



CITY OF ORLAND
GLENN COUNTY, CALIFORNIA

SANITARY SEWER SYSTEM
MANAGEMENT PLAN

UPDATED MAY, 2019

Prepared By:

 **RAR**
ROLLS ANDERSON & ROLLS
CIVIL ENGINEERS
115 YELLOWSTONE DRIVE • CHICO, CALIFORNIA 95973-5811
TELEPHONE 530-895-1422 • FAX 530-895-1409

TABLE OF CONTENTS

	Page
1 ABBREVIATIONS/ACRONYMS	3
2 INTRODUCTION	4
2.1 Background	4
2.2 System Overview	4
3 GOAL	4
4 ORGANIZATION.....	5
4.1 Authorized Representative	5
The City Manager is the City’s authorized representative for the submittal and certification of all electronic and written reports to the California Integrated Water Quality System (CIWQS) and the Governor’s Office of Emergency Services (OES). The City Manager’s contact information is:	5
City Manager	5
City of Orland	5
815 Fourth Street Orland, California 95963	5
(530) 865-1600	5
citymanager@cityoforland.com	5
4.2 Management and Organization Chart	6
4.3 SSO Reporting Chain of Communication	6
5 LEGAL AUTHORITY	7
5.1 Agreements	7
5.2 Municipal Codes	7
6 OPERATION AND MAINTENANCE PROGRAM	8
6.1 Sanitary Sewer Collection System Map	9
6.2 Preventative Maintenance Program	9
6.3 Rehabilitation and Replacement Plan	10
6.4 City Staff and Contractor Training	13
6.5 Equipment and Replacement Part Inventory	13
7 DESIGN AND PERFORMANCE PROVISIONS.....	13
7.1 Design and Construction Standards and Specifications	14
7.2 Inspection and Testing Procedures and Standards	14
8 SANITARY SEWER OVERFLOW RESPONSE PLAN	15
8.1 SSORP	15
9 FATS, OILS AND GREASE CONTROL PROGRAM.....	16
9.1 Public Education Outreach Program	16
9.2 Disposal of FOG	16
9.3 Legal Authority to Prohibit FOG Discharges	16
9.4 Requirements for Grease Removal Devices	16
9.5 FOG Inspection and Enforcement Authorities	17
9.6 Cleaning Schedule for Identified FOG Blockage Prone Sewer Lines	17
9.7 FOG Source Control Measures	17
10 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN	17
10.1 Hydraulic Evaluation of Existing System	18
10.2 Design Criteria	18

10.3	Capacity Enhancement Measures	18
10.4	Schedule	19
11	MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS.....	19
11.1	SSMP Records	19
11.2	SSMP Monitoring	19
11.3	Preventative Maintenance Assessment	20
11.4	Updating Program Elements	20
11.5	SSO Trends	20
12	SSMP PROGRAM AUDITS	21
12.1	SSMP Audits	21
12.2	SSMP Updates	21
13	COMMUNICATION PROGRAM	21
13.1	Communication Plan	22
13.2	Tributary or Satellite Systems	22

LIST OF TABLES

Table 5-1:	Legal Authority	9
Table 7-1:	Sanitary Sewer Standard Details	14

LIST OF FIGURES

Figure 4-1:	Organization Chart	7
Figure 6-1:	Sanitary Sewer Collection System	11

APPENDICES:

APPENDIX A	State Water Resources Control Board Order No. 2006-0003-DWQ
APPENDIX B	State Water Resources Control Board Order No. WQ 2008-0002-EXEC
APPENDIX C	Sanitary Sewer Overflow Response Plan (SSORP)
APPENDIX D	SSMP Audit Checklist and SSMP Audit/Update Schedule
APPENDIX E	Public Outreach Documents

1 ABBREVIATIONS/ACRONYMS

CIPCapital Improvement Plan

CityCity of Orland

FOGFats, Oils, and Grease

I&I or I/I.....Inflow / Infiltration refers to water that enters the sewer system from storm water and groundwater that increases the quantity of flow in the sewer system. Inflow enters the sewer system without flowing through the soil. Typical points of inflow are holes in manhole lids and direct connections of storm drains, catch basins, or roof drains into the sewer system. Infiltration enters through defects in the sewer system after flowing through the soil.

SSMPSewer System Management Plan

SSOSanitary Sewer Overflow is defined as any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from the separated sewer system including the following:

- 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.

State WDRs.....Statewide General Waste Discharge Requirements for Order No. 2006-0003-DWQ adopted May 2, 2006.

2 INTRODUCTION

2.1 Background

On May 2, 2006 the California State Water Resources Control Board (SWRCB) adopted Statewide General Waste Discharge Requirements (State WDRs) Order No. 2006-0003. This Order affects 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 within the State. The Order requires public entities that own or operate collection systems to prevent sewer system overflows (SSOs), comply with reporting requirements, and implement a Sewer System Management Plan (SSMP). The City began using the electronic statewide spill-reporting database in September of 2007.

This SSMP was prepared in compliance with the State WDRs and provides a plan to properly manage, operate, and maintain the sanitary sewer system with the intent of reducing and preventing SSOs. The adoption and implementation of the SSMP fulfills the remaining requirements of the Order. The SSMP is a dynamic document that will be updated periodically as operations or maintenance change and as improvements to the sewer system are completed.

2.2 System Overview

The City's sanitary sewer system includes 30 miles of pipelines, 400 sanitary sewer manholes, and four lift stations. Each lift station currently serves an area of less than 20 acres. Pipe sizes range from 4 to 24 inches in diameter. The City is not responsible for maintenance of sewer service laterals.

3 GOAL

The goal of the SSMP is to provide a plan, schedule and practices 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.

In accordance with the requirements of Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (Order), the City of Orland establishes the following goals for the operation and maintenance of the sanitary sewer collection system:

- To properly manage, operate, and maintain all parts of the City's sanitary sewer collection system to minimize SSOs.
- To provide adequate capacity to convey peak wastewater flows associated with the design storm event.
- To prevent or minimize the frequency of SSOs.
- To mitigate the impact of SSOs.

The Public Works Department will continue to operate and maintain the Sanitary Sewer Collection System in a professional and efficient manner utilizing the most appropriate tools and technologies available.

4 ORGANIZATION

This section shall address the following elements stated in the Order:

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

The City of Orland is governed by the five member City Council. The day to day operations are managed by the City Manager who serves as the City's Chief Executive. The Sanitary Sewer Collection System is operated by the Public Works Department with support from the City Engineer.

4.1 Authorized Representative

The City Manager is the City's authorized representative for the submittal and certification of all electronic and written reports to the California Integrated Water Quality System (CIWQS) and the Governor's Office of Emergency Services (OES). The City Manager's contact information is:

City Manager
City of Orland
815 Fourth Street Orland, California 95963
(530) 865-1600
citymanager@cityoforland.com

4.2 Management and Organization Chart

The organization chart for the management, operation, and maintenance of the City's wastewater collection system is shown in Figure 4-1.

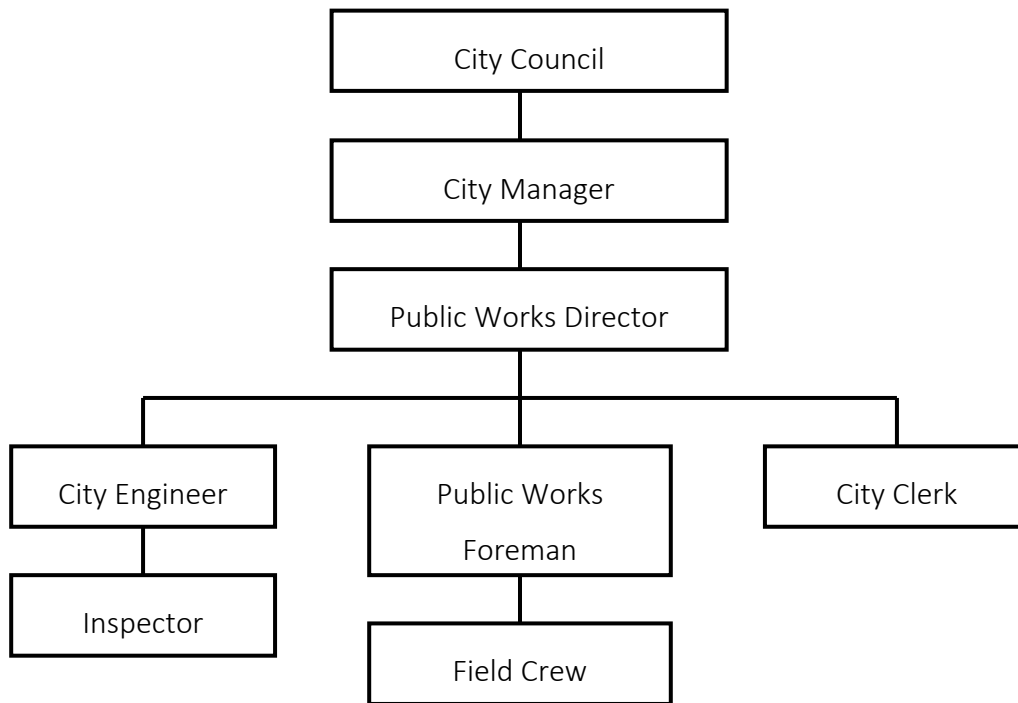


Figure 4-1

Responsibilities and contact information for key staff are listed below:

- Public Works Director – Ed Vonasek (530) 865-1610
Plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as public information officer.
- Public Works Foreman – Arnulfo Romero (530) 865-1610
Manages field operations and maintenance activities, provides relevant information to agency management, prepares and implements contingency plans, leads emergency response, investigates and reports SSOs, and trains field crews.
- City Engineer (Consultant) – Ken Skillman (Rolls, Anderson & Rolls) (530) 895-1422
Prepares wastewater collection system planning documents, manages capital improvement delivery, documents new and rehabilitated assets, and coordinates development of SSMP.

4.3 SSO Reporting Chain of Communication

Orland is a small City with a small staff. Communication from the public or other agencies is generally through City Hall. Communications related to any emergency situation involving the

sanitary sewer collection system are immediately routed to the Public Works Foreman. The Public Works Foreman will investigate the situation and if an SSO has occurred will contact the Public Works Director. The Public Works Director will communicate with the City Manager and coordinate any additional resources necessary for the response. The City Manager will report SSOs to CIWQS and OES as required.

5 LEGAL AUTHORITY

The Order states the City must demonstrate, through collection 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.

5.1 Agreements

The City has agreements with Musco Olive Company, Inc. (Musco) and West Coast Products, Inc. (West Coast) to receive industrial wastewater from both facilities. The City, Musco and West Coast have agreed on the allowable quantity of wastewater per facility per year that may be sent to the City's industrial wastewater ponds. The City meters the discharge from each facility and has the ability to prevent additional wastewater flow from each facility.

The City has an agreement with Nor-Cal Environmental Solutions, LLC. (Nor-Cal) that allows a connection to the city sewer system for the purpose of discharging treated wastewater. Nor-Cal operates a septic pumping system in the Orland area and has constructed a dewatering facility to remove the solids from the pumped sewage prior to being discharged into the city sewer system. The agreement requires Nor-Cal to provide continuous monitoring for pH and electrical conductivity and gives the City's employees the right to inspect the de-watering plant at any time upon 48-hour written notice.

5.2 Municipal Codes

Chapters eight and thirteen of the City's Municipal Code contain the legal authority required by the Order to address illicit discharges, sewer connections, maintenance, inspections, FOG discharges, and the ability to enforce violations. Table 5-1 provides a summary of applicable Municipal Code sections.

TABLE 5-1: LEGAL AUTHORITY

STATE REQUIRED LEGAL AUTHORITY	CITY OF ORLAND MUNICIPAL CODE SECTION
Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.)	13.04.190
Require that sewers and connections be properly designed and constructed	13.04.140, 13.04.200
Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency	13.04.260
Limit the discharge of fats, oils and grease and other debris that may cause blockages	8.16.020, 8.16.030, 8.16.040
Enforce any violation of its sewer ordinances	8.16.050, 13.04.330, 13.04.340, 13.08.120, 13.08.130, 13.08.150

6 OPERATION AND MAINTENANCE PROGRAM

This section shall address the following elements stated in the Order:

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

6.1 Sanitary Sewer Collection System Map

The City of Orland maintains comprehensive maps that contain sanitary sewer and storm drain system features. The sanitary sewer map (Figure 6-1) provides locations and sizes of gravity and force main pipelines, lift stations, manholes and cleanouts. The storm drain map supplies positions of drop inlets, manholes, pipe location and sizes, siphons and open ditches.

The sewer plan is used to evaluate the location and condition of the existing sewer infrastructure and the ability to expand the system to include proposed areas of development according to the City's General Plan. The map is also used to determine locations of undersized or deficient sewer lines so that feasible and economical solutions can be proposed to correct the problem. Field crews note changes to the sanitary sewer and storm drain systems and submit them to the Director. The information is relayed to the City Engineer who regularly updates the maps to show new or rehabilitated facilities.

6.2 Preventative Maintenance Program

The wastewater collection system consists of about 30 miles of sanitary sewer main and 400 sanitary sewer manholes. The sewer mains range in size from 6" to 24" in diameter and are mostly vitrified clay and concrete pipe. There are four sanitary sewer lift stations operating within the collection system. Each lift station currently serves an area of less than 20 acres. The following is a summary of the preventive maintenance activities and scheduling implemented by the City of Orland.

Gravity Sewer: The City prioritizes its preventative maintenance activities for the sewer system based on service requests (customer complaints), operational failure, uncharacteristically high flows, and historical knowledge and experience. When a potential problem is identified the Director determines the necessity and frequency (monthly, quarterly, semi-annually, annually, etc.) of inspection and maintenance or the possible rehabilitation and repair of the sewer line. When needed, the City cleans the sewer pipes using a Hydro-Vac truck that includes the use of high velocity cleaning and mechanical and manual rodding.

Closed Circuit Television (CCTV) Inspection: Once a collection line has been cleaned the City performs a Closed Circuit Television (CCTV) inspection to evaluate the effectiveness of the cleaning operation and to determine if there are any structural defects in the pipeline. If structural defects are detected the Director can decide if the rehabilitation or replacement of the sewer pipeline can be done by a city crew or if other action is needed. If the required repairs cannot be performed by a city crew then the project is considered for a possible capital improvement project.

