City of Live Oak
Sewer System Management Plan

Prepared for:

LIVE OAK
CALIFORNIA

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February 2017

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I. ABBREVIATIONS/ACRONYMS

CIP.....Capital Improvement Plan

City .....City of Live Oak

FOG.....Fats, 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.

MRP.....Monitoring and Reporting Program

SSMP.....Sewer System Management Plan

SSO.....Sanitary 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.

SSOBRP .....Sanitary Sewer Overflow and Backup Response Plan

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

II. INTRODUCTION

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 submitted a Notice of Intent to the State Water Resources Control Board to comply with the state requirements and received the Waste Discharge Identification Number (WDID) 5SSO10898. The City began using the electronic statewide spill-reporting database in January 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.

III. Wastewater Collection System Background

Located on State Highway 99, about 50 miles north of Sacramento, the City of Live Oak has a 2015 population of approximately 8,500 and covers an area of about 3.1 square miles. The City was incorporated in 1947 and the first centralized wastewater collection and treatment facilities were constructed in 1952. The original collection system consisted of approximately 41,632 feet of vitrified clay pipe (VCP) with hand-packed joints. Since this time the City has experienced problems with excessive inflow and infiltration (I&I) due mostly to the original construction methods utilized and a relatively high ground water level. The City has completed numerous projects to expand and improve the collection system. Major improvements to the collection system since 1952 are included below.

Figure I-1 depicts the remaining original collection system that is currently in operation.

Between 1952 and 1985:
Approximately 19,868 feet of VCP and polyvinyl chloride (PVC) pipe was added to the collection system.

Approximately 1962:
A sewer lift station was installed on Pennington Road east of Orchard Way (Pennington Lift Station). The lift station collects wastewater from parcels east of the Live Oak Slough and pumps a short distance west of the slough into the existing gravity collection system.

1974:
A sewer lift station was installed at the intersection of P Street and Date Street (P Street Lift Station) with a 10-inch ductile iron force main installed from the lift station to the wastewater treatment plant to replace the existing outfall pipe. The existing outfall pipe had been identified as a major cause of I&I.

Between 1975 and 1976:
A study was completed which included performing smoke tests and a video survey of the collection system to identify defective areas requiring repairs.

1978:
A rehabilitation project was performed on the collection system to repair deficiencies found in the 1975/1976 study. The project included raising manholes and cleanouts, sealing manholes and leaking collector pipes, and repairing broken collector pipes.

1979:
A comminutor or grinder, used to reduce wastewater particle size, and emergency generator were installed at the P Street Lift Station.

Between 1985 and 1999:
Approximately 30,200 feet of VCP and PVC pipe was added to the collection system.

1986:
A study was completed which included performing smoke tests and a video survey of the collection system to identify defective areas requiring repairs. The study resulted in the City performing a rehabilitation project the same year that repaired defective service connections, cleanouts, collector pipes, and sealed the entire original collection system with chemical grout.

1987:
A lift station was installed on Ash Street (Ash Street Lift Station) and new force main pipes were installed from the Ash Street Lift Station and the P Street Lift

Station to the wastewater treatment plant. In addition, the P Street Lift Station comminutor was removed and the original pumps were replaced with ITT Flygt pumps.

1992:
A lift station was installed as part of the Peachtree Subdivision to service the new development (Peachtree Lift Station). A 10-inch force main was installed from the new lift station to an existing 10-inch force main on Treatment Plant Road.

Between 1999 and 2009:
Approximately 33,345 feet of mostly PVC pipe was added to the collection system.

2001:
The original sanitary sewer main on L Street from Archer Avenue to Ash Street and on Ash Street from the Ash Street Lift Station to L Street was replaced and redirected to flow south and west to the Ash Street Lift Station. The new sewer collector rerouted wastewater from K Street (south of Fir Street), a portion of Elm Street, Butte Court, Archer Avenue, a portion of L Street, Birch Street, Ash Street, Belle Street, Staci Drive, Leslie Court, and Anita Drive. This improvement diverted wastewater from existing collector pipes identified to have capacity issues.

At the P Street Lift Station the Parshall Flume was removed.

Additionally, portions of the 1952 collection system on Kola Street from Larkin Road to N Street and approximately 93 feet along N Street were replaced with PVC pipe. A new lift station was installed at the intersection of Kola Street and N Street (Kola Street Lift Station) and a 16-inch PVC force main was constructed to the wastewater treatment facility. These improvements diverted a significant amount of wastewater from the existing P Street and Ash Street Lift Stations and have improved capacity in the downstream gravity collection system.

2004:
A sewer lift station was installed at the intersection of Musgrave Avenue and Collier Avenue (Musgrave Lift Station) including a 6-inch PVC force main as part of the Pennington Ranch Unit No. 1 subdivision. This lift station is designed to serve all future phases of the Pennington Ranch development. The force main connects to the existing 16-inch force main near the treatment plant headworks.

2005:
As part of the Premier Meadows subdivision development, approximately 3,198 feet of 12-inch PVC pipe was installed on Larkin Road from Kola Street to the northern limit of the subdivision.

2011:
A sewer lift station was installed at the intersection of Pennington Road and Luther Road with a short 6-inch PVC force main pumping to the existing gravity collection

system at Pennington Road and Richard Avenue as part of the Garden Glen subdivision.

2011 to 2015:
Approximately 10,000 feet of PVC pipe was added to the collection system.


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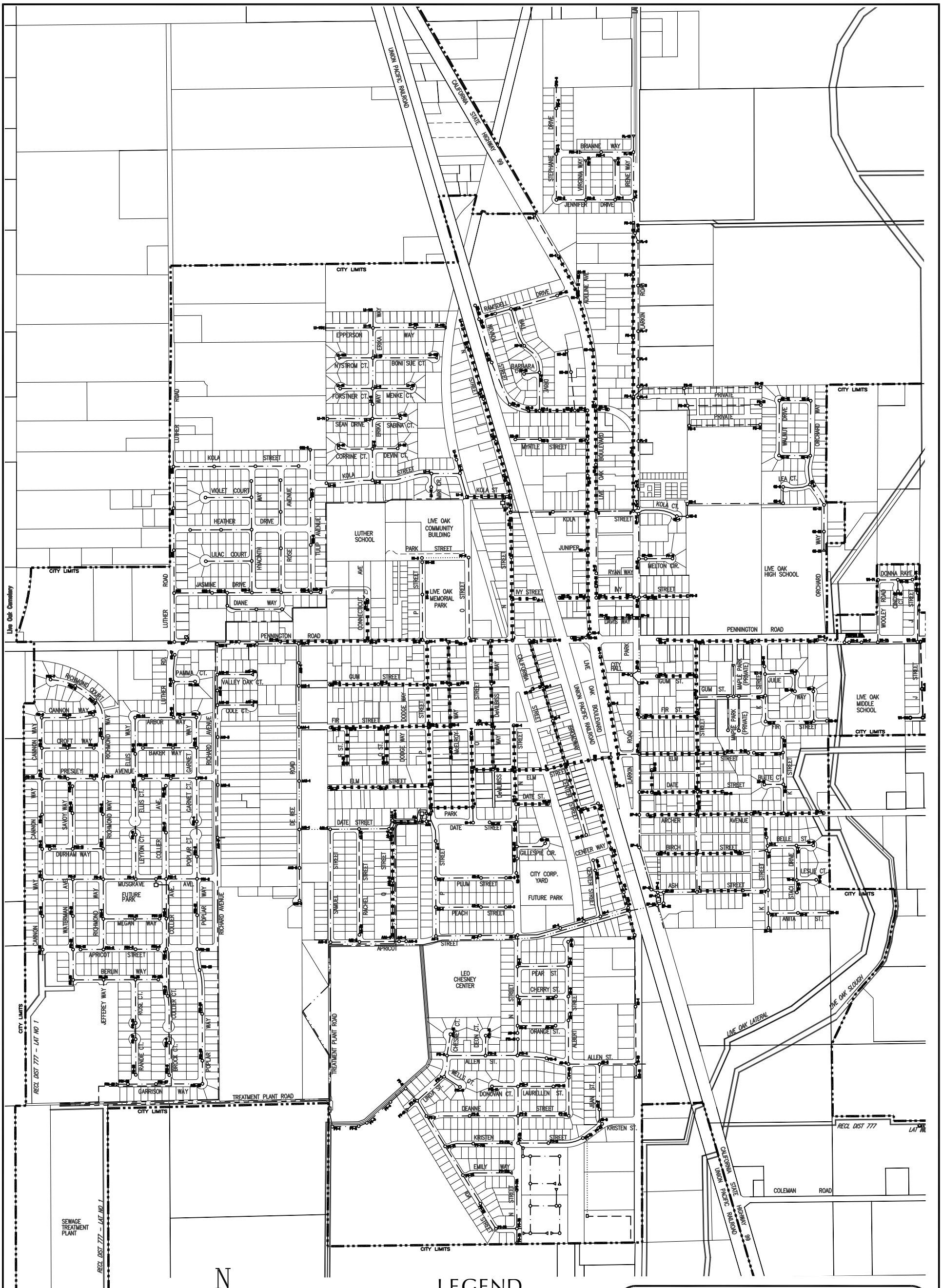

City of Live Oak

1952 SANITARY SEWER SYSTEM CURRENTLY IN OPERATION

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1" = 800'	FEBRUARY, 2017	CITY STAFF

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IV. Wastewater Treatment Plant Background

The wastewater treatment plant was originally built in 1952 and included a clarigester, holding pond, broad irrigation area, and chlorinator. The chlorinator was only used during peak flows when discharge from the plant was required. Since the original configuration the City has performed upgrades to the wastewater treatment plant. The major improvements since 1952 include:

1954:
The broad irrigation area was eliminated and ten percolation ponds were constructed.

