governing board for approval at a public meeting, such as the City Council meeting.

The Order defines the SSMP includes the following specific sections:

- Goals and Organizational Structure
- Overflow Emergency Response Program
- Legal Authority
- Operation and Maintenance Program
- Grease Control Program
- Design and Performance
- System Evaluation and Capacity Assurance Plan

In July 2009, City Council approved Resolution 09-0248 which approved a settlement agreement in *California Sportfishing Protection Alliance v. City of Stockton*, Eastern District Case No. CV 08-02184 LKK-KLM. (Consent Decree). This Consent Decree required the City to engage in certain operational activities, including the preparation of operating procedures for the sanitary sewer system and action plans aimed at reducing overflows.

### Present Situation

The appropriate MUD personnel has reviewed, coordinated the affected elements of the SSMP with the Consent Decree requirements, and completed the 2011–2015 SSMP. MUD provided a brief outline of the SSMP to the Water Advisory Committee on April 6, 2011 and the Council Water Committee on April 13, 2011, and has subsequently provided electronic copies of the complete document. The 2011-2015 SSMP is now being submitted for City Council review and approval (Exhibit 1 to the Resolution). The State Board does not require that an agency submit their SSMP to the State or Regional Water Boards for review or approval; however, the document must be made available upon request. Any minor, nonsubstantive changes may be made by MUD Staff as appropriate without returning to the City Council.

May 10, 2011

**FINAL APPROVAL OF THE CITY OF STOCKTON'S SEWER SYSTEM  
MANAGEMENT PLAN**

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(Page 3)

FINANCIAL SUMMARY

The recent Wastewater Rate Adjustment approved by City Council Resolution 10-0277 is expected to be sufficient to continue ongoing implementation of the SSMP.

Respectfully submitted,



JEFF WILLETT  
INTERIM DIRECTOR  
OF MUNICIPAL UTILITIES

APPROVED



MIKE LOCKE  
DEPUTY CITY MANAGER

JW:KC:cla

::ODMA\GRPWISE\COS.MUD.MUD\_Library:144971.1

Resolution No. \_\_\_\_\_

## STOCKTON CITY COUNCIL

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### RESOLUTION AUTHORIZING FINAL APPROVAL AND CERTIFICATION OF THE 2011-2015 SEWER SYSTEM MANAGEMENT PLAN AS REQUIRED BY STATE WATER RESOURCES CONTROL BOARD ORDER NO. 2006-0003-DWQ, STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

The City of Stockton is required by State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, dated May 2, 2006, to develop, implement, and cause an Authorized City Representative to certify as complete, a Sewer System Management Plan (SSMP); and

SWRCB Order No. 2006-0003-DWQ also requires that Council must approve the final SSMP prior to an Authorized City Representative's certification of the SSMP as being complete and in compliance; now, therefore,

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF STOCKTON, AS FOLLOWS:

1. The City of Stockton Final 2011 - 2015 SSMP is approved, a copy of which is attached as Exhibit 1 and incorporated by this reference.

2. The City Manager is authorized to take such other actions as are appropriate to carry out the intent of this Resolution.

PASSED, APPROVED, and ADOPTED \_\_\_\_\_.

\_\_\_\_\_  
ANN JOHNSTON, Mayor  
of the City of Stockton

ATTEST:

\_\_\_\_\_  
KATHERINE GONG MEISSNER, City Clerk  
of the City of Stockton

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City Atty:  
Review  
Date

  
May 2, 2011

## **ATTACHMENT D**

Resolution No. 2016-03-26-0302

## STOCKTON CITY COUNCIL

### RESOLUTION APPROVING THE CITY OF STOCKTON'S 2016-2020 SEWER SYSTEM MANAGEMENT PLAN UPDATES

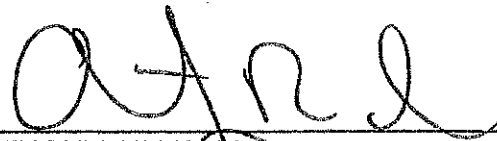
The City of Stockton is required by the Department of Water Quality (DWQ) of the State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ Statewide General Waste Discharge Requirement (GWDR), dated May 2, 2006, to develop, implement, and cause an Authorized City Representative to certify as complete, a Sewer System Management Plan (SSMP); and

SWRCB Order No. 2006-0003-DWQ GWDR, also requires that Council must approve the SSMP whenever significant updates are made to the plan, prior to an Authorized City Representative's certification of the SSMP as being complete and in compliance; now, therefore,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF STOCKTON, AS FOLLOWS:


1. The City Council approves the City of Stockton 2016 - 2020 Sewer System Management Plan, a copy of which is attached as Exhibit "1" and incorporated by this reference.
2. The City Manager is authorized to take whatever actions are appropriate and necessary to carry out the purpose and intent of this resolution.

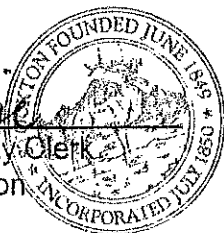
PASSED, APPROVED, and ADOPTED March 26, 2016.



ANTHONY SILVA, Mayor  
of the City of Stockton

ATTEST:

  
BONNIE PAIGE, City Clerk  
of the City of Stockton



Appendix 2  
Water Resources Control Board  
Order No. WQ 2013-0058 EXEC

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.

8/6/13  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
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><u>any volume</u></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><u>1,000 gallons or greater</u></b> resulting from an enrollee's sanitary sewer system failure or flow condition that <b><u>do not</u></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><u>within a privately owned sewer lateral</u></b> connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be <u>voluntarily</u> 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><u>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</u></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><u>within 48 hours</u></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.

Date

7/30/13

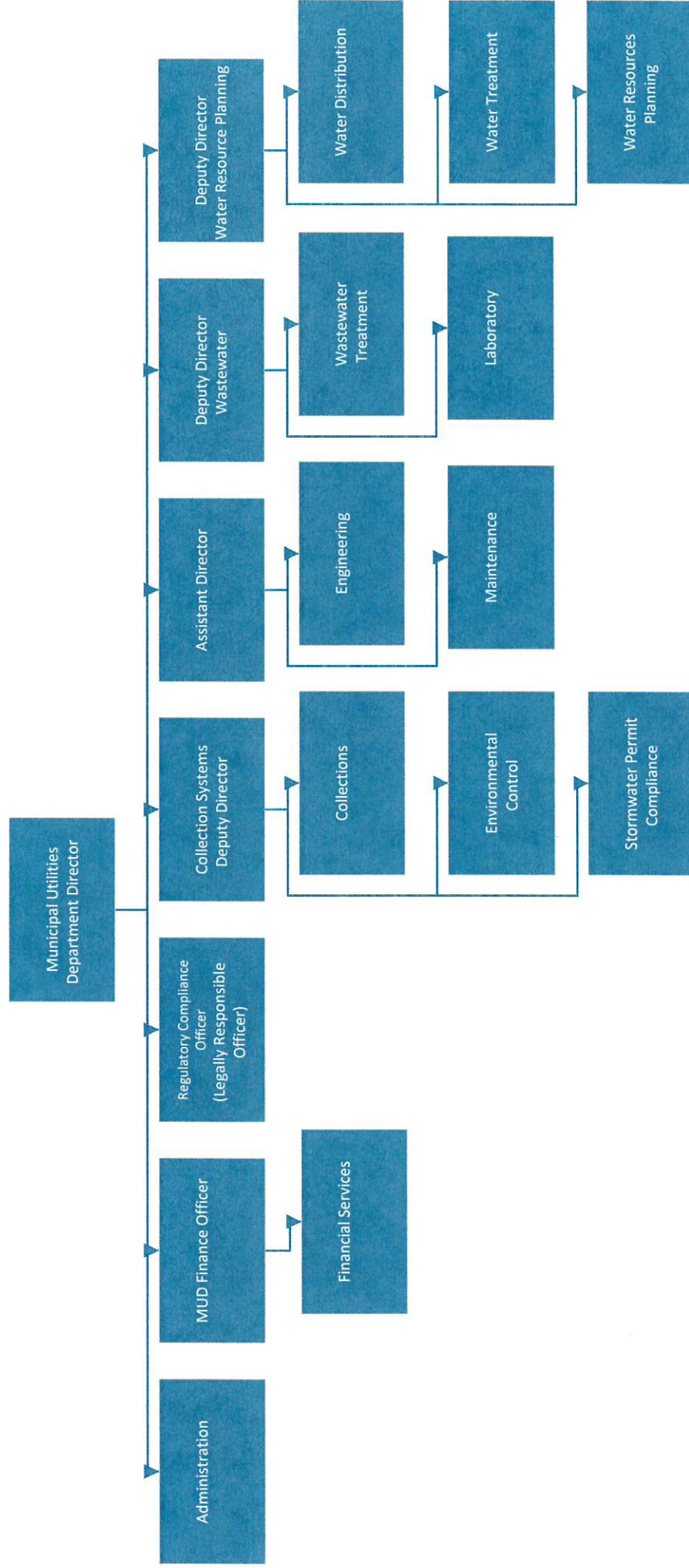
  
Jeanine Townsend  
Clerk to the Board

## Appendix 3

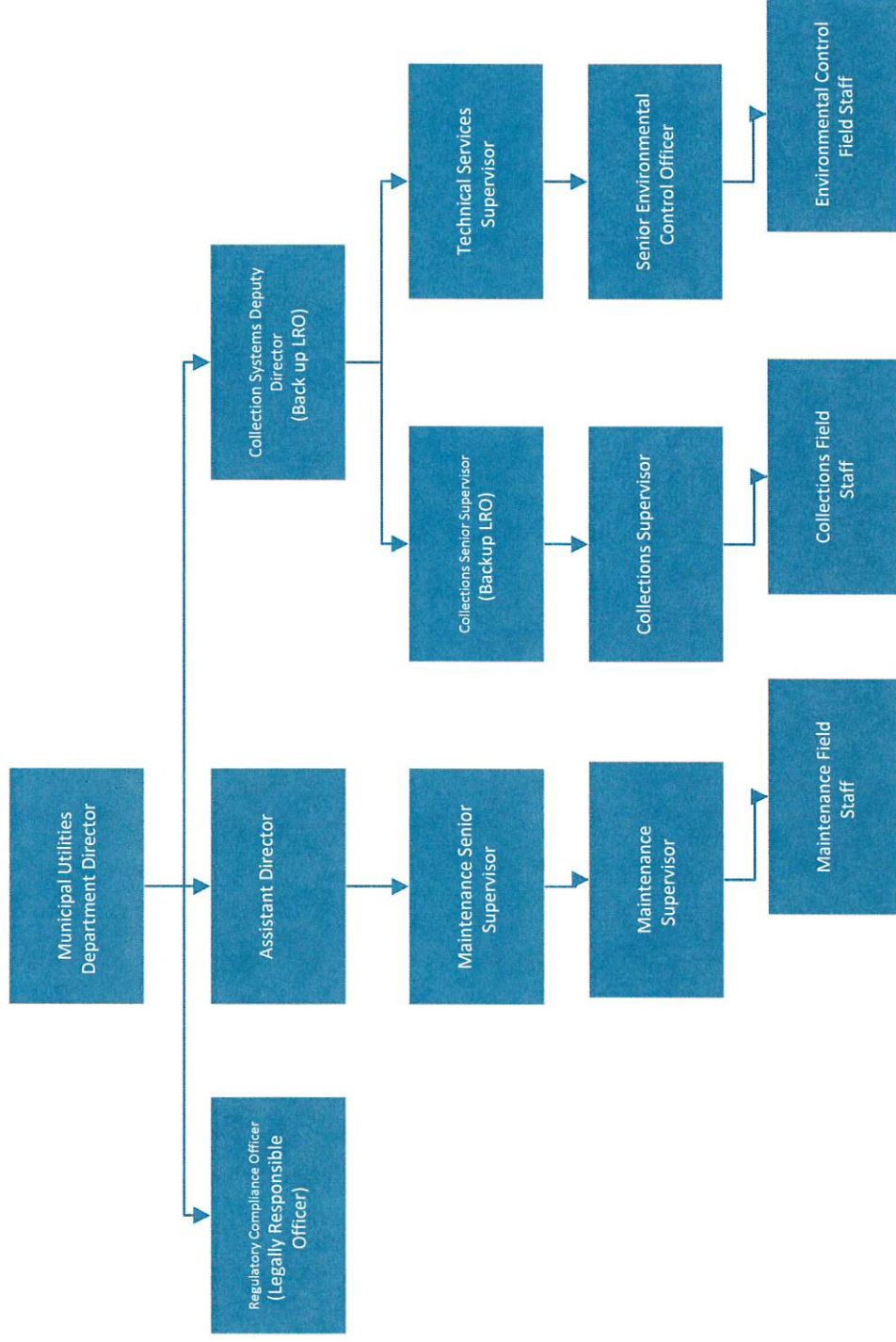
### MUD Organizational Charts



# City of Stockton Municipal Utilities Department Organization Chart



## City of Stockton – Municipal Utilities Department Maintenance & Collection Systems Organization Chart



Appendix 4  
City of Stockton  
Sanitary Sewer Overflow Emergency Response Plan





# SANITARY SEWER OVERFLOW EMERGENCY RESPONSE PLAN

September 9, 2013  
Revised June 1, 2015

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## 1. OBJECTIVE

The City of Stockton's Sanitary Sewer Overflow Emergency Response Plan (SSOERP) is designed to ensure that every report of a sanitary sewer overflow (SSO) is dispatched to the appropriate response personnel so that the effects of the overflow can be minimized with respect to its adverse impacts on public health, the environment, and property. The source of the SSO shall be stopped and the spill contained as soon as possible. Notification and reporting to governmental agencies, affected residents and property owners shall be done in an appropriate time frame. All state and local regulations shall be observed and implemented in response and remediation procedures.

## 2. DEFINITIONS

**Category 1 SSO** – Discharges of untreated or partially treated wastewater of any volume resulting from a City's sewer system failure or flow condition that:

Reach surface water and/or reach a drainage channel tributary to a surface water; or

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).

**Category 2 SSO** – Discharges of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a City sanitary sewer system failure or flow condition that does not reach a surface water, a drainage channel, or the MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

**Category 3 SSO** – All other discharges of untreated or partially treated wastewater resulting from a City sanitary sewer system failure or flow condition.

**Online SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Resources Control Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.

**Order** – State Water Resources Control Board Order No. 2006-0003-DWQ, Monitoring and Reporting Program, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems; and State Water Resources Control Board Order No. WQ 2013-0058-EXEC, Amended Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems; and amendments thereto.

**Private Lateral Sewage Discharge (PLSD)** – Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the City's sanitary sewer system or from other private sanitary sewer system assets.

**Receiving Water** – Surface waters receiving discharge from stormwater conveyance systems.

**Sanitary Sewer Overflow (SSO)** – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:

Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;

Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and

Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

**Sanitary Sewer System** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

**Surface Waters** – Waters of the United States as defined in 40 CFR 122.2 such as navigable waters, rivers, streams (including ephemeral streams), lakes, natural ponds, lagoons, estuaries, man-made canals, ditches, wet meadows, wetlands, marshes, sloughs and water courses.

### 3. IMPLEMENTATION

The City shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the City shall take all feasible steps to contain and mitigate the impacts of an SSO.

The City supervisor or highest level staff person on-site is responsible for using sound judgment in efforts to stop and contain the SSO as soon as possible, initiate proper notifications in accordance with an approved communication plan, and implement safe and effective measures to remediate the spill.

All SSOs shall be reported in accordance with State Water Resources Control Board Order No. 2006-0003-DWQ, Monitoring and Reporting Program, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems; and State Water Resources Control Board Order No. WQ 2013-0058-EXEC, Amended Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems; and amendments thereto.

The City shall ensure that up-to-date copies of the Sanitary Sewer Overflow Emergency Response Plan are readily available to sewer system operation and maintenance personnel at all times.

The Sanitary Sewer Overflow Emergency Response Plan shall include an SSO Field Procedures Manual (Attachment 5) with detailed field guidance procedures for handling all aspects of sanitary sewer overflow incidents.

The City shall ensure that SSO response personnel are properly trained in the use of the Sanitary Sewer Overflow Emergency Response Plan.

#### **4. REPORTING PROCEDURES**

**CIWQS Online SSO Database Account:** The City shall maintain a CIWQS Online SSO Database account and maintain a "Username" and "Password" by registering through CIWQS. These accounts allow controlled and secure entry into the CIWQS Online SSO Database.

**SSO Mandatory Reporting Information:** For reporting purposes, if one SSO event results in multiple appearance points in a sewer system asset, the City 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.

##### **SSO Reporting to CIWQS - Timeframes**

**a. 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:

1. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS Online SSO within three (3) business days of the City becoming aware of the SSO.
2. 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.

**b. 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).

**c. "No Spill" Certification** – If there are no SSOs during the calendar month, the City 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 01 -January/ February/

March, 02- April/May/June, 03- July/August/September, and Q4- October/November/December.

If there are no SSOs during a calendar month but the City reported a PLSD, the City shall still certify a "No Spill" certification statement for that month.

**d. Amended SSO Reports** – The City 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 Technical Report**

The City shall submit an SSO Technical Report in the CIWQS SSO Online 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 a more detailed analysis if requested, shall include at a minimum, the following:

#### **a. Causes and Circumstances of the SSO:**

1. Complete and detailed explanation of how and when the SSO was discovered.
2. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
3. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
4. Detailed description of the cause(s) of the SSO.
5. Copies of original field crew records used to document the SSO.
6. Historical maintenance records for the failure location.

#### **b. City's Response to SSO:**

1. Chronological narrative description of all actions taken by City to terminate the spill.
2. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond and mitigate the SSO.
3. Final corrective action(s) completed and/or planned to be included, including a schedule for actions not yet completed.

#### **c. Water Quality Monitoring:**

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

## **Private Lateral Sewage Discharges (PLSDs)**

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

The City may also voluntarily 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 City may also voluntarily file a spill report as required by Health & 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.

If a PLSD is recorded in the CIWQS Online SSO Database, the City 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 City), if known. Certification of PLSD reports by City is not required.

## **CIWQS Online SSO Database Unavailability**

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

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

The City shall maintain a CIWQS Online SSO Database account and a "Username" and "Password". This account will allow controlled and secure entry into the CIWQS Online SSO Database.

### **a. 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:

**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 City 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 City 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.

**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 required in the draft Category 1 SSO report:

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.

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

1. All Items 1-14 for Draft Category 1 SSO report above.

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

1. All Items 1-14 for Draft Category 1 SSO report above and items 1-9, and 17 for Certified Category 1 SSO report above.

**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 for Draft Category 1 SSO report above and items 1-6, and 17 for Certified Category 1 SSO report above.

#### **b. Reporting SSOs to Other Regulatory Agencies**

These reporting requirements do not preclude the City 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.

#### **c. Collection System Questionnaire**

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

#### **d. SSMP Availability**

The City shall provide the publicly available internet web site address to the CIWQS Online SSO Database where a downloadable copy of the City'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 City shall comply with the following procedure:

Submit an electronic copy of the City'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, 15th Floor, Sacramento, CA 95814

## **5. CERTIFICATION PROCEDURES**

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 City may have more than one LRO.

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.

Data Submitter (DS): Any City employee or contractor may enter draft data into the CIWQS Online SSO Database on behalf of the City if authorized by the LRO and registered with the State Water Board. However, only LROs may certify reports in CIWQS.

The City 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 City 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).

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.

## **6. NOTIFICATION PROCEDURES**

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 City shall, as soon as possible, but not later than two (2) hours after (A) the City 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.

To satisfy notification requirements for each applicable SSO, the City shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:

1. Name of person notifying Cal OES and direct return phone number.
2. Estimated SSO volume discharged (gallons).
3. If ongoing, estimated SSO discharge rate (gallons per minute).
4. SSO Incident Description:
  - a. Brief narrative.
  - b. On-scene point of contact for additional information (name and cell number).
  - c. Date and time City became aware of SSO.
  - d. Name of sanitary sewer system agency causing the SSO.
  - e. SSO cause (if known).
5. Indication of whether SSO has been contained.
6. Indication of whether surface water is impacted.
7. Name of surface water impacted by SSO, if applicable.
8. Indication of whether a drinking water supply is or may be impacted by SSO.
9. Any other known SSO impacts.
10. SSO incident location (address, city, state, and zip code).

Following the initial notification to Cal OES and until such time that an City certifies the SSO report in the CIWQS Online SSO Database, the City 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).

PLSDs: The City may voluntarily 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 City becomes aware of the PLSD.

### **SSOs Discharged to Private Lakes and Waterways**

In the event of an SSO potentially discharged to a private lake or waterway, the City shall notify the management company responsible for each effected lake or waterway. The management company will then determine appropriate response measures for each lake or waterway and will have the responsibility for performing such actions. Response measures may include isolating water supply pumps, posting warning signs around lakes/waterways, residential notifications, lake/waterway sampling, etc.

### **SSO Notification Requirements**

The following SSO notifications shall be performed:

<b>All Category 1 SSO's</b>	
<u>City of Stockton, Municipal Utilities Dept.:</u> Technical Services Supervisor, Regulatory Compliance Officer, Deputy Director of Collections, Assistant Director and Director  Delta Water Supply Project	Telephone / Email  (209) 639-3972 (Senior) (209) 937-5633 (Office) (209) 639-4241 (Operator) (209) 768-8879 (CPO)
<u>City of Stockton, City Manager's Office:</u> Public Information Officer, Assistant to City Manager and Deputy City Manager	Telephone / Email
<b>Cal OES (1,000 gallons or greater only)</b>	(800) 852-7550
Alameda County Water District	(510) 656-3426 (M-F 8-4) Fax (510) 657-5944 (after hours) Fax
Alameda Co. Flood Control District, Zone 7	(925) 447-4517 Fax
Contra Costa Water District	(925) 688-8274 Fax
Santa Clara Valley Water District	(408) 395-5550 Fax
San Joaquin Co. Flood Channel Maint. Div.	(209) 468-8457 Fax
State Water Resources Control Board Online SSO Reporting System (CIWQS)	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a>
<b>All Category 2 SSO's</b>	
<u>City of Stockton, Municipal Utilities Dept.:</u> Technical Services Supervisor, Regulatory Compliance Officer, Deputy Director of Collections, Assistant Director and Director	Telephone / Email
City of Stockton, City Manager's Office: Public Information Officer Assistant to City Manager Deputy City Manager	Telephone / Email
State Water Resources Control Board Online SSO Reporting System (CIWQS)	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a>
<b>All SSO Discharges to San Joaquin County Stormwater Collection System</b>	
San Joaquin County Public Works	(866) 755-4955
<b>All SSO Discharges to Reclamation District 1614 Stormwater Collection System</b>	
Reclamation District 1614	(209) 462-8061 / (209) 992-2827 Max Gallegos (209) 469-3133 Message

## **7. RESPONSE PROCEDURES**

When a report of a possible SSO is received, it triggers an immediate response to identify and correct the problem. This section describes the general procedures employed by the City to stop, contain, and clean up the impact of an overflow. City personnel shall perform the following SSO response procedures, as applicable. The SSO Response Procedures Checklist (Attachment 2) is completed for all Category 1 and Category 2 SSOs.

The following procedures are included as a general overview. Please refer to the SSO Field Procedures Manual (Attachment 5) for detailed procedures.

### **Investigation and Assessment**

Following notification of a possible sanitary sewer overflow, a crew is dispatched to conduct an investigation. The initial response team is responsible for assessing the cause of the problem and determining the level of effort needed to correct the problem. If the overflow is confirmed, the supervisor or highest level staff person on-site shall record the relevant spill information on a sewer overflow incident report form.

### **Notify Response Personnel**

Response personnel are dispatched to the site as appropriate based on the following criteria:

- Source of the SSO
- Volume of the SSO
- Severity of the SSO

The supervisor or highest level staff person on-site shall immediately notify appropriate SSO response personnel. SSO response personnel are City staff trained to respond to SSO situations. Personnel involved in clean-up activities shall be trained and properly equipped with appropriate personal protective equipment (PPE). Appropriate PPE shall be determined by the site supervisor based on the hazard, weather conditions and clean-up procedures.