Root Control: At this time a root control program has not been developed and these activities are performed as required. Currently the City removes roots mechanically and may possibly explore a chemical process in the future if the problem increases.

Fats, Oils and Grease (FOG) Control: Areas that are known to have FOG problems are monitored more frequently and are cleaned with the Hydro-Vac truck when needed.

Lift Station Maintenance: The City currently monitors the performance of four lift stations. Each lift station is equipped with redundancy systems and has the capability of being operated by a portable generator when power outages occur. The generator is tested quarterly to ensure that it is functioning properly. These provisions have been implemented to prevent overflows caused by power outages or mechanical failure.

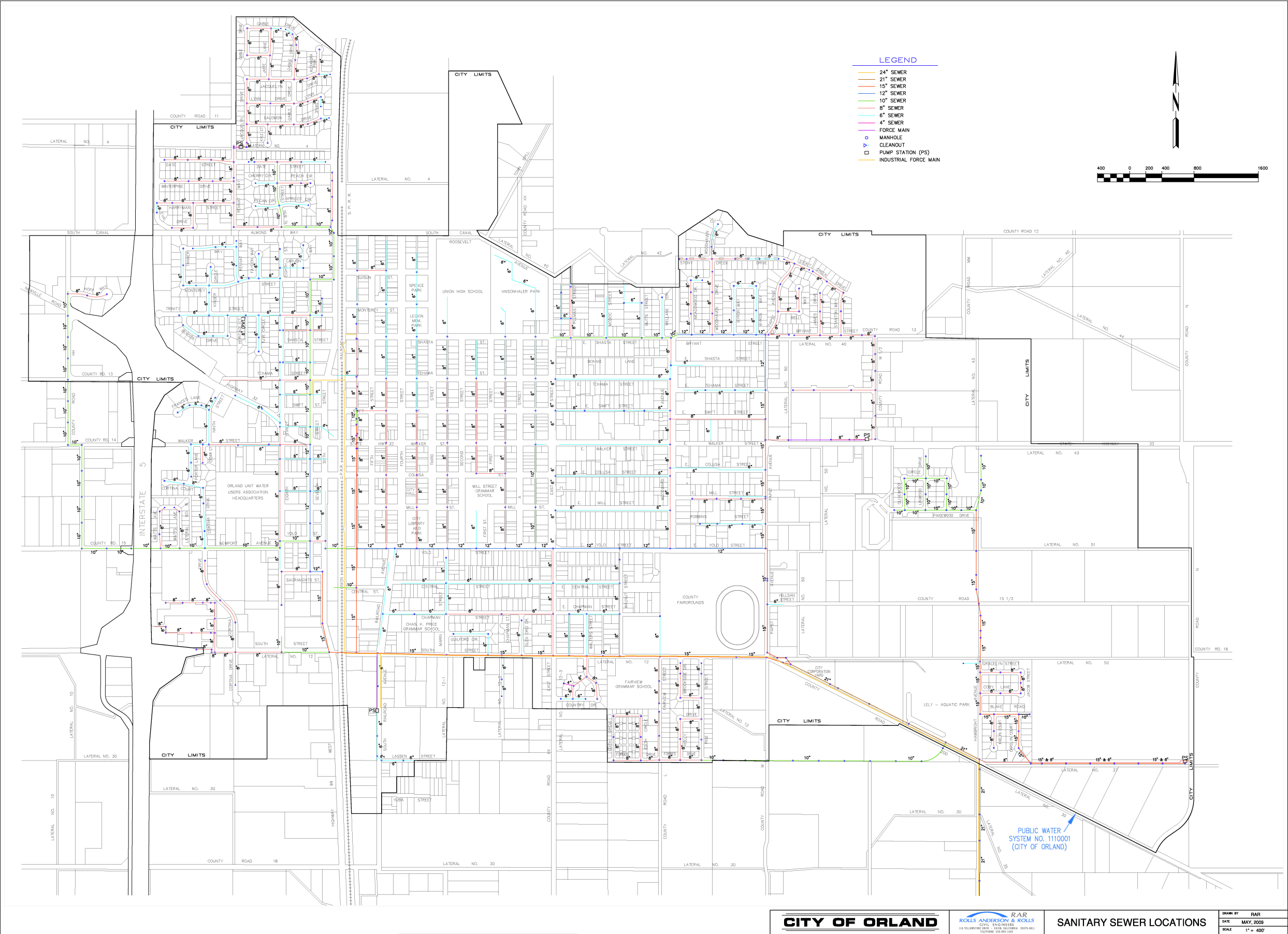
The City keeps hardcopies of maintenance records to document any repairs, cleaning, maintenance or inspection that was performed on the sewer system.

6.3 Rehabilitation and Replacement Plan

Sewer infrastructure rehabilitation and replacement projects are identified in adopted sewer master plans and through ongoing inspection and maintenance. The Director and City Engineer review the inspection and maintenance results and determine which sewer facilities should be repaired, rehabilitated or replaced. The selected projects are then identified within the Sewer System Master Plan. Funding for sewer improvement projects comes from developer impact fees and enterprise funds. Enterprise funds are collected through monthly commercial and residential sewer fees.

The Sewer System Master Plan was updated in September of 2009. The plan provides planning for current and future development within the Planning Area of the City of Orland. The main objectives of the report are to (1) evaluate the existing sewer infrastructure and its ability to collect and dispose of existing and future sewage flows, (2) determine deficiencies within the system and to evaluate feasible solutions to correct them, (3) select the most economical solutions to correct deficiencies and (4) evaluate potential service locations to undeveloped portions of the City or areas within the City's sphere of influence. The plan was prepared by Rolls, Anderson & Rolls with input from City staff. The evaluation of the collection system included:

- Flow Metering and Data Analysis: Wastewater flow data was collected from a Parshall Flume located at the wastewater treatment plant to assess flow rates in the collection system. Spikes in flow during the winter months suggest elevated groundwater levels or stormwater infiltration affects the flow rates into the domestic wastewater ponds.



THIS PAGE INTENTIONALLY LEFT BLANK

Capacity Analysis: Results from the Master Plan show the current sewer lines have enough capacity for the next twenty years and the wastewater ponds are at approximately 34% of their designed capacity. At this time the Master Plan does not make any recommendations for increasing the capacity of the sewer lines or treatment ponds.

6.4 City Staff and Contractor Training

In most cases, equipment and operations training is initially provided by the vendor or manufacturer of the equipment. Ongoing technical training is provided through in-house classes, on-the-job training, rotation among the different maintenance crews and equipment and other training opportunities. The City currently has a Grade 1 certified operator for its wastewater treatment ponds and is in the process of training another.

Project specifications for Capital Improvement Projects require that all contractors and subcontractors be experienced with sanitary sewer work and that they fully comply with all laws, regulations, and standards governing sewer work, sanitation, and public health. Construction contractors working on City projects are required to have an approved sewage bypass system and emergency response plan in place prior to start of construction. Contractors are instructed to notify staff immediately and to take immediate action to stop any overflow. These procedures are outlined and discussed at the pre-construction meeting and enforced by the City.

6.5 Equipment and Replacement Part Inventory

The equipment utilized in the maintenance of the City's sewer facilities is owned by the City. To help assure uninterrupted service, the City has compiled an equipment and replacement parts inventory. Components that present the highest risk of failure and greatest potential to harm public safety in the event of a failure have been identified and included on the City's list. The City also has access to fabrication shops that allow them to quickly construct replacement parts to help reduce downtime caused by ordering parts from suppliers.

The City uses backup generators to keep lift stations online when power outages occur. There are also redundancy systems in place for each of the lift stations to help prevent overflows caused by power outages or mechanical failure.

7 DESIGN AND PERFORMANCE PROVISIONS

This section shall address the following elements stated in the Order:

- The City must have 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

- The City must have procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

7.1 Design and Construction Standards and Specifications

The City's improvement standards provide general sewer design criteria such as materials, pipe sizes, and locations of sewer pipelines and appurtenances. Standard details that apply to the design and construction of the sanitary sewer system are shown in Table 7-1.

Table 7-1 Sanitary Sewer Standard Details

Standard Detail No.	Description
106	Backfill and Trench Restoration
406	Standard and Shallow Manhole
407	Storm Drain Manhole Frame and Cover
407A	Storm Drain Manhole Frame and Cover (Bolt Down)
408	Sanitary Sewer Cleanout
409	Typical Method for Setting Appurtenances
501	Sanitary Sewer Inside Drop Manhole
502	Sanitary Sewer Outside Drop Manhole
503	Sanitary Sewer Service and Connection
504	Sewer Lateral Crossing

The City's Land Division Standards and Improvement Standards (Standards) are available on the City's website and are meant to provide direction for engineers, inspectors and construction personnel during the different phases of a project.

Standard details and specifications for lift stations and other appurtenances are not included in the City's Standards. Historically, design standards and construction specifications for lift stations and other appurtenances have been developed on a case-by-case basis for each specific project.

7.2 Inspection and Testing Procedures and Standards

Inspection and testing of materials and construction methods is performed on any construction that occurs within the City's right of way. Inspections are done by city staff or an appointed representative of the city. The inspector ensures work is performed in accordance with the City Standards and reports project progress to the Public Works Director or the City Engineer. Additionally, the inspector documents construction activities with a daily inspection log that remains with the project records. Construction is not considered complete and will not be accepted by the City until all required inspections and testing have been completed and passed. Detailed information regarding inspection and testing, including requirements for watertightness, infiltration, and pipe deflection, are included in the City Standards.

8 SANITARY SEWER OVERFLOW RESPONSE PLAN

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:

- Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- A program to ensure appropriate response to all overflows;
- 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 Monitoring and Reporting Program (MRP). All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR or National Pollution Discharge Elimination System (NPDES) permit requirements. The SSMP should identify the officials who will receive immediate notification;
- Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- A program to ensure that all reasonable steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to waters of the United States and minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

8.1 SSORP

The City's Sanitary Sewer Overflow Response Plan (SSORP) is included in Appendix C. The SSORP includes information on:

- Overflow response procedure;
- Regulatory agency notification plan;
- SSO documentation;
- Distribution and Maintenance of the SSORP; and
- Public advisory procedure.

9 FATS, OILS AND GREASE CONTROL PROGRAM

This section of the SSMP discusses the City's Fats, Oils, and Grease (FOG) control measures, including identification of problem areas, focused cleaning, and source control. This section fulfills the FOG Control Program requirement for the SWRCB SSMP requirements.

9.1 Public Education Outreach Program

The City of Orland has created brochures and posters that provide information on the proper disposal of fats, oils and greases. This information is available at City Hall and may be mailed out to customers with their water bill in the future. The City would like to inform the public of the following information:

- Fats, oils and grease put down drains in your home or business can cause buildup in your pipes, which can lead to unhealthy and expensive sewer back-ups in or near your home or work.
- Can your FOG. When cooking with FOG, let it cool. Then pour cool FOG into a can. Put the can in a plastic bag, seal it shut and place the bag in your garbage container.
- Put all food waste in the garbage or compost pile.
- Wipe pots and pans with a paper towel to remove all FOG before washing the pots and pans.

9.2 Disposal of FOG

The City does not own or operate any FOG disposal facilities and does not allow waste haulers to discharge FOG into the City sewer system. Waste haulers can dispose of FOG at regional locations including rendering facilities such as North State Rendering or Sacramento Rendering and wastewater treatment plants such as East Bay Municipal Utility District. The City recommends the use of waste haulers registered with the State of California Department of Food and Agriculture (Inedible Kitchen Grease Transporter Registration). Section 8.16.030 of the City Municipal Code requires the owner or person(s) in possession of any commercial or business establishment be responsible for the maintenance of any fog disposal system installed for that establishment.

9.3 Legal Authority to Prohibit FOG Discharges

Section 13.04.190 of the Municipal Code provides the required legal authority to prohibit FOG discharges into the sewer system and Section 8.16.010 identifies definitions of FOG disposal systems that could be used to prevent SSOs and blockages.

9.4 Requirements for Grease Removal Devices

Sections 8.16.020 through 8.16.040 provide requirements for the installation, maintenance, and inspection of FOG disposal systems. The California Plumbing Code shall govern the need,

approval, design, location, maintenance and discharge of traps, interceptors, separators or FOG disposal systems.

9.5 FOG Inspection and Enforcement Authorities

Under municipal code 8.16.040 the City of Orland has the authority to inspect any grease-trap, interceptor, separator or FOG disposal system at any commercial or business establishment once every calendar month. Code 8.16.050 provides the City the ability to enforce penalties for any violation of Chapter 8.16 of the Municipal Code.

9.6 Cleaning Schedule for Identified FOG Blockage Prone Sewer Lines

Areas with a history of FOG blockages are monitored by the City quarterly. Sewers prone to FOG accumulation or blockages are given high priority and cleaned more frequently or as needed in an effort to prevent FOG-related overflows. Records of FOG cleaning operations are kept by the Public Works Department.

9.7 FOG Source Control Measures

The City monitors areas of the sewer system known to have FOG blockages. Part of this monitoring can include the inspection of grease removal devices and requiring the maintenance or repair of grease removal devices located within commercial or business establishments. The City has the authority, per the California Plumbing Code, to require businesses to install grease disposal systems if a portion of the sewer system is having recurring FOG blockages. Control of FOG blockages within residential areas can be accomplished using the public outreach described in Section 7.1.

10 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

The City shall prepare and implement a Capital Improvement Plan (CIP) that will provide the hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions as well as the appropriate design storm for wet weather events. At a minimum, the plan must include:

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

- 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.
- Schedule: The City shall develop a schedule of completion dates for all portions of the capital improvement program developed above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D.14.

10.1 Hydraulic Evaluation of Existing System

The City's Sewer Master Plan provides a hydraulic analysis of the current sewer collection and treatment systems. It also provides an analysis for a twenty year forecast and for the ultimate build-out of the Planning Area. The wastewater treatment plant is currently operating at 31% of its total capacity and has sufficient capacity for the next 45 to 50 years assuming a growth rate of 2.3%. The existing collection system has enough capacity to handle current and 20 year forecasted flows.