Between 1967 and 1975:
The holding pond was converted to an aerated lagoon and a new chlorination system was built. In addition, the original collector outfall pipe was replaced by a force main during construction of the P Street Lift Station.

1979:
A renovation of the clarigester was performed, additional aerators were installed in the lagoon, a chlorination contact structure was added, and the existing ponds were reconstructed.

1987:
One of the oxidation ponds was modified to an aerated lagoon, five oxidation ponds were added, and size of the chlorine contact chamber was increased.

By 1999 the wastewater treatment plant included the original clarigester which was only used during dry weather due to capacity issues, two aeration lagoons, twelve oxidation ponds, a chlorine contact chamber, and a final detention and sedimentation basin with plant discharge into Reclamation District #777 Lateral Drain No. 1.

2002:
The original clarigester was abandoned and the associated sludge drying beds were filled, a new headworks with both mechanical and manual screens was constructed, the twelve oxidation ponds were reconfigured to seven ponds, aerators were added and some existing were replaced, a new chemical building was constructed and the treatment plant outfall was relocated. The treatment plant discharge remained in the Reclamation District #777 Lateral Drain No. 1.

2012:
In response to a cease and desist order for the treatment plant from the California Regional Water Quality Control Board, the City completed a major plant upgrade project.

The upgrades to the treatment plant included the addition or modification of the following items:

- Addition of biofiltration at the headworks.
- Retrofitting the headworks piping and weir gates.
- Addition of a primary effluent pump station.
- Converting Lagoon 1 to an equalization basin with a new submersible aspirating aerator and replacing the existing aerators with relocated floating brush aerators.
- Converting Lagoon 2 and Pond 2 to emergency storage basins with floating brush aerators.
- Addition of a dual train oxidation ditch with fine bubble air diffusion system and submersible mixers.
- Addition of two secondary clarifiers, return activated sludge and waste activated sludge pump station, three aeration blowers, and a scum pump station.
- Addition of a UV disinfection facility.
- Addition of drying beds and a sludge storage basin.
- Addition of a laboratory/administration building.
- Addition of a plant water pump station.
- Modification of the existing chemical storage and feeding facilities.
- Update of the existing electrical service and adding a new standby generator.
- Upgrade of the existing SCADA system.

1. GOAL

1.0 State WDRs

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.

1.1 Goal

In accordance with the requirements of Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs), the City of Live Oak 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 provide adequate capacity to convey peak flows.
- To minimize the frequency of Sanitary Sewer Overflows (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.

These goals are consistent with the provisions of the WDRs that require proper management, operation, and maintenance of the collection systems owned and controlled by the City and that require adequate capacity to convey base and peak flows. This Sanitary Sewer System Management Plan (SSMP) documents the City's plans and practices for meeting these goals.


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2. ORGANIZATION

2.0 State WDRs

Organization: The SSMP must identify:

(a) The name of the responsible or authorized representative as described in Section J of this Order (WDRs).

(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)).

2.1 Responsible and Authorized Representative

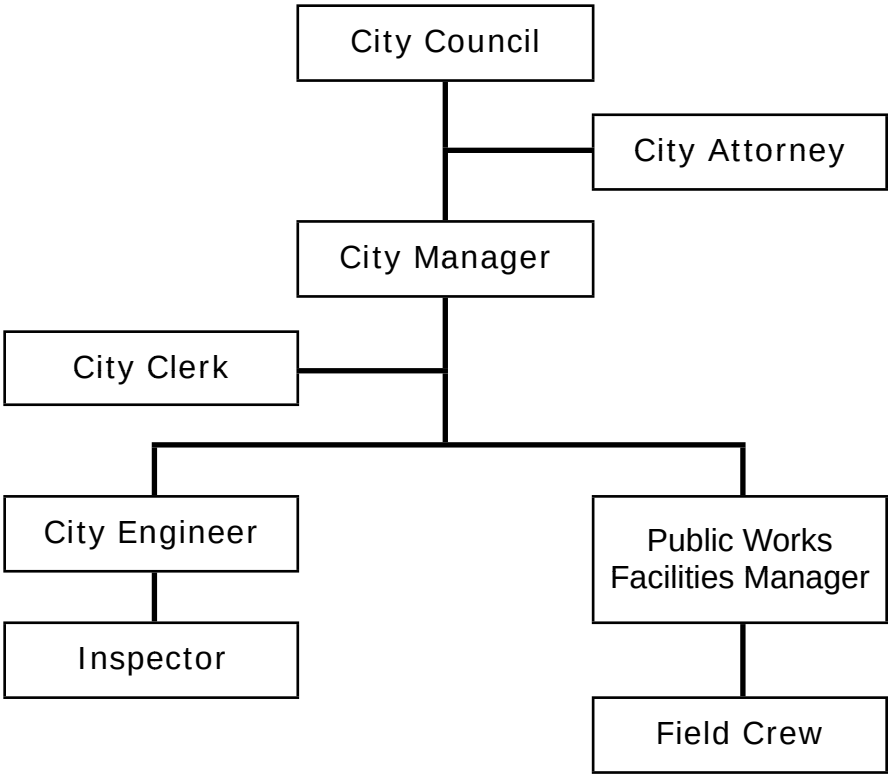
The City of Live Oak is governed by the five member City Council. The day to day operations are managed by the City Manager who serves as the City's Chief Executive. The Sanitary Sewer Collection System is operated by the Public Works Department with support from the City Engineer.

The authorized representative for certification of all reports and other information required by the WDRs is the City Manager, Mr. Jim Goodwin.

Mr. Jim Goodwin
City Manager
City of Live Oak
9955 Live Oak Boulevard
Live Oak, California 95953
(530) 695-2112
citymgr@liveoakcity.org

2.2 Organization Chart

Figure 2-1: Organization Chart



Responsibilities and contact information for key staff are listed below:

- City Manager – Jim Goodwin (530) 695-2112
  Plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as public information officer.
- City Engineer – Scott Rolls (530) 895-1422
  Prepares wastewater collection system planning documents, manages capital improvement delivery, documents new and rehabilitated assets, and coordinates development of SSMP.
- Public Works Facilities Manager – Ron Walker (530) 695-2112
  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.

2.3 Chain of Communication

Live Oak 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 Facilities Manager who is the designated emergency response coordinator. The Public Works Facilities Manager will investigate the situation and if an SSO has occurred will contact the City Manager and corrdinate any additional resources necessary for the response. The City Manager is the designated Authorized Representative and will report SSOs to the State and Regional Water Boards.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3. LEGAL AUTHORITY

3.0 State WDRs

Legal Authority: Per Section D.13 (iii) of the Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs), the City must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to do the following:

(a) Prevent illicit discharges into its sanitary sewer system (examples may include inflow/infiltration (I/I), stormwater, chemical dumping, unauthorized debris and 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.

3.1 Municipal Code

The Live Oak Municipal Code contains legal authorities available to the City. Various sections within Title 13 of the Municipal Code contain the legal authority required above by the State WDRs. The entire Live Oak Municipal Code is available to view at www.liveoakcity.org. Table 3-1 lists the specific sections of the Municipal Code that provide the legal authority required by the State WDRs.

TABLE 3-1: LEGAL AUTHORITY	
STATE REQUIRED LEGAL AUTHORITY (D.13.iii)	**LIVE OAK MUNICIPAL CODE SECTION**
Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and roots, etc) (D.13.iii.a)	13.24.030, 13.32.140, 13.32.365, 13.32.367, 13.32.370, 13.32.375, 13.32.380
Require that sewers and connections be properly designed and constructed (D.13.iii.b)	13.32.025, 13.32.115, 13.32.145, 13.32.195, 13.32.230, 13.32.255
Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency (D.13.iii.c)	13.32.035, 13.32.215, 13.32.250
Limit the discharge of fats, oils, and grease and other debris that may cause blockages (D.13.iii.d)	13.32.370, 13.32.375, 13.32.380, 13.32.385
Enforce any violation of its sewer ordinances (D.13.iii.e)	13.32.535, 13.32.540, 13.32.550, 13.32.560

4. OPERATION AND MAINTENANCE PROGRAM

4.0 State WDRs

Operation and Maintenance Program: Per Section D.13 (iv) of the Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs), the SSMP must include those elements listed below that are appropriate and applicable to the City'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.