### **Stop and Contain Overflow**

The supervisor or highest level staff person on-site shall be responsible for determining the most effective method(s) to:

- Control or limit the SSO volume discharged;
- Terminate the SSO as rapidly as possible; and
- Contain the spill as rapidly as possible.

### **Traffic and Crowd Control**

The supervisor or highest level staff person on-site shall be responsible for determining the most effective method(s) to:

- Safely control traffic flow around the spill area; and
- Provide crowd control measures to ensure public safety at all times.

The following City Departments may be contacted to assist with traffic and crowd control measures:

Stockton Police Department (209) 937-7911  
Stockton Public Works Department (209) 937-8341

SSO response personnel shall be adequately trained in traffic control procedures and public safety requirements.

### **Clean-up and Remediation**

The supervisor or highest level staff person on-site is responsible for determining the most effective clean-up method and remediation procedures and shall determine when adequate remediation procedures have been completed.

For SSOs contained downstream in the stormwater collection system due to hydraulic surcharging of the system (typically involving gravity discharges), the City will remediate the SSO by removing from the system at the point of containment a minimum of one hydro-vactor load of wastewater (approximately 2,000-2,500 gallons) or three times the volume of the SSO, whichever is greater.

For SSOs either fully or partially contained at a stormwater pump station wet well, the City will remediate the SSO by flushing and pumping the contaminated water from the stormwater system to the sanitary sewer system. Remediation will begin no later than the next regular business day, with the following conditions:

1. If precipitation is forecast, remediation will begin immediately.
2. City personnel will check and record the stormwater pump station wet well elevation every six hours and remediation will begin immediately if necessary to prevent excessively high wet well levels.
3. Stormwater pump stations with higher rates of inflow and/or infiltration will require immediate remediation.

## **8. WATER QUALITY MONITORING PROCEDURES**

If the overflow is discharged to a surface water, the impact of the spill on water quality is assessed by visual inspection for abnormal conditions such as effects on aquatic life, abnormal color, odors, etc.

A Receiving Water Inspection/Sampling Log (Attachment 3) is used to record the findings of the inspection.

Photographs may be used to document the extent of the spill, including the discharge location, and any adverse effects to receiving water or surrounding areas.

For discharges to surface water, public health warning signs shall be posted to protect the public from exposure to water contaminated with sewage:

Signs will be posted in the affected area at appropriate intervals on both sides of the banks, if possible, of the receiving water body.

Due to the occurrence of posted signs periodically being vandalized, stolen, wind-blown, etc., City staff will maintain a log and map of sign placement and removal. The signs will be checked on a regular basis by City staff and replaced or repositioned as necessary to make certain they are visible to the public throughout the entire spill event.

For SSOs greater than 1,000 gallons in volume and which enter a surface water, public health warning notifications shall be distributed door-to-door in known areas where residents utilize the surface water source for landscape irrigation purposes. Notification distribution procedures will follow Department guidelines.

### **Water Quality Monitoring Program**

To comply with subsection D.7(v) of the SSS WDRs, the City 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:

Personnel shall strictly adhere to City Department Standard Operating Procedures and Job Hazard Analyses for all water quality monitoring procedures.

2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).

Surface water samples shall be collected at the discharge location as well as at appropriate sites upstream and downstream of the spill, if possible.

If inclement weather, site access or other physical conditions present an unsafe or inaccessible sampling environment, sampling may be omitted or delayed. If omitted, the impact of the spill on receiving water shall be based on visual observations only.

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 City becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
  - a. Ammonia
  - b. 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.

Samples will be analyzed for ammonia and e-coli using methods prescribed in 40 CFR Part 136.

Follow up samples are collected as soon as possible, typically 3-10 days after the overflow event, to determine whether the receiving water body at the discharge location remains contaminated with sewage. The decision for when to sample is site specific and is dependent on such items as tidal action and receiving water flow.

6. Records of water quality monitoring shall include:
  - a. Date, location, and time of sampling or measurements;
  - b. Name(s) of individual(s) who performed the sampling or measurements;
  - c. Date(s) analyses were performed;
  - d. Name(s) of individual(s) who performed the analyses;
  - e. Analytical technique(s) or method(s) used;
  - g. Monitoring instrumentation maintenance and calibration;
  - f. Laboratory state certification; and
  - h. Results of analyses.

## **9. PREVENTION AND TRAINING**

### **SSO Preventive Measures**



Investigation and Corrective Actions: Following containment and cleanup of an overflow, the causes of the discharge are evaluated to determine improvements to prevent future problems. Lines are cleaned and TV cameras are used to inspect the pipe. Necessary repairs are completed and maintenance schedules are adjusted as appropriate.

Maintenance Programs: Programs include regular cleaning of sewer lines, connections and pumps, and foaming to remove tree roots.

Enforcement Program: City code requires installation of grease interceptors at businesses and establishments where any grease or objectionable materials may be discharged into a public or private sewage main or disposal system. Enforcement orders are issued to businesses that do not adequately maintain and/or clean the interceptors.

### **SSO Response Personnel Training**

All SSO response personnel shall receive annual training to ensure awareness with the procedures contained in the SSOERP. Periodic refresher sessions will be conducted whenever the SSOERP is updated or as necessary.

## **10. RECORD KEEPING PROCEDURES**

The following records shall be maintained by the City 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:

a. General Records: The City 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 City's sanitary sewer system contractor(s).

b. SSO Records: The City shall maintain records for each SSO event, including but not limited to:

1. Complaint records documenting how the City 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.
- 2. Records documenting steps and/or remedial actions undertaken by the City, using all available information, to comply with section D.7 of the SSS WDRs.
- 3. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
- c. 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.
- d. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
  - 1. Supervisory Control and Data Acquisition (SCADA) systems
  - 2. Alarm system(s)
  - 3. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

## Attachment 1

**Sanitary Sewer Overflow Notification Log**

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

SSO Location: \_\_\_\_\_

Date	Time	Contact Name	Organization / Agency	Contact Information
<b>Category 1 and 2 SSO</b>				
			MUD - Technical Services Supervisor	Telephone
			MUD - Regulatory Compliance Officer	Telephone
			MUD - Deputy Director of Collections	Telephone
			MUD - Assistant Director	Telephone / Email
			MUD - Director	Telephone / Email
			COS - City Manager's Office: Public Information Officer	Telephone / Email
			COS - City Manager's Office: Assistant to City Manager	Telephone / Email
			COS - City Manager's Office: Deputy City Manager	Telephone / Email
		Online	State Water Resources Control Board Online SSO Reporting System	<a href="http://ciwqs.waterboards.ca.gov">http://ciwqs.waterboards.ca.gov</a>
<b>Category 1 SSO</b>				
			California Office of Emergency Services <b>(1,000 gallons or greater only)</b>	(800) 852-7550 Report #
			MUD - Delta Water Supply Project	(209) 639-3972 (Senior) (209) 937-5633 (Office) (209) 639-4241 (Operator) (209) 768-8879 (CPO)
		Fax	Alameda County Water District	(510) 656-3426 Fax (M-F 8-4) (510) 657-5944 Fax (after hours)
		Fax	Alameda Co. Flood Control Dist, Zone 7	(925) 447-4517 Fax
		Fax	Contra Costa Water District	(925) 688-8274 Fax
		Fax	Santa Clara Valley Water District	(408) 395-5550 Fax
		Fax	San Joaquin Co. Flood Ch. Maint. Div.	(209) 468-8457 Fax
<b>All SSO Discharges to San Joaquin County Stormwater Collection System</b>				
			San Joaquin County Public Works	(866) 755-4955
<b>All SSO Discharges to Reclamation District 1614 Stormwater Collection System</b>				
			Reclamation District 1614	(209) 462-8061 / (209) 992-2827 Max Gallegos (209) 469-3133 Message

Attachment 2

**Sanitary Sewer Overflow Response Procedures Checklist**

**SSO Date:** \_\_\_\_\_

**SSO Location:** \_\_\_\_\_

<b>Date</b>	<b>Performed by* (circle)</b>	<b>Response Procedure</b>	<b>Comments</b>
	EC / C / M	Investigation and Assessment	
	EC / C / M	Notify Response Personnel	
	EC / C / M	Stop and Contain Overflow	
	EC / C / M	Assess Best Cleanup Method	
	EC / C / M	Begin Remediation	
	EC / C / M	Inspect Receiving Water	
	EC / C / M	Collect Samples	
	EC / C / M	Post Warning Signs	
	EC / C / M	Photographs	
	EC / C / M	Agency / Public Notifications	
	EC / C / M	CIWQS Data Entry – Draft	
	EC / C / M	Complete Remediation	
	EC / C / M	Collect Follow-up Samples	
	EC / C / M	Remove Warning Signs	
	EC / C / M	CIWQS Data Entry - Final	
	EC / C / M	CIWQS Technical Report	

\* EC: Environmental Control; C: Collections; M: Maintenance

# Attachment 3

## Receiving Water Inspection / Sampling Log

Date \_\_\_\_\_ Time \_\_\_\_\_ Inspector \_\_\_\_\_

Spill Date \_\_\_\_\_

Spill Location \_\_\_\_\_

Receiving Water Location \_\_\_\_\_

Sewage Color None ☐ Light ☐ Moderate ☐ Heavy ☐

Sewage Foam None ☐ Light ☐ Moderate ☐ Heavy ☐

Sewage Solids None ☐ Light ☐ Moderate ☐ Heavy ☐

Sewage Odor None ☐ Mild ☐ Moderate ☐ Severe ☐

Aquatic Life No adverse impact observed ☐

Impacted ☐ Describe \_\_\_\_\_

Photographs None ☐ Upstream ☐ Discharge ☐ Downstream ☐

Warning Signs None ☐ Upstream ☐ Discharge ☐ Downstream ☐

Samples None ☐

Upstream ☐ Locations \_\_\_\_\_

Site and flow conditions \_\_\_\_\_

Discharge ☐ Locations \_\_\_\_\_

Site and flow conditions \_\_\_\_\_

Downstream ☐ Locations \_\_\_\_\_

Site and flow conditions \_\_\_\_\_

**CITY OF STOCKTON**  
**SANITARY SEWER OVERFLOW (SSO) DISCHARGE TO SURFACE WATER REPORT**

Page 22 of 29

**SANITARY SEWER OVERFLOW STANDARD OPERATING PROCEDURE  
(SOP)**

<b>Standard Operating Procedure for Sanitary Sewer Overflow Response</b>	<b>Creation Date:</b> 12-30-03
<b>Author:</b> Tom Watkins, Collection System Supervisor  <b>Approved By:</b> Ken Merkle, Senior Collection System Supervisor	<b>Revision No. or Date:</b> 4/29/2015
<b>Scope and Location:</b> Collection Systems	
<b>List of Tools/Equipment/Material:</b> Service truck or utility truck, plugs, broom, Hydro-vac truck, barricades, signs, sand, baling wire and/or zip-ties, shovel, pump sack, gunny sacks, traffic cones, etc...	
<b>Safety/Hazards Identification and Required Safety Equipment:</b> Traffic, traffic control related equipment Back strain from pulling maintenance hole covers	

**Purpose:** *To mitigate all sewer spills as quickly as possible, so that the effects of the sewage can be minimized with respect to its adverse impacts on public health, the environment, and property.*

**Safety/Hazards Identification**

1. Ensure that all Personal Protective Equipment (PPE) and equipment are available and used.
2. Safely control traffic flow around the spill area.
3. Provide crowd control measures to ensure public safety at all times. If assistance is necessary, contact Stockton Police Dept. – 937-7911 or Stockton Public Works Dept. – 937-8341

**Procedure:**

**In the field:**

1. Receive radio call from 249, or otherwise be notified of Sanitary Sewer Overflow (SSO) location.
2. Arrive on scene, put on appropriate PPE, and put up necessary devices to safely control traffic flow around the spill area.

3. Upon arrival, assess the situation (in no particular order):
  - a. Contain the SSO. Protect storm drain / catch basin inlet.
  - b. Take photos of the scene, to document volume (affected area)
  - c. Determine the most efficient way to clear the blockage of the SSO. Options for clearing the blockage include but are not limited to:
    - i. On Laterals:
      1. De-rooting the line with the spear head, or the auger.
      2. Plunging the line with the pump sack.
    - ii. On Mainlines
      1. Rod the line with the use of a hydro/vac or rodding machine
4. Mitigate the SSO.
5. Fill out the Sanitary Sewer Overflow Response Form (attached) during mitigation procedures as appropriate.
6. Determine if the hydro/vac truck is required to help with clearing the blockage and radio for it if necessary. The hydro/vac truck can help with:
  - a. Opening blockage.
  - b. Cleaning SSO in gutters, catch basins, storm systems or any other affected areas.
  - c. If the SSO has reached the storm system, the hydro/vac is required to flush the impacted sections with water 3 times the amount of the SSO.
  - d. If the storm system is on a lake or there is head pressure keeping the spill from flowing, this is considered a hydraulic surcharging of the system. The City will remediate the SSO by removing from the system at the point of containment a minimum of one hydro-vac load of wastewater (approx. 2,000-2,500 gals) or three times the volume of the SSO, whichever is greater.
7. If the SSO reaches a storm pump station, call Mechanical Maintenance Crews to shut down the storm pump station. Ensure that the correct storm pump station is identified. Clean up the surface area accordingly.
  - a. The City will remediate the SSO by flushing and pumping the contaminated water from the stormwater system to the sanitary system immediately unless the stormwater pump stations wet well elevations are too high to contain the SSO, or crews are otherwise directed by the Plant Maintenance Supervisor.
8. Notify Environmental Control Division (contact information on SSO Response Form) if:
  - a. The spill is Category 1 – Any spill that reaches receiving waters.
  - b. The spill is Category 2 – Any spill over 1,000 gallons.
  - c. ANY spill reaches a storm pump station.
  - d. ANY private spill where resident is unresponsive or has a high spill volume
  - e. ANY unknown material spill that has reached the storm system.

Environmental Control will ask for information regarding the volume, volume recovered, length of time, location of spill both starting and ending points, cause, circumstances, appearance points (if more than one), how it was calculated, and if it was fully captured.

Comply with Environmental Control's requests and directions.



9. If the backup is into a home or business, notify your Senior or Supervisor. Use care in speaking with the customer, good communication can keep the stress level of the customer down. Never act indifferent, uncaring, unresponsive, or incompetent. Always stay professional.
  - a. TAKE PICTURES of what has been damaged and what has NOT been damaged.
  - b. TAKE notes on what occurred and customer information. Give the customer the appropriate phone numbers as needed. Claims officer, Ken Minas (209) 937-8807 or go online to the Stocktongov website. Photos, history reports, and the CCTV report will be given to the claims department when notified.
  - c. DO NOT give out wrong information.
  - d. DO NOT speculate about the situation.
  - e. DO NOT make accusations against the customer or business or other public agencies.
  - f. DO NOT admit guilt or say things like, "It's our fault we will take care of everything".
10. Once the SSO has been contained and mitigated the serviceperson can leave to attend to additional emergency calls. If there are no other emergency calls waiting, the serviceperson will wait and assist the hydro/vac truck with clean up.
11. Take photos before, during and after clean up. If serviceperson is unavailable, photos can be taken by hydro/vac truck crew.
12. Route paperwork and photos to the Senior Collection Systems Operator at the end of shift.

#### **In the office:**

1. Receive SSO Response Form from servicemen and hydro/vac truck crews.
2. Determine the Spill Cause (See number 21 on the SSO Response Form). If the spill was caused by a:
  - a. MAINLINE PLUG – A follow up work task FCL 15d will be issued to clean the main, followed by an FTV30d, however, if there has been a recent CCTV done on the main, examination of that CCTV work may determine further action. Repairs or preventive maintenance will follow as necessary.
  - b. LATERAL PLUG – The lateral will be televised with a CSPA work task FTV15d, however, if there has been a recent CCTV done on the lateral, examination of the CCTV work may determine further action. Repairs or preventive maintenance may follow as necessary.
3. Do the math: estimate volume & spill, multiply by duration of spill
  - a. Measuring spill according to the back sheet of the SSO Response Form. (See attached form)
  - b. Rate of flow from maintenance hole overflows can also be determined by visual estimation. See attached pictures.
  - c. 300gpd (gallons per day) per home per 24hrs or 210gpd (gallons per day) per multifamily unit i.e. duplex, triplex, apt. (multiply the number of units by 210gal) per 24 hrs
4. Report according to the Sanitary Sewer Overflow Emergency Response Plan, Section 4 – Reporting Procedures.

**Monitoring and Control Set Points:**

1. Environmental Control will determine if additional monitoring is required, and will work with the lab to arrange for the monitoring.

***Emergency or Abnormal Operations:***

Assist Environmental Control in the following situations:

1. For discharges to surface water, public health warning signs will be posted in the affected area at appropriate intervals on both sides of the banks, if possible, of the receiving water body.
  - a. Due to signs periodically being vandalized, stolen, etc., Crews will keep a map on sign locations. Electrical tie wires or baling wire are recommended to prevent signs from being thrown into the water, vandalized, or blown down.
2. For SSOs greater than 1,000 gallons entering the surface water, public health warning notifications shall be distributed door-to-door in known areas where residents utilize the surface water source for landscape irrigation purposes. Notification distribution procedures will follow Department guidelines under Environmental Control's direction.
3. In the event of an SSO of 50,000 gallons or greater, environmental control will comply with the water quality monitoring program as specified in the Sanitary Sewer Overflow Emergency Response Plan, Section 8-Water Quality Monitoring Procedures.

**Typical problems and issues that may arise with this equipment and Troubleshooting:**

1. Do not over inflate the plug/ball that may cause injury to you or damage to the plug.
2. On Plugged Main Lines, if you have to run a line backwards, use the vacuum to keep the level of the full manhole from overflowing.

# Attachment 1 – Sanitary Sewer Overflow Formulas

## Spill Report Formulas

\*\*ENTER EITHER FEET OR INCHES - NOT BOTH

### Gutter Volume

	Ft	Inches
Top Length A		
Bottom Length C		
Base B		
Height D		

Cubic Ft 0 0  
Gallons 0 0

### Cube/Rectangular Volume

	Ft	Inches
Length		
Width		
Height		

Cubic Ft 0 0  
Gallons 0 0

### Cylinder Volume

	Ft	Inches
Pi		3.142
Radius		
Radius		
Height		

Cubic Ft 0.00 0.00  
Gallons 0.00 0.00

### Concrete

	Ft	Inches
Length		
Width		
Height	0.0026	0.03125

Cubic Ft 0 0  
Gallons 0 0

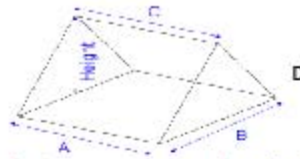
% covered on Concrete  
Estimated Spill 0

### Asphalt

	Ft	Inches
Length		
Width		
Height	0.0052	0.0625

Cubic Ft 0 0  
Gallons 0 0

% covered on Asphalt  
Estimated Spill 0

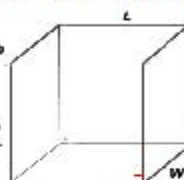


Formula - Feet  
Volume = ((2\*A+C)\*B)\*(H)/6  
Volume = ((2\*A+C)\*B)\*(H)/6\*7.48

Formula - Inches  
Volume = ((2\*A+C)\*B)\*(H)/6/1728  
Volume = ((2\*A+C)\*B)\*(H)/6\*7.48/1728

Volume of a Cube  
Volume = L x W x h

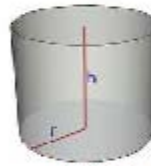
Like a rectangular solid.  
multiply the length,  
times the width times  
the height.



Formula - Feet  
Volume = L\*W\*H  
Volume = (L\*W\*H)\*7.48

Formula - Inches  
Volume = (L\*W\*H)/1728  
Volume = ((L\*W\*H)\*7.48)/1728

Vac Loads capacity  
80% is 1000 Gallons



Formula - Feet  
Volume = 3.14\*(R\*R)\*H  
Volume = 3.14\*(R\*R)\*H\*7.48

Formula - Inches  
Volume = (3.14\*(R\*R)\*H)/1728  
Volume = (3.14\*(R\*R)\*H\*7.48)/1728

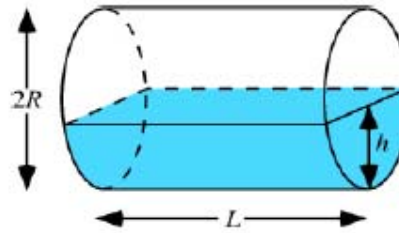


Concrete Spills



Asphalt Spills

	Ft	Inches
Radius		
Diameter		
Length		
Height		
Formula for volume = $\text{Pi} \times \text{radius}^2 \times \text{length}$		
Cubic ft / in		
Gallons	0	0



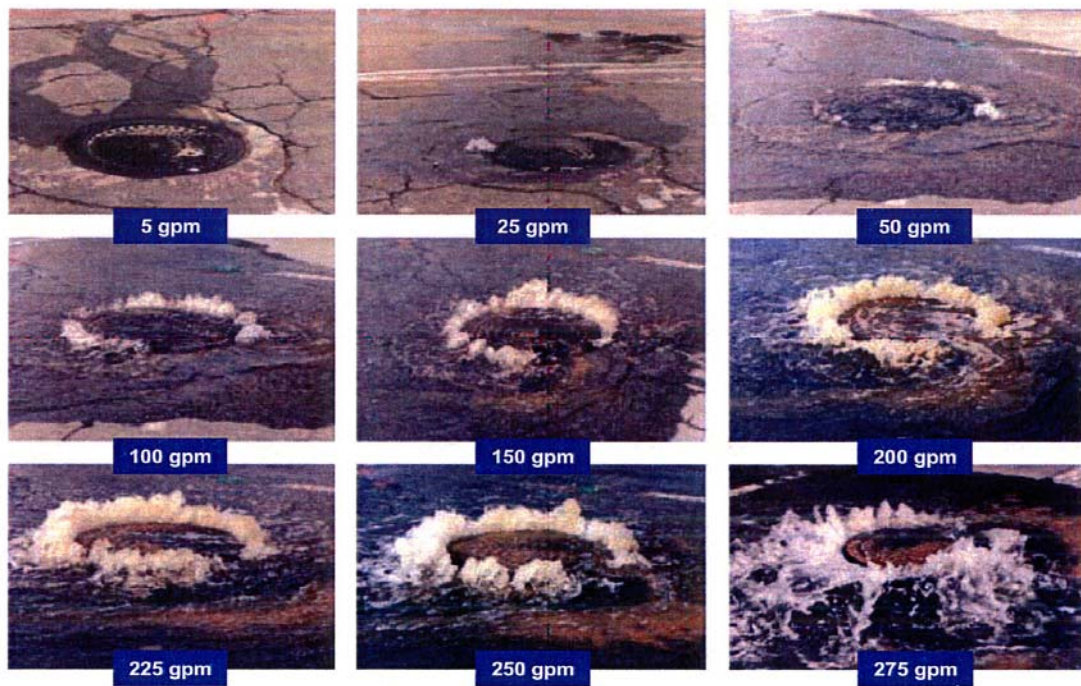
Go to link to calculate  
[http://www.onlineconversion.com/object\\_volume\\_cylinder\\_tank\\_partial.htm](http://www.onlineconversion.com/object_volume_cylinder_tank_partial.htm)

## Attachment 2 – Determining Overflow Rates from a Maintenance Hole

SSO/Backup Response Plan	FG 6.1
<b>Determining Overflow Rates From a Maintenance Hole: Flow from a Maintenance Hole Picture Matching</b>	