The City is aware there are cross connections between the sanitary sewer and storm drain that allow stormwater to enter the sewer collection system. At this time these connections do not affect the capacity of the sewer lines but the City intends to eliminate these cross connections as they are encountered.

The City has reported SSOs in the past that were the result of illegal debris that produced blockages in the sewer lines. None of the reported SSOs have been caused by undersized pipes or insufficient collection system capacity. If capacity issues are found, recommendations for collection system improvements will be provided for consideration by the City.

10.2 Design Criteria

The City's design criteria for sanitary sewers are contained within the Standards that were revised and approved in June 2014. These standards provide information on pipe material, depth, size and minimum flow velocities for sewer mains and laterals. Guidance on the spacing and location of manholes and cleanouts is also included.

10.3 Capacity Enhancement Measures

The City uses engineering studies, SSO reports, inspection data and maintenance logs to establish a Capital Improvement Plan (CIP) for the sanitary sewer system. From time to time city staff and the City Engineer discuss and revise the CIP as the needs of the collection system change.

The Sewer Master Plan recommends projects that would enhance the capacity of the sewer collection system. As mentioned above the city's existing collection system and treatment plant are operating at about 30% of their capacity so there has not been an emphasis on replacing pipes to increase capacity.

10.4 Schedule

This City is currently obtaining funding to address capital improvement projects identified in the Sewer Master Plan. When the appropriate funding has been obtained the City will implement a schedule that will define specific timelines to complete the project. The schedule will be adjusted when maintenance and replacement projects are added to the CIP.

11 MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

This section of the SSMP outlines the process that the City will follow to evaluate the effectiveness of the SSMP and to identify updates that may be needed for a more effective program. The City shall:

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

11.1 SSMP Records

Records that may assist in evaluating SSMP activities are compiled and maintained by the Public Works Director and kept at the City Corporation Yard office or at City Hall. This information is available to other city staff and the City Engineer to determine the effectiveness of the current SSMP activities.

The Public Works Director keeps an inventory of on-hand sewer system parts, sewer system maintenance records, locations of historical "hotspots" requiring regular cleaning, and locations and causes of previous SSOs. The City also reports all SSOs to the State Water Resources Control Board using CIWQS. The CIWQS data is available for review at the City Corporation Yard office.

11.2 SSMP Monitoring

The proper implementation of the SSMP elements will be reviewed at various times by city staff and the City Engineer. The Public Works Director will ensure that work performed by the field

crews follow the elements of the SSMP. Additional training will be provided as necessary to ensure proper procedures are followed.

The implementation and effectiveness of the SSMP will also be monitored by review and comparison of available records. Any significant change in maintenance activities or increase in SSO occurrences will be reviewed by the City and the City Engineer to determine the cause and decide if revisions to the SSMP are required.

11.3 Preventative Maintenance Assessment

Per Section D.13(x) of the State WDRs, an internal audit to evaluate the effectiveness of the SSMP and compliance with the SSMP requirements shall be performed a minimum of every two years. During this review the success of the preventative maintenance program described in Section 4 of the SSMP will be evaluated by examining available records. If any deficiencies are found, City staff and the City Engineer will determine if changes to the program are appropriate. The Public Works Director shall be involved in this process to provide practical guidance for any proposed changes to the preventative maintenance program.

11.4 Updating Program Elements

As a part of the above mentioned audit, past records will be evaluated to determine the effectiveness of the SSMP elements in accomplishing the goals of the plan. Portions of the SSMP that may not be meeting the specified goals will be identified as potentially requiring revisions. City staff, including the Public Works Director and the City Engineer will be responsible for deciding if a revision is appropriate and for performing any edits to the SSMP. Per the SSMP re-certification requirements, any significant changes to the SSMP must be approved by the City Council.

11.5 SSO Trends

During the biannual audit of the SSMP the City will identify and illustrate SSO trends using available records. SSO information will be separated into categories to assist in defining patterns and improving program elements within the SSMP. The following items shall be compared to identify potential SSO Trends:

- Total number of SSOs;
- Number of SSOs by cause (roots, grease, debris, pipe failure, capacity, pump station failure, etc.);
- Percentage of SSOs reported as Category 1;
- Percentage of sewage contained versus the total volume spilled; and
- Percentage of total spilled sewage discharged to surface waters.

The City may modify this list or add items as necessary to assist in identifying SSO trends.

12 SSMP PROGRAM AUDITS

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

12.1 SSMP Audits

At a minimum of every two years from the original approval date the SSMP shall be audited by city staff, the Public Works Director, and the City Engineer to determine if the goals of the plan are being met. Specifically, the bi-annual review shall evaluate the effectiveness of the elements of the SSMP and ensure the City is complying with the SSMP requirements. Any identified deficiencies in the SSMP shall be corrected. Per the SSMP recertification requirements, any significant changes to the SSMP must be approved by the City Council.

An Audit Checklist is located in the Appendix of this report. This checklist shall be completed during each audit. Additional comments and information can be added to the checklist as necessary. The checklist and any added information are considered a permanent record of the audit process and must be kept by the City. This information and the most recent SSMP shall be filed at the City Corporation Yard office.

12.2 SSMP Updates

Every five years, from the original approval date, the SSMP shall be reviewed and updated per Section D.14 of the State WDRs. Any significant revisions to the SSMP must be approved by the City Council. The most recent SSMP and all records from audits and updates shall be filed at the City Corporation Yard office.

13 COMMUNICATION PROGRAM

This section shall address the following elements stated in the Order:

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

13.1 Communication Plan

The City will provide opportunities for communication with the public on the development, implementation, and performance of the SSMP using various methods of outreach. All significant revisions to the SSMP must be presented to and approved by the City Council. Council meetings are open to the public and allow members of the community an opportunity to provide input and participate in city business. Information regarding past and upcoming council meetings is available to the public on the city website www.cityoforland.com. Council meetings are held on the first and third Monday of each month.

The City reports all SSOs electronically to CIWQS. The public can access the “Sanitary Sewer Overflow (SSO) Reports” section of the State Water Resources Control Boards website at:

http://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml

This website allows viewing of reported SSOs within the City along with providing a detailed report for each SSO.

City staff is available to answer questions or discuss issues with the public during business hours. Contact information for the City is available at the above mentioned city website.

13.2 Tributary or Satellite Systems

The City currently does not receive wastewater from any tributary or satellite connections. If this changes in the future the City will develop a new communication plan for these systems.

Appendix A
State Water Resources Control
Board Order No. 2006-0003-DWQ

**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

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

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 Section G	
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

Appendix B
State 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"¹ (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 information² 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

¹ Available for download at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf

² 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 CIWQS³ 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 Program⁴ 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

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

⁴ Statewide Sanitary Sewer Overflow Reduction Program information is available at:
http://www.waterboards.ca.gov/water_issues/programs/ssor/

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 <u>any volume</u> resulting from an enrollee's sanitary sewer system failure or flow condition that: <ul style="list-style-type: none">• 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	Discharges of untreated or partially treated wastewater of <u>1,000 gallons or greater</u> resulting from an enrollee's sanitary sewer system failure or flow condition that <u>do not</u> 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 <u>within a privately owned sewer lateral</u> 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
NOTIFICATION (see section B of MRP)	<ul style="list-style-type: none"> Within two hours of becoming aware of any Category 1 SSO <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>, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number. 	Call Cal OES at: (800) 852-7550
REPORTING (see section C of MRP)	<ul style="list-style-type: none"> 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. 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. Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which SSO the occurred. 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. “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. Collection System Questionnaire: Update and certify every 12 months. 	Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by enrollee’s Legally Responsible Official(s).
WATER QUALITY MONITORING (see section D of MRP)	<ul style="list-style-type: none"> Conduct water quality sampling <u>within 48 hours</u> after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters. 	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.
RECORD KEEPING (see section E of MRP)	<ul style="list-style-type: none"> SSO event records. Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. Collection system telemetry records if relied upon to document and/or estimate SSO Volume. 	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 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, 15th 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.

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 C
Sanitary Sewer Overflow
Response Plan (SSORP)



**CITY OF ORLAND
GLENN COUNTY, CALIFORNIA**

**SANITARY SEWER OVERFLOW
RESPONSE PLAN**

(Appendix C of the City of Orland Sewer System Management Plan)

UPDATED MAY, 2019

Prepared By:


ROLLS ANDERSON & ROLLS
CIVIL ENGINEERS
115 YELLOWSTONE DRIVE • CHICO, CALIFORNIA 95973-5811
TELEPHONE 530-895-1422 • FAX 530-895-1409

TABLE OF CONTENTS

	Page
1 GENERAL.....	3
1.1 Objectives	3
1.2 Organization of Plan	4
1.3 SSO Tracking	4
1.4 Prohibitions	4
1.5 Definitions	4
2 OVERFLOW RESPONSE PROCEDURE	5
2.1 Notification of Possible Sewer Overflow	5
2.2 Dispatch of Appropriate Crews to Sewer Overflow	6
2.3 Overflow Correction, Containment, and Clean-up	8
2.4 Overflow Report	12
3 REGULATORY AGENCY NOTIFICATION PLAN	13
3.1 Immediate Notification	13
3.2 Secondary Notification	14
4 SSO DOCUMENTATION	15
4.1 Record Keeping	15
4.2 Certification	16
5 DISTRIBUTION AND MAINTENANCE OF SSORP	16
5.1 Availability of SSORP	16
5.2 Review and Update of SSORP	16
5.3 Training	16
6 PUBLIC ADVISORY PROCEDURE.....	17
6.1 Media and Public Relations Guidelines	17
6.2 Communication Tips for the Responding Crew	17
6.3 Temporary Signage	18

APPENDICES:

APPENDIX A	Sanitary Sewer Overflow Report and Response Flowchart
APPENDIX B	Certification Form of 2-hr Notification
APPENDIX C	SSO Volume and Flow Rate Resources
APPENDIX D	Customer Door Hanger and Sewer Spill Reference Guide
APPENDIX E	Warning Sign

REGULATORY AGENCIES REPORTING CHECKLIST
Use data supplied in SSORP – Appendix A

Category 1 SSOs (≥1,000 gallons reaches drainage channel or surface water and not fully captured)

2-Hour Notification:

Regulatory Agencies (OES, Glenn County Environmental Health Department and RWQCB) must be notified within two hours of discharge ≥ 1,000 gallons of sewage (untreated/partially treated) to a surface water or drainage channel (that is not fully captured and returned to sewer).

- **State Office of Emergency Services (OES):** Phone: (800) 852-7550
- **Glenn County Environmental Health Department:** Phone: (530) 934-6102
- **RWQCB Region 5 (Central Valley):** Phone: (530) 224-4845; Fax: (530) 224-4857

Within 3 Business Days of Notification:

Must be reported to SWRCB using CIWQS website <http://ciwqs.waterboards.ca.gov/>

Within 15 Calendar Days of Conclusion of Response/Remediation:

Must be certified by authorized representative using CIWQS website

Category 2 SSOs (≥ 1,000 gallons, no Property Damage or Surface Waters)

Within 3 Business Days of Notification:

Must submit draft report to SWRCB using CIWQS website

Within 15 Calendar Days of Conclusion of Response/Remediation:

Must be certified by authorized representative using CIWQS website

Category 3 SSOs (< 1,000 gallons, no Property Damage or Surface Waters)

Within 30 Business Days After End of Calendar Month with SSO Event:

Must be reported to SWRCB using CIWQS website

Must be certified by authorized representative using CIWQS website

No SSOs in Month/Quarter

Within 30 days past the end of the month

Must be reported to SWRCB using CIWQS website

Private Lateral SSOs (Reporting is Optional)

If reporting is desired, must be certified and reported to SWRCB as “Private Lateral” SSO with identifying responsible party, if known (not the City), using CIWQS website

1 GENERAL

The Sanitary Sewer Overflow Response Plan (SSORP) is designed to ensure that every report of any spill (sewer or any other pollutant) is immediately dispatched to the appropriate City of Orland maintenance crew. The goal of this approach is to minimize the overflow effects with respect to impacts to public health and adverse effects on beneficial uses and water quality of surface waters and customer service. In the event of an emergency and/or when it is found that the spill is not a sanitary sewer overflow, the City will utilize its resources to mitigate problems and will coordinate with the responsible agencies.

The SSORP further includes provisions to ensure safety pursuant to the directions provided by the California Regional Water Quality Control Board, and that notification and reporting is made to the appropriate local, state and federal authorities when applicable. For purposes of this SSORP, “confirmed sewage spill” is also sometimes referred to as “sanitary sewer overflow,” “overflow,” or “SSO.”

1.1 Objectives

The primary objectives of the SSORP are to protect the public health and environment, comply with regulatory agency requirements, minimize the risk of enforcement action against the City of Orland, take all feasible steps to eliminate SSOs and comply with the State Water Resource Control Board (SWRCB), Monitoring and Reporting Program No. 2006-003-DWQ, as revised by Order No. WQ-2008-0002-EXEC.

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

Additional objectives of the SSORP are as follows:

1. Provide appropriate customer service;
2. Protect treatment plant and collection system personnel;
3. Protect the collection system, treatment facilities and all appurtenances;
4. Protect private and public property beyond the collection and treatment facilities; and
5. Provide clearly documented policies, procedures and guidelines for City staff to reference and follow in the event of a sanitary sewer overflow.

1.2 Organization of Plan

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

- Section II Overflow Response Procedure
- Section III Regulatory Agency Notification Plan
- Section IV SSO Documentation
- Section V Distribution and Maintenance of SSORP
- Section VI Public Advisory Procedure

1.3 SSO Tracking

The procedure to track the frequency and location of SSOs shall comply with current federal, state and local regulations. The City maintains records in accordance with the State of California, State Water Resources Control Board, Monitoring and Reporting Program No. 2006-0003-DWQ, revised by Order No. WQ 2008-0002-EXEC.

1.4 Prohibitions

Any SSO that results in a discharge of untreated or partially treated wastewater to water of the United States is prohibited. 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.

1.5 Definitions

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

1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
3. 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.

Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundment, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges to these temporary storage facilities are not considered to be SSOs.

Category 1 SSO: All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system that resulted in a discharge to a drainage channel and/or surface water.

Category 2 SSO: All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system of a volume equal to or greater than 1,000 gallons that did not reach surface water.

Category 3 SSO: All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system of a volume less than 1,000 gallons that did not reach surface water.

Private Lateral Sewage Discharges: Sewage discharges that are caused by blockages or other problems within a privately-owned lateral.

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 username and passwords.

Untreated or Partially Treated Wastewater: Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

Nuisance: California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:

1. 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.
2. 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.
3. Occurs during, or as a result of, the treatment or disposal of wastes.

2 OVERFLOW RESPONSE PROCEDURE

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

2.1 Notification of Possible Sewer Overflow

Confirmed or suspected SSOs can be reported by City of Orland employees or by others (i.e. business owners, residents, plumbers, etc.) by calling the City of Orland Public Works Department at (530) 865-1610 during regular business hours (i.e. Monday through Friday from

9:00 am to 5:00 pm). After hours, all calls are answered by the on-call public works crew member at (530) 865-1610.

1. The Public Works Department (either Water/Wastewater (W/WW) Operator, on-call or Director) will obtain all relevant information available regarding the overflow including:
 - a. Time and date call was received;
 - b. Specific location of overflow;
 - c. Description of problem causing the overflow;
 - d. Time possible overflow was noticed by the caller;
 - e. Caller's name and phone number;
 - f. Observations of the caller (e.g., odor, duration, back or front of property); and
 - g. Other relevant information that will enable the responding crews, if required, to quickly locate, assess and stop the overflow.
2. The Public Works Department (either W/WW, on-call or Director) records initial information in the Sanitary Sewer Overflow Report (Appendix A).
3. Pump station failures are monitored and received by the Water/Wastewater Operator who immediately conveys all information regarding alarms to the Public Works Director to initiate the investigation.
4. Sewer overflows detected by any personnel in the course of their normal duties are reported immediately to the Director.
5. The responding crew must confirm the overflow. Until verified, the report of a possible spill will not be referred to as a "sewer overflow." The responding crew completes the Sanitary Sewer Overflow Report (Appendix A) within 24 hours of the sewer overflow confirmation.

The Director is responsible for reviewing, updating and signing the report. If the overflow affects any surface water, the Director shall report to the California Emergency Management Agency, Glenn County Environmental Health Department and Regional Water Quality Control Board (RWQCB), within two hours of becoming aware of the discharge.

2.2 Dispatch of Appropriate Crews to Sewer Overflow

1. Dispatching Crews
 - a. The Director notifies the appropriate response crew member with the quickest communication tool available.
 - b. The responding crew receives instructions from the W/WW Operator or the Director regarding the need for appropriate materials, supplies and equipment.

- c. The Director verifies that the entire message has been received and acknowledged by the personnel who were dispatched. All Standard communications procedures shall be followed. All employees being dispatched to the site of an SSO shall proceed immediately to the site of the overflow. Any delays or conflicts in assignments shall be immediately reported to the Director for resolution.
 - d. In all cases the response crew reports their findings, including possible damage to private and public property, to the Director immediately upon making their investigation. If the Director has not received findings from the field crew within one hour, the Director contacts the response crew to determine the status of the investigation.
- 2. Additional Resources
 - a. The Director receives and conveys to appropriate parties requests for additional personnel, material, supplies and equipment from crews working at the site of the sewer overflow.
- 3. Preliminary Assessment of Damage to Private and Public Property
 - a. The focus is to resolve the problem. The response crew shall use discretion in assisting the property owner/occupant as reasonably as they can. Such assistance could include action to contain the spill from further spreading using containment booms, absorbent mats, towels, etc. The crew must be aware that the City could face increased liability for any further damages inflicted to private property during such assistance. The response crew shall not enter private property for the purpose of assessing damage. The response crew shall take appropriate still photographs and video footage, if possible, of the outdoor area in order to thoroughly document the nature and extent of impacts and shall forward available photographs to the Director for filing with the Sanitary Sewer Overflow Report (Appendix A).
- 4. Field Supervision and Inspection
 - a. The Director visits the site of the overflow, if possible, to ensure that provisions of this SSORP and other directives are met.
 - b. The Director is responsible for confirming that the Sanitary Sewer Overflow Report (Appendix A) is provided for reporting within the specified time.
- 5. Coordination with Hazardous Material Response
 - a. Upon arrival at the scene of a sewer overflow, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g., gasoline) not common to the sewer system be detected, the W/WW

Operator or response crew shall immediately contact the Director for guidance before taking further action.

- b. Should the Director determine the need to alert the hazardous material response team, the W/WW Operator or response crew shall await the arrival of the appropriate response team to take over the scene. **Remember that any vehicle engine, portable pump or open flame (e.g., cigarette lighter) can provide the ignition for an explosion or fire, should flammable fluids or vapors be present. Keep a safe distance and observe caution until assistance arrives.**
- c. Upon arrival of the appropriate response team, the W/WW Operator or response crew takes direction from the person with the lead authority of that team. Only when that authority determines it is safe and appropriate for the response crew to proceed, they can then proceed under the SSORP with the containment, clean-up activities and correction.

2.3 Overflow Correction, Containment, and Clean-up

Sewer Overflows of various volumes occur from time to time in spite of concerted prevention efforts. Spills may result from blocked sewers, pipe failures, or mechanical malfunctions among other natural or man-made causes. The City of Orland is constantly on alert and ready to respond upon notification and confirmation of an overflow. When a sanitary sewer overflow occurs, the City shall take all feasible steps and necessary remedial actions to control or limit the volume of untreated or partially treated wastewater discharged, terminate the discharge, and recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The City of Orland 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:

1. Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
2. Vacuum truck recovery of sanitary sewer overflows and wash down water;
3. Cleanup of debris at the overflow site;
4. System modifications to prevent another SSO at the same location;
5. Adequate sampling to determine the nature and impact of the release; and
6. Adequate public notification to protect the public from exposure to the SSO.

In addition to the above actions the City requires specific actions to be performed by the crews during an SSO. The objectives of these actions are:

- To protect public health, environment and property from sewage overflows and restore the surrounding area back to normal as soon as possible;
- To establish perimeters and control zones with appropriate traffic cones, barricades and vehicles;

- To contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into surface waters;
- To promptly notify the regulatory agency's communication center of preliminary overflow information and potential impacts; and
- To minimize the City of Orland's exposure to any regulatory agency penalties and fines.

Under most circumstances, the City of Orland handles all response actions with its own maintenance forces. City personnel have the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response is to ensure that the temporary actions necessary to divert flows and repair the problem do not produce a problem elsewhere in the system. For example, the repair of a force main could require the temporary shutdown of a pump station and diversion of the flow at an upstream location. If the closure is not handled properly, sewage system backups may create other overflows.

Circumstances may arise when the City of Orland could benefit from the support of private-sector construction assistance. This may be true in the case of pipes buried to depths requiring sheet shoring and dewatering should excavation be required.

1. Responsibilities of the Responding Crew Upon Arrival

It is the responsibility of the first personnel who arrive at the site of a sewer overflow to protect the health and safety of the public by mitigating the impact of the overflow to the extent possible. Should the overflow not be the responsibility of the City of Orland but there is imminent danger to public health, public or private property, or to the waters of the U.S., then the City of Orland takes prudent emergency action until the responsible party assumes responsibility and provides actions. Upon arrival at an SSO, the response crew should do the following:

- Determine the cause of the overflow, e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.;
- Identify and requests, if necessary, assistance or additional resources to correct the overflow or to assist in the determination of its cause;
- Take appropriate measures to protect the health and safety of affected public and property;
- Take immediate steps to stop the overflow, e.g. relieves pipeline blockage, manually operates pump station controls, repairs pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running from private property into the public right-of-way); and
- Request additional personnel, materials, supplies, or equipment that will expedite and minimize the impact of the overflow.

2. Initial Measures for Containment

The responding crew shall initiate measures to contain the overflowing sewage and recover all discharged sewage possible, minimizing the impact to public health or the environment.

- a. Determine the immediate destination of the overflow, e.g. storm drain, street curb and gutter, body of water, drainage channel, etc.;
- b. Identify and request the necessary materials and equipment to contain or isolate the overflow, if not readily available; and
- c. Take immediate steps to contain the overflow, e.g., block or cover storm drains, recover through use of a vacuum truck, divert into downstream manhole, etc.

3. Sampling and Lab Tests

Whenever a spill reaches surface water, samples shall be collected as soon as possible. The Director shall be notified in order to contact the appropriate testing laboratory and request that samples are taken.

- a. Upstream and downstream sample locations in the affected surface water are dependent on conditions at the time of the spill. If access isn't an issue, it is important to obtain an upstream sample as close to the discharge outfall as possible, but far enough away to be sure that the sample is not affected by the discharge. For spills less than 1,000 gallons, samples shall be taken at the discharge point, within 10 to 25 feet upstream and 50 feet downstream in a flowing creek.
- b. For spills greater than 1,000 gallons, additional sites should be sampled based on the recommendations from Glenn County Environmental Health Department.
- c. Ask the lab to test for total and fecal coliform, ammonia, nitrate and biochemical oxygen demand (BOD).
- d. If unacceptable levels are observed continue composite sampling until coliform and BOD levels are within permitted limits.

4. Additional Measures Under Potentially Prolonged Overflow Conditions

In the event of a prolonged sewer line blockage or a sewer line collapse, set up a portable bypass pumping operation around the obstruction.

- a. Take appropriate measures to determine the proper size and number of pumps required to effectively handle the sewage flow.
- b. Implement continuous or periodic monitoring of the by-pass pumping operation as required.
- c. Address regulatory agency issues in conjunction with emergency repairs.

5. Cleanup

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

- a. Whenever possible, digital photos shall be taken of the area before and after the cleanup.
- b. Where practical, thoroughly flush the area and clean up any wash down water. Solids and debris are to be flushed, swept, raked, picked-up, and transported for proper disposal.
- c. Secure the overflow to prevent contact by members of the public until the site has been thoroughly cleaned. Post signs as required.
- d. Where appropriate, disinfect and deodorize the overflow site.
- e. Where sewage has resulted in ponding, pump the pond dry and dispose of the residue in accordance with applicable regulations and policies.
- f. If a ponded area contains sewage which cannot be pumped dry, it may be treated with bleach; **HOWEVER, if sewage has discharged into a natural body of water, bleach or other disinfectant SHALL NOT be used and the California Department of Fish and Game shall be contacted for specific instructions.**
- g. Use of portable aerators may be required where complete recovery of sewage is not practical and where severe oxygen depletion in existing surface water is expected.

6. Traffic and Crowd Control

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

- a. Safely control traffic flow around the spill area; and
- b. 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:

- a. Orland Police Department (530) 865-1616
- b. Orland Public Works Department (530) 865-1610

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

2.4 Overflow Report

The Sanitary Sewer Overflow Report (Appendix A) contains information which is required to be reported to RWQCB depending upon the nature of the spill. If the overflow will affect any surface water, the Director shall notify the State Office of Emergency Services (OES), Glenn County Environmental Health Department and RWQCB, within two hours of becoming aware of the discharge. If the overflow results in the killing of any fish or aquatic life, the Director shall notify the California Fish and Game Department within two hours of becoming aware of the discharge. The Director shall complete the Sanitary Sewer Overflow Report (Appendix A) and promptly notify the RWQCB when the overflow is eliminated.

Required information regarding the sanitary sewer overflow shall include the following:

Category 1 and 2 SSOs:

- All information listed for Category 3 SSOs, as well as;
- Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
- Estimated SSO amount recovered;
- Response and corrective action taken;
- If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected;
- Parameters that samples were analyzed for (if applicable);
- Identification of whether or not health warnings were posted;
- Beaches impacted (if applicable). If no beach was impacted, NA shall be selected;
- Whether or not there is an ongoing investigation;
- Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
- OES control number (if applicable);
- Date and time OES was called (if applicable);
- Identification of whether or not County Health Officers were called; and
- Date and time County Health Officer was called (if applicable).

Category 3 SSOs:

- Location of SSO by entering GPS coordinates;
- Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
- County where SSO occurred;
- Whether or not the SSO entered a drainage channel and/or surface water;
- Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;
- Estimated SSO volume in gallons;
- SSO source (manhole, cleanout, etc.);

- SSO cause (mainline blockage, roots, etc.);
- Time of SSO notification or discovery;
- Estimated operator arrival time;
- SSO destination;
- Estimated SSO end time; and
- SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Certification Number.

Private Lateral Sewage Discharges:

- All information listed for Category 3 SSOs (if applicable and known), as well as;
- Identification of sewage discharge as a private lateral sewage discharge; and
- Responsible party contact information (if known).

In addition to the above requirements the Director shall take photographs of the event, if possible, and make an assessment of any damage to the exterior areas of public/private property. Personnel shall not enter private property for purposes of estimating damage to structures, floor and wall coverings, and personal property. See Appendix C for guidance on estimating sanitary sewer overflow volumes and flow rates.

3 REGULATORY AGENCY NOTIFICATION PLAN

This section establishes procedures which the City of Orland follows to provide formal notice to the regulatory agencies in the event of SSOs. Agency notifications shall be performed in parallel with other internal notifications.

The reporting procedure shall be pursuant to the State of California, 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 System".

3.1 Immediate Notification

1. Immediately report any SSO that results in a discharge to a drainage channel and/or surface water to OES at (800) 852-7550, Glenn County Environmental Health Department at (530) 934-6102 and RWQCB Region 5R at (530) 224-4845 within 2 hours of City of Orland field staff becoming aware of the discharge.
2. Report any SSO that impacts any creeks, gullies or natural waterways to the California Department of Fish and Game at (888) 334-2258 or (916) 358-2858 within 2 hours of City of Orland field staff becoming aware of the discharge.