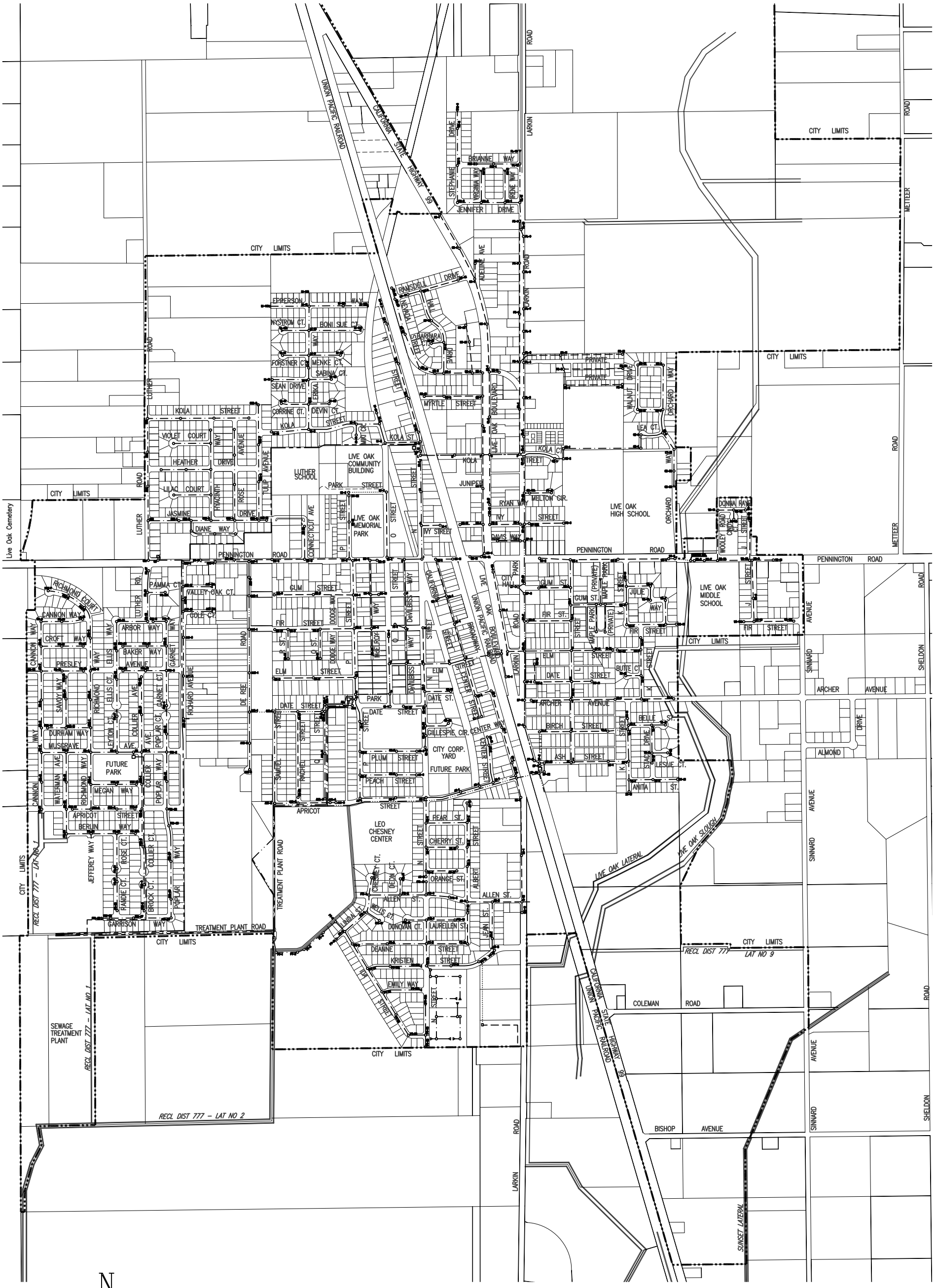
4.1 Sanitary Sewer and Storm Drain Maps

The City has an AutoCAD file with property lines, roads, and city owned underground utilities. From this AutoCAD file individual maps that show sanitary sewer and storm drainage facilities within the city limits are created. These maps are routinely updated as new projects are constructed and as existing conditions are found to differ. If an existing field condition does not match the map, a revision is noted and the maps are corrected by the City Engineer.

The maps are available to city staff and are used for planning, design, construction, and maintenance of sanitary sewer systems. The sanitary sewer map provides the approximate location of gravity and pressure pipes (size included), manholes (including an identification number), cleanouts (including an identification number), and lift stations. The storm drain map provides the approximate location of manholes, drop inlets, storm drain pipes (size included), ditches, pumping stations, force mains, and detention basins. The information provided on the sanitary sewer map is listed in Table 4-1. A copy of the sanitary sewer system map is shown in Figure 4-1.

TABLE 4-1: SANITARY SEWER MAP INFORMATION

SANITARY SEWER FACILITY TYPE	MAP INFORMATION
Manholes	Identification number, Approximate location
Pipes	Pipe size, Pressure pipes (force main) size
Miscellaneous	Pump stations, Sewer cleanouts, Sewer cleanout ID number City limit line, Streets, Parcels



N

W E

S

0' 500' 1000' 1500' 2000'

Graphic Scale

LEGEND

- CITY LIMITS
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- PUMPING STATION
- 4" PIPE
- 6" PIPE
- 8" PIPE
- 10" PIPE
- 12" PIPE
- 15" PIPE
- 16" PIPE

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SANITARY SEWER SYSTEM

SCALE	DATE	DRAWN BY
1" = 1000'	FEBRUARY, 2017	CITY STAFF

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4.2 Preventative Operation and Maintenance

The sanitary sewer system operated and maintained by the City serves a population of approximately 8,500 people within a 3.1 square mile service area. The system consists of approximately 25.6 miles of gravity sewers, 500 manholes, six pump stations, and 4.9 miles of sanitary sewer force mains. There are about 2,600 privately owned sewer laterals, approximately 27 miles, connecting to the city system.

The City performs regular maintenance of the sanitary sewer system according to an established maintenance schedule. The frequency of sewer system maintenance has been determined from historical records, site specific conditions, system inspections, and customer feedback. Currently, regularly scheduled sewer system maintenance consists of the following items:

- Flushing the gravity sewer system in areas of historically high maintenance or "hot spots" quarterly.
- Cleaning sanitary sewer lift stations and testing lift station generators quarterly.
- Inspecting the operation of sanitary sewer lift stations and gravity sewer system "hot spots" quarterly and scheduling additional maintenance as necessary.
- Flushing one "zone" of the gravity sewer system annually.

The City utilizes a Combination Sewer Truck to clean or "jet" the gravity sewer system with a degreasing head. Cleaning activities performed with the Combination Sewer Truck are documented and kept in hardcopy within the vehicle. The City also uses paper based work orders and maintenance records, kept in the City Corporation Yard office, to document cleaning the sewer system.

The City has delineated the gravity collection system into "zones" as shown on Figure 4-2. The zone layouts are intended to allow cleaning of the collection system upstream of a lift station. The City currently contains five zones. Each year one zone is cleaned allowing the entire collection system to be flushed every five years. The City may modify the zones as necessary as future development occurs.

Up to this point, root control has not been a significant issue for the sanitary sewer system. At this time the City does not have a regularly scheduled root control program and these activities are performed as required. If root

control becomes more of an issue in the future the City may add this work to their regular maintenance activities.

4.3 Rehabilitation and Replacement Plan

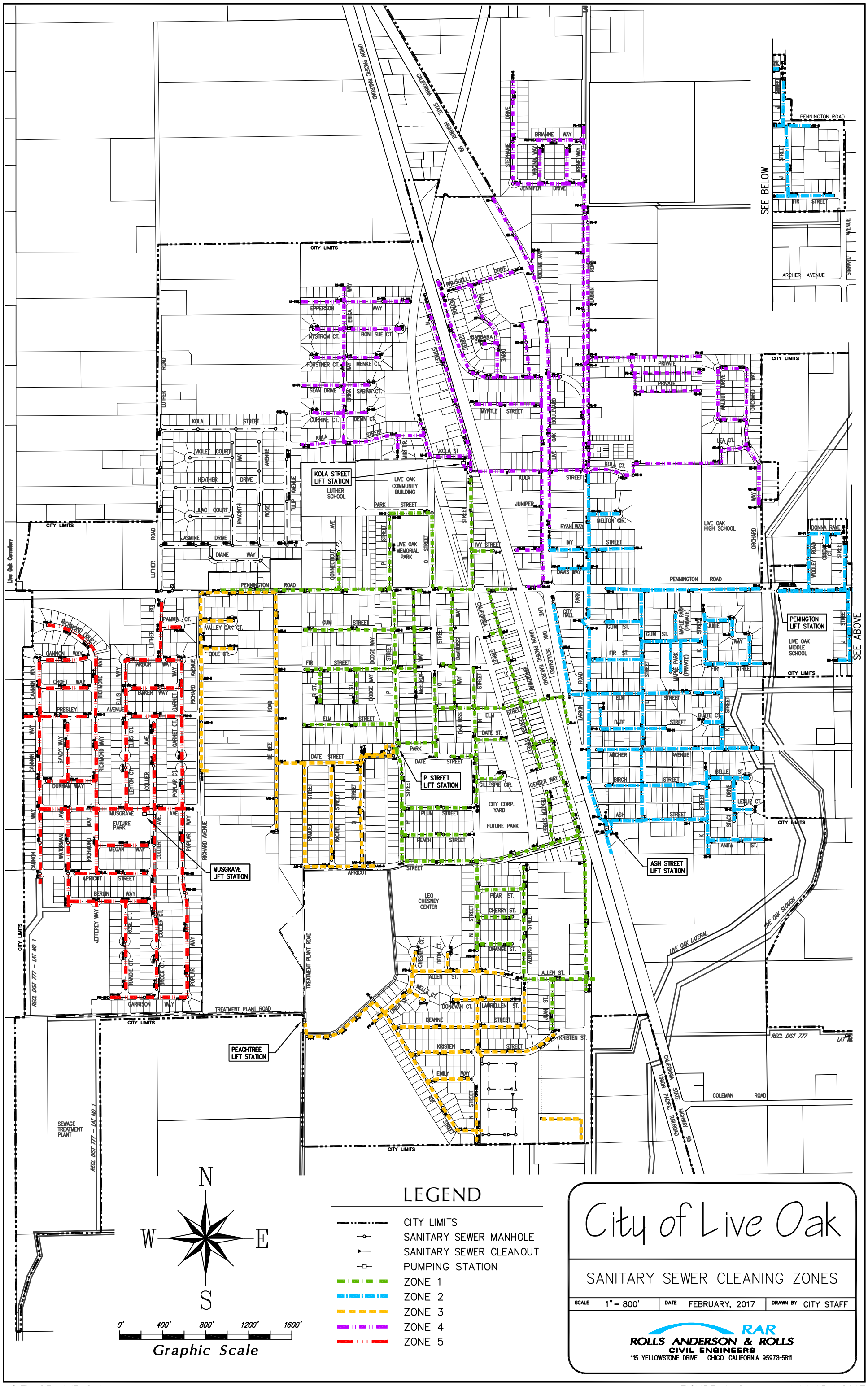
City staff and the City Engineer collaborate to determine potential rehabilitation or replacement projects for the sanitary sewer system. Engineering studies (Wastewater Master Plan, etc.) and records obtained from sanitary sewer overflows (SSOs), inspections, and maintenance work are reviewed when establishing potential projects. The priority of projects is determined by factors such as available funding and the overall benefit to the sewer system from the proposed improvement.