### Reference Sheet for Estimating Sewer Flow Rate From Overflowing Sewer Maintenance Holes

*All estimates are calculated in gallons per minute (gpm)*

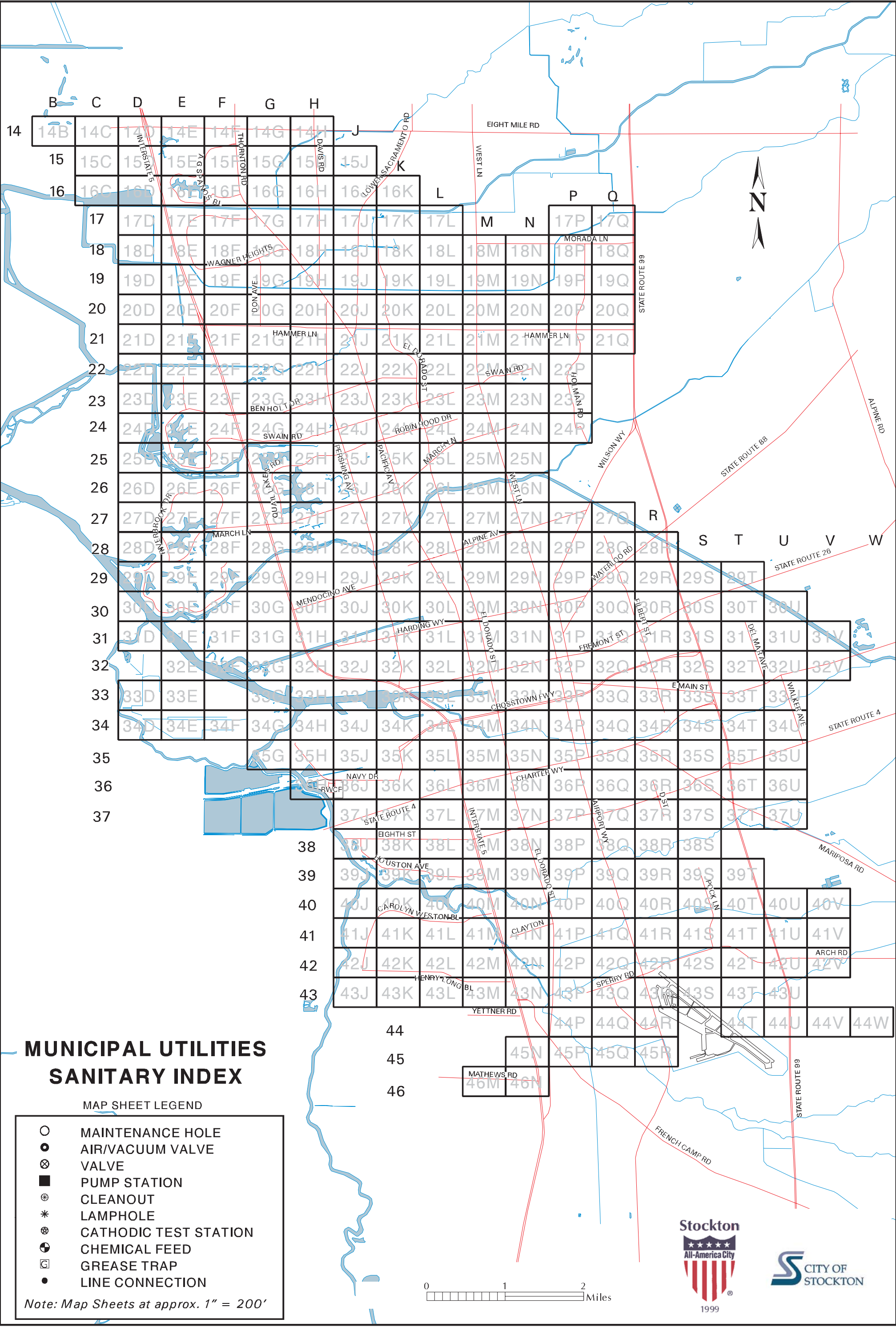


All photos were taken during a demonstration using metered water from a hydrant in cooperation with the city of San Diego's Water Department

## Appendix 5

### Map Book Sample





THIS MAP FOR CITY USE ONLY





## Appendix 6

### Cityworks Work Order

Work Order 38217

Cityworks

Vactor North - Vactor North Annual PM

Status : CLO

Priority: **04** Category: COLL COLSAN

Submit To: 696, Line Maint

Date: 3/2/2017 9:30:08AM

Initiated By: EDRINGTON, MIKE

Date: 3/2/2017 9:30:08AM

Requested By:

Supervisor: 696, Line Maint

Projected Start: 3/1/2018 1:05:00PM

Projected Finish: 3/15/2018 1:05:00PM

Closed By: FREEMAN, JASON T

Date: 3/22/2018 7:37:53AM

Completed By: ZARAGOZA, ZAC

Actual Start:

Actual Finish: 3/21/2018 10:41:00AM

Stage: ACTUAL

Expense Type: MAINT

Location:

**Assets:**

<u>Type</u>	<u>UId</u>	<u>Location</u>
SANITLINES_ARC	23H0630_23H0120	

**Comments:**

**Instructions:**

Easement, run east 646'

Work Order 72899

Cityworks

CCTV

Status : CLO

Priority: 04 Category: COLLCM

Submit To: TV2, CCTV

Date: 2/19/2018 11:06:20AM

Initiated By: PALACIO, ROBERT H

Date: 2/19/2018 11:06:20AM

Requested By:

Supervisor:

Projected Start: 2/19/2018 11:06:20AM

Projected Finish: 2/23/2018 3:14:29PM

Closed By: PALACIO, ROBERT H

Date: 2/23/2018 3:16:25PM

Completed By: PALACIO, ROBERT H

Actual Start:

Actual Finish: 2/23/2018 3:14:47PM

Stage: ACTUAL

Expense Type: MAINT

Location: 1. Commerce between Elm & Walnut St

**Assets:**

<u>Type</u>	<u>Uid</u>	<u>Location</u>
SANITLINES_ARC	30L1300_30M0690	
SANITLINES_ARC	30M0670_30M0690	
SANITLINES_ARC	30M0660_30M0670	

**Comments:**

QAQC- Leave on PM

**Instructions:**

## Appendix 7

### Training Record Sample

[illegible]

## Appendix 8

### Parts Inventory Sample

09/28/09 08:50:01

MUD STORES INVENTORY ITEM LISTING BY ITEM DESCRIPTION (ALPHA)

PAGE 10

COMP	SUB	ITEM	ITEM DESCRIPTION	UOM	MANF	MANUFACTURER	REFERENCE NO.	BIN	LOCATION	ITEM	ITEM
					CODE	PART NO.				DESCRIPTION	DESCRIPTION
720	999	03049	CAP, CLOSING	EA	FC	1A589544022	CAP, 1A589544022	D 202		CAP, CLOSING	
670	999	00347	CAP, GALVANIZED	EA	NA		CAP, GALV. 1.5"	P 06		CAP, GALVANIZED	1 1/2"
670	999	00540	CAP, GALVANIZED	EA	NA		CAP, GALV. 1"	P 06		CAP, GALVANIZED	1"
670	999	00521	CAP, GALVANIZED	EA	NA		CAP, GALV. 3/4"	P 06		CAP, GALVANIZED	3/4"
670	999	00324	CAP, GALVANIZED, 1 1/4"	EA	NA		CAP, GALV. 1 1/4"	P 06		CAP, GALVANIZED, 1 1/4"	
670	999	00002	CAP, GALVANIZED, 1/2"	EA	NA		CAP, GALV. 1/2"	P 06		CAP, GALVANIZED, 1/2"	
670	999	00165	CAP, GALVANIZED, 1/4"	EA	NA		CAP, GALV. 1/4"	P 06		CAP, GALVANIZED, 1/4"	
670	999	00017	CAP, GALVANIZED, 1/8"	EA	NA		CAP, GALV. 1/8"	P 06		CAP, GALVANIZED, 1/8"	
670	999	00382	CAP, GALVANIZED, 3/8"	EA	NA		CAP, GALV. 3/8"	P 06		CAP, GALVANIZED, 3/8"	
720	999	00342	CAP, LOWER BEARING,	EA	UNK	71971-1	CAP, LOWER BEARING,	W 245		CAP, LOWER BEARING,	
670	999	00037	CAP, 1", SLIP	EA	NA		CAP, 1", PVC, SCH. 40	P 03		CAP, 1", SLIP	PVC, SCHEDULE-40
670	999	00191	CAP, 2", SLIP	EA	NA		CAP, 2", PVC, SCH. 40	P 03		CAP, 2", SLIP	PVC, SCHEDULE-40
670	999	00033	CAP, 3/4", SLIP	EA	NA		CAP, 3/4", SLIP	P 02		CAP, 3/4", SLIP	
285	999	00045	CAPACITOR, W/SCREEN POSTS	EA	UNK	NR 9015-299A	CAPACITOR, W/POST	D 168		CAPACITOR, W/SCREEN POSTS	
285	999	00046	CAPACITOR, W/SCREEN POSTS	EA	UNK	SCR243	CAPACITOR, W/SCREEN POSTS	D 168		CAPACITOR, W/SCREEN POSTS	
720	999	00157	CAPSCREW	EA	UNK	52780	CAPSCREW, 52780	D 172		CAPSCREW	
720	999	01081	CAPSCREW, ROCKER ARM ASSY	EA	WKA	21428	CAPSCREW, ROCKER ARM	S 063		CAPSCREW, ROCKER ARM ASSY	
320	999	00223	CAPSCREW, S/S	EA	WKA		CAPSCREW, S/S, 3/4"	W 092		CAPSCREW, S/S	3/4" X 2 1/2"
320	999	00220	CAPSCREW, S/S	EA	NA		CAPSCREW, S/S, 5/8"	W 092		CAPSCREW, S/S	5/8" X 2 1/4"
720	999	00054	CAPSTULE, PEN, CLEARSPAN	PKG	GC	30578558	CAPSTULE, PEN, CLEAR	D 084		CAPSTULE, PEN, CLEARSPAN	82-95-2012-05A*P105W/0301
286	999	00028	CARD, INPUT OMEGA	EA	...	DR80-206	CARD, INPUT	W 179		CARD, INPUT OMEGA	DR80-206
175	999	00418	CARD, RECORD, STEAM AND	PKG	STS	NR004	CARD, RECORD, STEAM	S 112		CARD, RECORD, STEAM AND	EO LOAD, (50/PKG)
720	999	00939	CARRIER - SPARK PLUG	EA	WKA	209567K	SPARK PLUG CARRIER	S 063		CARRIER - SPARK PLUG	13/16"
720	999	01183	CARRIER - CUTTER	EA	...	30001-12	MUFFIN MONSTER	FT22A		CARRIER - CUTTER	MUFFIN MONSTER
890	999	00093	CARTRIDGE, INK	PKG	UNK	46180501-001	CARTRIDGE, INK	D 083		CARTRIDGE, INK	
345	999	00076	CARTRIDGE, ORGANIC VAPOR/GAS, (2/PKG)	PKG	3-W	6003	CARTRIDGE, ORGANIC	S 032		CARTRIDGE, ORGANIC VAPOR/GAS, (2/PKG)	
720	999	00638	CARTRIDGE, PEN	PKG	YKO	M1122JG	CARTRIDGE, PEN	D 083		CARTRIDGE, PEN	
890	999	00081	CARTRIDGE, RED INK	PKG	GC	01021104	CARTRIDGE, RED INK	D 084		CARTRIDGE, RED INK	DESC:81-04-0012-04
720	999	00237	CASE, VOLUTE, MODEL 30MP	EA	NA		CASE, VOLUTE, #30MP	PT06		CASE, VOLUTE, MODEL 30MP	HYDROMATIC PUMP
720	999	02720	CASE, 6-INCH	EA	NA		CASE, 6-INCH, 174LB	PT08		CASE, 6-INCH	MEMCO-S5750L120
720	999	03847	CASING, ***REPAIRABLE***	EA	NA		CASING, 0801886010	PT08		CASING, ***REPAIRABLE***	
720	999	03354	CASING, WEIMAN PUMP	EA	NA		CASING, WEIMAN	PT03		CASING, WEIMAN PUMP	MODEL 212
720	999	03673	CASING, SIGHT GAUGE	EA	UNK	R-61	CASING, SIGHT GAUGE	D 187		CASING, SIGHT GAUGE	
890	999	00219	CATCHBASIN ASSY,	EA	NA	3-645	ASSEMBLY, CB W/GRT	YD		CATCHBASIN ASSY,	W/GALV GRATE
345	999	00119	CAUTION TAPE 3"	EA	...	NONE	CAUTION TAPE	S 033		CAUTION TAPE 3"	
720	999	00738	CELL, ANALYZER, CL2	EA	WTN	PE0417	CELL, ANALYZER, CL2	D 209		CELL, ANALYZER, CL2	
890	999	00276	CEMENT - ABS TO PVC GREEN	EA	IPS	12794-PT	CEMENT - ABS TO PVC	FC01		CEMENT - ABS TO PVC GREEN	TRANSITION #2794 - 16 OZ
890	999	00043	CEMENT - INSTANT BLUE	EA	QKR	1126	CEMENT - INSTANT SET	W 293		CEMENT - INSTANT BLUE	HYDRAULIC WATER-STOP
890	999	00246	CEMENT, ABS-2773, (BLACK)	EA	IPS	11032	CEMENT, ABS-2773	FC01		CEMENT, ABS-2773, (BLACK)	16-OUNCE CAN
670	999	00352	CEMENT, PVC-GRAY (906)	EA	IPS	58529	CEMENT, PVC-906	FC01		CEMENT, PVC-GRAY (906)	16-OZ. B-Z WELD
135	012	00004	CEMENT, READY MIX	BAG	NA		CEMENT, READY MIX	FL		CEMENT, READY MIX	90 POUND BAG
890	999	00138	CEMENT, ROOF, WET PATCH	EA	...	3	CEMENT, WET PATCH	FC01		CEMENT, ROOF, WET PATCH	
890	999	00157	CEMENT, MANHOLE LEVELER	EA	...	3	CEMENT, MANHOLE LEVELER	PT0A		CEMENT, MANHOLE LEVELER	(RAPID-SET) 55-POUND SACK
720	999	02832	CENTER DRIVE PLATE,	EA	NA	341878	CENTER DRIVE PLATE,	R 07		CENTER DRIVE PLATE,	BORG-WARNER
720	999	04065	CHAIN, DRIVE - NH-78 POLYMETRIC	EA	NA		CHAIN, DRIVE - NH-78	PT12		CHAIN, DRIVE - NH-78 POLYMETRIC	
890	999	00363	CHAIN, ROTATING CUTTER, ENZ	EA	...	2258	CHAIN, ROTATING CUTTER, ENZ	D 026		CHAIN, ROTATING CUTTER, ENZ	
720	999	02601	CHARGER, JET	EA	JC2	2258	CHARGER, JET, 2258	W 240		CHARGER, JET	

MUD0010RY

09/28/09 08:50:01

## MUD STORES INVENTORY ITEM LISTING BY ITEM DESCRIPTION (ALPHA)

PAGE 20

COMM SUB	ITEM	ITEM DESCRIPTION	UOM	MANF CODE	MANUFACTURER PART NO.	REFERENCE NO.	BIN LOCATION	ITEM DESCRIPTION	ITEM DESCRIPTION
670	999	00332 ELL, STREET, GALVANIZED 1/2" X 45 DEGREES	EA	NA		ELL, STREET, GALV.	P 06	ELL, STREET, GALVANIZED 1/2" X 45 DEGREES	
670	999	00158 ELL, STREET, GALVANIZED 1/4" X 45 DEGREES	EA	NA		ELL, STREET, GALV.	P 06	ELL, STREET, GALVANIZED 1/4" X 45 DEGREES	
670	999	00157 ELL, STREET, GALVANIZED 1/4" X 90 DEGREES	EA	NA		ELL, STREET, GALV.	P 06	ELL, STREET, GALVANIZED 1/4" X 90 DEGREES	
670	999	00405 ELL, STREET, GALVANIZED 1" X 90 DEGREES	EA	NA		ELL, STREET, GALV.	P 06	ELL, STREET, GALVANIZED 1" X 90 DEGREES	
670	999	00342 ELL, STREET, GALVANIZED 3/8" X 90 DEGREES	EA	NA		ELL, STREET, GALV.	P 06	ELL, STREET, GALVANIZED 3/8" X 90 DEGREES	
670	999	00331 ELL, STREET, GALVANIZED 1/2" X 90 DEGREES	EA	NA		ELL, STREET, GALV.	P 06	ELL, STREET, GALVANIZED 1/2" X 90 DEGREES	
890	999	00271 ELL, STREET, 1/8 BEND, 4" ABS, SXH	EA	NA		ELL, STREET, 1/8 BEND, 4" ABS, SXH	W 266	ELL, STREET, 1/8 BEND, 4" ABS, SXH	
286	999	00023 ENCLOSURE, FIBERGLASS	EA	HEM	C2883	ENCLOSURE, FIBERGLASS	W 184	ENCLOSURE, FIBERGLASS	
720	999	01202 EXCHANGER, HEAT	EA	ASS	A161283TQCPMR	EXCHANGER, HEAT	PT12	EXCHANGER, HEAT	
720	999	02776 EXCHANGER, HELIFLOW HEAT, BUNDLE, SIZE 4-F-12	EA	NA	MODEL 503-05	EXCHANGER, HELIFLOW	W 234	EXCHANGER, HELIFLOW HEAT, BUNDLE, SIZE 4-F-12	
890	999	00351 EXHAUST RAIN FLAP, 3 1/2"	EA	NA	NONE	EXHAUST RAIN FLAP, 3 1/2"	W 275	EXHAUST RAIN FLAP, 3 1/2"	
340	028	00027 EXTINGUISHER, FIRE, 2.5 LB RECHARGED* (ABC TYPE ONLY)	EA	NA	A	EXTINGUISHER, 2.5 LB	S 012	EXTINGUISHER, FIRE, 2.5 LB RECHARGED* (ABC TYPE ONLY)	
345	999	00079 EYE WASH STATION ADDITIVE	EA	...	A	EYE WASH TASS	S 027	EYE WASH STATION ADDITIVE	
345	999	00080 EYEWASH STATION INSPECTIO N TAPE	EA	...	A	EYE WASH TAPE	S 026	EYEWASH STATION INSPECTIO N TAPE	
345	999	00072 FACE PIECE, LARGE	EA	3-M	6300	FACE PIECE, LARGE	S 031	FACE PIECE, LARGE	
345	999	00071 FACE PIECE, MEDIUM	EA	3-M	6200	FACE PIECE, MEDIUM	S 031	FACE PIECE, MEDIUM	
286	999	02531 FACE PLATE, KEYBOARD	EA	NA	605-4770-00	FACE PIECE, SMALL	W 179	FACE PIECE, SMALL	
286	999	02532 FACE PLATE, KEYBOARD	EA	NA	605-4773-00	FACE PLATE, XYBD	W 178	FACE PLATE, KEYBOARD	
345	999	00089 FACESHIELD	EA	...	A	FACE PLATE, XYBD	S 011A	FACESHIELD	
286	999	00130 FAN, CUTLER HAMMER SV9000	EA	CH	CP01187	FAN, CUTLER HAMMER	W 167	FAN, CUTLER HAMMER SV9000	
720	999	01305 FAN, EXHAUST, HEAVY DUTY MOTOR, 5 HP	EA	...	A	FAN, EXHAUST, HEAVY DUTY	PT30	FAN, EXHAUST, HEAVY DUTY	
285	999	00080 FAN, PANEL	EA	REN	261291.01	FAN, PANEL	PT 148	FAN, PANEL	
285	999	02452 FAN, ROTRON MODEL TN3C2 - 115V 599-0300	EA	NA	599-0300	FAN, 599-0300	W 180	FAN, ROTRON MODEL TN3C2 - 115V 599-0300	
285	999	00104 FAN, SCR COOLING, SV9000	EA	CH	018-000039-0005	FAN, SCR COOLING	W 172	FAN, SCR COOLING, SV9000	
285	999	00105 FAN, SV9000 DRIVES	EA	CH	CP021038	FAN, SV9000 DRIVES	W 167	FAN, SV9000 DRIVES	
285	999	00058 FAN, 10" 550CPM AXIAL	EA	...	4C847	FAN, 10" AXIAL	W 184	FAN, 10" 550CPM AXIAL	
720	999	02250 FASTENER, HINGED BELT 18" FLEXCO MFR CODE 69 7598	EA	NA		FASTENER, HINGED	R 12	FASTENER, HINGED BELT 18" FLEXCO MFR CODE 69 7598	
720	999	00251 FASTENER, HINGED BELT 24" FLEXCO MFR CODE 69 7598	EA	NA		FASTENER, HINGED	W 231	FASTENER, HINGED BELT 24" FLEXCO MFR CODE 69 7598	
890	999	00107 FEMALE END, 1"	EA	SSR	375XSJ4NCS	FASTENER, HINGED	W 231	FEMALE END, 1"	
720	999	01036 FEMALE END, 3/8" O.D., TUBE	EA	SSR	PT-8	FEMALE END, 1", PF-8	W 294	FEMALE END, 3/8" O.D., TUBE	
720	999	00938 FILTER - AIR - LIGHT DUTY WAIKESHA (2 PER BOX)	EA	WKA	211588	FILTER AP-19252GPR	S 065	FILTER - AIR - LIGHT DUTY WAIKESHA (2 PER BOX)	
720	999	01247 FILTER - AIR 16 X 16 X 2" HIGH CAPACITY	EA	...	169180K	FILTER - 16X16X2"	PT16	FILTER - AIR 16 X 16 X 2" HIGH CAPACITY	
720	999	03815 FILTER - AIR 16 X 20 X 2"	EA	...	68958	FILTER - 16X20X2"	F 28	FILTER - AIR 16 X 20 X 2"	
720	999	01249 FILTER - AIR 16 X 24 X 2" HIGH CAPACITY	EA	...	1W103	FILTER - 16X24X2"	F 21	FILTER - AIR 16 X 24 X 2" HIGH CAPACITY	
720	999	00009 FILTER - OIL, WAIKESHA (7/PER CASE)	EA	...	68952	FILTER - OIL, WAI	PT16	FILTER - OIL, WAIKESHA (7/PER CASE)	
720	999	01146 FILTER AIR PLEATED 16X25X4 (PRE-FLEAT)	EA	NO	3245-T	FILTER 16X25X4	F25	FILTER AIR PLEATED	
720	999	01147 FILTER AIR PLEATED 20X25X4 (PRE-FLEAT)	EA	NO	2W237	FILTER 20X25X4	F 30	FILTER AIR PLEATED	
720	999	00979 FILTER ASSEMBLY, OIL	EA	UNK	42388967	FILTER ASSEMBLY, OIL	W 233	FILTER ASSEMBLY, OIL	
720	999	00041 FILTER ELEMENT	EA	BFP	EL125	FILTER ELEM. #EL125	D 137	FILTER ELEMENT	
720	999	03061 FILTER ELEMENT	EA	BFP	EL125	FILTER ELEMENT	D 174	FILTER ELEMENT	
720	999	03902 FILTER ELEMENT	EA	LN2	8-03	FILTER ELEMENT, 803	D 226	FILTER ELEMENT	
720	999	01023 FILTER ELEMENT, AIR	EA	SBG	335-P	FILTER ELEMENT, AIR	W 229	FILTER ELEMENT, AIR	
720	999	05022 FILTER ELEMENT, CRANKCASE ABSORBER	EA	WFP	88467A	FILTER - 88467A	W 226	FILTER ELEMENT, CRANKCASE ABSORBER	
720	999	03579 FILTER ELEMENT, GARDNER DENVER DRYER	EA	UNK	PCSAL0011SU	FILTER ELEMENT, GARDNER DENVER DRYER	W 064	FILTER ELEMENT, GARDNER DENVER DRYER	

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MUD STORES INVENTORY ITEM LISTING BY ITEM DESCRIPTION (ALPHA)