3. Within 24 hours after becoming aware of a discharge to a drainage channel or surface water, submit a certification to the Board – Fax No. (530) 224-4857 – that the California Emergency Management Agency and Glenn County Environmental Health Department have been notified of the discharge. See Appendix B for the Certification Form of 2-hr Sewer Spill Notification.
4. Submit a written report to the Board including Appendix B and any additional details related to the SSO, a detailed description of the event and copies of reports submitted to other agencies, within 5 business days of becoming aware of the discharge.
5. Report any Category 1 or 2 SSO (i.e., equal to or in excess of 1,000 gallons, or resulting in a discharge to a drainage channel and/or surface water, or a discharge to a storm drain that was not fully captured and returned to a sanitary sewer system) to the Online SSO Database System at <https://ciwqs.waterboards.ca.gov/> as soon as possible but no later than 3 business days after the City of Orland is made aware of the SSO event. A final certified report shall be completed through the Online SSO Database System, within 15 calendar days of the conclusion of SSO response and remediation.
6. Report any Category 3 SSOs to the Online SSO Database System within 30 days after the end of the calendar month in which the SSO occurs.

3.2 Secondary Notification

After those parties identified in Section A have been contacted, the Director shall contact other agencies, as necessary, as well as other interested and possibly impacted parties.

1. The Director may report private lateral SSOs using the Online SSO Database System, specifying that the sewage discharge occurred and was caused by a private lateral and identifying the responsible party (other than the City), if known.
2. If there are no SSOs during a calendar month, the Director shall submit an electronic certified report that the City did not have any SSOs, within 30 calendar days after the end of each calendar month.
3. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the RWQCB office in accordance with the time schedules identified above. In such event, the City of Orland must also enter all required information into the Online SSO Database as soon as practical.

4 SSO DOCUMENTATION

4.1 Record Keeping

The General Waste Discharge Order WQ 2013-0058-EXEC requires that individual SSO records be maintained by the City for a minimum of five years from the date of the SSO. This period may be extended when requested by a RWQCB Executive Officer. All records and documentation of performance and implementation measures for the previous five years shall be made available for review upon State or Regional Water Board staff's request. All monitoring instruments and devices that are used by the City of Orland to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

The responding crew shall complete the Sanitary Sewer Overflow Report (Appendix A) within 24 hours of the sewer overflow confirmation. The Director is responsible for reviewing, updating and signing the report. The complete report will be placed in the Spill Response Binder. The City shall retain records of all SSOs, such as, but not limited to and when applicable:

- Record of Certified SSO reports, as submitted to the Online SSO database;
- All original recordings for continuous monitoring instrumentation;
- All service call records and complaint logs of calls received by the City;
- Records of all SSO calls;
- SSO records;
- Steps that have been and will be taken to prevent SSOs from recurring and a schedule to implement those steps;
- Work orders, work completed, and any other maintenance records from the previous five years which are associated with responses and investigations of system problems related to SSOs;
- A list and description of complaints from customers or others from the previous five years;
- Documentation of performance and implementation measures for the previous five years; and

If any sanitary sewer spill reaches a drainage channel and/or surface waters water quality samples may be required. If samples are required by a regulatory agency or State law, or if voluntary monitoring is conducted by the City or its agents(s), as a result of any SSO, records of monitoring information shall include:

- The date, exact place, and time of sampling or measurements;
- The individual(s) who performed the sampling or measurements;
- The date(s) analyses were performed;
- The individual(s) who performed the analyses;

- The analytical technique or method used; and,
- The results of such analyses.

4.2 Certification

All final reports must be certified by an authorized person as required by Provision J of the SWRCB Order No. 2006-0003-DWQ. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

5 DISTRIBUTION AND MAINTENANCE OF SSORP

Annual updates to the SSORP reflect all changes in policies and procedures as may be required to achieve its objectives.

5.1 Availability of SSORP

Distribute copies of the SSORP and any amendments to the following departments and functional positions:

1. Public Works Spill Response Crew
2. Public Works Director
3. Wastewater Treatment Plant Operator
4. Public Works Administration Office

All other personnel who may become incidentally involved in responding to overflows shall be familiarized with the SSORP.

5.2 Review and Update of SSORP

The Water/Sewer Division shall annually review the SSORP to ensure the SSORP and related documents are current, correct and applicable. Any changes shall be made within one month of this review, which shall occur on the anniversary date of the initial distribution date. Additionally, the SSORP shall be incorporated into the City Of Orland, Sanitary Sewer Management Plan (SSMP).

5.3 Training

Training on the SSORP shall be provided to all Water/Sewer Division staff members. The training shall be conducted by the Public Works Director or his/her designee. The Director makes sure the employees have the necessary skills to perform the operations and maintenance required by going over the standard operating procedures for all sewer operation and maintenance crews.

The trainer shall have extensive knowledge of not only the SSORP but also the City of Orland and its staff, resources, field conditions, policies and procedures as they apply to the sewer system maintenance and emergency response. Training shall be provided annually with the exception that the initial training be held within one month following the completion of the SSORP. Records of individuals' training including date, time, place, content, name of trainer(s), and names of attendees shall be kept in support of this plan. Contractors that perform work within the City shall meet the minimum safety requirements set forth by California OSHA and any training guidelines set forth by CWEA for collection system work.

6 PUBLIC ADVISORY PROCEDURE

This section will present information on how to inform the public and interact with the media when a confirmed sanitary sewer overflow has occurred.

6.1 Media and Public Relations Guidelines

The responding crew should exercise caution when speaking with the public or media when responding to a spill. Any information that is provided or statements made by the responding crew may become pertinent in the event of possible court action. It is important to:

- Avoid giving out the wrong information;
- Avoid making accusations against customers, businesses or other public agencies;
- Avoid speculating about the situation being responded to; and
- Avoid providing incorrect facts about a company or other agency.

The responding crew should be courteous and attempt to provide accurate information to questions within the limits above. In some cases, it may be appropriate to say that we do not have any information, or to delay answering a question and then to say when an answer might be available.

6.2 Communication Tips for the Responding Crew

1. Give the homeowner ample time to explain the situation or to vent. Show interest in what the homeowner has to say, no matter how many times you have heard it before, or how well the responding crew understands the situation.
2. As soon as possible, let the customer know when the source of the backup has been determined and if it is located in the sewer main that it will be corrected as soon as possible.
3. Acknowledge the homeowner's concerns. For example, if the homeowner seems angry or worried about property damage, respond by saying "We understand you're concerned about the possible damage to your property, but a professional cleanup crew can restore

the area, and if it is determined that the agency is at fault, the property owner has the right to file a claim for any reasonable repairs or losses resulting from this incident.”

4. Express understanding and empathy for any inconveniences caused by the incident, but do not admit fault.
5. As much as possible, keep the homeowner informed on what is being done and will be done to correct the problem.
6. Keep focused on getting the job done in a very professional manner. Focus on the problem without unnecessary small talk with the homeowner.
7. Don't find fault or lay blame on anyone.

6.3 Temporary Signage

When the responding crew arrives at the site of the overflow they should provide barricades to prevent pedestrians and vehicles from making contact with the SSO. Post the “DANGER” sign (Appendix E) on the barricades or where necessary to prevent contact with the SSO. When a homeowner is unavailable leave a door hanger (Appendix D) with the appropriate information.

Appendix A Sanitary Sewer Overflow Report And Response Flowchart

SANITARY SEWER OVERFLOW REPORT

SEWER BACKUP ☐SEWER OVERFLOW ☐

REPORT NO. _____



Name of Person Completing the Report: _

Date of Sanitary Sewer Overflow (SSO):

Time Notified	Time of Arrival at Site	Time SSO Stopped	Estimated Duration of SSO (min)
---------------	-------------------------	------------------	---------------------------------

LOCATION			
Street Address	City	Latitude	Longitude

ESTIMATED AMOUNT OF OVERFLOW	
Gallons	Descriptions
Estimated SSO Volume	
Estimated Volume of SSO Recovered	
Estimated Volume of SSO Reaching Surface Water	

FINAL SSO DESTINATION		
Surface Waters Affected	Evidence of Fish Kill	Samples Collected
YES <input type="checkbox"/>	YES <input type="checkbox"/>	YES <input type="checkbox"/>
NO <input type="checkbox"/>	NO <input type="checkbox"/>	NO <input type="checkbox"/>

CAUSE		PIPE INFORMATION	
Broken Pipe <input type="checkbox"/>		AC <input type="checkbox"/>	CI / DI <input type="checkbox"/>
Grease <input type="checkbox"/>		VCP <input type="checkbox"/>	PVC <input type="checkbox"/>
Roots <input type="checkbox"/>		CP <input type="checkbox"/>	Other <input type="checkbox"/>
I & I <input type="checkbox"/>	Pipe Diameter (in):	Dist. to Blockage from Downstream MH (ft):	
Other (Explain) <input type="checkbox"/>			

CORRECTION, CLEANUP, CREW AND EQUIPMENT						
Corrective Actions Taken:						
Vacuumed Debris	<input type="checkbox"/>	Flushed Area	<input type="checkbox"/>	Signage Posted	<input type="checkbox"/>	No. of Days Signs Were Posted:
Gallons of Flush Water Used:		Gallons of Flushed Water Recovered:				
Crew (Initials)	Time (hrs)	Equipment	Time (hrs)	Materials Used		

Prepared by: _____ Date: _____ Reviewed by: _____ Date: _____

REGULATORY AGENCY SPILL NOTIFICATION

Notified Agency	Notified By:	Reported To:	Time Reported:	Check if Reported to Voicemail
RWQCB	<input type="checkbox"/>			<input type="checkbox"/>
CAL EMA	<input type="checkbox"/>			<input type="checkbox"/>
County Health Dept.	<input type="checkbox"/>			<input type="checkbox"/>
California DF&G	<input type="checkbox"/>			<input type="checkbox"/>

ATTACHED DOCUMENTATION

Photos	<input type="checkbox"/>	Sketches	<input type="checkbox"/>	Calculations	<input type="checkbox"/>
Video	<input type="checkbox"/>	Video	<input type="checkbox"/>	Other	<input type="checkbox"/>
Digital Photos	<input type="checkbox"/>	File Name and Directory:			

INTERNAL NOTIFICATION

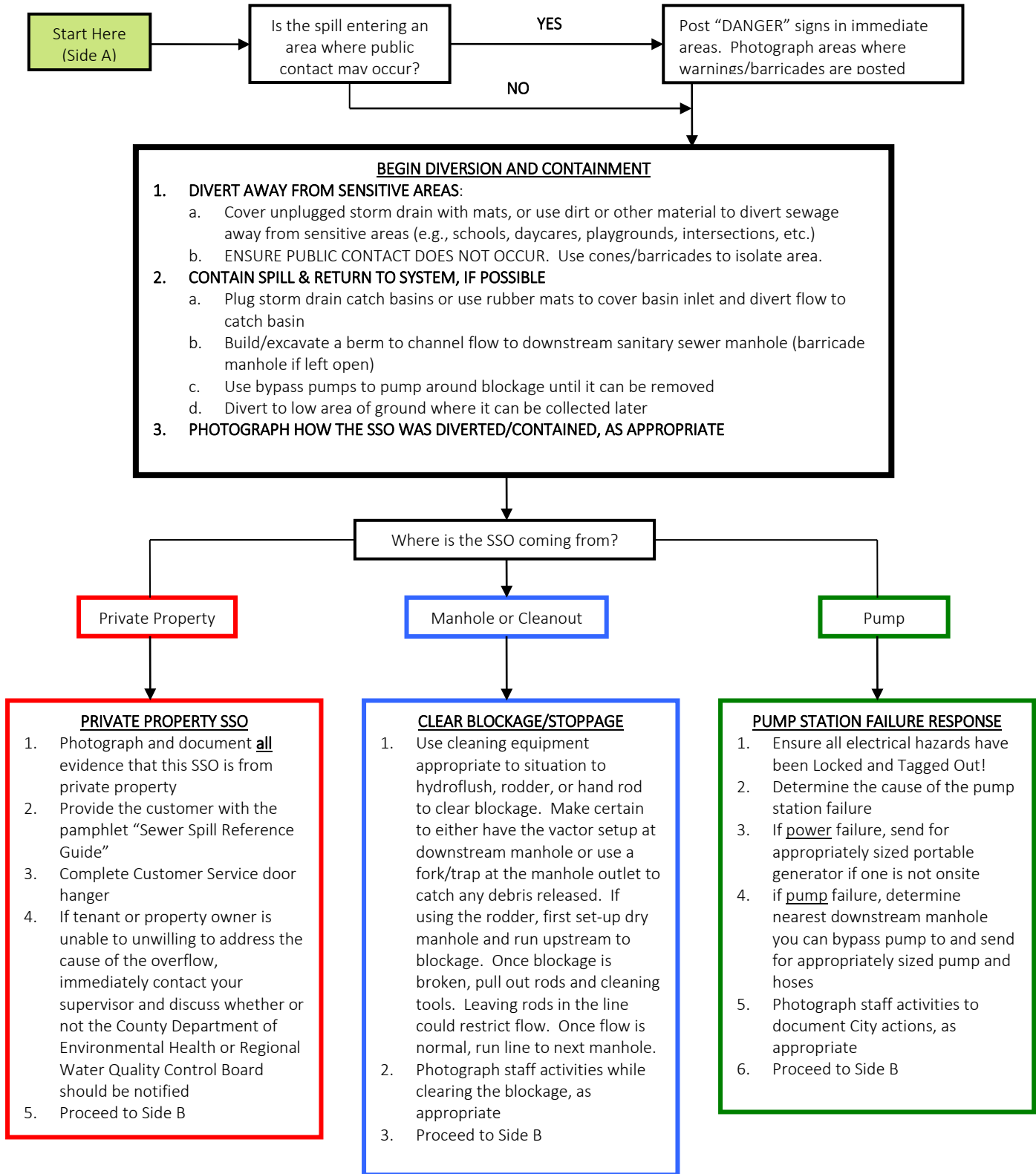
Name:	Notified By:	Time Notified:
-------	--------------	----------------

OTHER NOTIFICATIONS

Name of Notified Agency or City:	Notified By:	Reported To:	Time Notified:
----------------------------------	--------------	--------------	----------------