To date, the City has been proactive in identifying and replacing problem areas within the sanitary sewer system. The current Wastewater Collection System Master Plan, dated October 2009, provided the City with a study of the entire collection system. This study identified two recommended improvements to the collection system to be implemented with the addition of infill development that would impact the identified sections of the collection system. The recommended projects included:

- Upsize existing mains in Pear, N, Apricot and P Streets to 12-inches along a path from Albert and Pear Streets to the P Street Lift Station.
- Upsize existing mains in Kola and N Streets to 10-inches along a path from Kola and O Streets to the Kola Street Lift Station.

In 2002, the City completed upgrades to the wastewater treatment plant which incorporated many of the improvements recommended by the previous 1999 Wastewater Master Plan. Subsequently, the City received a new cease and desist order for the upgraded treatment plant. Construction of another larger treatment plant upgrade project was completed in 2012.

These recent major improvements to the sewer system have been funded largely by loans, and in the case of the most recent plant upgrade, partially by a federal grant. The City is currently carrying approximately $6.3 million worth of debt used to fund these projects. Short-term capital improvement projects will be limited due to this debt service. Long-term capital improvement projects will be based on the recommendations contained within the 2009 Wastewater Collection System Master Plan.



LEGEND

- CITY LIMITS
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- PUMPING STATION
- ZONE 1
- ZONE 2
- ZONE 3
- ZONE 4
- ZONE 5

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SANITARY SEWER CLEANING ZONES

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1" = 800'	FEBRUARY, 2017	CITY STAFF

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4.4 Staff Training

The City provides confined space and trench safety training on a regular basis and additionally as needed for specific projects. Hazardous material and emergency response training is provided to employees through weekly safety meetings. Technical training is provided by equipment manufacturers and through on-the-job training.

4.5 Equipment and Parts Inventory

The City maintains equipment and parts for regular operations, maintenance, and emergency repairs of the sewer system. Parts that are used during a project are tracked by work order receipt and the Public Works Facilities Manager is responsible for ordering additional parts.

The City has replacement pumps in stock for most of their lift station pumps. They also maintains a supply of common parts for all lift stations. The City also has retained electrical contractors and a generator company that can be used during emergency situations, if necessary.

In the event that a part is not available during an emergency situation, the City can generally acquire common parts from the neighboring jurisdictions of Yuba City and Gridley or through a local vendor.

5. DESIGN AND PERFORMANCE PROVISIONS

5.0 State WDRs

Section D.13 (v) of the Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs) requires the SSMP to identify the following:

(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;

5.1 Standards and Specifications

The City publishes and periodically updates their Public Works Improvement Standards (City Standards) for use in design and construction of public works facilities. The current version of the City Standards is dated October 2015. The City Standards can be viewed at www.liveoakcity.org.

Within the City Standards, the sections that apply to sanitary sewers include Design Criteria, Standard Details, and Technical Specifications. Each of these sections provides guidance for planners, engineers, inspectors, and construction personnel when designing and constructing gravity sewers. The Standard Details that apply to sanitary sewer construction are listed in Table 5-1 and contained in Appendix C of the City Standards. The Technical Specifications for materials and construction methods are contained in Appendix D of the City Standards.

Table 5-1: Sanitary Sewer Standard Details

Standard Detail No.	Description
101	Backfill & Trench Restoration
103	Sewer Lateral Crossing
501	Sanitary Sewer Cleanout
502	Sanitary Sewer Service & Connection
503	Sanitary Sewer City Access Control
504	Sanitary Sewer Standard and Shallow Manhole
505	Sanitary Sewer Inside Drop Manhole
506	Sanitary Sewer Outside Drop Manhole
507	Sanitary Sewer Manhole Frame & Cover

5.2 Inspection and Testing

All construction and maintenance of sanitary sewer facilities within the city right-of-way requires inspection and testing to be performed. Inspection activities and testing observations are conducted by either 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. Detailed information regarding inspection and testing, including requirements for watertightness, exfiltration, infiltration, and pipe deflection, are included in the City Standards.

6. OVERFLOW EMERGENCY RESPONSE PLAN

6.0 State WDRs

Overflow Emergency Response Plan: Per Section D.13 (vi) of the Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs), the City shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, the plan must include the following items:

(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 Monitoring and Reporting Program (MRP). All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;

(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.

6.1 Notification

The City can be notified of SSOs by staff or by the public. Staff directs information through City Hall, the Public Works Facilities Manager, or an appropriate member of the Field Crew. The public can inform the City of SSOs by contacting City Hall or the Public Works Department during business hours or the Sutter County Fire or Sheriff Departments at any time.

6.2 Overflow Response

A Sanitary Sewer Overflow and Backup Response Plan (SSOBRP) has been prepared for the City which provides detailed information regarding response to sewer system backups and overflows. A copy of the SSOBRP has been included in the Appendix of this report. The City procedures outlined within the SSOBRP are designed to protect public health and safety, meet all regulatory reporting requirements, and ensure immediate and effective response to SSOs.

6.3 Regulatory Agency Notification

The Regulatory Notification section of the SSOBRP contains detailed information regarding regulatory reporting. Information about whom at the City is allowed to perform reporting and which regulatory agencies must be contacted is provided. Additionally, the time allowed to the City to contact each agency is explained. See the attached SSOBRP in the Appendix for additional information.

6.4 Emergency Response Plan Training

The Sanitary Sewer Overflow and Backup Response Plan (SSOBRP) contains explanations regarding the appropriate response for sanitary sewer backups and sanitary sewer overflows. The SSOBRP has been distributed to the appropriate city departments for reference. The Public Works Supervisor keeps the Field Crew informed of the SSOBRP with continued training through weekly safety meetings.

6.5 Emergency Operations Procedures

The City refers to the SSOBRP for guidance during emergency operations. The sections contained within the SSOBRP include: Response Plan, Field

Guide, Regulatory Notifications, Sewer Backup, Sewer Overflow, and Miscellaneous. Within these sections detailed information is provided regarding timely reporting to regulatory agencies, methods for estimating SSO volume, and flowcharts to assist in SSO containment and cleanup.

Appropriate staff is available to respond to SSOs at any time. During non-business hours SSOs can be reported through the Sutter County Fire or Sheriff Departments. In emergency situations the City is able to utilize on-call contractors for assistance.

6.6 Discharge of Wastewater

The intention of the City is to protect both the environment and public health and safety through implementing all Federal and State laws, standards, and orders applicable to untreated and partially treated wastewater. The ongoing preventative maintenance and rehabilitation program performed by the City is meant to keep the sewer system in good operating condition and control or prevent discharge of wastewater to waters of the United States.

The City SSOBRP provides guidance on containing SSOs and minimizing or preventing overflows into waters of the United States. Each SSO is investigated by the City to determine the cause and to determine if additional maintenance or repairs to the system are necessary to reduce future overflows.

7. FOG CONTROL PROGRAM

7.0 State WDRs

Fog Control Program: Per Section D.13 (vii) of the Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs), the City shall evaluate its service area to determine whether a FOG control program is needed. If a FOG program is not needed, the City must provide justification for why it is not needed. If FOG is found to be a problem, the City must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. The 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.

7.1 Public Outreach

Public outreach documents for both residential and commercial customers have been included in the Appendix of this report. These documents, or modified versions, may be used by the City to communicate with the public about FOG issues. In addition, the Sanitary Sewer Overflow and Backup Response Plan, located in the Appendix of this report, contains an informational sheet that may be given to residents when a sewage blockage is discovered near their property and a Sewer Spill Reference Guide.

The entire SSMP is available to the public on the City of Live Oak website: www.liveoakcity.org. In addition, the City is currently developing mobile phone application to supplement the website. The City can use this application as a means to communicate with the public about FOG and SSMP issues as needed.

7.2 FOG Disposal

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 13.32.385 of the City Municipal Code requires that all FOG control devices be properly maintained by the owner and states that the owner is responsible for the proper removal and disposal by appropriate means of the captured material and shall maintain records of the dates, and means of disposal.

7.3 Legal Authority

Table 3-1 located in Section 3 of this report lists the City Municipal Code Sections that provide the required legal authority to prohibit FOG discharges

into the sewer system and identify measures to prevent SSOs and blockages caused by FOG.

7.4 Grease Removal Devices

Section 13.32.385 of the City Municipal Code provides requirements for the design, installation, maintenance, disposal of waste, and record keeping of grease removal devices. Per the Municipal Code, grease removal devices shall be provided at facilities, excluding private living quarters or dwelling units, when they are determined to be necessary for the proper handling of liquid wastes containing floatable grease in excessive amounts.

7.5 Inspection Authority

The Municipal Code provides the City authority to inspect and enforce non-residential grease producing facilities. Refer to Table 3-1 for a summary of the legal authorities allowed to the City. Currently, the City has adequate staff to perform inspections and enforce FOG requirements for grease producing facilities.