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COMM	SUB	ITEM	ITEM DESCRIPTION	UOM	MANF CODE	MANUFACTURER PART NO.	REFERENCE NO.	BIN LOCATION	ITEM DESCRIPTION	ITEM DESCRIPTION
720	999	00906	HOSE, 20 CM LENGTH	EA	CAT	SP-0763T	HOSE, SP-0763T	D 185	HOSE,	20 CM LENGTH
720	999	00980	HOSE, CHLORINE TRANSFER, 1" X 12', MONEL BRAIDED	EA	UNK	W/MONEL FITTINGS	HOSE, CHL. 1"X12'	W 079B	HOSE,	1" X 12', MONEL BRAIDED
890	999	00406	HOSE, EXTENSION 10'	EA	...	CH274-100	HOSE, EXT 10'	W 294	HOSE,	EXTENSION 10'
890	999	00160	HOSE, EXTENSION, 5'	EA	CNT	274054	HOSE, EXTENSION 5'	W 290	HOSE,	EXTENSION, 5'
720	999	03870	HOSE, FLEX TANK CHARGING	EA	FW	C87324P	HOSE, FLEX, C87324P	D 140	HOSE,	FLEX TANK CHARGING
890	999	00344	HOSE, LEADER, 1" X 20'	EA	...	A	LEADER HOSE 1"X20'	W 275	HOSE,	LEADER, 1" X 20'
720	999	01533	HOSE, FLEX, STAINLESS STEEL, 1/2" X 10"	EA	NA		HOSE, FLEX, S/STEEL	P 04	HOSE,	FLEX, STAINLESS STEEL 1/2" X 10"
720	999	03704	HOSE, FLEX, STAINLESS STEEL, 1/2" X 1 1/2"	EA	NA		HOSE, FLEX, S/STEEL	P 04	HOSE,	FLEX, STAINLESS STEEL 1/2" X 1 1/2"
720	999	00077	HOSE, FLEX, STAINLESS STEEL, 3/4" X 1 1/2"	EA	NA		HOSE, FLEX, S/STEEL	P 04	HOSE,	FLEX, STAINLESS STEEL 3/4" X 1 1/2"
890	999	00416	HOSE, LEADER 3/4"X 25'	EA	...	HOSE, HL2-3000-25SLH	LEADER HOSE 3/4X25	W 283	HOSE,	LEADER 3/4"X 25'
720	999	03450	HOUSING, ITEM 26P	EA	...	26012101C	26012101C	R 02	HOUSING,	ITEM 26P
720	999	02996	HOUSING, BEARING, 6-INCH MEMCO MODEL-CS57801120	EA	NA		HOUSING, BEARING, 6"	PT05	HOUSING,	BEARING, 6-INCH
720	999	03665	HUB, RSB - PALK	EA	NA		HOUSING, GLAND, 6"	PT08	HOUSING,	GLAND, 6-INCH
890	024	00034	HYDRAULIC RAM, CLOW MEDALLION ***SEE EXTENDED DESC.***	EA	MDE	1110T	HYDRAULIC RAM	W 180	HUB, RSB - PALK	
720	999	01336	HYDRAULIC RAM, HYCOR HYRESS HP1020, PART 3451-010	EA	...	3451-010	ICE, CRUSHED - 7LB BAG	PT16	HYDRAULIC RAM, HYCOR HYPR	ESS HP1020, PART 3451-010
390	035	00000	ICE, CRUSHED - 7LB BAG	EA	...	7-POUND BAG	ICE, CRUSHED - 7LB	MAINT	ICE,	CRUSHED - 7LB BAG
720	999	01145	IDLER ASSEMBLY (ANK PUMP) PULLEY KIT # K154971 B	EA	WKA	WAUKESHA L-7042GLD	CE1000101-301-401	S 066	IDLER ASSEMBLY (ANK PUMP)	PULLEY KIT # K154971 B
285	999	00156	IGBT, 400A - MATCHED SET ROBICON	SET	...	164214-02	IGBT - ROBICON	S 104	IGBT, 400A - MATCHED SET	ROBICON
720	999	01112	IMPELLER & WEAR RING AY, 25HP MOD (DUCK CREEK)	EA	NA	CG-370	CG-370	R 08	IMPELLER & WEAR RING AY,	25HP MOD (DUCK CREEK)
720	999	01507	IMPELLER BOLT 412860	EA	...	A	71904-7	PT9	IMPELLER BOLT	412860
720	999	01594	IMPELLER ESK, HI-CHROME	EA	...	70036-7	IMPELLER ESK	W 082	IMPELLER BOLT 412860	
720	999	00888	IMPELLER, YEMAN C.C.W.	EA	NA		IMPELLER, YEMAN	PT03	IMPELLER ESK, HI-CHROME	
720	999	03129	IMPELLER, MODEL # 2-1/2 GBI	EA	NA		IMPELLER, 2913B12	PT03	IMPELLER, YEMAN C.C.W.	
720	999	02710	IMPELLER, HYDROMATIC PUMP MOD 30MP S13286	EA	NA		445-0157-208	R 10	IMPELLER,	MODEL # 2-1/2 GBI
720	999	00348	IMPELLER, 52138A-090 MEMCO PUMP MODEL EYP 4	EA	NA		1061-000-2	R 10	IMPELLER,	HYDROMATIC PUMP MOD 30MP S13286
720	999	03118	IMPELLER, A TRIM 18-4TDB, 20 HP (AURORA PUMP)	EA	NA		52138A-090	R 12	IMPELLER,	52138A-090 MEMCO PUMP MODEL EYP 4
720	999	03678	IMPELLER, AURORA PUMP	EA	NA		445-0156-208	R 12	IMPELLER,	A TRIM 18-4TDB, 20 HP (AURORA PUMP)
720	999	00288	IMPELLER, B&G	EA	UNK	118435	IMPELLER, AURORA	PT06	IMPELLER,	AURORA PUMP
720	999	03773	IMPELLER, BRONZE WITH WEAR RINGS	EA	NA		IMPELLER, BRONZE	W 237	IMPELLER,	B&G
720	999	00742	IMPELLER, CL2	EA	UNK	PE0415	IMPELLER, B&G	PT06	IMPELLER,	BRONZE WITH WEAR RINGS
720	999	03878	IMPELLER, FIG. 6710	EA	NA		IMPELLER, B&G	D 209	IMPELLER,	CL2
720	999	03879	IMPELLER, FIG. 6710	EA	NA		IMPELLER, CNA28A	PT03	IMPELLER,	FIG. 6710
720	999	03955	IMPELLER, FOR GOULD PUMP #101	EA	NA		IMPELLER, CNA28B	PT03	IMPELLER,	FIG. 6710
720	999	03306	IMPELLER, PACO	EA	NA		IMPELLER, #101	PT03	IMPELLER,	FOR GOULD PUMP #101
720	999	03305	IMPELLER, PACO	EA	NA		IMPELLER, PACO	PT03	IMPELLER,	PACO
720	999	03931	IMPELLER, PACO (CCW)	EA	NA		IMPELLER, PACO	PT06	IMPELLER,	PACO
720	999	03929	IMPELLER, PACO (CCW)	EA	NA		IMPELLER, PACO, CCW	PT09	IMPELLER,	PACO (CCW)
720	999	00006	IMPELLER, SMITH-LOVELESS S/N:797045	EA	UNK	60D168114	IMPELLER, PACO, CCW	PT09	IMPELLER,	SMITH-LOVELESS S/N:797045
720	999	03344	IMPELLER, TRIMMED 12-INCH @ 10 DEGREES	EA	NA		IMPELLER, 60D168114	PT09	IMPELLER,	TRIMMED 12-INCH @ 10 DEGREES
720	999	01700	IMPELLER, MEMCO ESK-1M	EA	NA		IMPELLER, 12" @ 10DGG	PT06	IMPELLER,	MEMCO ESK-1M
720	999	00338	IMPELLER, MEMCO HYDROSTAT MODEL-116KSL4SM	EA	NA		CAKE SLAB STRATON	PT9	IMPELLER,	MEMCO HYDROSTAT MODEL-116KSL4SM
720	999	03558	IMPELLER, MEMCO MODEL-C, SLUDGE LAGOON PUMP #1	EA	NA		IMPELLER, 71794-7D	PT16	IMPELLER,	MEMCO MODEL-C, SLUDGE LAGOON PUMP #1
720	999	01307	IMPELLER, MEMCO PUMP	EA	...	A	IMPELLER, 21172-BL	PT06	IMPELLER,	MEMCO PUMP
720	999	00301	IMPELLER, WORTH	EA	NA		IMPELLER, WORTH	PT06	IMPELLER,	WORTH

MUDCLOGY

# Appendix 9

## Short Term Traffic Control Procedures

## STOCKTON WASTEWATER TREATMENT FACILITY

<b>Standard Operation of:</b> Short Term Traffic Control Procedures (High and Low Traffic Volumes, Work Zone time limit 30 minutes or less)	<b>Creation Date:</b> 2/05/07
<b>Author:</b> Peg Barnett – Randy Cornell – Tom Watkins <b>Approved By:</b> Ken Merkle	<b>Revision No. or Date:</b> 1/21/2016
<b>Scope and Location:</b> Safety Department	
<b>List of Tools/Safety Equipment/Protection:</b> Hand Tools, Man Hole Hook, Rodding Machine Vehicles: Vactors, Service Trucks, USA Vehicles, Water Service Truck, Maintenance Truck, High Intensity rotating, flashing, oscillating, or strobe lights; channelizing devices forming tapers and/or high level warning devices. Directional Arrow Lights or Vehicle Hazard Warning Signals to supplement. Hard Hat, Gloves, Safety Vest, Safety Glasses, Safety Toed Shoes.	
<b>Safety/Hazards Identification and Required Safety Manuals:</b> Through Job Safety Analysis (JSA's), Program Organization, Manual for Uniform Traffic Control	

### **Purpose:**

The purpose of this SOP is to guide employees while working in short term work zones, (also known as *Traffic Incident Management Areas*), using required Traffic Control Devices.

### **Procedure:**

1. The Safety Department conducts regular training in Traffic Control Procedures. The Manual for Uniform Traffic Control Devices (MUTCD) contains the traffic control guidelines to be followed. Employees who are working in traffic work zones, in street manholes or in roadways are required to have training for their own safety and the safety of others.
2. The Safety Department is the central safety coordinating entity on the site. The Safety Department office maintains the regular training calendar, develops and run training programs, and is the central repository of safety organization resources, such as manuals and equipment. The department documents and tracks safety activities on the site including a database of training sessions, rosters of attendees, time spent on safety training.
3. The Safety Department conducts random inspections of field activities (work zones). Inspections may occur in any of the outlying sites. Inspections are documented and issues are addressed as part of their regular process. This procedure is intended to motivate staff to follow safety procedures and to provide feedback to the safety committee as to the effectiveness of safety programs. The

process establishes an ongoing process of continuing improvement.

4. The department tracks the results of safety efforts as well, and reports injuries or safety issues as a part of the regular monthly reporting processes.

## **PLANNING:**

All activities within or in the vicinity of streets shall be planned and scheduled to minimize interference with traffic.

## **TEMPORARY TRAFFIC CONTROL ZONES**

Temporary control of traffic in the vicinity of an activity site requires provision for adequate street space to accommodate traffic demands, particularly during peak traffic hours. These requirements constitute a part of the contract or permit and must be adhered to as rigidly as any other specification or requirement.

The primary function of the *TTC* (temporary traffic control) is to move road users reasonably safely and expeditiously past or around the “incident”.

Temporary Traffic Control Zones (TTCZ) consists of five component parts. They are:

1. Advance Warning Area
2. Transition Area
3. Buffer Space
4. Activity Area
5. Termination Area

For the purpose of “Minor Traffic Incidents”, lasting 30 minutes or less, some of the components of the *TTCZ* may be abbreviated or modified depending on the particular location and/or other mitigating factors.

- **Advance Warning:** tells traffic what to expect ahead. Rotating lights and/or arrow boards may serve as advance warning and shall always be used as part of you *TTCZ*.
- **Transition Area:** moves traffic out of its normal path. The transition area, also known as the “taper”, shall be configured with a minimum of ~~three~~ **six** cones in a straight line, forming a tangent to the vehicle. Cones shall be used to delineate traffic out of the incident area. There shall be a minimum delineation of 30 feet past the buffer space to the oncoming traffic.
- **Buffer Space:** provides for movement of workers between the work space and the transition area. No vehicles or equipment are to be “stored” in this area which would impede movement or visually impair or confuse traffic. Exceptions would include a shadow vehicle, (**attended at all times**), arrow board or high-flyer. The buffer space shall always be at least 10 feet prior to the activity area.
- **Activity Area:** is the area where the primary work takes place. The equipment should act as a barrier to traffic. Do not position the work area

between the equipment and the traffic. A buffer space of 5 feet will be maintained prior to the termination area where feasible.

- **Termination Area:** allows traffic to resume normal operation. The termination shall be used and employ a minimum of three cones extending past the work area. Depending on needs and feasibility, the transition may form a tangent to the work area or you may form a “V”, (double tangent) pattern as best suits the situation. **If a taper is used in the termination area it must contain 6 cones.**

## General Rules and Guidelines

- Criteria for position, location and use of traffic control devices are furnished solely for the purpose of guidance, understanding and information and is not a legal standard.
- TTCZs should be designed with the assumption that drivers will only reduce their speed if they clearly perceive a need to do so.
- Transitions that require rapid maneuvers should be avoided.
- Always keep your safety in mind.
- Keep pedestrians, bicyclists and rubberneckers out of the TTCZ.
- Flagging procedures, when used, should provide positive guidance, and should be performed by a “Certified Flagger”.
- Keep it simple as possible.
- Best practice dictates that the transition start at least a distance equal to 4 times the speed limit, i.e.,  $25 \text{ mph} \times 4 = 100 \text{ ft}$ .
- **All cones used on your job site must be of the same type and size, do not mix retro-reflective cones with plain ones. If even one of your cones are retro-reflective, they all must be retro-reflective.**

## Appendix 10

### FOG Control Action Plan



## **FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN**

**March 2010**  
**Revised: June 2010**

### **Program Background**

The City of Stockton (City) has developed a comprehensive program to address sanitary sewer overflows associated with fats, oils, and grease (FOG). This FOG Control Action Plan (FCAP) outlines the elements of the City's FOG Control Program. The program consists of inspections, enforcement procedures, public education and public outreach to all Food Service Establishments (FSEs) in the City's regional sewer service area. The FOG Control Program is operated by the Pretreatment section of the Municipal Utilities Department. The program is implemented by the Technical Services Supervisor (FOG Program Manager) and consists of two full-time Environmental Control Officers (FOG Inspectors). More than 900 FSEs are inspected annually under this program.

### **Program Elements**

The following FOG Program elements are outlined below:

- Source Identification
- Legal Authority
- Inspections and Monitoring
- Enforcement
- Public Education and Outreach
- Budget and Staffing
- Effectiveness Measures

### **Source Identification**

Discharges from FSEs are potential sources for grease related sanitary sewer blockages and overflows in the sewer collection system. FSEs include restaurants, retail markets, institutions, schools, licensed health care facilities, city owned facilities, flea markets and commissaries. Currently, there are approximately 950 potential FSEs identified within the City's regional wastewater service area.

The following list includes a number of resources used by the City of Stockton for identifying new FSEs:

- San Joaquin County Public Health Department food vendor permit

## **FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN**

database

- City of Stockton business license database
- City of Stockton building permit database
- Telephone listings
- Restaurant directories
- City of Stockton department directories
- Observations by City personnel through sampling, surveillance, inspections and site visits
- Referrals from other agencies
- Citizen reports
- Contact from potential restaurants
- Newspaper, trade journal, and business magazine articles

The San Joaquin County Public Health Department's food vendor permit database contains information on potentially all facilities in San Joaquin County which serve food items to the public. This is a comprehensive list that is updated on a regular basis. This list will be utilized as the City's primary source for FSE identification. The additional resources listed above will be used to identify additional FSEs within the City's sewer service area which are not included in the County's database.

Appendix A: Food Service Establishment Database - March 2010

### **Legal Authority**

City of Stockton Municipal Code Chapter 13.40 (FOG Ordinance) provides legal authority for the City to implement the FOG Control Program. The ordinance prohibits discharges that cause or threaten to cause obstruction of flow in sewers, contains authority to require pretreatment prior to discharge to the sewer, contains authority to inspect dischargers and sample discharges, and provides for enforcement and penalties for non-compliance.

The FOG Ordinance is applicable to commercial and institutional generators of FOG discharges. Residential customers and industrial facilities are not regulated under this ordinance. The City will continue to use public outreach to educate customers and reduce FOG from residential discharges. Industrial facilities are regulated under the City's Industrial Pretreatment Program Ordinance (SMC Chapter 13.08).

### **Inspections and Monitoring**

All FSEs are inspected at least annually to determine compliance with FOG Ordinance regulations and to provide public education and outreach.

The City currently is staffed with two full-time FOG inspectors who will be able to perform approximately 18-20 initial FSE inspections per week with additional time available for follow-up inspections and related FOG enforcement activities. In addition, due to the expected heavy volume of follow-up inspections and initial enforcement actions during the first year of inspections, the City has two full-time Environmental Control Officers, one full-time Senior Environmental Control Officer and one full-time Technical Services



## **FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN**

Supervisor to assist with FOG duties if necessary. Formal FOG inspections are scheduled to begin 60 days following acceptance of the FCAP by CSPA and will be scheduled to occur on a daily basis throughout the year.

Inspection procedures include:

- Determination of compliance with FOG Ordinance requirements.
- Determination of grease interceptor condition, operation and maintenance.
- Measurement of grease interceptor grease and solids content.
- Evaluation of Kitchen Best Management Practices (BMPs).
- Review of all FOG control related records and documents.
- Distribution and discussion of educational and outreach materials.
- Review and evaluation of any prior FOG control deficiencies.
- Follow-up inspections at all FSEs with deficiencies are conducted within 30 days of the original inspection.
- Second follow-up inspections if the deficiency was not remedied by the time of the first re-inspection are performed within 15 days of the initial re-inspection. Continuing re-inspections are performed as necessary.
- Inspections of all FSEs suspected of causing or contributing to an SSO are performed within 5 working days of the occurrence of the SSO.
- All new or substantially remodeled FSEs are inspected within 90 days of start-up or remodel completion.

Appendix B: FSE Inspection Form

### **Enforcement**

The City has implemented a FOG Enforcement Response Plan (ERP) to establish general responsibilities for enforcement of the FOG Ordinance. The ERP is an effective way to ensure that the City of Stockton takes fair, consistent and equitable enforcement actions against FSEs for violations of the FOG Ordinance. It is the intention of the Municipal Utilities Department to move quickly and responsibly in all enforcement actions.

Appendix C: FOG Enforcement Response Plan (DRAFT) - June 2010.

### **Public Education and Outreach**

Public education and outreach that promotes proper handling and disposal of FOG is an ongoing effort throughout Stockton. The City has developed various sources and communication methods necessary to address the education and outreach issues, including:

General Public Outreach Program- The Municipal Utilities Department has a public relations campaign to inform the public of proper FOG disposal. Residential public outreach is conducted a minimum of twice per year.

Methods for public outreach include:

## **FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN**

- Print media promoting residential best management practices regarding proper disposal of FOG:

Articles/advertisements in Stockton's major newspaper, The Record, which has a daily distribution of 55,000.

Inserts for City of Stockton and California Water Service Company utility billing, with distribution rates of 46,000 and 40,000 respectively. The City plans to utilize these utility billing inserts in November and December each year to capture public awareness during the holiday season when residential FOG discharges tend to be more significant.

- Television media promoting residential best management practices regarding proper disposal of FOG:

Comcast Channel 97 public service announcements, with a subscriber rate of 50,000.

City of Stockton Website- contains useful FOG information for businesses and residential customers- [www.stocktongov.com/mud](http://www.stocktongov.com/mud).

Restaurant FOG Inspection Program- Stockton provides education and outreach materials to all FSEs in conjunction with the FOG inspection program. FSEs receive these documents at the time of each annual inspection. The FOG inspectors make an effort to discuss this material with FSE managers and owners and to answer all questions that arise. Initially, all identified FSEs (listed in Appendix A) were mailed detailed FOG education and outreach information in November 2009.

### **Budget and Staffing**

The FOG Program is a component of the City of Stockton Pretreatment Program. The Pretreatment Program is funded through the Municipal Utilities Department Enterprise Fund, which is funded by sewer service-related fees, including FOG inspection and re-inspection fees established by Council resolution.

The FOG Program presently supports a staff of approximately 3.0 full-time equivalent (FTE) employees:

- FOG Inspectors (Environmental Control Officers): 2.0 FTE
- Senior Environmental Control Officer: 0.25 FTE (more if necessary)
- FOG Program Manager (Technical Services Supervisor): 0.50 FTE (more if necessary)
- Permit Center Representative: 0.10 FTE
- Clerical Support: 0.25 FTE

In addition, the City's Pretreatment Program presently supports a staff of two Environmental Control Officers which will be available to assist with FOG inspection and enforcement duties if necessary:

## FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN

### Effectiveness Measures

FCAP effectiveness is reviewed and analyzed, at minimum, on an annual basis and is reported with each annual report. Effectiveness measures include:

FSE record of compliance with SMC regulations as determined by annual inspection reports.

Evaluation of FOG caused SSOs from data obtained through video inspection (CCTV) of sanitary sewers as specified in Section X of the Consent Decree and procedures specified in the City's "SSO Cause Determination SOP" dated December 31, 2009.

### Schedule for Implementation

Program Element	Estimated Completion Date
Source Identification	Initial FSE identification completed in November 2009. Updated continuously throughout the year. Major update performed minimum once per year.
Legal Authority	FOG Ordinance (SMC 13.40) adopted by City Council on January 26, 2010, effective date February 25, 2010.
Inspections and Monitoring	Informal grease interceptor inspection program began in September 2009 and is continuing on an interim basis until FCAP is accepted by CSPA. Formal FSE inspection program scheduled to start 60 days following acceptance of FCAP by CSPA.
Enforcement	Legal authority established with adoption of SMC 13.40 (FOG Ordinance). Enforcement Response Plan developed in March 2010 and revised in June 2010.
Public Education and Outreach	Initial FSE outreach completed in November 2009. Ongoing FSE outreach conducted with each annual inspection visit and as needed. Residential public outreach conducted a minimum of twice per year.
Budget and Staffing	Budget established. Revenue through inspection fees effective July 1, 2009. Staffing currently in place.

## FATS, OILS, AND GREASE (FOG) CONTROL ACTION PLAN

Program Element	Estimated Completion Date
Effectiveness Measures	Evaluated at least annually. Reported with each annual report beginning in 2010.

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# Appendix 11

## FOG Enforcement Response Plan

## **FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN**

**June 2010**

### **Introduction**

The purpose of this Fats, Oils and Grease (FOG) Enforcement Response Plan (ERP) is to establish general responsibilities for enforcement of Stockton Municipal Code Chapter 13.40 (FOG Ordinance). This ERP is a statement of policy by the City of Stockton. It is not a regulation, code or statute and the City has the authority to amend this policy at any time in order to more effectively implement the FOG Control Program. This plan has been developed for guidance and is not intended to create legal rights or obligations, or to limit the enforcement discretion of the Director of Municipal Utilities or the City of Stockton.

This ERP is an effective way to ensure that the City of Stockton takes fair, consistent and equitable enforcement actions against food service establishments (FSEs) for violations of the FOG Ordinance. It should be noted that, even with the ERP, judgment and flexibility will be needed at times in response to unusual instances of noncompliance. Some violations may require a response that deviates from the ERP depending on the particulars of the situation.

The enforcement philosophy of the City of Stockton is progressive, in that problems are addressed at the lowest level and with the least formality possible consistent with the specific violation. However, no enforcement procedure is contingent upon the completion of any "lesser" activity.

In general, enforcement actions against FSEs will be taken in accordance with this ERP, however, the enforcement actions listed here are not exclusive and the City of Stockton reserves the right to implement other enforcement responses available to it under the FOG Ordinance and California law, separately or in combination with these responses.

### **Enforcement Procedures**

Generally, all violations identified by the City of Stockton are reviewed, evaluated, and addressed by the appropriate enforcement response. The majority of enforcement actions begin with issuance of an initial Notice of Violation. This notice describes the nature of the violation and informs the FSE that any additional violations may result in an escalated enforcement action. Once the FSE has been notified of a violation or has knowledge of a condition which is a violation, the FSE may be allowed a specified time period to correct the noncompliance before escalation of the enforcement process occurs. Emergency conditions require immediate correction of noncompliance.

## **FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN**

### **Identification of Violations**

The identification of a violation of FOG requirements, regardless of the severity, will initiate the enforcement process. Discovery of a violation may occur as result of any number of activities which may include:

1. On-site inspections of FSEs by the City of Stockton;
2. Review of FSE records, reports, manifests, maintenance logs, etc;
3. Review of FSE implementation of Best Management Practices (BMPs);
4. Review of FSE sampling results;
5. Review of compliance schedule requirements;
6. Notification of a violation by FSE;
7. Spill and/or accidental discharge reports from FSE;
8. Investigation of sanitary sewer overflows, spills and illegal discharges;
9. Review of City of Stockton surveillance and/or sampling results;
10. Observations of field personnel;
11. Information provided by other agencies; and
12. Information provided by the public or private citizens.