ADDITIONAL COMMENTS

Prepared by: _____ Date: _____ Reviewed by: _____ Date: _____

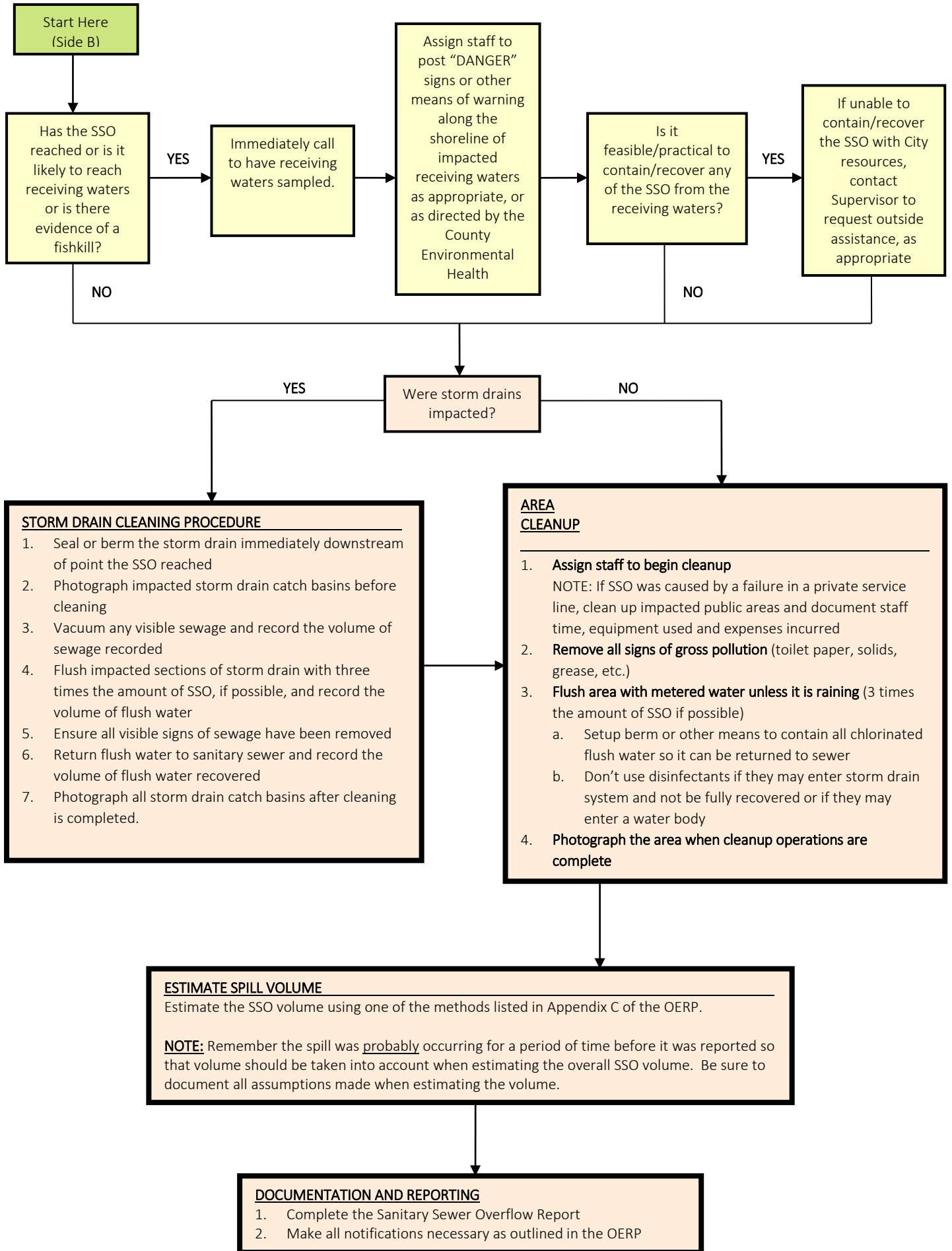


MEDIA AND PUBLIC RELATIONS GUIDELINES:

The responding crew should exercise caution when speaking with the public or media when responding to a spill. Any information that is provided or statements made by the responding crew may become pertinent in the event of possible court action. It is important to:

- Avoid giving out the wrong information;
- Avoid making accusations against customers, businesses or other public agencies;
- Avoid speculating about the situation being responded to; and
- Avoid providing incorrect facts about a company or other agency.

The responding crew should be courteous and attempt to provide accurate information to questions within the limits above. In some cases, it may be appropriate to say that we do not have any information, or to delay answering a question and then to say when an answer might be available.



Appendix B Certification Form of 2-hr Notification



CERTIFICATION OF 2-HOUR NOTIFICATION

Attach complete Sanitary Sewer Overflow Report (SSORP – Appendix A) and send to Central Valley Regional Water Quality Control Board, Fax Number: (530) 224-4857.

From: _____

Date: _____

Subject: Discharge Certification Notice

In pursuant with State of California, State Water Resources Control Board Order No. WQ 2008-0002-EXEC, "Adopting Amended Monitoring and Reporting Requirements for Statewide General Waste Discharge Requirements for Sanitary Sewer System", the City of Orland is hereby certifying that the California Emergency Management Agency and Glenn County Environmental Health have been notified of a discharge to a drainage channel or surface water within the required two-hour period after becoming aware of the discharge.

Date/Time when City of Orland was notified about discharge: _____

Discharge Location: _____ (See Attached Sanitary Sewer Overflow Report)

☐ **Notified Office of Emergency Services**

OES Control No. _____

Date: _____

Time: _____

☐ **Notified Glenn County Environmental Health**

Date: _____

Time: _____

Contact Person: _____

Fax sent by: _____
(print name here)

Phone number: _____

Date: _____

Time: _____

Appendix C

SSO Volume and Flow Rate Resources

Methods for Estimating Spill Volume

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

Method 1: Eyeball Estimate

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

Method 2: Measured Volume

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

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

Step 2 Measure or pace off the dimensions.

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

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

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

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

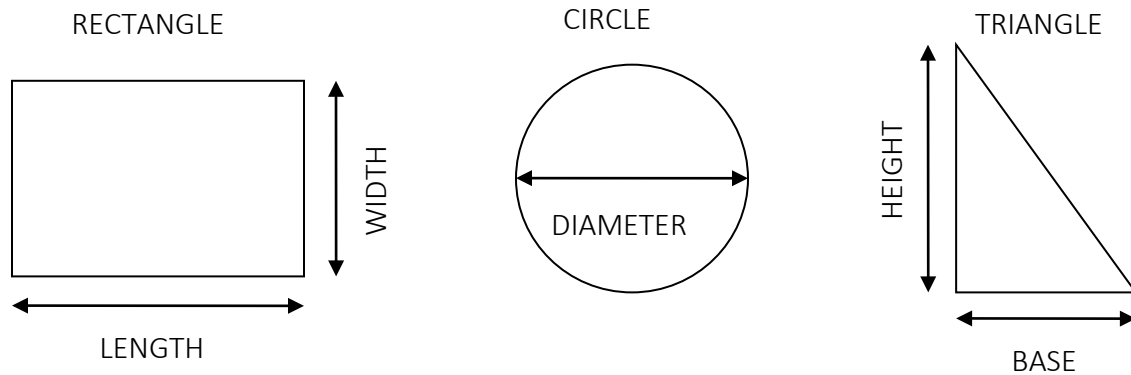
Circle: $\text{Area} = \text{diameter (feet)} \times \text{diameter (feet)} \times 0.785$

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

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

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

Figure A: Common Shapes and Dimensions used for Estimating Spill Size



Method 3: Duration and Flow Rate

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

Duration

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

Start time: The start time is sometimes difficult to establish. Here are a few approaches:

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

End time: The end time is usually much easier to establish. Field crews on-site observe the “blow down” that occurs when the blockage has been removed.

Flow Rate

The flow rate is the average flow that left the sewer system during the time of the spill. Two common ways to estimate the flow rate are described below:

1. Flow Rate Chart: These charts show sewage flowing from manhole covers at a variety of flow rates. The observations of the field crew can be used to select the appropriate flow rate from the chart. If possible, photographs are useful in documenting the basis for the flow rate estimate.

2. Counting Connections: Once the location of the spill is known, the number of upstream connections can be determined from the sewer maps. Multiply the number of connections by 200 to 250 gallons per day per connection or eight to ten gallons per hour per connection.

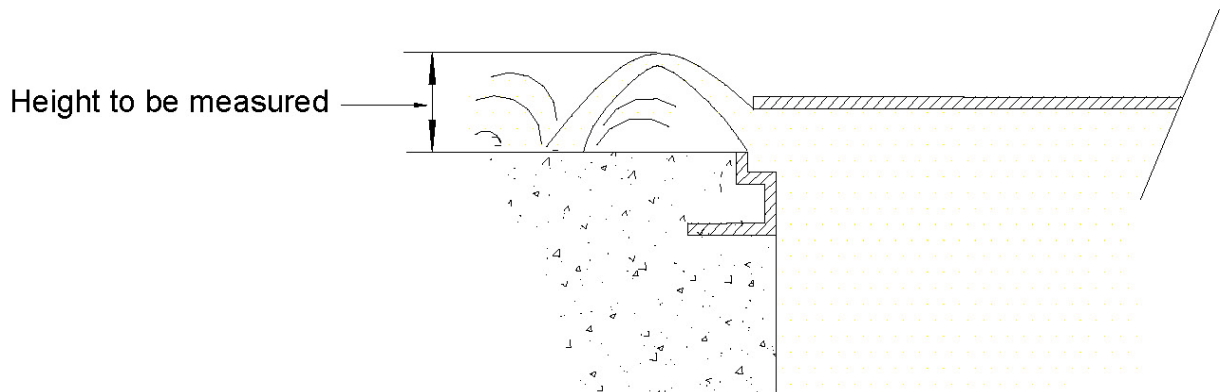
Collection System Collaborative Benchmarking Group Best Practices for Sanitary Sewer Overflow (SSO) Prevention and Response Plan

The formula used to develop Table A measures the maximum height of the water coming out of the maintenance hole above the rim. The formula was taken from hydraulics and its application by A.H. Gibson (Constable & Co. Limited).

Example Overflow Estimation:

The maintenance hole cover is unseated and slightly elevated on a 24" casting. The maximum height of the discharge above the rim is 5 ¼ inches. According to Table A, these conditions would yield an SSO of 185 gallons per minute.

FLOW OUT OF M/H WITH COVER IN PLACE



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

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

TABLE 'A'
ESTIMATED SSO FLOW OUT OF M/H WITH COVER IN PLACE

24" COVER

Height of spout above M/H rim H in inches	S S O FLOW Q		Min. Sewer size in which these flows are possible
	in gpm	in MGD	
1/4	1	0.001	6"
1/2	3	0.004	
3/4	6	0.008	
1	9	0.013	
1 1/4	12	0.018	
1 1/2	16	0.024	
1 3/4	21	0.030	
2	25	0.037	
2 1/4	31	0.045	
2 1/2	38	0.054	
2 3/4	45	0.065	
3	54	0.077	
3 1/4	64	0.092	
3 1/2	75	0.107	
3 3/4	87	0.125	
4	100	0.145	8"
4 1/4	115	0.166	
4 1/2	131	0.189	
4 3/4	148	0.214	
5	166	0.240	
5 1/4	185	0.266	
5 1/2	204	0.294	
5 3/4	224	0.322	
6	244	0.352	
6 1/4	265	0.382	
6 1/2	286	0.412	
6 3/4	308	0.444	
7	331	0.476	
7 1/4	354	0.509	
7 1/2	377	0.543	
7 3/4	401	0.578	
8	426	0.613	
8 1/4	451	0.649	
8 1/2	476	0.686	
8 3/4	502	0.723	
9	529	0.761	

36" COVER

Height of spout above M/H rim H in inches	S S O FLOW Q		Min. Sewer size in which these flows are possible
	in gpm	in MGD	
1/4	1	0.002	6"
1/2	4	0.006	
3/4	8	0.012	
1	13	0.019	
1 1/4	18	0.026	
1 1/2	24	0.035	
1 3/4	31	0.044	
2	37	0.054	
2 1/4	45	0.065	
2 1/2	55	0.079	
2 3/4	66	0.095	
3	78	0.113	
3 1/4	93	0.134	
3 1/2	109	0.157	
3 3/4	127	0.183	
4	147	0.211	8"
4 1/4	169	0.243	
4 1/2	192	0.276	
4 3/4	217	0.312	
5	243	0.350	
5 1/4	270	0.389	
5 1/2	299	0.430	
5 3/4	327	0.471	
6	357	0.514	
6 1/4	387	0.558	
6 1/2	419	0.603	
6 3/4	451	0.649	
7	483	0.696	
7 1/4	517	0.744	10"
7 1/2	551	0.794	
7 3/4	587	0.845	
8	622	0.896	
8 1/4	659	0.949	
8 1/2	697	1.003	
8 3/4	734	1.057	
9	773	1.113	

Disclaimer:

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

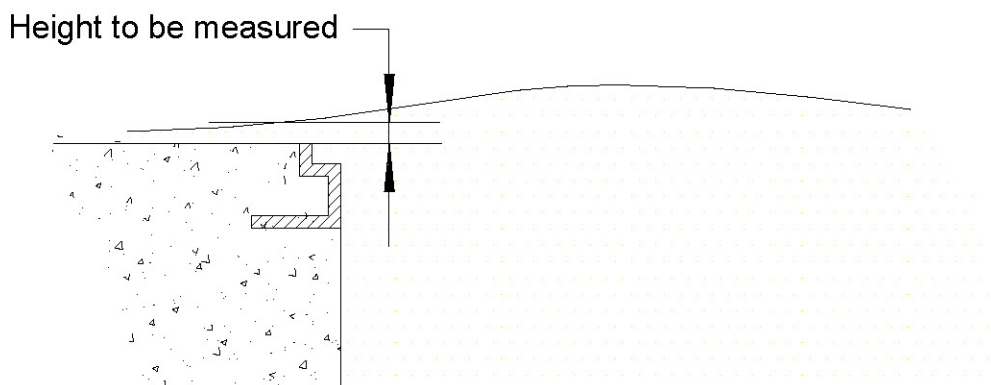
**Collection System Collaborative Benchmarking Group
Best Practices for Sanitary Sewer Overflow (SSO) Prevention and
Response Plan**

The formula used to develop Table B for estimating SSO's out of maintenance holes without covers is based on discharge over curved weir -- bell mouth spillways for 2" to 12" diameter pipes. The formula was taken from hydraulics and its application by A.H. Gibson (Constable & Co. Limited).