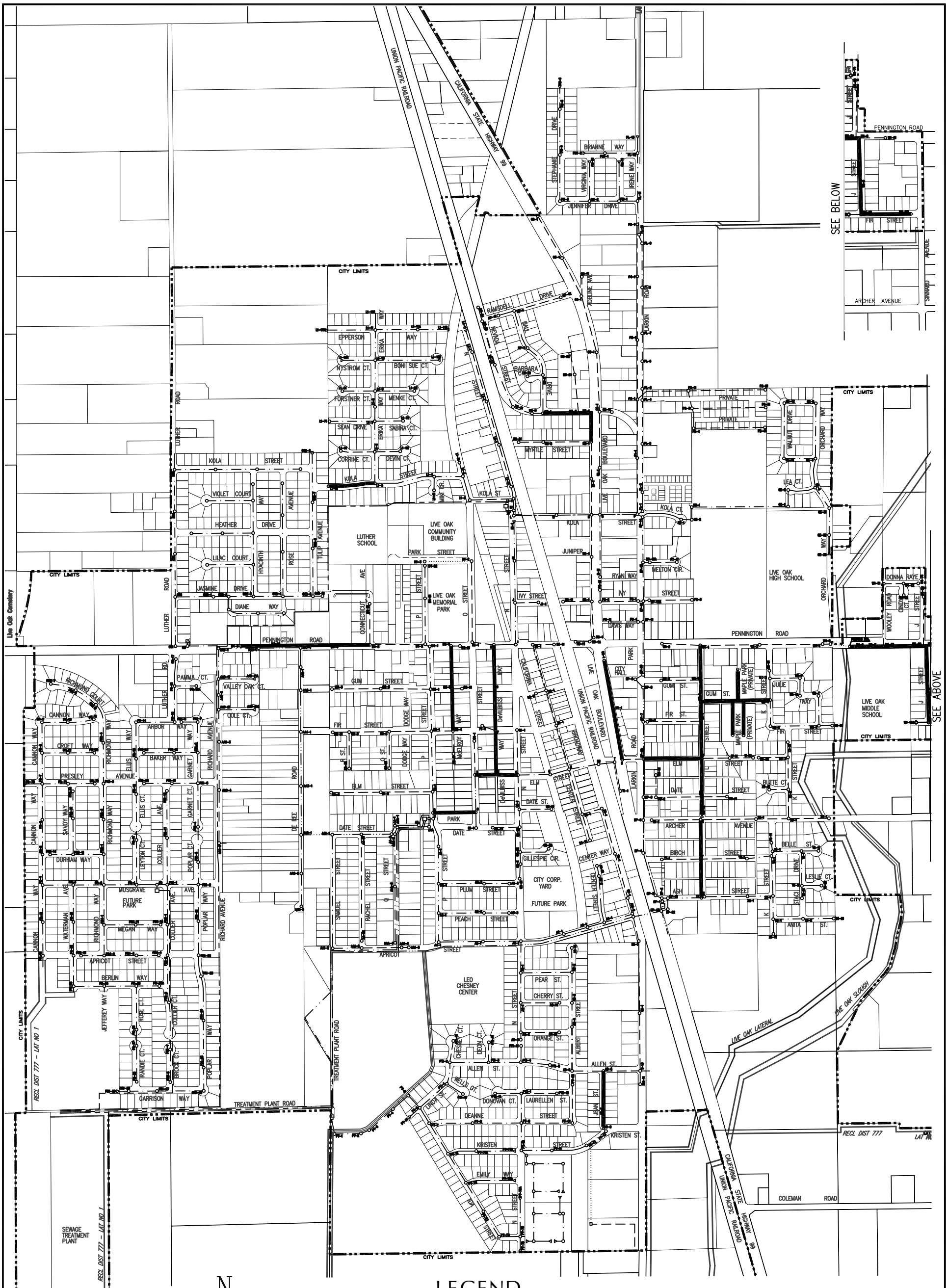
7.6 FOG Blockages

The areas with a history of FOG blockages are monitored by the City on a weekly basis and are cleaned at least quarterly. Additional cleaning is performed if the weekly inspections reveal any potential blockages due to FOG. City maintenance for the sewer system is tracked by work orders that are kept by the Public Works Supervisor. Table 7-1 lists the current FOG hotspots monitored and maintained by the City. The locations of current FOG hotspots are shown on Figure 7-1.

TABLE 7-1: FOG HOTSPOT LOCATIONS

LOCATION	FROM	TO
DeVilbiss Way	Pennington Road	Elm Street
Elm Street	O Street	N Street
Elm Street	State Route 99	L Street
Fir Street	J Street	Sinnard Avenue

LOCATION	FROM	TO
Gum Street	L Street	K Street
J Street	Pennington Road	Fir Street
Jean Street	Allen Street	Kristen Street
Kola Street	Erika Way	Tulip Way
L Street	Pennington Road	Ash Street
McElroy Way	Pennington Road	Fir Street
Nevada Street	Hall Drive	State Route 99
P Street	Lift Station	O Street
Pennington Road	Middle School	J Street
Pennington Road	Richard Avenue	Connecticut Avenue
State Route 99	Pennington Road	Elm Street
State Route 99	Myrtle Street	Nevada Street



City of Live Oak

FOG HOTSPOT LOCATIONS

SCALE	DATE	DRAWN BY
1" = 800'	FEBRUARY, 2017	CITY STAFF

RAR
ROLLS ANDERSON & ROLLS
CIVIL ENGINEERS
115 YELLOWSTONE DRIVE CHICO CALIFORNIA 95973-5811

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7.7 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 maintenance of grease removal devices. If a portion of the sewer system is having reoccurring FOG problems the installation of a grease removal device can be required, excluding private living quarters or dwelling units, per Section 13.32.385 of the City Municipal Code. Control of FOG blockages within residential areas can be accomplished using the public outreach described in Section 7.1.


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8. SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

8.0 State WDRs

System Evaluation and Capacity Assurance Plan: Per Section D.13 (viii) of the Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs), the City 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 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 City 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.

8.1 Hydraulic Evaluation of System

Historically, the City has been proactive in assessing and correcting sections of the collection system with capacity issues. Past SSOs typically are from FOG blockages and not due to insufficient hydraulic capacity of the collection system. However, the City has completed studies to review the hydraulic capacity of the wastewater system.

The current Wastewater Collection System Master Plan, dated October 2009, provided the City with a study of the entire collection system. This study identified two recommended improvements to the collection system to be implemented with the addition of infill development that would impact the identified sections of the collection system. The recommended projects included:

- Upsize existing mains in Pear, N, Apricot and P Streets to 12-inches along a path from Albert and Pear Streets to the P Street Lift Station.
- Upsize existing mains in Kola and N Streets to 10-inches along a path from Kola and O Streets to the Kola Street Lift Station.

The Wastewater Collection System Master Plan analyzes the collection system capacity under current conditions and with projected future city growth. Recommendations for future collection system improvements will be incorporated as long-term capital improvement projects, primarily funded by new development. The study did not identify any existing capacity issues that cause SSOs.

8.2 Design Criteria

The City design criteria for sanitary sewers are contained within the Public Works Improvement Standards dated October 2015. Information regarding pipe material, minimum velocity, pipe cover, and minimum size is provided for collectors. In addition, criteria are provided for the layout of manholes and cleanouts and for calculating residential wastewater flow. Wastewater flow for commercial and industrial development is determined by the City on an individual project basis.

8.3 Capacity Enhancement Measures

The City utilizes engineering studies, SSO records, inspection data, and maintenance history to establish a capital improvement plan (CIP) for the sanitary sewer system. Periodically city staff and the City Engineer discuss and revise the CIP as the needs of the collection system change.

The 2009 Wastewater Collection System Master Plan does not currently identify any capacity issues within the existing City collection system requiring capacity enhancement CIP projects.

8.4 Schedule

As mentioned above, the 2009 Wastewater Collection System Master Plan does not identify any capacity issues within the existing City collection system requiring capacity enhancement CIP projects. As discussed in Section 4.3, the City is currently carrying approximately $6.5 million worth of debt used to fund recent improvements to the sanitary sewer system. Short-term capital improvement projects will be limited due to this debt service.

Per the State WDRs, the CIP project schedule will be reviewed and updated by the City a minimum of every five years.

9. MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

9.0 State WDRs

Monitoring, measurement, and program modifications: Per Section D.13 (ix) of the Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs), the City shall:

(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;

(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;

(c) Assess the success of the preventative maintenance program;

(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and

(e) Identify and illustrate SSO trends, including: frequency, location, and volume.

9.1 SSMP Records

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

The records monitored by the Public Works Facilities Manager include inventories 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 the California Integrated Water Quality System Project (CIWQS). The CIWQS data is available for review at the City Corporation Yard office.

9.2 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 Facilities

Manager 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.

9.3 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 Facilities Manager shall be involved in this process to provide practical guidance for any proposed changes to the preventative maintenance program.

9.4 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 Facilities Manager, and the City Engineer will be responsible for deciding if a revision is appropriate and for performing any edits on the SSMP. Per the SSMP re-certification requirements, any significant changes to the SSMP must be approved by the City Council.

9.5 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.


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10. SSMP PROGRAM AUDITS

10.0 State WDRs

SSMP Program Audits: Per Section D.13 (x) of the Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs), the City shall conduct periodic internal audits, appropriate to the size of the system and number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the City's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

10.1 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 Facilities Manager, 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 re-certification 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.

10.2 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.


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11. COMMUNICATION PROGRAM

11.0 State WDRs

Communication Program: Per Section D.13 (xi) of the Statewide General Waste Discharge Requirements Order No. 2006-0003-DWQ (State WDRs), the City shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the City as the program is developed and implemented.

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

11.1 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.liveoakcity.org. Council meetings are held on the first and third Wednesday of each month.

The City reports all SSOs electronically to the California Integrated Water Quality System (CIWQS). The public can access the "Sanitary Sewer Overflows (SSOs) Reports" section of the State Water Resources Control Boards website at:
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.

As discussed in Section 7.1, the City is developing a mobile application to compliment the city's web presence. The City can use this application as a means to communicate with the public about SSMP issues as needed.

11.2 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

Task and Associated Section	**Completion Date**			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Application for Permit Coverage ***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 30days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the “Collection System Questionnaire”, which collects pertinent information regarding a Enrollee’s collection system. The “Collection System Questionnaire” must be updated at least every 12 months.