Once violations are identified, it is the responsibility of City of Stockton to implement the appropriate enforcement response required in the ERP. In determining which enforcement measure(s) to use and the amount of any administrative penalties, the City may consider the following:

1. The degree and extent of the impact and/or harm to the sanitary sewer system, Publicly Owned Treatment Works (POTW), public or private property, and/or the natural resources of the State as a result of the violation;
2. The duration and magnitude of the violation;
3. The cost of repairing the damage to the sanitary sewer system, POTW, public or private property, and/or the natural resources of the State;
4. Whether the violation was committed negligently, grossly negligently, recklessly negligently, willfully or intentionally;
5. The amount of money saved, if any, by noncompliance, including the cost of continuing to discharge in noncompliance instead of stopping operations;

## **FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN**

6. Costs incurred by the FSE in correcting the problem and FSE cooperation and good faith effort to resolve noncompliance;
7. The prior record of the FSE in complying or failing to comply with the requirements of the FOG Ordinance, or other applicable laws or regulations;
8. The cost to the City (including legal fees, sampling and analytical costs, engineering and consulting fees, etc.) required, in the opinion of the City, to take necessary investigative and enforcement actions, determine the nature and extent of damage, repair any damage and prevent further damage;
9. The cost to the City for any civil penalties, fines, legal costs and/or other costs associated with any enforcement action or legal action taken against the City for violations caused by the FSE;
10. Violations resulting from vandalism or the action of third-party entities; and
11. Deficiencies or violations occurring as a result of circumstances beyond the FSE's control as determined by the Director of Municipal Utilities.

### **Enforcement Actions**

Enforcement actions available to the City include the following:

1. Notice to Clean (NTC) – This is a formal written notice to the FSE that a clean-up is required to prevent an illicit discharge to the stormwater system or a FOG discharge to the sanitary sewer system. The order will require specified clean-up measures within a specified time frame to achieve compliance. The text of the order will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required;
2. Correction Order (CO) – This is a formal written notice to the FSE that corrections are necessary to correct or prevent a violation of the FOG Ordinance. The order will require corrective actions within a specified time frame to achieve compliance. The text of the order will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required;
3. Notice of Violation (NOV) – This is a formal written notice to the FSE that it has committed a violation of the local FOG ordinance. The NOV will require corrective actions within a specified time frame to achieve compliance. The text of the NOV will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required;
4. Cease and Desist Order (C&D) – This is a formal written notice to the FSE issued for major violations of the FOG ordinance (e.g. large spills, gross negligence), or for violations that have a potential for significant impact to the environment, sanitary sewer system or POTW. The order will require the actions which are causing the violation to cease within a specified time frame to achieve compliance. The text of the order will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required;



## FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN

5. Administrative Citation with Fine (ACF) – The City may issue an administrative citation with a fine in response to major violations, or when violations have not been brought into compliance after a Notice of Violation, or if the responsible party is a repeat offender, or if violations are intentional or a result of gross negligence. The text of the order will include a statement that additional enforcement actions may be pursued if corrective actions are not achieved as required.

As set forth in Chapter I of the Stockton Municipal Code fines are imposed per violation in the amount of two hundred dollars (\$200.00) for the first Administrative Citation and five hundred dollars (\$500.00) for each subsequent reinspection during which it is noted that the violation has not been corrected. Payment of the fine shall not excuse the failure to correct the violations nor shall it bar further enforcement action by the City;

6. Administrative Order (AO) – The City may issue an administrative order requiring an FSE to comply with requirements of the FOG Ordinance by undertaking and/or ceasing specified activities in a specified time frame. Administrative Orders may incorporate compliance time schedules, administrative civil penalties and/or suspension/termination of service;
7. Compliance Time Schedule (CTS) – The City may require an FSE to submit a compliance time schedule indicating corrective actions with milestone dates to achieve compliance. The City may accept, reject or require modifications to the schedule as necessary. The FSE shall adhere to the compliance schedule in accordance with the Administrative Order;
8. Civil Action (CA) – The City Attorney may pursue civil action against an FSE for failing to comply with requirements of the FOG Ordinance;
9. Civil Penalty (CP) – The City may issue an administrative civil penalty to an FSE who fails to comply with any provision of the FOG Ordinance. The City of Stockton Municipal Code authorizes penalties of up to one thousand dollars (\$1,000.00) per day per violation; and
10. Suspension of Service (SOS) or Termination of Service (TOS) – The City may suspend or terminate service to an FSE to prevent any actual or threatened discharge to the sanitary sewer system that may endanger the public health or environment, or cause damage to the sanitary sewer system or POTW. SOS or TSS may also be used as an escalating enforcement action when a noncompliant FSE fails to respond adequately to previous enforcement actions. SOS or TOS may be accomplished by physical severance of the FSE's connection to the collection system, suspending or terminating water service to the FSE, issuance of an Administrative Order which compels the FSE to immediately terminate its discharge, or a court ruling.

### Appeals

Any FSE or property owner affected by a decision, action, or determination, including suspension, revocation, refusal or termination of wastewater service, cease and desist order, or imposition of civil penalties issued by the Director, or any other action of the Director in

## **FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN**

interpreting or implementing the provisions of the Stockton Municipal Code, may file with the Director a written request for reconsideration within ten (10) days of such decision, action, or determination, setting forth in detail the facts supporting the request for reconsideration. The Director shall provide a written decision regarding the request for reconsideration within thirty (30) days following the filing of the request for reconsideration. The Director shall serve the written decision upon the affected FSE and/or property owner by either personal service, facsimile, overnight courier or regular mail.

Any FSE or property owner aggrieved by the decision of the Director regarding a request for reconsideration specified above may appeal said decision and request an administrative hearing and decision in accordance with the procedures set forth in Title 1, Chapter 1.44, Section 1.44.070 of the Stockton Municipal Code by filing with the Director a written appeal within ten (10) days of such action setting forth in detail the facts supporting the appeal. The administrative hearing shall be conducted in accordance with procedures set out in Chapter 1.44 of the Stockton Municipal Code and the administrative order shall be final.

### **Staff Responsibilities**

FOG Inspectors – Inspectors will be responsible for conducting compliance monitoring and FSE inspections. Inspectors will:

1. Provide outreach and educational assistance to FSEs;
2. Determine compliance with the FOG ordinance through on-site inspections;
3. Prepare inspection reports;
4. Identify instances of noncompliance;
5. Issue enforcement notices;
6. Prepare enforcement documents for issuance by the Director of Municipal Utilities;
7. Participate in enforcement meetings as deemed necessary by the Director of Municipal Utilities or City Attorney; and
8. Provide compliance assistance as appropriate.

FOG Program Manager – The FOG Program Manager will be responsible for ensuring fair and consistent implementation of FOG control requirements in compliance with the FOG Ordinance. The Manager will:

1. Review all violations;
2. Review all documents prepared by inspectors;
3. Recommend appropriate response(s) to violations;
4. Promptly notify the Director of Municipal Utilities of significant instances of noncompliance;
5. Conduct compliance meetings;
6. Develop and oversee compliance monitoring schedules;
7. Track enforcement compliance schedules;
8. Ensure consistency of the FOG control program;
9. Initiate administrative orders with compliance schedules;
10. Initiate suspensions or terminations of service;
11. Consult with City Attorney on all legal issues; and
12. Coordinate enforcement with other governmental agencies as appropriate.

## FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN

Director of Municipal Utilities – The Director of Municipal Utilities will be responsible for the appropriate application of enforcement standards to FOG Ordinance violations. The Director will:

1. Issue formal enforcement actions;
2. Conduct compliance meetings;
3. Consider appeals of enforcement actions; and
4. Approve suspensions and terminations of service.

City Attorney – The City Attorney's office will:

1. Provide legal assistance as necessary.

### Enforcement Action Levels

Level	Enforcement Action
1	Notice to Clean (NTC) Correction Order (CO) Notice of Violation (NOV) Cease and Desist Order (C&D)
2	Administrative Citation with \$200 Fine (ACF)
3	Administrative Citation with \$500 Fine (ACF)
4	Administrative Order (AO) Compliance Time Schedule (CTS)
5	Civil Action (CA) Civil Penalty (CP)
6	Suspension of Service (SOS) Termination of Service (TOS)

## FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN

### Enforcement Response Guide

SMC Sec.	Compliance Issue	Enforcement Action Levels		
		Initial inspection finds failure to comply, or: First violation in a twelve month period	First follow-up inspection finds failure to comply, or: Second violation in a twelve month period	Second or more follow-up inspections find failure to comply, or: Three or more violations in a twelve month period
13.40.040	FOG Discharge Limitation	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.050	Sanitary Sewer Overflow	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.060	Kitchen BMP Requirements	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.070	FOG Prohibitions	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.080	FOG Control Requirements	1 and 4 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.100	Grease Interceptor Requirements	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.120	Recordkeeping Requirements	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.130	Waiver of Interceptor Requirements	1 and 4 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.140	Facilities Monitoring and Right of Entry	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.150	Monitoring and Reporting Conditions	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.160	Inspections and Sampling Conditions	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.190	Falsifying Information / Tampering w/Process	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.200	Notification of Spill	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.210	Notification of Planned Changes	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.
13.40.220	Harmful Discharge	1, 4 and 6 required. 2, 3, 5 if necessary.	1, 2, 4 and 6 required 3, 5 if necessary.	1, 3, 4 and 6 required 5 if necessary.
13.40.230	Failure to Comply with FOG Regulations	1, 4 and 6 required. 2, 3, 5 if necessary.	1, 2, 4 and 6 required 3, 5 if necessary.	1, 3, 4 and 6 required 5 if necessary.
13.40.240	Compliance Time Schedule	1 required. 2 thru 6 if necessary.	1 and 2 required. 3 thru 6 if necessary.	1 and 3 required. 4 thru 6 if necessary.

# FATS, OILS, AND GREASE ENFORCEMENT RESPONSE PLAN

## Notes

The required enforcement action levels specified in the Enforcement Response Guide are the minimum enforcement responses and shall be administered as indicated unless specific findings are determined that would justify not taking such action.

The enforcement remedies specified in this document are not exclusive. The City may take all combination of actions specified in the Stockton Municipal Code against a noncompliant FSE, as well as any other enforcement remedies that the City may have available.

Enforcement responses may be escalated as needed and the City of Stockton is empowered to take more than one enforcement action against any non-compliant FSE.

The Director of Municipal Utilities reserves the right to assess the maximum penalty for any violation.

Violations that threaten health, property or environmental quality are considered emergencies and will receive immediate responses such as halting the discharge of the FSE.

Reimbursement costs are in addition to any administrative civil penalties assessed.

The FSE and property owner(s) shall be jointly and severally liable for compliance with all requirements of Stockton Municipal Code Chapter 13.40 (FOG Ordinance). All references in this Enforcement Response Plan to FSEs shall also include the property owner(s) as having joint and several liability.

## Glossary of Acronyms

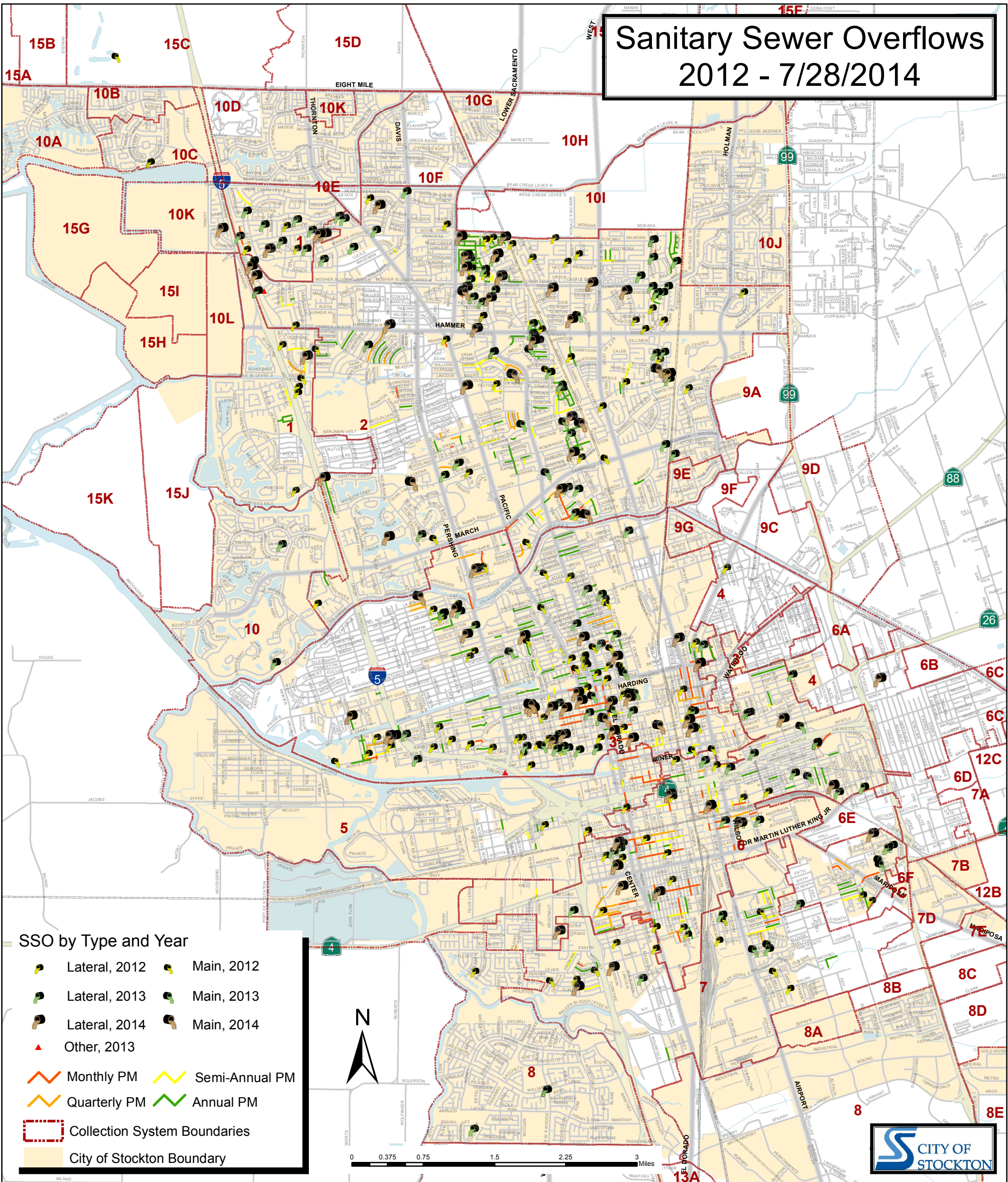
ACF	Administrative Citation with Fine
AO	Administrative Order
BMP	Best Management Practices
CA	Civil Action
C&D	Cease and Desist Order
CO	Correction Order
CP	Civil Penalty
CTS	Compliance Time Schedule
ERP	Enforcement Response Plan
FOG	Fats, Oils, and Grease
FSE	Food Service Establishment
NOV	Notice of Violation
NTC	Notice to Clean
POTW	Publicly Owned Treatment Works
SOS	Suspension of Service
SSO	Sanitary Sewer Overflow
TOS	Termination of Service

## Appendix 12

### GIS SSO Display Sample



# Sanitary Sewer Overflows 2012 - 7/28/2014



## Appendix 13

### City of Stockton – MUD Collections SSMP Internal Audit Checklist



This audit of the City of Stockton’s SSMP consisted of sufficiency rankings on all 11 elements of the SSMP requirements. As specified in the Order, the SSMP is comprised of eleven (11) elements or subsets of Section D.13 of the Order, as follows:

Element No.	Reference Number	Heading
1	D.13.i	Goals
2	D.13.ii	Organization
3	D.13.iii	Legal Authority
4	D.13.iv	Operations and Maintenance Program
5	D.13.v	Design and Performance Provisions
6	D.13.vi	Overflow Emergency Response Plan
7	D.13.vii	FOG (Fats, Oil and Grease) Control Plan
8	D.13.viii	System Evaluation and Capacity Assurance Plan
9	D.13.ix	Monitoring, Measurement and Program Modification
10	D.13.x	SSMP Program Audits
11	D.13.xi	Communication Program

This internal audit is focused on the above eleven categories as required by the Order. The evaluation of each element in each category is herewith standardized with sufficiency, the measure of audit evidence obtained from City of Stockton-MUD staff. Compliance ranking has been based on Order audit guidelines and sufficiency, a recommendation has been provided when there is enough information to support it.

The format for audit reporting is as follows:

- Order Section/Subsection
- Sufficiency Ranking
  - [Complies](#)
  - [Substantial Compliance](#)
  - [Marginal Compliance](#)
  - [Not in Compliance](#)
- Findings
- Recommendation when appropriate

## 1. Audit of Goals - Order D.13.i

Review the SSMP to determine if it complies with the Order by having a goal to provide a plan to manage, operate, and maintain all parts of the City of Stockton-MUD System.

Sufficiency:

Findings:

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
1. Comply with all requirements as directed in the GWDR, dated May 2, 2006.		
2. Implement and maintain an effective Sanitary Sewer Overflow Emergency Response Plan (SSOERP).		
3. Developed an organizational chart that established a clear line of communication to ensure notification and required reporting is made to all appropriate: a.) City personnel and contractors, b.) Governmental Agencies, c.) persons, business and/or pollutants associated with SSO		
4. Ensured that current copies of the SSOERP are readily available to sanitary sewer system operation and maintenance (O & M) personnel at all times.		
5. Ensure SSO response personnel are properly trained in the use of the SSOERP: a.) Schedule training sessions for new employees and whenever the SSOERP is updated (as appropriate), b.) Conduct annual refresher sessions.		
6. Ensure proper SSO response procedures are followed to minimize the volume of sewage reaching surface waters and the impact to water quality and beneficial uses by implementing remedial actions to: a.) Control or limit the SSO volume discharged, b.) Conclude the SSO as rapidly as possible, c.) Contain the spill as rapidly as possible, d.) Recover as much of the SSO as possible for proper disposal, including any wash down water.		
7. Use funds available for sanitary sewer system O&M programs in the most efficient manner possible to cost effectively minimize SSOs, infiltration and inflow (I & I), and exfiltration to the maximum extent possible (MEP).		

**1. Audit of Goals - Order D.13.i continued**

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
8. Ensure that all SSOs are detected to the MEP.		
9. Implement an effective enforcement program.		
10. Conduct periodic capacity assessments in order to maintain adequate sewer capacity and accommodate design peak flows.		
11. Implement effective preventative measures including scheduled maintenance, inspection, monitoring, and public education programs to maintain and extend the useful life of the wastewater collection system infrastructure.		
12. Perform a sanitary sewer system hydraulic evaluation to define triggers for specific infrastructure improvements and demonstrate requirements for specific capital improvements.		
13. Conduct annual audits of the operations and maintenance programs to determine effectiveness.		
14. Establish a GIS tracking feature for SSO reporting.		
15. Minimize inconveniences by responsibly handling interruptions in service.		
16. Perform all operations in a safe manner to avoid personal injury and property damage.		
17. Prevent unnecessary damage to public and private property.		

## 2. Audit of Organization - Order D.13.ii

Review the SSMP to determine if it complies with the Order by having the names of authorized representatives published and updated in the SSMP.

Sufficiency:

Findings:

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(a) The name of the responsible or authorized representative		
(b) The names and telephone numbers for management, administrative and maintenance positions responsible for implementing specific measures in the SSMP program including lines of authority		
( c ) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as county Health Officer, County Environmental Health Agency, Regional Water Board and/or State Office of Emergency Services (OES)).		

### 3. Audit of Legal Authority - Order D.13.iii

*The WDR/SSMP Legal Authority requirement specifies that each enrollee must demonstrate that it possessed the necessary legal authority to enforce their sewer use ordinances, service agreements or other legally binding procedures.*

*Sufficiency:*

*Findings:*

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(a) Prevent illicit discharges in the sanitary sewer system (examples may include 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		
(e) Enforce any violation of its sewer ordinances		

#### 4. Audit of Operation and Maintenance Program - Order D.13.iv

The WDR/SSMP Operation and Maintenance Program requirement specifies that each SSMP must include those elements that are appropriate and applicable to enrollee's system.

Sufficiency:

Findings:

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(a) Maintain an up-to-date map of the Sanitary Sewer System, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities.		
(b) Describe routine preventative operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the Sanitary Sewer System with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders.		

**4. Audit of Operation and Maintenance Program - Order D.13.iv continued**

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a Capital Improvement Plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short-and long-term plans plus a schedule for developing the funds needed for the Capital Improvement Plan;		
(d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance and require contractors to be appropriately trained.		
(e) Provide equipment and replacement part inventories, including identification of critical replacement parts.		

**5. Audit of Design and Performance Provisions - Order D.13.v**

*Review the SSMP to determine if it complies with the Order by having design and performance provisions.*

*Sufficiency:*

*Findings:*

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems		
(b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.		



## 6. Audit of Overflow Emergency Response Plan - Order D.13.vi

Review the SSMP to determine if it complies with the Order by having an Overflow Emergency Response Plan that identifies measures to protect public health and the environment.

Sufficiency:

Findings:

Recommendations:

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(a) Proper notification procedures so that the primary responders and the regulatory agencies are informed of all SSOs in a timely manner		
(b) A Program to ensure an appropriate response to all overflows		
(c ) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, ect.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. The California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification.		
(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained		

**6. Audit of Overflow Emergency Response Plan - Order D.13.vi continued**

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(e) Procedures to address emergency operations such as traffic and crowd control, and other necessary response activities		
(f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge		

**7. Audit of FOG (Fats, Oils and Grease) Control Plan- Order D.13.vii**

*Review the SSMP to determine if it complies with the Order by having a FOG Source Control Program; requirement specifies that each enrollee shall prepare and implement a program to reduce the amount of these fats, oil and grease substances discharged into the Sanitary Sewer System.*

*Sufficiency:*

*Findings:*

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(a) An implementation plan and schedule for 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.		
(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSO and blockages caused by FOG.		
(d) Requirements to install grease removal devices, design standards, maintenance requirements, BMP requirements, record keeping and reporting requirements.		
(e) Authority to inspect grease producing facilities, enforcement authorities and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance.		
(f) An Identification of sanitary sewer sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section		
(g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary system for sections identified.		

**8. Audit of the System Evaluation and Capacity Assurance Plan- Order D.13.viii**

*The WDR/SSMP requirement specifies that each enrollee shall prepare and implement a Capital Improvement Plan (CIP) that provides hydraulic capacity of key sanitary sewer elements for dry weather peak flow as well as the appropriate design storm or wet weather event.*

*Sufficiency:*

*Findings:*

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(a) Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events		
(b) Design Criteria: Where design criteria does not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria		

**8. Audit of the System Evaluation and Capacity Assurance Plan- Order D.13.viii continued**

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(c) Capacity Enhancement Measures: The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I&I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.		
(d) Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the Capital Improvement Program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.		

**9. Audit of the Monitoring, Measurement, and Program Modification - Order D.13.ix.**

*The WDR/SMMP Monitoring, Measurement, and Program Modification requirement specifies that each enrollee shall establish and prioritize appropriate SSMP activity.*

*Sufficiency:*

*Findings:*

*Recommendations:*

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities		
(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP.		
(c) Assess the success of the Preventative Maintenance Program		
(d) Update program elements, as appropriate, based on monitoring or performance evaluations.		
(e) Identify and illustrate SSO trends, including: frequency, location, and volume.		

**10. Audit of the SSMP Program Audits - Order D.13.x.**

*As a part of the SSMP, City of Stockton-MUD shall conduct periodic audits. At a minimum these audits must occur every two years and a report must be prepared and kept on file. These audits shall focus on the effectiveness of the SSMP, compliance with Order requirements, identification of any deficiencies and steps to correct them.*

*Sufficiency:*

*Findings:*

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
Section D 13, (x): As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D.13.), including identification of any deficiencies in the SSMP and steps to correct them.		