Example Overflow Estimation:

The maintenance hole cover is off and the flow coming out of a 36" frame maintenance hole at one inch (1") height will be approximately 660 gallons per minute.

FLOW OUT OF M/H WITH COVER REMOVED (TABLE "B")



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

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

TABLE 'B'
ESTIMATED SSO FLOW OUT OF M/H WITH COVER REMOVED

24" FRAME

Water Height above M/H frame H in inches	S S O FLOW Q		Min. Sewer size in which these flows are possible
	in gpm	in MGD	
1/8	28	0.04	
1/4	62	0.09	
3/8	111	0.16	
1/2	160	0.23	
5/8	215	0.31	6"
3/4	354	0.51	8"
7/8	569	0.82	10"
1	799	1.15	12"
1 1/8	1,035	1.49	
1 1/4	1,340	1.93	15"
1 3/8	1,660	2.39	
1 1/2	1,986	2.86	
1 5/8	2,396	3.45	18"
1 3/4	2,799	4.03	
1 7/8	3,132	4.51	
2	3,444	4.96	21"
2 1/8	3,750	5.4	
2 1/4	3,986	5.74	
2 3/8	4,215	6.07	
2 1/2	4,437	6.39	
2 5/8	4,569	6.58	24"
2 3/4	4,687	6.75	
2 7/8	4,799	6.91	
3	4,910	7.07	

36" FRAME

Water Height above M/H frame H in inches	S S O FLOW Q		Min. Sewer size in which these flows are possible
	in gpm	in MGD	
1/8	49	0.07	
1/4	111	0.16	
3/8	187	0.27	6"
1/2	271	0.39	
5/8	361	0.52	8"
3/4	458	0.66	
7/8	556	0.8	10"
1	660	0.95	12"
1 1/8	1,035	1.49	
1 1/4	1,486	2.14	15"
1 3/8	1,951	2.81	
1 1/2	2,424	3.49	18"
1 5/8	2,903	4.18	
1 3/4	3,382	4.87	
1 7/8	3,917	5.64	21"
2	4,458	6.42	
2 1/8	5,000	7.2	24"
2 1/4	5,556	8	
2 3/8	6,118	8.81	
2 1/2	6,764	9.74	
2 5/8	7,403	10.66	
2 3/4	7,972	11.48	30"
2 7/8	8,521	12.27	
3	9,062	13.05	
3 1/8	9,604	13.83	
3 1/4	10,139	14.6	
3 3/8	10,625	15.3	36"
3 1/2	11,097	15.98	
3 5/8	11,569	16.66	
3 3/4	12,035	17.33	
3 7/8	12,486	17.98	
4	12,861	18.52	
4 1/8	13,076	18.83	
4 1/4	13,285	19.13	
4 3/8	13,486	19.42	

Disclaimer:

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

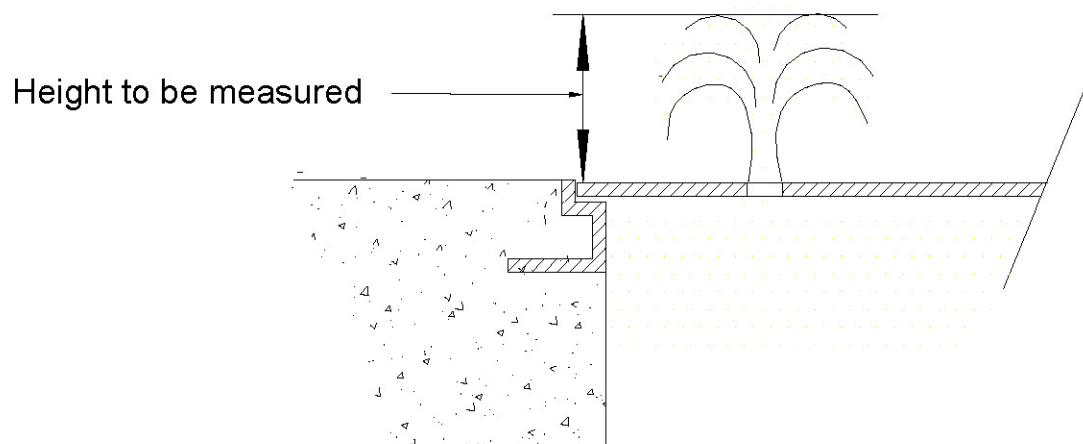
**Collection System Collaborative Benchmarking Group
Best Practices for Sanitary Sewer Overflow (SSO) Prevention and
Response Plan**

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

Example Overflow Estimation:

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

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



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

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

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

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

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

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

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

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

Flow Estimation Pictures

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



5 gpm



25 gpm



50 gpm



100 gpm



150 gpm



200 gpm



225 gpm



250 gpm



275 gpm

Appendix D

Customer Door Hanger and Sewer Spill Reference Guide

City of Orland

On (date) _____, at
(location) _____,

_____,
We responded to a reported blockage of the
sanitary sewer service to your property.

We discovered a blockage in:

- ☐ The sanitary sewer main and cleared the
line
- ☐ The City-maintained portion of your
sanitary sewer lateral and cleared the
line.
- ☐ Your portion of the sanitary sewer
lateral, which is your responsibility to
maintain. We also found the City's
portion of the lateral and the main to be
flowing normally.

If you require assistance to clear your portion
of the lateral you can look in the Yellow
Pages of you telephone book under "Sewer
Contractors" or "Plumbing Drains & Sewer
Cleaning." If you plan to hire a contractor we
recommend getting estimates from more than
one company.

City of Orland representative notes:

City of Orland representative:

**For questions or comments, please call
City of Orland
530-865-1610**

**For Sewer Emergencies
At Night and on Weekends, please call
530-865-1610**

City of Orland

On (date) _____, at
(location) _____,

_____,
We responded to a reported blockage of the
sanitary sewer service to your property.

We discovered a blockage in:

- ☐ The sanitary sewer main and cleared the
line
- ☐ The City-maintained portion of your
sanitary sewer lateral and cleared the
line.
- ☐ Your portion of the sanitary sewer lateral,
which is your responsibility to maintain.
We also found the City's portion of the
lateral and the main to be flowing
normally.

If you require assistance to clear your portion
of the lateral you can look in the Yellow
Pages of you telephone book under "Sewer
Contractors" or "Plumbing Drains & Sewer
Cleaning." If you plan to hire a contractor we
recommend getting estimates from more than
one company.

City of Orland representative notes:

City of Orland representative:

**For questions or comments, please call
City of Orland
530-865-1610**

**For Sewer Emergencies
At Night and on Weekends, please call
530-865-1610**

How a sewer system works:

A property owner's sewer pipes are called **service laterals** and are connected to larger local main and regional trunk lines.

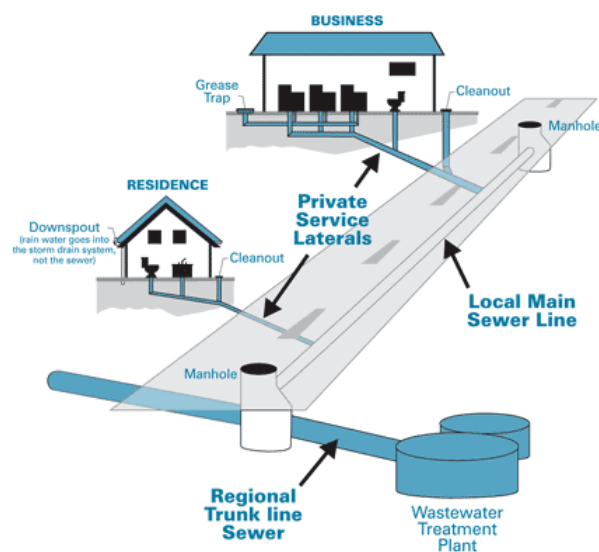
Service laterals run from the connection at the home to the connection with the public sewer (including the area under the street). These laterals are the responsibility of the property owner and must be maintained by the property owner.

Who is responsible for sewer repairs and maintenance?

The City of Orland is responsible for:

- Operating and maintaining local sewer lines
- Protecting City property & streets, the local storm drain system, sewage collection system and other public areas.
- Collecting, treating and disposing of wastewater.

You as the property owner are responsible for maintaining and repairing your service laterals (sewer pipes). Service laterals run from the connection at the home to the connection with the public sewer (including the area under the street).



If you have a sewage spill from your private sewer line, contact:

City of Orland

530.865.1610 (Business Hours)

530.865-1610 (After Hours)

Glenn County Department of Environmental Health

530.934.6102

California Health and Safety Code, Sections 5410-5416 requires:

- No person shall discharge raw or treated sewage or other waste in a manner that results in contamination, pollution, or a nuisance.
- Any person who causes or permits a sewage discharge to any state waters:
 - Must immediately notify the local health agency of the discharge.
 - Shall reimburse the local health agency for services that protect the public's health and safety.
 - Who fails to provide the required notice to the local health agency is guilty of a misdemeanor and shall be punished by a fine (between \$500-\$1,000) and/or imprisonment for less than one year.

Central Valley Regional Water Quality Control Board

530.224.4845

Requires the prevention, mitigation, response to, and reporting of sewage spills.

California Emergency Management Agency

800.852.7550

California Water Code, Article 4, Chapter 4, Sections 13268-13271 & California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2, Sections 2250-2260 require:

- Any person who causes or permits sewage in excess of 1,000 gallons to be discharged to state waters shall immediately notify the Office of Emergency Services.
- Any person who fails to provide the notice required by this section is guilty of a misdemeanor and shall be punished by a fine (less than \$20,000) and/or imprisonment for not more than one year.

**SEWER SPILL****REFERENCE GUIDE**

**YOUR RESPONSIBILITIES
AS A
PRIVATE PROPERTY OWNER**

Provided by:

City of Orland
815 Fourth Street
Orland, CA 95963
530.865.1610

Why do sewage spills happen?

Sewage spills occur when the wastewater in underground pipes overflows through a manhole, cleanout, or broken pipe. Most spills are relatively small and can be stopped and cleaned up quickly, but left unattended they can cause health hazards, damage to homes and businesses, and threaten the environment, local waterways, and beaches.

CAUTION!

When trying to locate a sewer problem, never open manholes or other City sewer structures. Only City personnel are allowed open & inspect these structures.

Common causes of sewage spills:

- Grease build-up
- Tree roots
- Broken/cracked pipes
- Missing or broken cleanout caps
- Undersized sewers
- Groundwater/rainwater entering the sewer system through pipe defects and illegal connections

Prevent most sewage backups with a Backwater Overflow Device

This type of device can help prevent sewage backups into homes and businesses. If you don't already have a Backwater Overflow Device, contact a professional plumber or contractor to install one as soon as possible.

Protect the environment!

If you let sewage from your property discharge to a gutter or storm drain, you may be subject to penalties and/or out-of-pocket costs for clean-up and enforcement efforts. A property owner may be charged for costs incurred by agencies responding to spills from private properties.

What to look for:

Sewage spills can be a very noticeable gushing of water from a manhole or a slow water leak that may take time to be noticed. Don't dismiss unaccounted-for wet areas. Look for:

- Drain backups inside the building.
- Wet ground and/or water leaking around manhole lids onto your street.
- Leaking water from cleanouts or outside drains
- Unusual odorous wet areas: sidewalks, external walls, ground/landscape around a building.

The following are indicators of a possible obstruction in your sewer line:

- Water comes up in floor drains, showers or toilets.

- Toilets, showers or floor drains below ground level drain very slowly.

What to do if there is a spill:

Immediately notify the City. Our crews locate the blockage and determine if it is the public sewer; if it is the crew removes the blockage and arranges for cleanup.

If the backup is in your private internal plumbing or in the service laterals, you are required to immediately:

- Control and minimize the spill by shutting off or not using the water
- Keep sewage out of the storm drain system using sandbags, dirt and/or plastic sheeting
- Call a plumbing professional to clear blockages and make repairs as needed. Look in the yellow pages under "Plumbing Drain & Sewer Cleaning" or "Sewer Contractors."
- Always notify your sewer/public works department or public sewer district of sewage spills. In addition, if it exceeds 1,000 gallons notify the California Emergency Management Agency. See numbers listed on this pamphlet.

Spill cleanup inside the home:

For large clean ups, you should immediately contact a professional cleaning firm to clean up impacted areas. You can locate local firms by looking in the Yellow Pages under "Water Damage" or "Fire Damage." If you hire a contractor, it is recommended to get estimates from more than one company. Sometimes, homeowner's insurance will pay for the necessary cleaning due to sewer backups. Not all policies have this coverage, so check with your agent.

If you decide to clean up a small spill inside your home, protect yourself from contamination by observing the following safety measures. Those persons whose resistance to infection is compromised should not attempt this type of clean up.

Other Tips:

- Keep children and pets out of the affected area until cleanup has been completed.
- Turn off heating/air conditioning systems
- Wear rubber boots, rubber gloves, and goggles during cleanup of the affected area.
- Discard items that cannot be washed and disinfected (such as: mattresses, rugs, cosmetics, kids toys, etc.)
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops,

appliances, sinks and other plumbing fixtures) with hot water and laundry or dish detergent.

- Help the drying process with fans, air conditioning units, and dehumidifiers.
- After completing cleanup, wash your hands with soap and water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands.) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use 1/4 teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a laundromat until your onsite wastewater system has been professionally inspected and serviced.
- See immediate attention if you become injured or ill.

Spill cleanup outside the home:

- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard surfaces areas such as asphalt or concrete, it is safe to use a 2% bleach solution, or 1/2 cup of bleach to 5 gallons of water, but don't allow it to reach a storm drain as the bleach can harm the environment.
- After cleanup, wash hands with soap and water. Use water that has been boiled for 1 minute (allow to cool before washing your hands.) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use 1/4 teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a laundromat until your onsite wastewater system has been professionally inspected and serviced.
- See immediate attention if you become injured/ill.