4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

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

H. CHANGE IN OWNERSHIP

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

I. INCOMPLETE REPORTS

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

J. REPORT DECLARATION

1. All applications, reports, or information shall be signed and certified as follows:

    (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)

    (ii) An individual is a duly authorized representative only if:

        (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and

        (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.

2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

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

L. SEVERABILITY

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

CERTIFICATION

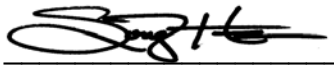
The undersigned Clerk to the State Water Board does hereby certify that the foregoing is a full, true, and correct copy of general WDRs duly and regularly adopted at a meeting of the State Water Resources Control Board held on May 2, 2006.

AYE: Tam M. Doduc
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None



Song Her
Clerk to the Board

STATE WATER RESOURCES CONTROL BOARD

MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

A. SANITARY SEWER OVERFLOW REPORTING

SSO Categories

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
   A. Equal or exceed 1000 gallons, or
   B. Result in a discharge to a drainage channel and/or surface water; or
   C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.

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

SSO Reporting Timeframes

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

   The above reporting requirements do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local

County Health Officers, local Director of Environmental Health, Regional Water Boards, or Office of Emergency Services (OES)) or State law.

5. Category 2 SSOs – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).

6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Enrollee) should be identified, if known.

7. If there are no SSOs during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.

8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

Mandatory Information to be Included in SSO Online Reporting

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

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

9. Category 2 SSOs:

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

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

10. Private Lateral Sewage Discharges:

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

11. Category 1 SSOs:

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

Reporting to Other Regulatory Agencies

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

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

Office of Emergency Services
Phone (800) 852-7550

2. The Enrollee shall report SSOs to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.

3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the appropriate Regional Water Board.

B. Record Keeping

1. Individual SSO records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer.

3. All records shall be made available for review upon State or Regional Water Board staff's request.

4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;

5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:

   a. Record of Certified report, as submitted to the online SSO database;
   b. All original recordings for continuous monitoring instrumentation;
   c. Service call records and complaint logs of calls received by the Enrollee;
   d. SSO calls;
   e. SSO records;
   f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
   g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
   h. A list and description of complaints from customers or others from the previous 5 years; and
   i. Documentation of performance and implementation measures for the previous 5 years.

6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:

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

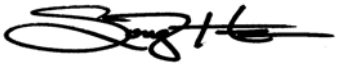
C. Certification

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

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

CERTIFICATION

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



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 information[2] to local government agencies and first responders including local public health officials and the applicable Regional Water Board. Receipt of notifications for a single SSO event from both the SSO reporter

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[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/malhaz.nsf/$defaultview and http://w3.calema.ca.gov/operational/malhaz.nsf

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

8. In the February 28, 2008 Memorandum of Agreement between the State Water Board and the California Water and Environment Association (CWEA), the State Water Board committed to re-designing the CIWQS[3] Online SSO Database to allow "event" based SSO reporting versus the original "location" based reporting. Revisions to this MRP and accompanying changes to the CIWQS Online SSO Database will implement this change by allowing for multiple SSO appearance points to be associated with each SSO event caused by a single asset failure.

9. Based on stakeholder input and Water Board staff experience implementing the SSO Reduction Program, SSO categories have been revised in this MRP. In the prior version of the MRP, SSOs have been categorized as Category 1 or Category 2. This MRP implements changes to SSO categories by adding a Category 3 SSO type. This change will improve data management to further assist Water Board staff with evaluation of high threat and low threat SSOs by placing them in unique categories (i.e., Category 1 and Category 3, respectively). This change will also assist enrollees in identifying SSOs that require Cal OES notification.

10. Based on over six years of implementation of the SSS WDRs, the State Water Board concludes that the February 20, 2008 MRP must be updated to better advance the SSO Reduction Program[4] 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/sso/

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 **any volume** resulting from an enrollee's sanitary sewer system failure or flow condition that: • Reach surface water and/or reach a drainage channel tributary to a surface water; or • Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
CATEGORY 2	Discharges of untreated or partially treated wastewater of **1,000 gallons or greater** resulting from an enrollee's sanitary sewer system failure or flow condition that **do not** 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 **within a privately owned sewer lateral** connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be voluntarily 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)**	• Within two hours of becoming aware of any Category 1 SSO **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**, 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)**	• 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)**	• Conduct water quality sampling **within 48 hours** 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)**	• 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.

7/30/13
Date

Jeanine Townsend
Clerk to the Board

APPENDIX C

SANITARY SEWER OVERFLOW AND BACKUP RESPONSE PLAN

City of Live Oak

Overflow Emergency Response Plan

Effective Date: _____

Revised Date: _____

Approved by: _____

Signature: _____

Date: _____

Prepared by David Patzer, DKF Solutions Group
(707) 373-9709 dpatzer@dkfsolutions.com

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(ref. SWRCB Order No. 2006-0003-DWQ Element VI)

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Appendix D: Contractor Orientation

Sanitary Sewer Overflow Emergency Response Plan

(ref. SWRCB Order No. 2006-0003-DWQ Element VI)

1. Purpose

The purpose of the City of Live Oak's Overflow Emergency Response Plan (OERP) is to support an orderly and effective response to Sanitary Sewer Overflows (SSOs). The OERP provides guidelines for City personnel to follow in responding to, cleaning up, and reporting SSOs that may occur within the City's service area. This OERP satisfies the SWRCB Statewide General Waste Discharge Requirements (GWDR), which require wastewater collection agencies to have an Overflow Emergency Response Plan.

2. Policy

The City's employees are required to report all wastewater overflows found and to take the appropriate action to secure the wastewater overflow area, properly report to the appropriate regulatory agencies, relieve the cause of the overflow, and ensure that the affected area is cleaned as soon as possible to minimize health hazards to the public and protect the environment. The City's goal is to respond to sewer system overflows as soon as possible following notification. The City will follow reporting procedures in regards to sewer spills as set forth by the Central Valley *Regional Water Quality Control Board (CVRWQCB)* and the California State Water Resources Control Board (*SWRCB)***.**

3. Definitions As Used In This OERP

CALIFORNIA INTEGRATED WATER QUALITY SYSTEM (CIWQS): Refers to the State Water Resources Control Board online electronic reporting system that is used to report SSOs, certify completion of the SSMP, and provide information on the sanitary sewer system.

FROG – Fats, Roots, Oils, and Grease: FOG refers to fats, oils, and grease typically associated with food preparation and cooking activities that can cause blockages in the sanitary sewer system. Tree root invasion (R) presents an additional problem. If a mat of root hair forms in the sewer line it slows the flow of wastewater and exacerbates the rate of accumulation of FOG materials.

LEGALLY RESPONSIBLE OFFICIAL (LRO): Refers to an individual who has the authority to certify reports and other actions that are submitted through CIWQS.

MAINLINE SEWER: Refers to City wastewater collection system piping that is not a private lateral connection to a user.

MAINTENANCE HOLE OR MANHOLE: Refers to an engineered structure that is intended to provide access to a sanitary sewer for maintenance and inspection.

NOTIFICATION OF AN SSO: Refers to the time at which the City becomes aware of an SSO event through observation or notification by the public or other source.

NUISANCE - California Water Code section 13050, subdivision (m), defines nuisance as anything that 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.

PREVENTATIVE MAINTENANCE: Refers to maintenance activities intended to prevent failures of the wastewater collection system facilities (e.g. cleaning, CCTV, inspection).

PRIVATE LATERAL SEWAGE DISCHARGES – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

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

SANITARY SEWER 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.

SSOs that include multiple appearance points resulting from a single cause will be considered one SSO for documentation and reporting purposes in CIWQS.

NOTE: Wastewater backups into buildings caused by a blockage or other malfunction of a building lateral that is privately owned are not SSOs.

SSO Categories:

Category 1: Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either:

- Reaches surface water and/or drainage channel tributary to a surface water; or
- Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured and disposed of properly.

Category 2: Discharge of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a sanitary sewer system failure or flow condition that either:

- Does not reach surface water, a drainage channel, or an MS4, or
- The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.

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

SANITARY SEWER SYSTEM: Any publicly-owned 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.

SENSITIVE AREA: Refers to areas where an SSO could result in a fish kill or pose an imminent or substantial danger to human health (e.g. parks, aquatic habitats, etc.)

SEWER SERVICE LATERAL: Refers to the piping that conveys sewage from the building to the City's wastewater collection system.

UNTREATED OR PARTIALLY TREATED WASTEWATER: Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

WATERS OF THE STATE*:* Waters of the State (or waters of the United States) means any surface water, including saline waters, within the boundaries of California. In case of a sewage spill, storm drains are considered to be waters of the State unless the sewage is completely contained and returned to the wastewater collection system and that portion of the storm drain is cleaned.

4. State Regulatory Requirements for Element 6, Overflow Emergency Response Plan

General Waste Discharge Requirement (GWDR)
The collection system agency shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
(b) A program to ensure 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 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 Waste Discharge Requirements or National Pollutant Discharge Elimination System (NPDES) permit requirements. The Sewer System Management Plan 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 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.

The Sewer System Management Plan and critical supporting documents are available to the public on the City's website at the following address: http://www.liveoakcity.org/images/stories/SSMP-fullreport-040110-reduced.pdf.

5. Goals

The City's goals with respect to responding to SSOs are:

- Work safely;
- Respond quickly to minimize the volume of the SSO;

- Eliminate the cause of the SSO;
- Prevent sewage system overflows or leaks from entering the storm drain system or receiving waters to the maximum extent practicable;
- Contain the spilled wastewater to the extent feasible;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the SSO;
- Meet the regulatory reporting requirements;
- Evaluate the causes of failure related to certain SSOs; and
- Revise response procedures resulting from the debrief and failure analysis of certain SSOs.