**11. Audit of the Communication Program - Order D.13.xi.**

*Section D 13, (xi): The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of it's SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.*

*Sufficiency:*

*Findings:*

*Recommendations:*

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
Public communication on the development, implementation and performance of the SSMP		
The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system		

Conclusion



Audit Participants

Certification of Audit:  
By signing below, I certify that the information contained in this Audit report is correct to the best of my knowledge.

Name	Position	Signature	Date
	Regulatory Compliance Officer		

Certification

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for known violations.

Executed on the XXth day of XXX, 20XX, at the City of Stockton.

\_\_\_\_\_  
City of Stockton  
Director of Municipal Utilities

## Appendix 14

### Internal Audit Checklist

# City of Stockton



## **Sewer System Management Plan (SSMP) Internal Audit November 2015**



# SSMP Audit Report

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## City of Stockton Municipal Utilities Department SSMP Audit

Subject: 2013-14 SSMP Audit Report  
Prepared For: Kenneth E. Merkle, Senior Collection Systems Supervisor  
Prepared by: Alex Palmatier and Gabe Apgar, PE  
Date: November 6, 2015

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### 1 Purpose

The purpose of this document is to report the results of the Sewer System Management Plan (SSMP) Audit conducted for the City of Stockton Municipal Utilities Department (City) covering Calendar Years (CY) 2013 and 2014. This report was prepared and is being submitted pursuant to the requirements included in the State Water Resources Control Board Order No. 2006-0003 – Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR). The audit requirements are:

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

### 2 Background

The City is located in San Joaquin County (County), California, owns and operates a wastewater collection, treatment and disposal system which provides sewer service to the City, Port of Stockton, and the surrounding urbanized County areas. The City’s Regional Wastewater Control Facility (RWCF) is located on the San Joaquin River and consists of the main treatment plant, which treats approximately 32 million gallons per day (MGD). The City’s sewage collection system consists of 27 sewage pump stations (PS), approximately 30 miles of force mains (FM), 885 miles of gravity sewers in addition to approximately 554 miles of lower laterals. The City’s sewer collection system serves a population of approximately 291,700 (per the 2010 US Census Bureau).

### 3 SSMP Audit

This audit, covering from July 1, 2013 through June 31, 2015, is the second SSMP Audit performed to meet WDR requirements for completion of an audit a minimum of once every two years. This audit assesses the current state of SSMP compliance with Provision D.13 of the WDR, identifies any deficiencies found in the SSMP, and suggested corrective actions. In addition the audit provides an evaluation of SSMP effectiveness. The City intends to use the audit results to improve SSMP compliance and performance in reducing sewer overflows.

HDR conducted the audit on behalf of the City through a series of meetings with City staff involved with implementation of activities required by provisions included in Provision D.13 of the WDR. The Audit Team members and City staff supporting the audit interviews and audit process are identified in Table 3-1 and Table 3-2 organized in alphabetical order by first name.

**Table 3-1: Audit Team Members**

Team Member	Organization	Role
Alex Palmatier	HDR	Technical Expert, Asset Management
Gabe Apgar, PE	HDR	Lead Auditor
Kenneth Merkle	City	Senior Collection Systems Supervisor

**Table 3-2: WDR Audit Interviewees**

Name	Title
Debbie Livermore	Regulatory Compliance Officer
Eric Johnson	Senior Supervisor Maintenance, Pump Stations and Force mains Lead
Jeff Marasovich	Program Manager, CMMS Support Lead
Jeff Telmo	Supervisor Collections, Sewer Main Repair and Replacement Lead
Jonathan Nicholas	GIS Support Lead
Keneth Merkle	Senior Collection Systems Supervisor
Ken Valentine	Supervisor Collections Maintenance, Pump Station and Forcemain Lead
Lorin Gardner, PE	Engineering Services Manager, CIP Lead
Richard Stiffler	Technical Services Supervisor, FOG Program Manager
Robert Palacio	Supervisor Collections, CCTV Lead
Tom Watkins	Supervisor Collections, O&M Lead

SSMP audit interviews were performed over a one-day period on September 1, 2015. In addition to the interviews, follow-up phone calls and emails were conducted on an as-needed basis. The WDR provision audited and City staff interviewed is documented in Table 3-3:



**Table 3-3: Audit Participants**

<b>WDR Provision Section</b>	<b>Topics</b>	<b>Participants</b>
D.13 (i)	SSMP Goal	Ken Merkle, Tom Watkins, Lorin Gardner
D.13 (ii)	SSMP Organization	Ken Merkle & Debbie Livermore
D.13 (iii)	Legal Authority	Ken Merkle & Richard Stiffler
D.13 (iv)	O&M Program Maps CMMS PM Activities Repair & Rehab CCTV Inspection  Training Spare Parts CIP	Jonathan Nicholas Jeff Marasovich Ken Merkle & Tom Watkins Jeff Telmo Tom Watkins & Robert Palacio Debbie Livermore Ken Valentine & Eric Johnson Lorin Gardner
D.13 (v)	Design and Performance Provisions	Lorin Gardner
D.13 (vi)	Overflow Emergency Response Plan	Ken Merkle, Debbie Livermore & Richard Stiffler
D.13 (vii)	FOG Control Program	Richard Stiffler
D.13 (viii)	System Evaluation and Capacity Assurance Plan	Lorin Gardner
D.13 (ix)	Monitoring, Measurement, and Program Modifications	Ken Merkle & Tom Watkins
D.13 (x)	SSMP Program Audits	Debbie Livermore
D.13 (xi)	Communication Program	Ken Merkle & Debbie Livermore

#### **4 Evaluation of SSMP Effectiveness**

Overall, based on analysis of the sanitary sewer overflow (SSO) trends over the past five (5) years and the results of the SSMP audit, the collection system program implementation has led to SSO reduction in mainlines every year since 2011. The SSOs per 100 miles have been reduced from 5.9 in 2011 to 2.7 in 2014. The SSOs per 100 miles for laterals has reduced from 22.6 in 2011 to 18.1 in 2013, however lateral SSOs increased to a rate of 22.7 in 2014.

The City has also been effective in reducing the amount of large SSOs as approximately 86% of SSOs are less than 100 gallons in 2014 compared to 70% in 2011. The City has been effective in reducing grease related SSOs due to its FOG program. The FOG program conducts educational outreach, annual inspections of food service establishments (FSE), and issues fines to FSEs responsible for grease caused SSOs. Grease related SSOs have decreased by 63% between 2011 and 2014.

The City has been engaged in a Consent Decree (CD) since 2009 which has caused the City to focus on collection system issues identified in the CD. The CD is expected to conclude at the end of 2015. The CD does not alleviate the City from the responsibilities of the programs and guidelines indicated in the SSMP.

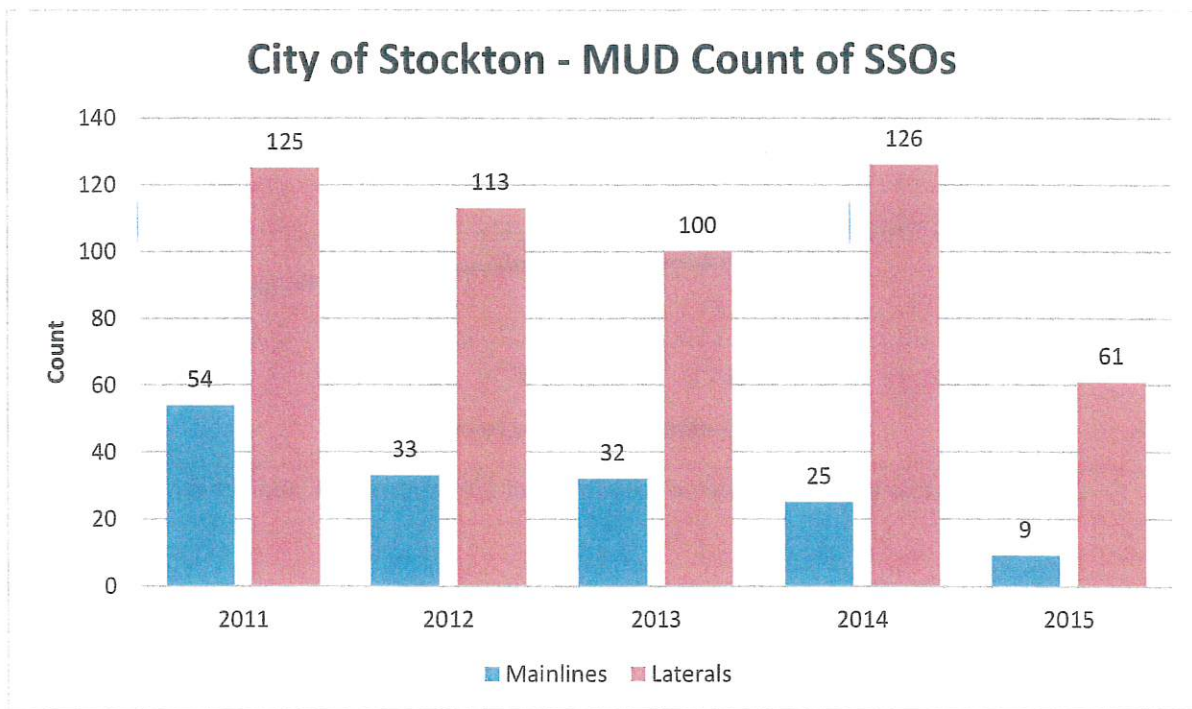
## 4.1 Sewer Overflow Performance

The primary measure of the effectiveness of the SSMP is sewer overflow performance. This section reviews the City's recent sewer overflow performance through analysis of the sewer overflow data reported to the State Water Resource Control Board (SWRCB) California Integrated Water Quality System (CIWQS) SSO database. The SSOs were analyzed by system; laterals and mainlines. All SSOs that occurred at force mains and pump stations are included in the mainline system.

### 4.1.1 Number and Size of SSOs

In calendar years 2013 and 2014 the City experienced 32 and 25 mainline SSOs, respectively. The City is currently on pace for 16 mainline SSOs in calendar year 2015. In calendar year 2013 and 2014 the City experienced 100 and 126 lateral SSOs, respectively. The City is currently on pace for 105 lateral SSOs in calendar year 2015. The City is not responsible for upper laterals, therefore upper lateral SSOs are not included in this SSO evaluation. Figure 4-1 shows the count of SSOs for laterals and mainlines between January 2011 and July 2015.

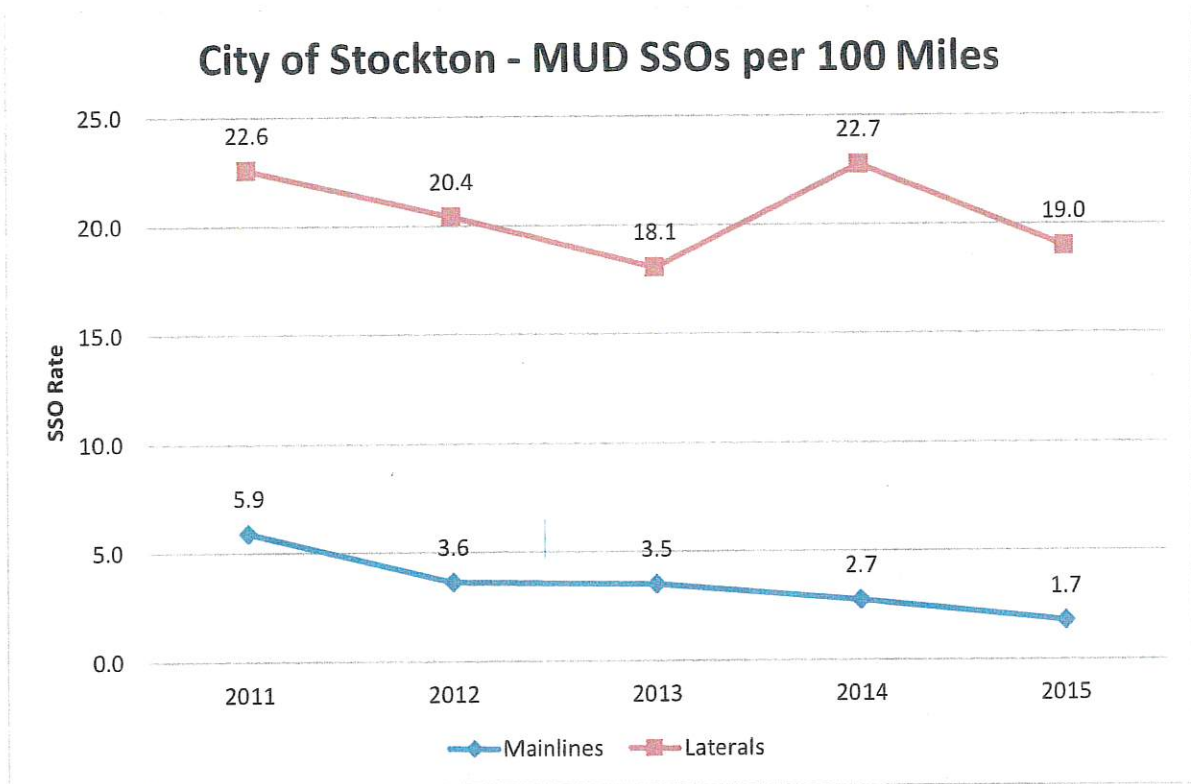
Figure 4-1: Count of SSOs per Year<sup>1</sup>



<sup>1</sup> –2015 values based on SSO data between January and July.

The City has experienced a steady decline in mainline SSOs. Between 2011 and 2014, mainline SSOs have been reduced by approximately 54%. Between 2011 and 2014 the City experienced a decline in lateral SSOs by approximately 21%. Unfortunately the City experienced an increase in lateral SSOs in 2014. Table 4-12 shows the SSO rate per 100 miles for the City's mainlines and laterals between January 2011 through July 2015.

Figure 4-2: SSOs per 100 Miles<sup>2</sup>



2 – 2015 SSO Rate is based on projected SSO values of 16 for mainlines, and 105 for laterals.

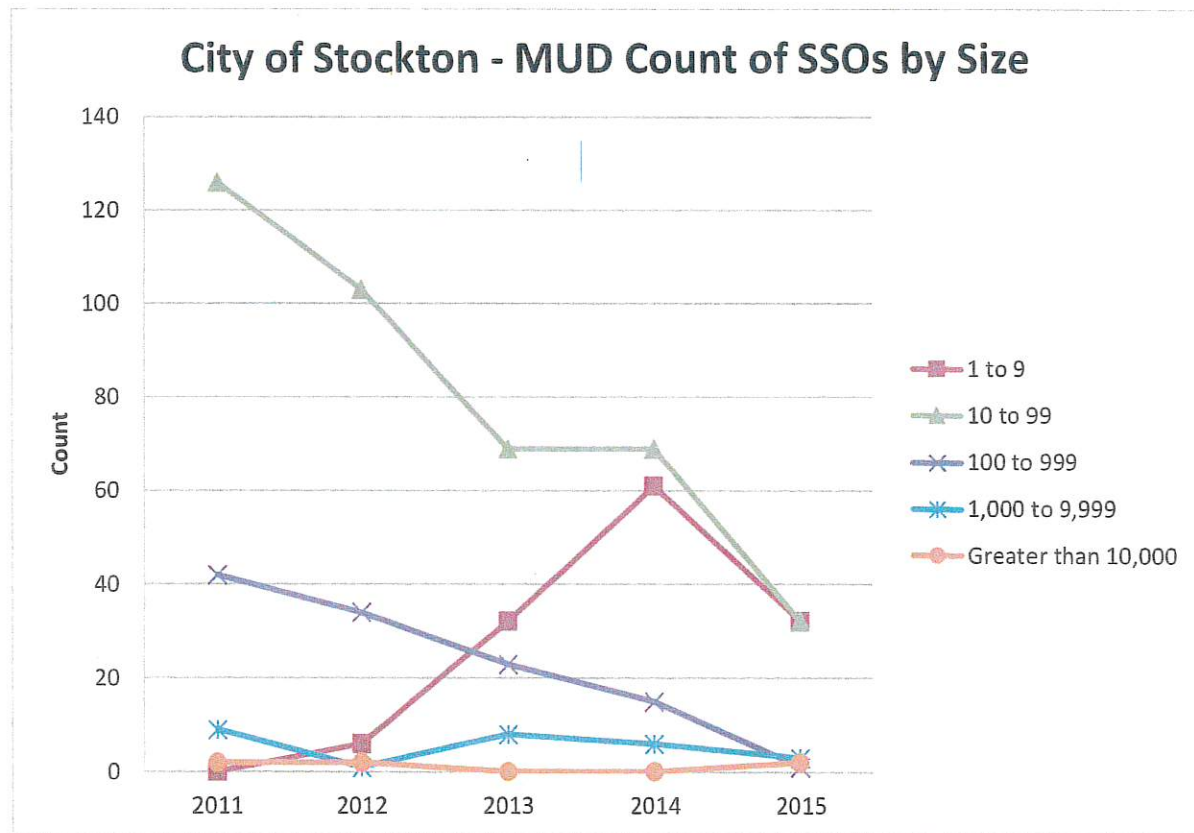


Table 4-1 and Figure 4-3 shows the number and size of all SSOs occurring in the City's sewer system between January 2011 through July 2015. The larger SSOs have significantly decreased since 2011; however SSOs less than 10 gallons have increased since 2012. This correlates with the increase in lateral SSOs experienced in 2014.

Table 4-1: Number and Size of All SSOs from CY 2011 through July 2015

Size of SSO (gallons)	CY 2011	CY 2012	CY 2013	CY2014	CY2015	TOTAL
Greater than 10,000	2	2	0	0	2	6
From 1,000 to 9,999	9	1	8	6	3	27
From 100 to 999	42	34	23	15	1	115
From 10 to 99	126	103	69	69	32	399
From 1 to 9	0	6	32	61	32	131
Total	179	146	132	151	70	678

Figure 4-3: SSOs by Size



#### 4.1.2 Causes of SSOs

Mainline SSOs are primarily caused by debris and grease. Since 2011, approximately 41% of SSOs have been caused by grease and 39% have been caused by debris. Table 4-14 shows the mainline SSO cause between 2011 and July 2015. Table 4-2 shows the total mainline SSO cause count and percentage.

Figure 4-4: Mainline SSO Cause by Year

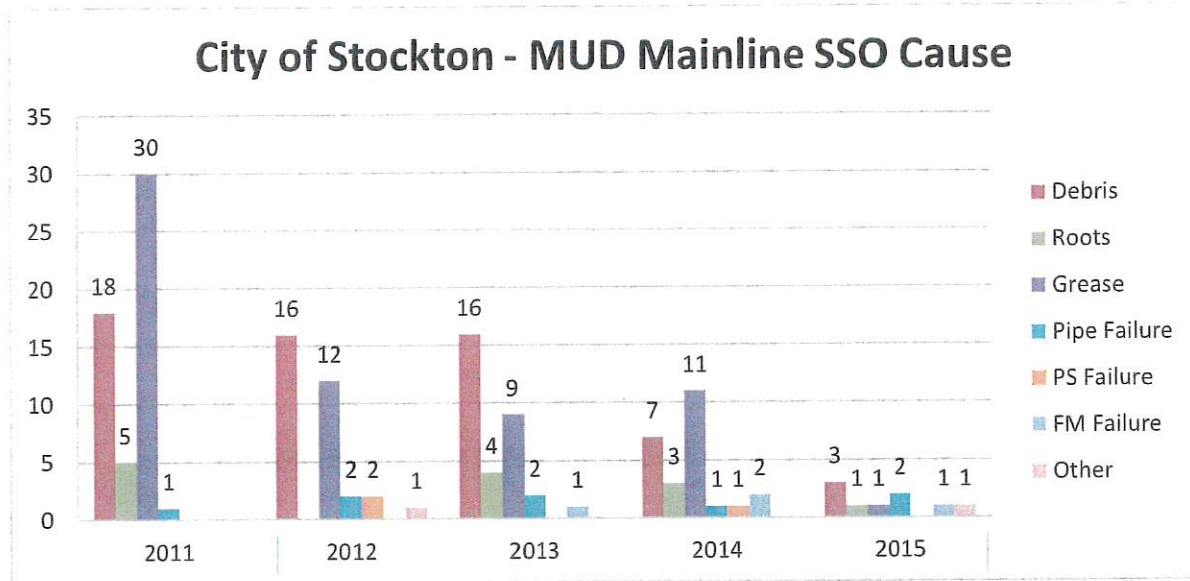


Table 4-2: Mainline Causes of SSOs (1/1/2011 – 7/31/2015)

Cause of SSO	Number	Percent of Total
Blockage:		
Roots	13	8.5%
Grease	63	41.2%
Debris	60	39.2%
<b>Subtotal for Blockage</b>	<b>136</b>	<b>88.9%</b>
Pipe Failure	8	5.2%
Pump Station Failure	3	2.0%
Force Main Failure	4	2.6%
Cause Unknown/Other	2	1.3%
<b>TOTAL (ALL)</b>	<b>153</b>	<b>100.0%</b>

Lateral SSOs are primarily caused by roots and debris. Since 2011, approximately 54% of SSOs have been caused by debris and 36% have been caused by roots. Table 4-15 shows the lateral SSO cause between 2011 and July 2015.

Figure 4-5: Lateral SSO Cause by Year

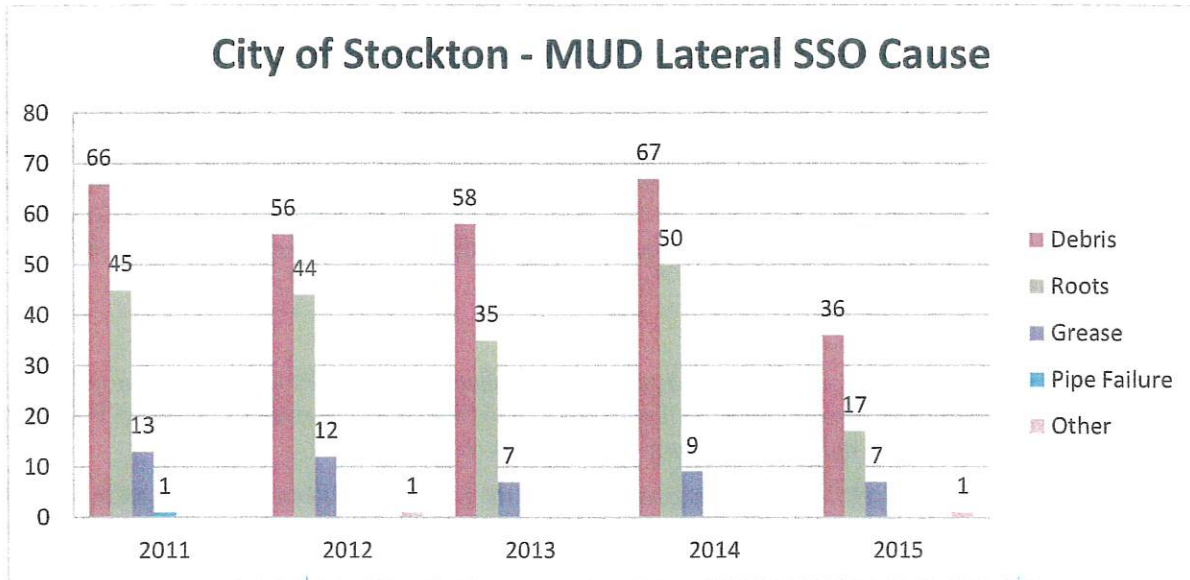


Table 4-3: Lateral Causes of SSOs (1/1/2011 – 7/31/2015)

Cause of SSO	Number	Percent of Total
Blockage:		
Roots	191	36.4%
Grease	48	9.1%
Debris	283	53.9%
<b>Subtotal for Blockage</b>	<b>522</b>	<b>99.4%</b>
Pipe Failure	1	0.2%
Cause Unknown/Other	2	0.4%
<b>TOTAL (ALL)</b>	<b>525</b>	<b>100.0%</b>



## 4.2 Review of Effectiveness of SSMP Elements

The following sections focus on evaluating the effectiveness of each element of the SSMP.