Appendix E Warning Sign

DANGER !

RAW SEWAGE

AVOID CONTACT



PELIGRO !

AGUA CONTAMINADA

EVITE TODO CONTACTO

FORM MORE INFORMATION PARA MAS INFORMACION

CITY OF ORLAND
530-865-1610

PRINT THIS PAGE ON ORANGE PAPER

Appendix D
SSMP Audit Checklist and
SSMP Audit/Update Schedule

SSMP AUDIT CHECKLIST				
SSMP Component	Required SSMP Elements	SSMP Current?	Has the Element Been Properly Implemented?	Does the Element Require a Revision?
1. Goal	Reduce, prevent, and mitigate SSOs			
2. Organization	Designate responsible and authorized representative			
	Names and telephone numbers for key management, administrative, and maintenance personnel			
	Organization chart			
	Chain of communication for reporting SSOs			
3. Legal Authority	Prevent illicit discharges into sanitary sewer system			
	Require sewers and connections to be properly designed and constructed			
	Ensure access for maintenance, inspection, or repairs			
	Limit the discharge of fats, oils, grease, and other debris			
	Enforce violations of sewer ordinances			
4. Operation and Maintenance Program	Up-to-date sanitary sewer and storm drain maps			
	Preventative operation and maintenance activities			
	Rehabilitation and replacement plan Staff Training			
	Equipment and parts inventory			
5. Design & Performance Provisions	Design and construction standards and specifications			
	Inspection and testing procedures and standards			
6. Sanitary Sewer Overflow Response Plan	Notification procedures for primary responders and regulatory agencies			
	Response program for SSOs			
	Notification procedures for regulatory agencies and affected entities			
	Emergency response plan training			
	Emergency operations procedures			
	Program to prevent discharge of wastewater to surface waters			
7. FOG Control Program	Plan for public outreach to promote proper FOG disposal			
	FOG disposal plan			
	Legal authority to prohibit discharges and identify measures to prevent FOG SSOs			
	Grease removal device standards			
	Inspection authority			
	Identification and maintenance schedule for FOG hotspots			
	FOG source control measures			
8. System Evaluation and Capacity Assurance Plan	Hydraulic evaluation of collection system			
	Collection system design criteria			
	Capital improvements to address areas of hydraulic deficiencies			
	Schedule for capital improvements			
9. Monitoring, Measurement and Program Modifications	Maintain records to establish and prioritize SSMP activities			
	Monitor implementation and measure effectiveness of SSMP elements			
	Assess success of preventative maintenance program			
	Updating program elements			
	Identify and illustrate SSO trends			
10. SSMP Program Audits	Perform SSMP audit for effectiveness and City compliance			
	Identify deficiencies and correct as needed			

SSMP Audit Checklist Notes:

An audit of the SSMP shall occur at least every two years from the original SSMP approval date.

Photocopy and complete this checklist each time an audit is completed. The completed checklist shall be kept on file at the City Corporation Yard office.

For a more detailed explanation of the Required SSMP Elements see Section D.13 of the State Water Resources Control Board Order No. 2006-0003 - DWQ located in the Appendix of the SSMP.


Any significant revisions that are made to the SSMP shall be approved by the City Council.

Date of Audit Completion

Date:

Signature of Auditor

Signature:





SSMP AUDIT/UPDATE SCHEDULE

Date of Audit/Update	Section(s) Revised	Description of Change/Revision Made	Authorized By (Signature)

SSMP Audit/Update Notes:

- An audit of the SSMP shall be performed every two years starting from the original date of adoption of the SSMP.
- The SSMP shall be updated at least every five years from the original SSMP approval date.
- Any significant revisions that are made to the SSMP shall be approved by the City Council.

Appendix E

Public Outreach Documents

KITCHEN BEST MANAGEMENT PRACTICES (BMPs) to MANAGE FATS, OIL AND GREASE

◆ Collect waste cooking oil and store in drums or barrels for recycling.



◆ Junte el aceite de cocina que deseché y almacénalo en tambo o barriles para reciclarlo.

◆ Dispose food waste directly into the trash.



◆ Tire directamente en el bote de basura los desechos de alimentos.

◆ Wipe pots, pans, dishware, and work area prior to washing.



◆ Limpie con un trapo los sartenes, las cacerolas, la vajilla y las áreas de trabajo antes de lavarlos.

◆ Use absorbent products to contain spills.



◆ Utilice productos absorbentes para contener derramamientos.

◆ Use absorbents or other materials, like towels, to pick up spills before mopping the floor.



◆ Antes de trapear el piso, recoja cualquier derrame con productos absorbentes o otros materiales como toallas.

◆ Keep grease emulsifying agents out of the sink and drain.



◆ No utilice solventes o aditivos que disuelven grasa dentro de el fregadero o en la coladera.



City of Orland/Department of Public Works
For more information call: (530) 865-1610
or visit www.cityoforland.com

Proper Disposal Methods:

To stop sewage backups and overflows, you need to keep fats, oils and grease out of the sewer system. The most effective solution is to control fats, oils and grease at the source by implementing these Best Management Practices:

- Scrape grease and food scraps from plates, pots, pans, utensils, and grills (or other cooking surfaces) into a can or the trash for disposal.
- Dispose food waste directly into the trash.

Be cautious of chemicals and additives (including soaps and detergents) that claim to dissolve grease. Some additives simply pass grease down pipes where it can clog sewer lines in another area.

For large quantities of fats, oils and grease pick-up call:

North State Rendering Co.
1-800-351-4446

The Glenn County landfill located at 5700 County Road 33, Artois, will accept household fats in solid form.
530-624-0286

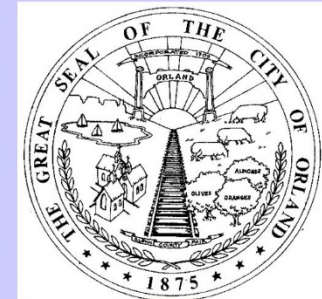
CITY OF ORLAND
Public Works Department

815 Fourth Street

Phone: 530-865-1600
Fax: 530-865-1632
Website: www.cityoforland.com

CITY OF ORLAND
Public Works Department

Eliminating Fats Oils and Grease from our Sewers



530 865-1610

Fats, Oils and Grease CLOG THE SEWERS!

Sewage backups and overflows are typically the result of grease buildup which can cause property damage, environmental problems and other health hazards.

Fats, oils and grease get into the sewers mainly from commercial food preparation establishments that do not have adequate grease control measures in place such as grease interceptors. But homeowners can also contribute.

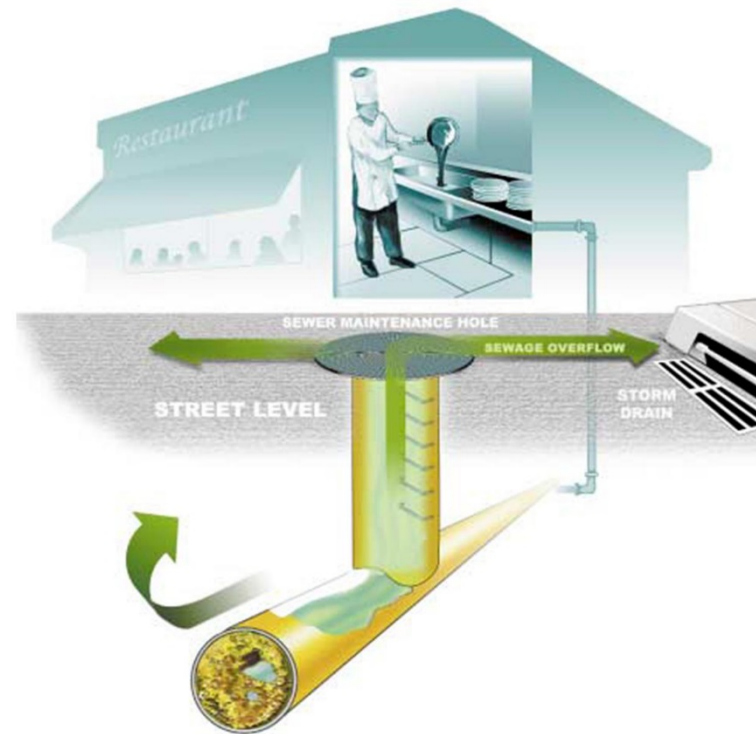
Most grease is the byproduct of cooking and is usually found in such things as:

- Food scraps
- Meat fats
- Lard
- Cooking oil
- Butter and margarine
- Baking goods
- Sauces
- Dairy products

All too often, fats, oils and grease are washed into the plumbing system, (usually through kitchen sinks and floor drains found in food preparation areas) and stick to the insides of sewer pipes both on your property and in the streets.

Over time, fats, oils and grease builds up and eventually blocks the entire pipe causing sewage backups and overflows.

From Sinks...



...to Sewers

*Help Keep the
Environment Clean!*

COSTS:

Homeowners-

As your sewer pipes back up, sewage and food particles that accumulate can attract insects and other vermin and may create potential health hazards.

Property damage can result from sewage backups leading to expensive cleanup and plumbing repairs that may have to be paid for by you.

To the Environment-

Clogged sewers can lead to overflows. As sewage overflows onto streets, it enters the storm drain system where the sewage is then carried to our local streams and rivers, creating a health risk for swimmers and marine life.

To the City-

Increased sewer blockages and overflows lead to excessive and costly maintenance and can result in severe fines from the regulatory agencies. This can increase your sewer fees.

Proper Disposal Methods:

To stop sewage backups and overflows, you need to keep fats, oils and grease out of the sewer system. The most effective solution is to control fats, oils and grease at the source. Here's how:

1. **Install a grease interceptor** that's sized and manufactured to handle the amount of grease byproduct anticipated.
2. **Maintain your grease interceptor in proper operating condition** by having it cleaned and serviced on a frequent basis.
3. **Implement these Best Management Practices:**
 - Scrape grease and food scraps from trays, plates, pots, pans, utensils, and grills (or other cooking surfaces) into a can or the trash for disposal.
 - Dispose food waste directly into the trash.
4. **Be cautious of chemicals and additives** (including soaps and detergents) that claim to dissolve grease. Some additives simply pass grease down pipes where it can clog sewer lines in another area.

For large quantities of fats, oils and grease pick-up call:

North State Rendering Co.
1-800-351-4446

The Glenn County landfill located at 5700 County Road 33, Artois, will accept household fats in solid form.
530-624-0286

CITY OF ORLAND
Public Works Department

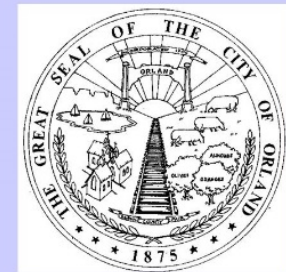
815 Fourth Street
Orland CA 95963

Phone: 530-865-1600

Fax: 530-865-1632

Website: www.cityoforland.com

Eliminating Fats Oils and Grease from our Sewers



530 865-1610

Fats, Oils and Grease CLOG THE SEWERS!

Sewage backups and overflows are typically the result of grease buildup which can cause property damage, environmental problems and other health hazards.

Fats, oils and grease get into the sewers mainly from commercial food preparation establishments that do not have adequate grease control measures in place such as grease interceptors. But homeowners can also contribute.

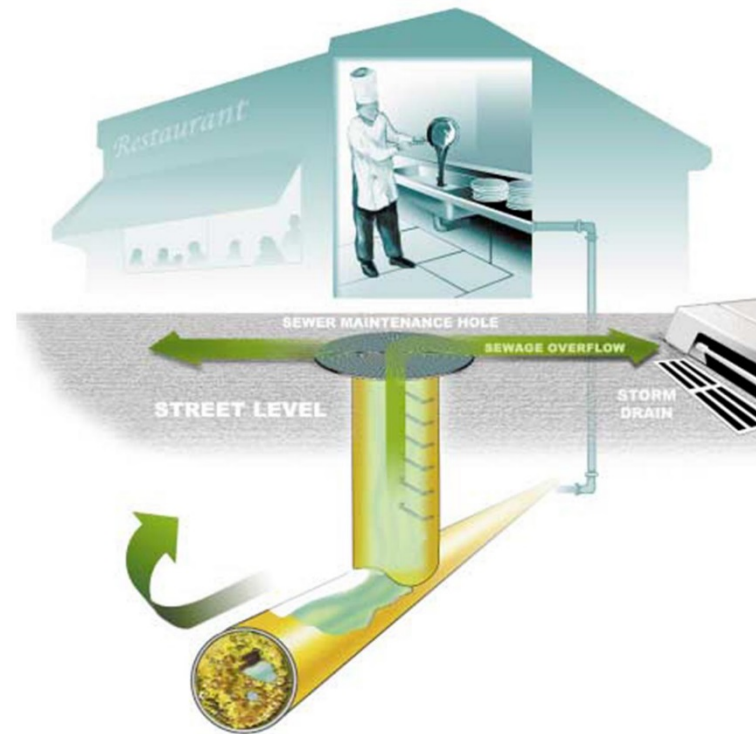
Most grease is the byproduct of cooking and is usually found in such things as:

- Food scraps
- Meat fats
- Lard
- Cooking oil
- Butter and margarine
- Baking goods
- Sauces
- Dairy products

All too often, fats, oils and grease are washed into the plumbing system, (usually through kitchen sinks and floor drains found in food preparation areas) and stick to the insides of sewer pipes both on your property and in the streets.

Over time, fats, oils and grease builds up and eventually blocks the entire pipe causing sewage backups and overflows.

From Sinks...



...to Sewers

*Help Keep the
Environment Clean!*

COSTS:

Homeowners-

As your sewer pipes back up, sewage and food particles that accumulate can attract insects and other vermin and may create potential health hazards.

Property damage can result from sewage backups leading to expensive cleanup and plumbing repairs that may have to be paid for by you.

To the Environment-

Clogged sewers can lead to overflows. As sewage overflows onto streets, it enters the storm drain system where the sewage is then carried to our local streams and rivers, creating a health risk for swimmers and marine life.

To the City-

Increased sewer blockages and overflows lead to excessive and costly maintenance and can result in severe fines from the regulatory agencies. This can increase your sewer fees.