6. SSO Detection and Notification

ref. SWRCB Order No. 2006-0003-DWQ VI(a)

The processes that are employed to notify the City of the occurrence of an SSO include: observation by the public, receipt of an alarm, or observation by City staff during the normal course of their work.

The City's lift station wet wells are equipped with level sensors or floats which turn the pumps off and on. If the level is too high or low a signal is sent via a radio link to the wastewater treatment plant SCADA system which is programmed to contact an on-call operator. Upon being contacted the on-call operator drives to the wastewater treatment plant to confirm the alarm and then will address the situation as needed.

6.1 PUBLIC OBSERVATION

Public observation is the most common way that the City is notified of blockages and spills. Contact numbers and information for reporting sewer spills and backups are in the phone book and on the City's website: www.liveoakcity.org. **The City's telephone number for reporting sewer problems is (530) 695-2112 during business hours, and (530) 822-7307 after hours.**

Normal Work Hours
When a report of a sewer spill or backup is made during normal work hours, City Hall administrative staff receives the call and notifies Public Works. Public Works Staff will respond and assess the service call complaint.

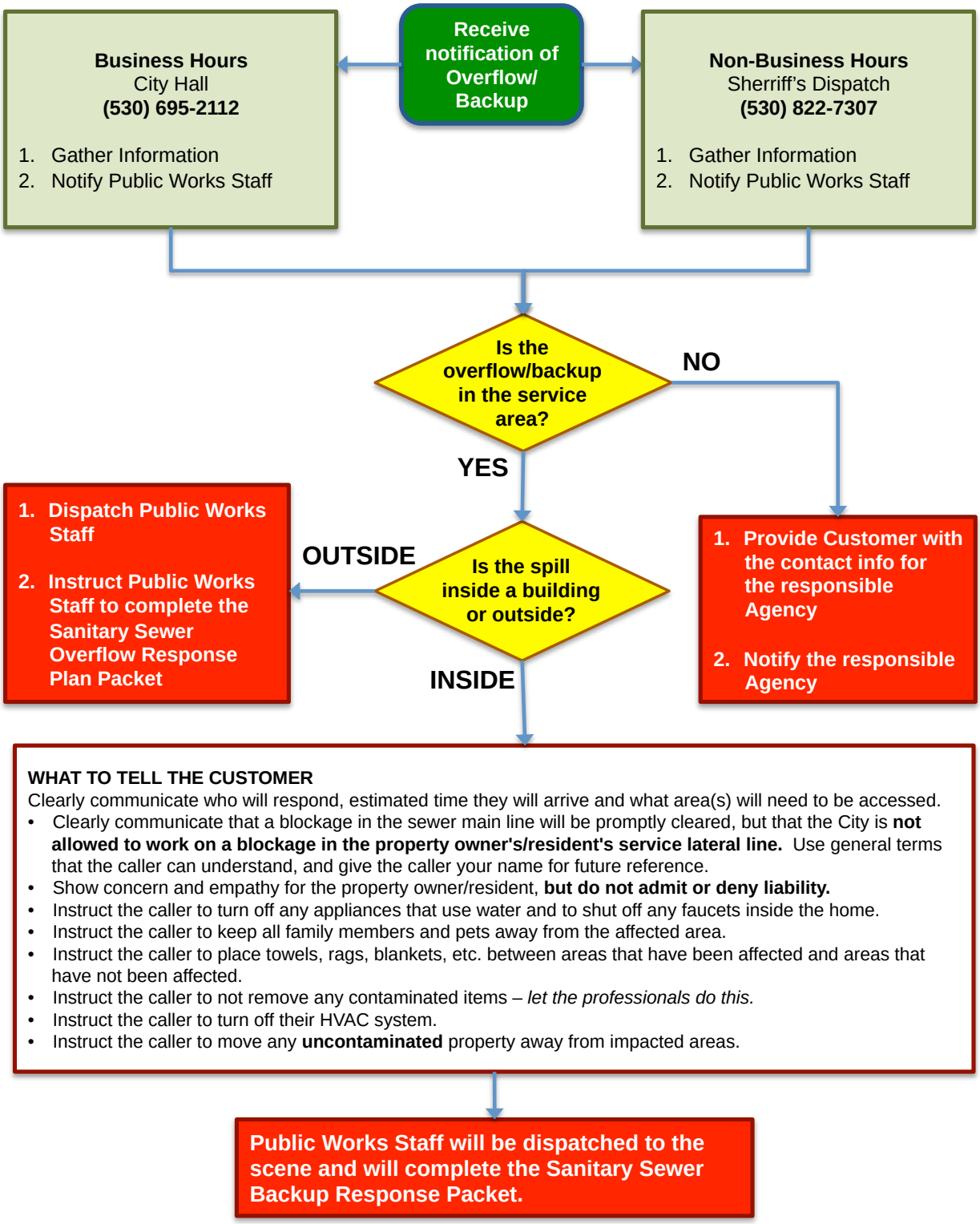
After Hours
When a report of a sewer spill or backup is made after hours, the Sherriff's dispatch receives the call and notifies Public Works. Public Works Staff will respond and assess the service call complaint.

When calls are received, either during normal work hours or after hours, the individual receiving the call will collect the following information:

- Time and date of call
- Specific location of potential overflow or incident
- Nature of call
- In case of SSO, estimated start time of overflow and how long it has been occurring
- Caller's name, telephone number and address
- Caller's observations (e.g., odor, duration, location on property, known impacts, indication if surface water impacted, appearance at cleanout or manhole)
- Other relevant information

The following Fig. 6.1 is an overview of receiving a sewage overflow or backup report *(see next page):*

Fig. 6.1 Overview of Receiving a Sewage Overflow or Backup Report Procedure



6.2 CITY STAFF OBSERVATION

City staff conducts periodic inspections of its sewer system facilities as part of their routine activities. Any problems noted with the sewer system facilities are reported to appropriate City staff that, in turn, responds to emergency situations. Work orders are issued to correct non-emergency conditions.

6.3 CONTRACTOR OBSERVATION

The following procedures are to be followed in the event that a contractor causes or witnesses a Sanitary Sewer Overflow. If the contractor causes or witnesses an SSO they should:

1. Immediately notify the City by calling (530) 695-2112 during business hours or (530) 822-7307 after hours
2. Protect storm drains
3. Protect the public
4. Provide Information to the City Public Works Staff such as start time, appearance point(s), suspected cause, weather conditions, etc.
5. Direct ALL media and public relations requests to the City Manager at (530) 695-2112.

Appendix D includes a handout for Contractors with a flowchart of the above procedures.

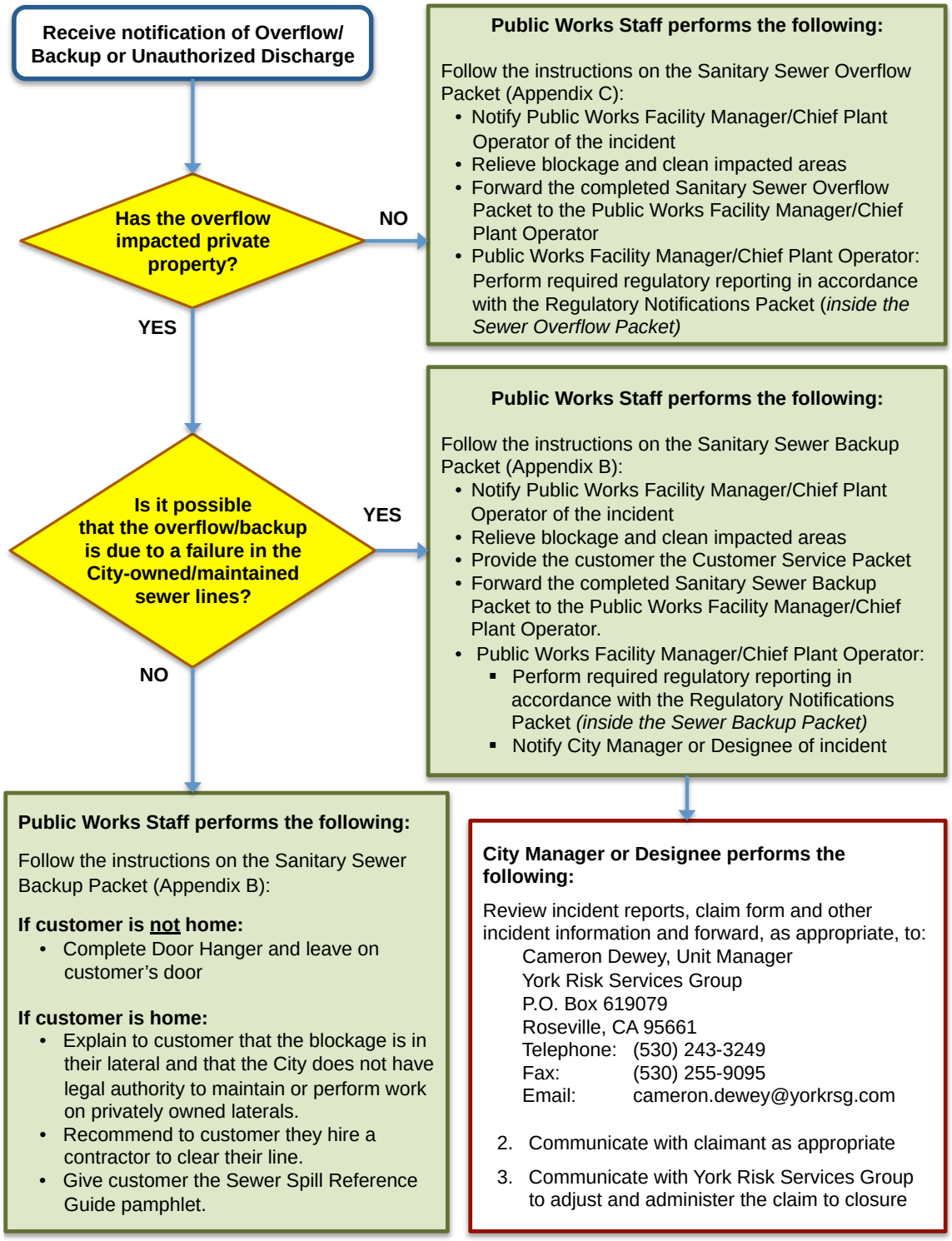
7. SSO Response Procedures

ref. SWRCB Order No. 2006-0003-DWQ Element 6(b)

7.1 Sewer Overflow/Backup Response Summary

The City will respond to SSOs as soon as feasible following notification of an overflow/backup or unauthorized discharge. The following (Figure 7.1) is an overview of the response activities.