### 4.2.1 Introduction

**WDR Requirement:** *The WDR does not require this section to be part of the SSMP*

**Audit Finding:** The Introduction provides a detailed overview of the development of the SSMP and the WDR requirements of an approach to properly manage and maintain the collection system. The Introduction also identifies the organization of each element within the SSMP. The Introduction does not reference WQ 2008-0002-EXEC which establishes the SSO Monitoring and Reporting Program (MRP) and WQ 2013-0058-EXEC which further amends the MRP. The collection system attributes have not been updated since 2011. In the next update of this section, the City may want to include a reference to the MRP. The City should update the collection system mileages and attributes and note the date the information was generated.

### 4.2.2 Element 1 - Goal

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

**Audit Finding:** The City's SSMP contains goals intended for SSO reduction and includes goals that go beyond the WDR requirements. The City is in compliance with the Goal element requirement of WDR Provision D.13.

### 4.2.3 Element 2 – Organization

**WDR Requirement:** The Sewer System Management Plan (SSMP) must identify:

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

**Audit Finding:** The City is in non-conformance with the Organization element requirement of WDR Provision D.13. The City has assigned roles and responsibilities for development and implementation of specific measures in the SSMP program; however the SSMP will need to be updated to indicate the current City staff. The SSMP does not identify who is responsible for Element 9 – Monitoring, Element 10 – Audits, and Element 11 – Communication. The SSMP will need to be updated accordingly.

The audit team discovered that although the SSO Emergency Response Plan (SSOERP) identifies the reporting and documentation procedures for an SSO, a flowchart identifying the process for documenting and reporting an SSO does not exist. The audit did discover the following minor issues with the SSMP organization and related appendices:

- Appendix II: The audit discovered multiple outdated organizational charts covering multiple service groups within MUD. The City can take the opportunity to develop a single organization chart be used identify the overall structure of MUD (currently provided on the City's website) as well as any additional organizational charts pertinent to the operation and maintenance of the collection system.

- Appendix III: The SSO Emergency Response Plan (SSOERP) currently included in the SSMP is outdated. The SSOERP has been updated in June 2015 and the SSMP should be updated to include the most current version.

#### 4.2.4 Element 3 – Legal Authority

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

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

**Audit Finding:** The City is in compliance with the Legal Authority requirement of the WDR Provision D.13. The City has ordinances and design guidelines providing the City with the authority to prevent illicit discharges, require sewers be properly designed, limit discharge of fats, oils, and grease, and enforce violations of sewer ordinances. **Table 4-3** identifies linkages to the City's Municipal Code and Standard Plans and Specifications for each of the legal authority requirements.

The City has also approved and implemented Municipal Code 13.50 - Abatement of Nonconforming/Substandard Sewer Laterals (13.50) and is currently in the process of updating Municipal Code 13.08 – Wastewater Discharges and Treatment Works. The City should consider referencing the new Municipal Code additions and changes in the next update to the SSMP.



Table 4-3: Summary of City Legal Authorities

Requirement	Municipal Code	Standard Plans and Specifications	Meets WDR Requirements?
<b>PREVENT ILLICIT DISCHARGES</b>			
Prevent illicit discharges into the wastewater collection system	13.08.010, 13.08.100		Yes
Limit the discharge of fats, oils, and grease and other debris that may cause blockages	13.40.010, 13.40.040		Yes
Control infiltration and inflow (I/I) from private service laterals	13.08.160, 13.08.170, 13.08.180,		Yes
<b>PROPER DESIGN AND CONSTRUCTION</b>			
Require that sewers and connection be properly designed and constructed	13.08.020, 15.08.010, 15.16.010, 15.20.010	Section 71, Drawing 45, 45A, 45B, 46, 46A, 47, 47A, 47B, 48, 49	Yes
Require proper installation, testing, and inspection of new and rehabilitated sewers	13.08.020, 13.08.340, 15.16.010	Section 71	Yes
<b>ACCESS TO LATERALS</b>			
Require that laterals and connection be properly designed and constructed	13.08.190, 13.50.010	Section 71, Drawing 62, 63, 64	Yes
Clearly define City responsibility and policies	13.50.030, 13.50.060		Yes
Ensure access for maintenance, inspection, or repairs for portions of the service lateral owned or maintained by the City	13.50.040		Yes
<b>FOG SOURCE CONTROL</b>			
Requirements to install grease removal devices (such as traps or interceptors)	13.40.080		Yes
Design standards for the grease removal devices	13.40.100	Drawing 65, 65A, 66	Yes
Maintenance requirements, BMP requirements, record keeping and reporting requirements for grease removal devices	13.40.060		Yes
Authority to inspect grease producing facilities	13.08.040, 13.40.010		Yes
<b>ENFORCEMENT</b>			
Enforce any violations of its sewer ordinances	13.08.030, 13.08.040, 13.08.380, 13.08.390, 13.50.110		Yes

#### 4.2.5 Element 4 – Operation and Maintenance Program

**WDR Requirement:** *The Sewer System Management Plan (SSMP) must include those elements listed below that are appropriate and applicable to the Enrollee's system:*

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

**Audit Finding:** The City is in partial compliance with the Operation and Maintenance Program element of WDR Provision D.13.

#### **System Mapping**

The City is in compliance with the System Mapping requirement of the WDR Provision D.13. The City maintains an up-to-date map of the system in ArcGIS and is viewable for all personnel in digital format. In addition, a hard copy is maintained in the maintenance office and map books are in all maintenance vehicles. The City relies on hard copy sketches and/or email notifications from field crews and hard copy improvement plans from Engineering to identify map corrections and changes. There is no formal process to document and notify City staff of pending map changes. The City may want to consider developing and implementing a formal map correction process to ensure that all map changes are properly identified and implemented.

#### **Preventative Maintenance**

The City is in non-conformance with the Preventative Maintenance requirement of the WDR Provision D.13. The City is currently cleaning known problem areas on a frequent cleaning schedule, also known as hot spot cleaning, based on past performance and on-going assessment. Page IV-3 of the SSMP states “All gravity sanitary sewer are currently scheduled to be cleaned once every five years, minimum.”. The City is currently only maintaining a cleaning schedule for hot spot cleaning. Sewer pipe segments not on a hot spot cleaning PM schedule are not currently scheduled. The City shifted the focus of the cleaning program to maintenance of laterals when it entered into a Consent Decree. The City should consider updating the SSMP to reflect this programmatic shift. The City uses contractors to clean sewer mains larger than 15-inches in diameter.

The City documents all of its cleaning activities in its CMMS; however the City does not use its CMMS to proactively schedule preventative maintenance as the scheduling process resides in documents outside of CMMS.



The City will be implementing and utilizing new CMMS software in early 2016 that will feature a visual mapping interface. At that time the City will have the opportunity to use the new CMMS software to fully integrate and document preventative and reactive maintenance activities such that more improved data collection can lead to the optimization of maintenance planning and scheduling.

### **Rehab and Replacement Plan**

The City is in compliance with the Rehab and Replacement Plan requirement of the WDR Provision D.13. The City is concluding its CCTV inspection of the collection system and will have met its goal to inspect the main lines within five (5) years as stated on page IV-3 of the SSMP by the end of 2015. The City uses the inspection data to conduct condition assessment which identifies main lines requiring near-term repair and replacement. These near-term repair work orders are generated by CCTV or maintenance personnel on an as-needed basis. The City also uses contractors to complete near-term repair work. The City also conducts follow up CCTV inspection after all SSOs.

The City may want to consider additional condition assessment of pipelines to identify longer-term corrective actions to address remaining structural deficiencies in the sewer system. Although the City currently has a goal to inspect the entire system within the next five years, the WDR does not require an inspection of every pipe in the system within a specified timeframe. The City may want to consider performing a risk-based analysis of assets based on asset management principles that results in a condition assessment schedule for all assets based on known condition, age, and consequence of failure. The end result may be an inspection schedule longer than five years.

### **Training**

The City maintains documentation of all training events and classes held for collection system personnel. The City annually provides SSO response training, safety training, and equipment usage training. In addition, bi-weekly tailgate meetings are held that cover a wide range of issues that address various aspects of daily operations. The City makes available a hard copy of all training information and documents in the staff break room. Mock SSO training is not conducted on a regular basis.

The City is in non-conformance with the Training requirement of the WDR Provision D.13. The City requires contractors to be familiar with the SSOERP and have a copy of it on-site in a binder. The City makes all contractors aware of and provides the SSOERP during pre-construction meetings and requires contractors to conduct regular SSO training based on the SSOERP.

The SSMP does not state the contractor requirements pertaining to SSO training. The City is planning to update the SSMP to identify the SSO training requirements for collection system contractors and develop a process to ensure that contractors properly follow SSO response and protocol for communication with the City in the event of an SSO.

### **Equipment and Replacement Parts**

The City maintains an inventory list of spare parts and equipment. The City owns and maintains the proper emergency response equipment to bypass sewer mains and pump stations up to 7.5 MGD in the event of failure. Larger bypassing needs require contractor assistance. The sewage pump stations are designed with redundancy so spare pumps are not kept in inventory. The large pump stations have spare mechanical seals kept on-site.

The City is in non-conformance with the equipment and replacement parts requirement of the WDR Provision D.13. The City does not maintain a critical parts list due to their emergency bypass pumping capabilities and redundancy design standards. The City should identify and document which pump stations, if any, have critical spare parts and create a list of the critical spare parts, if any exist.



#### 4.2.6 Element 5 – Design and Performance Provisions

**WDR Requirement:**

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

**Audit Finding:** The City has appropriate design and construction standards and specifications as well as procedures and standards for inspection and testing of new sewers and rehabilitation and repair projects and is in compliance with the Design and Performance Provisions elements of WDR Provision D.13. The City follows NASSCO PACP coding guidelines when conducting CCTV inspection of sewer mains and requires CCTV contractors to abide by those coding guidelines as well. The City is currently reviewing the Standard Plans and will be updating them as necessary. The City may want to consider updating the Standard Specifications to include the requirement of post repair/construction CCTV inspection.

#### 4.2.7 Element 6 – Overflow Emergency Response Plan

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

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

**Audit Finding:** The City is in compliance with the Overflow Emergency Response Plan requirement of WDR Provision D.13. The City has recently updated its SSOERP in June 2015. The SSOERP clearly identifies the reporting procedures and references the SOP for Sanitary Sewer Overflow Response for field crews. The City annually trains collection system employees for SSO response and the SSO response SOP. Due to the recent changes in the SSOERP, the City may want to consider the following changes to update the SSMP to incorporate and reference the new SSOERP document:

- Appendix III: The SSO Emergency Response Plan (SSOERP) currently included in the SSMP is outdated. The SSOERP has been updated in June 2015 and the SSMP should be updated to include the most current version.

- Not all contact information on page 12 of the SSOERP is provided. The audit team discovered that the City has high turnover and the contact information is constantly changing. The audit team was also informed that a template maintained on the City's servers is used for reference for the most current contact information. The City should consider adding a reference to this contact template and its file location to be included in the SSMP and SSOERP.
- Appendix VI: Remove. Update the SSMP to reference the updated SOP used for SSO response which is now included in the SSOERP
- Exhibit 6-1: Remove. Update the SSMP to reference the updated SOP used for SSO response which is now included in the SSOERP
- Exhibit 6-2: Remove. Update the SSMP to reference the updated SOP used for SSO response which is now included in the SSOERP

The SSMP does not include a flowchart indicating process for SSO documentation and reporting procedures. The City may want to consider updating the SSMP to include these items.

Finally, the WDR requires that contractors performing work on the collection system be appropriately trained and aware of and follow the Emergency Response Plan. The City's SSOERP does not provide specific guidance to contractors regarding notification and response in the case of a contractor-caused sewer overflow. The City requires all contractors to be familiar with the SSOERP and have a copy of it in a binder on-site. The SSOERP is discussed and provided in pre-construction meetings. The City also requires contractors to conduct training regularly based on the SSOERP. The City does not require contractors to develop an Sewer Overflow Response Plan (SORP), in the case that their activities cause a sewer overflow. The City may want to consider a contractual requirement for contractors to develop a SORP.

The City shall consider documenting SSO response documents given to contractors used for collection system repairs or pump station repairs and document any communication or training performed to provide the contractor with awareness of notification and response procedures in the case of a contractor-cause sewer overflow.

#### **4.2.8 Element 7 – FOG Control Program Plan**

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

- a. 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 discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;*
- d. Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;*
- e. Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;*



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

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

**Audit Finding:** The City is in compliance with WDR requirements for a FOG Control Program and has an effective program supported by multiple Municipal Codes that allow for enforcement and regulation of Food Service Establishments (FSE). As seen in Figure 4-2 above, the City has reduced grease caused SSOs by over 50 percent since 2011. The City FOG brochures and information are all current and up to date and the City continues to maintain two (2) full-time environmental control officers that are dedicated to the FOG program. The City conducts follow up inspections at FSE's that are within the vicinity of grease related SSOs.

The City may want to update the SSMP to properly reflect the facilities that dispose of FOG. Darling International Crows Landing facility no longer accepts FOG disposal and should be removed from the SSMP. As the City migrates work order management and documentation of collection system operation and maintenance activities to Cityworks in the near future, the City may also want to consider evaluating Cityworks CMMS as a means to manage, plan, schedule, and document FSE inspection activities. Currently FSE inspections are scheduled in a financial database program called AS400.

#### **4.2.9 Element 8 – System Evaluation and Capacity Assurance Plan**

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

a. *Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;*

b. *Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and*

c. *Capacity Enhancement Measures: The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.*

d. *Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the Sewer System Management Plan (SSMP) review and update requirements as described in Section D. 14.*

**Audit Finding:** The City is in compliance with WDR requirements for a system evaluation and capacity assurance plan. The following sections describe the audit findings as they pertain to the specific components of the system evaluation and capacity assurance plan.

##### **Evaluation**

The City maintains a system-wide hydraulic flow model that is periodically updated as flow data is collected. The City most recently completed a flow monitoring project in fiscal year 2015. The City is in

the process of analyzing the flow data and incorporating it into the system-wide hydraulic model. The City has not experienced a capacity related SSO in the last five (5) years.

The City currently has forty-two (42) smart covers deployed throughout the system. Eleven (11) are located at pump stations, one (1) is located at the wastewater treatment plant, and the remaining twenty-nine (29) are distributed throughout the collection system in problem areas. The smart covers do not collect any flow information and are used to alert the City of a blockage in the system due to an elevated water level at the smart cover location.

The City continues to inspect the entire collection system. As structural and maintenance issues are found, reactionary actions are taken. Maintenance needs generate a cleaning work order, and structural issues generate a repair work order.

#### **Design Criteria**

All design criteria are maintained in the City's Standard Plans and Specifications. The system-wide hydraulic model uses flow data to identify capacity deficiencies in the collection system. Any deficiencies identified may require capacity related improvements.

#### **Capacity Enhancement Measures**

To date, hydraulic modeling, the recent flow monitoring project have not generated any capacity related improvement projects.

The CIP list is maintained by the Engineering Division and contains projects based on system needs.

The SSMP refers to short term CIP projects as required by the CSPA Consent Decree. The City should consider removing reference to the CSPA Consent Decree from the SSMP. Any remaining short-term repairs required per the CSPA Consent Decree are documented and tracked in the City's CMMS.

- Appendix V: Remove CSPA Consent Decree document from SSMP.

#### **Schedule**

The CIP schedule is based on available funding and is reprioritized annually based on projected funding and collection system needs. The City is currently in the process of changing its CIP fund tracking by listing projects by phase: planning, design, and construction. This will provide more detail on the status of CIP projects and their corresponding funding.

The SSMP states that CIP projects are entered and tracked in CMMS; this was discovered to be inaccurate and this language should be updated to indicate that only spot repairs are entered and tracked in CMMS. The City has collected a significant amount of CCTV data during its collection system inspection program and have evaluated this data to identify near-term repair and rehabilitation required to correct severe structural defects. The City should move forward with assessment of this data to identify and prioritize additional system deficiencies requiring longer-term corrective actions and develop a plan and associated funding to address these deficiencies.

### **4.2.10 Element 9 – Monitoring, Measurement, and Program Modifications**

**WDR Requirement:** *The Enrollee shall:*

- Maintain relevant information that can be used to establish and prioritize appropriate Sewer System Management Plan (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 program elements, as appropriate, based on monitoring or performance evaluations; and*



e. *Identify and illustrate SSO trends, including: frequency, location, and volume.*

**Audit Finding:** The City has focused extensively on the requirements of the Consent Decree (CD) and has had to allocate resources to address the needs of the CD. The City is out of compliance with the WDR MRP requirements since a log has not been created documenting the changes to the SSMP occurring since September 9, 2013, the date the amended Monitoring and Reporting Program requirements (WQ 2013-0058-EXEC) went into effect requiring changes to the SSMP to be documented in a log and attached to the SSMP. The changes to the City's SSMP in 2013 will need to be documented in a log and added to the SSMP.

The SSMP programs are monitored in the Monthly Operation and Maintenance Reports (MOMR). These monthly reports identify the number of SSOs, their spill volume, and category type; the count and linear footage of lateral and main repairs, count of manhole repairs; count and linear footage of hydro-flushing, rodding, and CCTV activities; and count and linear footage of laterals applied with chemical root foam. The City does not use its CMMS data to periodically analyze and assess the maintenance activities. The City relies on excel spreadsheets to track maintenance production and uses POSM data to track CCTV activities and footages that have been completed. Due to the City's lack of data analysis, the maintenance programs are not assessed to determine their effectiveness so adjustments to the program elements are not made. The City should consider removing reference to the CMMS tracking of CD requirements from the SSMP, and consider utilizing its CMMS to track all preventative and reactive maintenance activities. This will allow for the City to annually conduct data analysis to evaluate the collection system maintenance effectiveness and make adjustments to the program elements as needed.

#### **4.2.11 Element 10 – SSMP Program Audits**

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

**Audit Finding:** The City conducted an internal audit in October 2013. The 2013 audit is kept on file and determined which programs the City manages and their compliance with the WDR requirements. The 2013 audit identified areas of deficiency; however it does not identify steps to correct those deficiencies.

This audit will serve as the 2015 audit which falls within the WDR requirement of conducting an SSMP audit every two (2) years. The 2015 audit contains steps to correct deficiencies and identifies SSMP updates for City consideration that reflect the current programs and management of the collection system. The City should consider adding an audit log to the SSMP to document the dates past audits were performed and the deadline for the next audits.

#### **4.2.12 Element 11 – Communication Program**

**WDR Requirement:** *The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.*

*The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.*

**Audit Finding:** The City is in compliance with WDR requirements for a Communication Program. The City properly maintains its website to include any notifications and announcements pertaining to the collection system. A vast amount of documents pertaining to the collection system, SSMP, and SSOERP are maintained online. The City should consider steps to ensure that the most current documents are

available online and to update the SSMP to properly reflect the City's communication strategies with satellite agencies. Currently, the City communicates with satellite agencies on an as-needed basis.

## 5 Strengths and Implementation Accomplishments

Documenting the strengths and implementation accomplishments of the SSMP is as important as determining the deficiencies and corrective actions. The City should both recognize the areas of strength in sewer system management as well as continue building upon success in these areas. Table 5-1 includes the strengths and implementation accomplishment that were identified during the audit.

**Table 5-1: Strengths and Implementation Accomplishments**

<b>WDR Provision</b>	<b>Strengths and Implementation Accomplishments</b>
D.13(ii) - Organization	The City has assigned roles and responsibilities for development and implementation of the SSMP.
D.13(iii) – Legal Authority	The City has ordinances and design guidelines providing the City with the authority to: <ul style="list-style-type: none"> <li>• Prevent illicit discharges;</li> <li>• Require sewers to be properly designed and constructed;</li> <li>• Limit discharge of fats, oils, and grease, and;</li> <li>• Enforce violations of sewer ordinances.</li> </ul>
D.13(iv) – Operations and Maintenance Program	The City maintains an up-to-date map of the collection system in ArcGIS and properly updates it as needed. The City inspects all pipes that experience an SSO. The City refers structural defects for repair when found. The City documents all training events and classes and conducted by City staff as well as makes training materials available. The City maintains emergency bypass equipment capable of pumping 7.5 MGD.
D.13(v) – Design and Performance Provisions	The City is currently reviewing its Standard Plans and will make updates as needed. This update will allow the City to maintain stringent design and construction standards.
D.13(vi) – Overflow Emergency Response Plan	The City recently updated the SSOERP that consolidated SSO response SOPs and includes the most recent reporting requirements and procedures.
D.13(vii) – FOG Control Program	Educational outreach, annual inspections, and strict enforcement has resulted in over a 50% decrease in grease related SSOs since 2011.
D.13(viii) – System Evaluation and Capacity Assurance Plan	The City maintains a system-wide hydraulic flow model and has not experience a capacity related SSO in the last five (5) years. The City maintains 42 smart covers that alert maintenance staff about system blockages.
D.13(ix) – Monitoring, Measurement, and Program Modifications	The City documents its monthly SSOs and maintenance production in the MOMRs.
D.13(x) – SSMP Program Audits	The City has conducted SSMP audits every two (2) years since the last SSMP certification in 2011.
D.13(xi) – Communication Program	The City makes available a vast amount of SSMP and collection system related documents on its website.



## 6 SSMP Deficiencies and Corrective Actions

Several deficiencies were identified during the audit and are in this Section along with recommended corrective actions for consideration by the City. Deficiencies were divided into three categories and coded with a letter. The deficiency categories are coded and defined as follows:

**Table 6-1: Deficiency Definitions**

<b>Deficiency Type</b>	<b>Deficiency Type</b>	<b>Deficiency Definition</b>
A	Non-Compliance	A process or outcome resulting in the SSMP not currently being in compliance with the WDR/SSMP requirements.
B-major	Major Non-Conformance	Moderate to high risk that a statement in the SSMP is not fully conformed. Moderate to high risk to the success of the SSMP.
B-minor	Minor Non-Conformance	Low risk that a statement in the SSMP is not fully conformed. Low risk to the success of the SSMP.

Table 6-2: Non-Compliance Deficiencies and Recommended Corrective Actions

WDR Provision	Identified Deficiency	Recommended Corrective Action	Deficiency Type
D.13(ix) – Monitoring, Measurement, and Program Modifications	The SSMP does not contain a log documenting the changes to the SSMP occurring since September 9 <sup>th</sup> , 2013.	Update the SSMP to include a log documenting the SSMP changes since 2013.	A

Table 6-3: Major and Minor Non-Conformance Deficiencies and Recommended Corrective Actions

WDR Provision	Identified Deficiency	Recommended Corrective Action	Deficiency Type
D.13(ii) - Organization	The SSMP does not list the current MUD Director.	Update the SSMP to properly identify Mel Lytle as the MUD Director.	B-minor
D.13(ii) - Organization	The SSMP does not list the correct title of staff responsible for SSMP elements and does not identify who is responsible for Elements 9, 10, and 11.	Update the SSMP to properly identify the staff responsible for their corresponding SSMP element.	B-minor
D.13(ii) - Organization	Appendix II: Consolidate the organizational charts such that a single organization chart be used identify the overall structure of MUD as well as any additional organizational charts pertinent to the operation and maintenance of the collection system.	Update Appendix II of the SSMP to include pertinent organizational charts.	B-minor
D.13(ii) - Organization	Appendix III: The SSO Emergency Response Plan (SSOERP) currently included in the SSMP is outdated. The SSOERP has been updated in June 2015 and the SSMP should be updated to include the most current version	Update Appendix III of the SSMP to include the most current SSOERP.	B-major
D.13(iv) – Operations and Maintenance Program	The City no longer maintains a cleaning schedule for every sewer main at least once every five (5) years as stated in the SSMP.	Implement and use the new CMMS software to fully integrate preventative and reactive maintenance activities such that more improved data collection can lead to the optimization of maintenance planning and scheduling.	B-major



City of Stockton – Municipal Utilities Department  
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WDR Provision	Identified Deficiency	Recommended Corrective Action	Deficiency Type
D.13(iv) – Operations and Maintenance Program	The preventative maintenance scheduling process resides in documents outside of CMMS.	Implement and use the new CMMS software to fully integrate preventative and reactive maintenance activities such that more improved data collection can lead to the optimization of maintenance planning and scheduling.	<b>B-major</b>
D.13(iv) – Operations and Maintenance Program	The SSMP does not state the contractor requirements pertaining to SSO training.	Update the SSMP to identify the SSO training requirements for collection system contractors. Develop a process to ensure that contractors properly follow SSO response and protocol for communication with the City in the event of an SSO.	<b>B-major</b>
D.13(iv) – Operations and Maintenance Program	The City does not maintain a critical parts list due to their emergency bypass pumping capabilities and redundancy design standards.	The City should identify and document which pump stations, if any, have critical spare parts and create a list of the critical spare parts, if any exist.	<b>B-minor</b>
D.13(vi) – Overflow Emergency Response Plan	Appendix III: The SSO Emergency Response Plan (SSOERP) currently included in the SSMP is outdated. The SSOERP has been updated in June 2015 and the SSMP should be updated to include the most current version	Update Appendix III of the SSMP to include the most current SSOERP.	<b>B-major</b>
D.13(vi) – Overflow Emergency Response Plan	Appendix VI is no longer valid as the SOP for SSO response has been updated and included in the revised SSOERP.	Remove. Update the SSMP to reference the updated SOP used for SSO response which is now included in the SSOERP	<b>B-minor</b>
D.13(vi) – Overflow Emergency Response Plan	Exhibit 6-1: SOP Spill Response Mainlines is no longer in use.	Remove. Update the SSMP to reference the updated SOP used for SSO response which is now included in the SSOERP	<b>B-minor</b>
D.13(vi) – Overflow Emergency Response Plan	Exhibit 6-2: SOP Spill Response Laterals is no longer in use.	Remove. Update the SSMP to reference the updated SOP used for SSO response which is now included in the SSOERP	<b>B-minor</b>

City of Stockton – Municipal Utilities Department  
SSMP Audit Findings

<b>WDR Provision</b>	<b>Identified Deficiency</b>	<b>Recommended Corrective Action</b>	<b>Deficiency Type</b>
D.13(vi) – Overflow Emergency Response Plan	SSMP/SSOERP does not contain a flowchart identifying the documentation and reporting procedures during an SSO.	Develop a flowchart indicating the SSO documentation and reporting procedures.	<b>B-minor</b>
D.13(vi) – Overflow Emergency Response Plan	The City's SSOERP does not provide specific guidance to contractors regarding notification and response in the case of a contractor-caused sewer overflow.	The City does not require contractors to develop an Sewer Overflow Response Plan (SORP), in the case that their activities cause a sewer overflow. The City may want to consider a contractual requirement for contractors to develop a SORP.	<b>B-major</b>
D.13(vii) – FOG Control Program	Darling International Crows Landing facility no longer accepts FOG disposal.	Update the SSMP to remove the Darling International Crows Landing facility from acceptable FOG disposal locations.	<b>B-minor</b>
D.13(viii) – System Evaluation and Capacity Assurance Plan	The City currently has forty-two (42) smart covers deployed throughout the system.	Update the SSMP to indicate the current amount of smart covers deployed throughout the system.	<b>B-minor</b>
D.13(viii) – System Evaluation and Capacity Assurance Plan	The SSMP refers to short term CIP projects as required by the CSPA Consent Decree.	Consider removing reference to the CSPA Consent Decree from the SSMP. Any remaining short-term repairs required per the CSPA Consent Decree are documented and tracked in the City's CMMS.	<b>B-minor</b>
D.13(ix) – Monitoring, Measurement, and Program Modifications	The City does not use its CMMS data to periodically analyze and assess the maintenance activities and therefore adjustments to the program elements are not made.	Utilize CMMS to track all preventative and reactive maintenance activities and annually conduct data analysis evaluate the collection system maintenance effectiveness and make adjustments to the program elements as needed.	<b>B-major</b>
D.13(xi) – Communication Program	The SSMP states that communication with satellite agencies is conducted on a semi-annual basis when it is actually conducted on an as-needed basis.	Update the SSMP to properly reflect that the City communicates with satellite agencies on an as-needed basis.	<b>B-minor</b>



## 7 Other Findings and Opportunities

This section includes other findings and opportunities for improvements not linked directly to issues of compliance or conformance with the WDR. These are ideas which resulted from the audit and are presented for the City's consideration.

Table 7-1: Other Findings and Opportunities

WDR Provision	Finding	Opportunity
None - Introduction	The Introduction does not reference the executive orders that generate changes to the WDR or the current collection system mileages and attributes.	Update the Introduction to properly reference the executive orders that generate changes to the WDR as well as to reflect the current collection system mileages and attributes.
D.13(iii) – Legal Authority	The City has also approved and implemented Municipal Code 13.50 - Abatement of Nonconforming/Substandard Sewer Laterals (13.50) and is currently in the process of updating Municipal Code 13.08 – Wastewater Discharges and Treatment Works.	Update the SSMP to reference the correct Municipal Code numbers as well as to reference the recently approved Code changes.
D.13(iv) – Operations and Maintenance Program	The City is planning to implement a GIS based CMMS system in early 2016.	The City can address its non-conformance pertaining to scheduled preventative maintenance by implementing a cleaning schedule and routing all maintenance related work orders through the new CMMS.
D.13(iv) – Operations and Maintenance Program	The City relies on hard copy sketches and/or email notifications from field crews and hard copy improvement plans from Engineering to identify map corrections and changes.	The City can formalize its map correction process by utilizing CMMS to document, review, track, and approve map corrections identified in the field.
D.13(iv) – Operations and Maintenance Program	The City has reallocated a significant amount of resources to focus on the maintenance and repair of lower laterals.	The City can identify and define a lower lateral program that will dedicate resources to lower lateral maintenance and inspection.
D.13(iv) – Operations and Maintenance Program	The City may consider developing the condition assessment program beyond near-term corrective action.	The City may want to consider performing an risk-based analysis of assets based on asset management principles that results in a condition assessment schedule for all assets
D.13(v) – Design and Performance Provisions	The City is currently reviewing the Standard Plans and will be updating them as necessary.	Update Section 5 of the Standard Specifications to include the requirement of post repair/construction CCTV inspection.

City of Stockton – Municipal Utilities Department  
SSMP Audit Findings

WDR Provision	Finding	Opportunity
D.13(vi) – Overflow Emergency Response Plan	The City does not state contractor SSO training, awareness, and communication protocol in the SSMP.	The City shall consider documenting SSO response documents given to contractors used for collection system repairs or pump station repairs and document any communication or training performed to provide the contractor with awareness of notification and response procedures in the case of a contractor-cause sewer overflow.
D.13(vii) – FOG Control Program	The FOG program utilizes a financial database program for FSE inspection scheduling.	The City can consolidate FSE inspections into CMMS. This will keep all collection system related work managed and maintained in one common system.
D.13(x) – SSMP Program Audits	The City should consider adding an audit log to the SSMP to document past and future audits	Add an audit log to the SSMP to document past and future SSMP audits.

## 8 List of Documents Reviewed

The following table lists the documents reviewed over the course of the WDR audit. The documents are organized in alphabetical order.

Table 8-1: List of Documents Reviewed

Document	Date	Source
CIP Budget	August 2015	City staff
CIP List	August 2015	City staff
FOG Annual Report	April 2015	City staff
MOMRs	June 2015	City website/City staff
Municipal Code	August 2015	City website
Organizational Chart	August 2015	City website/SSMP Appendix
SOP - CCTV	January 2004	City staff
SOP – Mainline Cleaning	January 2010	City staff
SOP - Rodding	January 2004	City staff
SOP - Workflow	August 2015	City staff
SSMP	October 2013	City website/City staff
SSOERP	June 2015	City staff
Standard Specifications and Plans	November 2003	City website
Training List	August 2015	City staff
Work Order - Workflows	August 2015	City staff





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SOP - Rodding	January 2004	City staff
SOP - Workflow	August 2015	City staff
SSMP	October 2013	City website/City staff
SSOERP	June 2015	City staff
Standard Specifications and Plans	November 2003	City website
Training List	August 2015	City staff
Work Order - Workflows	August 2015	City staff

## Certification of Audit

By signing below, I certify that the information contained in this Audit, completed in November 2015, is correct to the best of my knowledge.

  
\_\_\_\_\_  
Gabriel Apgar, PE  
HDR Engineering


11/6/2015  
\_\_\_\_\_  
Date

## Certification

I under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for known violations.

Executed on the 6<sup>th</sup> day of November, 2015, at the City of Stockton.

  
\_\_\_\_\_  
C. Mel Lytle, Ph. D.  
City of Stockton  
Director of Municipal Utilities





# **Sanitary Sewer Management Plan (SSMP) Internal Audit November 2017**



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## Summary

In May 2006, the SWRCB adopted Order No. 2006-0003, State Wide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR). Order No. 2006-003 was superseded by Order No. 2008-0002-EXEC on February 20, 2008 and superseded by the amended requirements set forth in Order 2013-0058-EXEC on September 9, 2013. This Order requires that the owner of a wastewater collection system with more than a mile of pipeline have in place a Sewer System Management Program (SSMP) to comply with the terms of this Order, which is to reduce the number and severity of Sanitary Sewer Overflows (SSOs); and to audit the program every two years. This Audit is covering from November 2015 to November 2017, and is the third SSMP Audit performed to meet the WDR requirements for completion of an audit at a minimum of once every two years. This audit assesses the current state of the SSMP compliance with Provision D.13 of the WDR, identifies any deficiencies, and suggests corrective action. The 2017 audit was conducted to meet the bi-ennial audit requirement of the SSMP.

This audit of the City of Stockton's SSMP consisted of sufficiency rankings on all 13 elements of the SSMP requirements. As specified in the Order, the SSMP is comprised of thirteen (13) chapters, as follows:

Element No.	Heading
Chapter 1	Introduction
Chapter 2	Prohibitions and Provisions
Chapter 3	Goal
Chapter 4	Organization
Chapter 5	Legal Authority
Chapter 6	Operations and Maintenance Programs
Chapter 7	Design and Performance Provisions
Chapter 8	Overflow Emergency Response Plan
Chapter 9	Fats, Oils and Grease (FOG) Program
Chapter 10	System Evaluation & Capacity Assurance Plan
Chapter 11	Monitoring and Program Modifications
Chapter 12	SSMP Audits
Chapter 13	Communication Program

This internal audit is focused on the above thirteen categories as required by the Order. The evaluation of each element in each category is listed below with standardized and sufficiency, the measure of the audit evidence obtained from City of Stockton-MUD staff. Compliance ranking has been based on Order audit guidelines and sufficiency. A recommendation has been provided when there is enough information to support it.

The format for audit reporting is as follows

- Section/Subsection
- Sufficiency Ranking
  - o Complies
  - o Substantial Compliance
  - o Marginal Compliance
  - o Not in Compliance
- Findings
- Recommendation when appropriate

## Chapter 1 - Introduction

The City of Stockton's (City) SSMP was developed in compliance with the requirements of the State Water Resources Control Board (SWRCB) Order No. 2006-003-DWQ, Statewide General Waste Discharge Requirement (WDR), dated May 2, 2006 (Appendix I, Attachment A). The WDR is intended to provide a consistent statewide approach for reducing SSOs and applies to all publicly owned collection system agencies consisting of more than one mile of pipe or sewer lines and which convey untreated wastewater to a publicly owned treatment facility. Each agency is required to develop and implement a SSMP that describes the procedures and activities necessary to effectively operate and maintain their wastewater collection system in order to prevent SSOs and to ensure proper notification should an SSO occur.

Sufficiency: **Complies**

Findings: Information is not current as of October 2017. Update the SSMP with current 2017 information.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
1.1 Organization of SMMP	Y	
1.2 City of Stockton Service Area and Sewer System	N	Population needs to be changed. Use population (315,592) of last CIWQS questionnaire update dated 3/30/2017. Update Satellite Agencies WDID number for Port of Stockton.
1.3 Supporting Documents	N	Add attachment C (not listed in section). The SMMP was approved by City Council March 26, 2016, Resolution No. 2016-03-26-0302. Add attachment D, new City Council Staff Report and Resolution. The Plan has Resolution No. 07-0327 listed.

## Chapter 2 - Prohibitions and Provisions

*This chapter describes the sewage discharge prohibitions and provisions as stated in the WDR.*

Sufficiency: **Complies**

Findings: Chapter needs to have City Council Resolution information updated.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
2.1 Prohibitions	Y	
2.2 Provisions	N	Update the last paragraph to include the new SSMP approved by City Council March 26, 2016, Resolution No. 2016-03-26-0302 attachment D.

### Chapter 3 - Goal

This chapter describes the goal of this SSMP document.

Sufficiency: [Complies](#)

Findings: City of Stockton-MUD has established a list of goals in its SSMP that complies with the goals established in the Order.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
3.1 Purpose	Y	
3.2 Goal	Y	

### Chapter 4 - Organization

This chapter identifies the Authorized Representative to meet the SWRCB requirements for completing and certifying spill reports and the implementation and development of the SSMP. This chapter also includes City staff responsible for managing and maintaining the wastewater collection system and the responders to SSO events. The organization elements of the City's SSMP and SSOERP are designed to ensure that every report of a SSO is dispatched to the appropriate response personnel to minimize the effects of the overflow with respect to its adverse impacts on public health, the environment, and property. This chapter fulfills the Organization Requirement of the SSMP as mandated by the WDR.

Sufficiency: [Substantial Compliance](#)

Findings: Update the SSMP with current information. It is important to update authorized representatives as soon as changes occur.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
4.1 Regulatory Requirements	Y	
4.2 Authorized Representative	N	Mel Lytle needs to be changed to John Abrew
4.3 Responsibility for SSMP Development and Implementation	N	Table 4-1: Staff Responsible for SSMP development and implementation needs to be updated with John Abrew's information. Update Position Titles.
4.4 SSO Response and Reporting Chain of Communication	Y	
4.5 Support Documents	N	Appendix 3; update Maintenance and Collections organizational chart to include Deputy Director as back up LRO, change division block from Environmental Compliance to Environmental Control, delete Lorin Gardner and update Eric Johnson to Senior Plant Maintenance Supervisor.



## Chapter 5 - Legal Authority

This chapter of the SSMP discusses the City's legal authority to comply with the SSMP requirements, as provided in its Municipal Code and agreements with satellite agencies. All Stockton Municipal Codes can be viewed and downloaded on the City's website: [www.stocktongov.com](http://www.stocktongov.com).

Sufficiency: **Complies**

Findings: Update information in section 5.4. City of Stockton Municipal Code Title 13 provides the legal authority for the requirements of Order section D.13.iii

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
5.1 Regulatory Requirements	Y	
5.2 Illicit Discharge Prevention	Y	
5.3 Agreements with Other Agreements 5.3.1 Country Club Sanitary District 5.3.2 San Joaquin County Utility Maintenance Division 5.3.3 Port of Stockton 5.3.4 Northern California Youth Correctional Center 5.3.5 California Health Care Facility	Y	
5.4 Sewer Construction Standards	N	City updated the new standard specifications for sewer construction on 09-27-2016. Update this section of SSMP to reflect new standards.
5.5 Collection System Access	Y	
5.6 Fats, Oils, and Grease Discharge Limitations	Y	
5.7 Enforcement	Y	

## Chapter 6 - Operations and Maintenance (PM)

This chapter of the SSMP presents the City's wastewater collection system operations and maintenance (O&M) program.

Sufficiency: **Complies**

Findings: City of Stockton maintains and updates maps and problem areas using GIS. Sewer lines are put on a cleaning frequency based on past performance. Lines are scheduled to be cleaned and CCTV'd based on condition assessments. The City has contracted with companies to aid in complying with this goal.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
6.1 Regulatory Requirements	Y	
6.2 Collections System Mapping 6.2.1 Map Corrections 6.2.2 Map Additions	Y	
6.2 Collections System Mapping 6.2.1 Map Corrections 6.2.2 Map Additions	Y	
6.3 Collection System Preventative Maintenance (PM) 6.3.1 Gravity Mains 6.3.2 Pump Stations	Y	Gravity line cleaning will be based on HDR-report by calculating the likelihood of failure analysis for the pipes 15 inches and less. Remove reference to cleaning system every 7 years.
6.4 Rehabilitation and Replacement Plan 6.4.1 Inspection and Condition Assessment 6.4.2 Capital Improvement Plan	Y	
6.5 Training Program 6.5.1 Health and Safety Training 6.5.2 Equipment Training 6.5.3 Ad HOC Training 6.5.4 SSO Training	Y	
6.6 Equipment and Replacement Parts 6.6.1 Pump Station Redundancy	Y	
6.7 Support Documents	N	Update with a City of Stockton work order example from Cityworks (CMMS)

## Chapter 7 - Design and Performance Provisions

This chapter of the SSMP documents the City's design and performance provisions.

Sufficiency: **Complies**

Findings: This section needs to be update with the new dates. Supporting documents for this section of the Order can be found at City of Stockton webpage "Standard Specifications and Plans" <http://www.stocktongov.com/documents/default.html>, Public Works.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
7.1 Regulatory Requirements 7.1.1 Design and Construction Standards 7.1.2 Engineering Judgement Disclaimer 7.1.3 Sanitary Sewer	Y	7.1.1 The Design Standards have been updated as of September 27, 2016. 7.1.3 The Sanitary Sewer is now listed under S1 through S22. This needs to be updated in the SSMP.
7.2 Pump Stations	Y	
7.3 Inspection and Testing Standards	Y	
7.4 Supporting Documents	Y	MUD Pump Station Guidelines listed in SSMP are in reference to Stormwater, this document needs to be removed from the program.

## Chapter 8 - Overflow Emergency Response Plan

The City developed a Sanitary Sewer Overflow Emergency Response Plan (SSOERP) and a Sanitary Sewer Overflow Standard Operating Procedure (SOP) that are designed to support an orderly and effective response to SSOs. The SSOERP is included as Appendix 4 of this SSMP, the SOP is included as Attachment 5 of the SSOERP. The SSOERP provides guidelines for City personnel to follow in responding to, cleaning up, and reporting SSOs that may occur within the City's service area.

Sufficiency: **Complies**

Findings: The SSOERP Plan was updated in June 2015.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
8.1 Regulatory Requirements	Y	
8.2 SSO Detection	Y	
8.3 SSO Response 8.3.1 Investigation and Assessment 8.3.2 Notify Response Personnel 8.3.3 Stop and Contain SSO 8.3.4 Traffic and Crowd Control 8.3.5 Cleanup and Remediation 8.3.6 Water Quality Monitoring Procedures	Y	
8.4 SSO Documentation and Reporting 8.4.1 Internal SSO Reporting 8.4.2 External SSO Reporting	Y	
8.5 SSO Notification	Y	
8.6 SSO Response Training 8.6.1 City Personnel 8.6.2 Non-City Personnel	Y	
8.7 Supporting Documents	Y	



## Chapter 9 - Fats Oils and Grease (FOG) Program

This section of the SSMP presents the City's Fats, Oils, and Grease (FOG) control program to reduce the amount of FOG discharged into the sanitary sewer system.

Sufficiency: **Complies**

Findings: Change the wording from Websoft software to Excel. Add brochures to SSMP or reference where to locate them.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
9.1 Regulatory Requirements	Y	
9.2 FOG Control Action Plan	Y	
9.3 Public Outreach	Y	
9.4 FOG Disposal	Y	
9.5 FOG Program Legal Authority	Y	
9.6 Grease Removal Devices Design Standards and Requirements	Y	
9.7 FOG Program Enforcement	N	Websoft software is not being used to manage the City FOG program. The program is being tracked by the Environmental Control Division manually, using an Excel spreadsheet.
9.8 Fog Related Preventative Maintenance	Y	
9.9 Source Control Measures	Y	
9.10 Supporting Documents	Y	

### Chapter 10 - System Evaluation & Capacity Assurance Plan

This chapter of the SSMP documents the City's system evaluation and capacity assurance provisions. The City has not incurred a capacity related SSO since the California Integrated Water Quality System (CIWQS) began tracking SSO data in 2007.

Sufficiency: **Complies**

Findings: Need to update SSMP to reflect new City Standards

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
10.1 Regulatory Requirements	Y	
10.2 System Evaluation 10.2.1 Wastewater Master Plan 10.2.2 Smart Covers	Y	
10.3 Design Criteria	N	Update the SSMP to reflect City Standard updates
10.4 Capital Improvement Plan	Y	
10.5 CIP Schedule	Y	
10.6 Supporting Documents	Y	

### Chapter 11 - Monitoring and Program Modifications

This chapter of the SSMP presents the City's approach to Monitoring, Measurement, and Program Modifications.

Sufficiency: **Substantial Compliance**

Findings: Annual meeting between Collections staff and Engineering division has not been conducted for two years, schedule as soon as possible.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
11.1 Regulatory Requirements	Y	
11.2 Performance Measures	Y	
11.3 Performance Monitoring and Program Changes	Y	
11.4 SSMP Updates	N	There was no annual meeting between Collections and Engineering. Update Table 11-2 to reflect November 2017 Internal Audit.
11.5 Supporting Documents	Y	Change work order example to one produced by the City of Stockton's Cityworks program. Change monthly report to quarterly (QOR).

**Chapter 12 - SSMP Program Audit**

This chapter of the SSMP presents the process the City will follow to audit its SSMP and related programs.

Sufficiency: **Complies**

Findings: No deficiencies found in this chapter. Need to update SSMP Audit Log Table.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
12.1 Regulatory Requirements	Y	
12.2 SSMP Audits	Y	October 2013, completed by MUD Staff. November 2015, completed by HDR Engineering. Update Table 12-1 SSMP Audit Log with current 2017 audit information.
12.3 Supporting Documents	Y	

**Chapter 13 - Communication Program**

This section of the SSMP is intended to outline the process involved in communicating with interested members of the public and satellite agencies regarding the development, implementation, and performance of this plan.

Sufficiency: **Complies**

Findings: Need to update language to reflect new quarterly report.

SSMP REQUIREMENT	CURRENT Y or N	COMMENTS OR ACTION REQUIRED
13.1 Regulatory Requirements	Y	
13.2 Communication with Public 13.2.1 Web Announcements 13.2.2 Reports 13.2.3 Sewer System Master Plan 13.2.4 Public Input	Y	13.2.2 Change monthly report to quarterly report.

## Conclusion

The City of Stockton - MUD Wastewater Collections Division completed the biennial Audit of the SSMP in November 2017. The SSMP was updated and approved by City Council in March 2016. The SSMP is a living document and is updated as needed. In May 2016, the City was able to exit the Consent Decree with California Sportfishing Protection Alliance (CSPA) which was implemented in 2009, having met the CSPA negotiated agreement for SSO Reduction Goal of less than five (5) SSO's per 100 miles of sewer pipe. In November 2016, the City implemented a new Computerized Maintenance Management System (CMMS) to improve work flows, efficiency, and reduce paperwork. The City is maintaining its current sewer system cleaning schedule, due to reduced sanitary sewer overflows. According to the CIWQS database in 2014, the City of Stockton had 151 SSOs, 121 in 2015, 109 in 2016, and as of October 31, 2017, there have been 47. The City has shown a significant decrease in SSOs, indicating that the current programs are having a positive impact on the City of Stockton's Sanitary System.

## Audit Participants:

Debbie Livermore - Regulatory Compliance Officer  
 Richard Stiffler - Technical Services Supervisor  
 Ba Than - Deputy Director Maintenance and Collection Systems  
 Tom Watkins - Collections System Supervisor  
 Even Marcelo - Senior Civil Engineer  
 Jeff Telmo - Collections System Supervisor  
 Ken Merkle - Senior Collections Systems Supervisor

## Certification of Audit:

By signing below, I certify that the information contained in this Audit report is correct to the best of my knowledge.

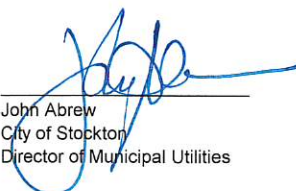
Name	Position	Signature	Date
Debbie Livermore	Regulatory Compliance Officer		12/15/2017

## Certification

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for known violations.

Executed on the 15th day of December, 2017, at the City of Stockton.

  
 John Abrew  
 City of Stockton  
 Director of Municipal Utilities