Figure 7.1 Overview of SSO/Backup Response



7.2 First Responder Priorities

The first responder's priorities are:

- To follow safe work practices.
- To respond promptly with the appropriate and necessary equipment.
- To contain the spill wherever feasible.
- To restore the flow as soon as practicable.
- To minimize public access to and/or contact with the spilled sewage.
- To promptly notify the Public Works Facility Manage/Chief Plant Operator in event of major SSO.
- To return the spilled sewage to the sewer system.
- To restore the area to its original condition (or as close as possible).
- To photograph and document affected and unaffected areas from a spill.

7.3 Safety

The first responder is responsible for following safety procedures at all times. Special safety precautions must be observed when performing sewer work. There may be times when City personnel responding to a sewer system event are not familiar with potential safety hazards peculiar to sewer work. In such cases it is appropriate to take the time to discuss safety issues, consider the order of work, and check safety equipment before starting the job. This includes use of gas monitoring detectors for air quality in manholes and traffic controls at the site.

7.4 Initial Response

The first responder must respond to the reporting party/problem site and visually check for potential sewer stoppages or overflows.

The first responder will:

- Note arrival time at the site of the overflow/backup.
- Verify the existence of a public sewer system spill or backup.
- Determine if the overflow or blockage is from a public or private sewer.
- Identify and assess the affected area and extent of spill.
- Contact caller if time permits.
- If the spill is large or in a sensitive area, document conditions upon arrival with photographs. Decide whether to proceed with clearing the blockage to restore the flow or to initiate containment measures. The guidance for this decision is:
    - Small spills (i.e., spills that are easily contained) – proceed with clearing the blockage.
    - Moderate or large spill where containment is anticipated to be simple – proceed with the containment measures.
    - Moderate or large spills where containment is anticipated to be difficult – proceed with clearing the blockage; however, whenever deemed necessary, call for additional assistance and implement containment measures.
- Take steps to contain the SSO. For detailed procedures refer to Appendix B: Sanitary Sewer Backup Procedures, and Appendix C: Sanitary Sewer Overflow Packet.

7.5 Initiate Spill Containment Measures

The first responder will attempt to contain as much of the spilled sewage as possible using the following steps:

- Determine the immediate destination of the overflowing sewage.
- Contain/direct the spilled sewage using dike/dam or sandbags.

- Pump around the blockage/pipe failure.

For detailed procedures refer to Appendix C: Sanitary Sewer Overflow Packet.

7.6 Restore Flow

Using the appropriate cleaning equipment, set up downstream of the blockage and hydro-clean upstream from a clear manhole. Attempt to remove the blockage from the system and observe the flows to ensure that the blockage does not reoccur downstream. If the blockage cannot be cleared within a reasonable time from arrival, or sewer requires construction repairs to restore flow, then initiate containment and/or bypass pumping. If assistance is required, immediately contact other employees, contractors, and equipment suppliers. For detailed procedures refer to Appendix C: Sanitary Sewer Overflow Packet.

7.7 Equipment

This section provides a list of specialized equipment that may be used to support this Overflow Emergency Response Plan.

- *Camera* -- A digital or disposable camera is required to record the conditions upon arrival, during clean up, and upon departure.
- *Emergency Response Trucks* -- A utility body pickup truck, or open bed is required to store and transport the equipment needed to effectively respond to sewer emergencies. The equipment and tools will include containment and clean up materials.
- *Portable Generators, Portable Pumps, Piping, and Hoses* – Equipment used to bypass pump, divert, or power equipment to mitigate an SSO.
- *Combination Sewer Cleaning Trucks* -- Combination high velocity sewer cleaning trucks with vacuum tanks are required to clear blockages in gravity sewers, vacuum spilled sewage, and wash down the impacted area following the SSO event.
- *Air plugs, sandbags and plastic mats*
- *SSO Sampling Kits*

Standard operating procedures for equipment that may be necessary in the event of a sanitary sewer overflow or backup can be found in the Wastewater Treatment Plant.

7.8 Outside Assistance

Responders will refer to the Emergency Response Vendor List as necessary for assistance with the response.

8. Recovery and Cleanup

ref. SWRCB Order No. 2006-0003-DWQ Element 6(e)

The recovery and cleanup phase begins immediately after the flow has been restored and the spilled sewage has been contained to the extent possible. The SSO recovery and cleanup procedures are:

8.1 Estimate the Volume of Spilled Sewage

Use the methods outlined in the Sanitary Sewer Backup Packet (Appendix B), the Sanitary Sewer Overflow Packet (Appendix C) and/or the Sanitary Sewer Overflow and Backup Response Field Guide to estimate the volume of the spilled sewage. Wherever possible, document the estimate using photos and/or video of the SSO site before and during the recovery operation.

8.2 Recovery of Spilled Sewage

Vacuum up and/or pump the spilled sewage and rinse water, and discharge it back into the sanitary sewer system.

8.3 Clean-up and Disinfection

Clean up and disinfection procedures will be implemented to reduce the potential for human health issues and adverse environmental impacts that are associated with an SSO event. The procedures described are for dry weather conditions and will be modified as required for wet weather conditions. Where cleanup is beyond the capabilities of City staff, a cleanup contractor will be used.

Private Property
City crews are responsible for the cleanup when the property damage is minor in nature and is outside of private building dwellings, such as in front, side and backyards, easements, etc. In all other cases, affected property owners can call a water damage restoration contractor to complete the cleanup and restoration. If the overflow into property is the definite cause of City system failure, the property owner can call out a water damage restoration contractor to complete the cleanup and restoration. In both cases, City claim forms may be issued if requested by the property owners.

Hard Surface Areas
Collect all signs of sewage solids and sewage-related material either by protected hand or with the use of rakes and brooms. Wash down the affected area with clean water and/or deozyme or similar non-toxic biodegradable surface disinfectant until the water runs clear. The flushing volume will be approximately three times the estimated volume of the spill. Take reasonable steps to contain and vacuum up the wastewater. Allow area to dry. Repeat the process if additional cleaning is required.

Landscaped and Unimproved Natural Vegetation
Collect all signs of sewage solids and sewage-related material either by protected hand or with the use of rakes and brooms. Wash down the affected area with clean water until the water runs clear. The flushing volume will be approximately three times the estimated volume of the spill. Either contain or vacuum up the wash water so that none is released. Allow the area to dry. Repeat the process if additional cleaning is required.

Natural Waterways
The Department of Fish and Wildlife will be notified by CalOES for SSOs greater than or equal to 1,000 gallons.

Wet Weather Modifications
Omit flushing and sampling during heavy storm events (i.e., sheet of rainwater across paved surfaces) with heavy runoff where flushing is not required and sampling would not provide meaningful results.

8.4 Public Notification

Signs will be posted and barricades put in place to keep vehicles and pedestrians away from contact with spilled sewage as the crew is able. County Environmental Health instructions and directions regarding placement and language of public warnings will be followed when directed. Additionally, the Public Works Facility Manager/Chief Plant Operator will use their best judgment regarding supplemental sign placement in order to protect the public and local environment. Signs will not be removed until directed by County Environmental Health, Public Works Facility Manager/Chief Plant Operator, or designee.

Creeks, streams and beaches that have been contaminated as a result of an SSO will be posted at visible access locations until the risk of contamination has subsided to acceptable background bacteria levels as determined by County Environmental Health and/or two consecutive sets of downstream samples that match the upstream reference sample. The warning signs, once posted, will be checked at least every day to ensure that they are still in place. Photographs of sign placement will be taken.

In the event that an overflow occurs at night, the location will be inspected first thing the following day. The field crew will look for any signs of sewage solids and sewage-related material that may warrant additional cleanup activities.

When contact with the local media is deemed necessary, the City Manager or their designee will provide the media with all revelvant information.

9. Water Quality

ref. SWRCB Order No. 2006-0003-DWQ Element 6(f)

9.1 Water Quality Sampling and Testing

Water quality sampling and testing is required for Category 1 SSOs of 50,000 gallons or greater to determine the extent and impact of the SSO. The water quality sampling procedures must be implemented within 48 hours and include the following:

- The first responders will collect samples as soon as possible after the discovery and mitigation of the SSO event.
- The water quality samples will be collected from upstream of the spill, from the spill area, and downstream of the spill in flowing water (e.g. creeks). The water quality samples will be collected near the point of entry of the spilled sewage.
- The samples shall then be brought to Yuba City Wastewater Treatment Plant Lab for analysis.

9.2 Water Quality Monitoring Program

The City Water Quality Monitoring Program will be implemented immediately upon discovery of any Category 1 SSO of 50,000 gallons or more in order to assess impacts from SSOs to surface waters. The SSO Water Quality Monitoring Program will:

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 City becoming aware of the SSO, require water quality sampling for ammonia and total and fecal coliform.
6. Observe proper chain of custody procedures.

9.3 SSO Technical Report

The City will submit an SSO Technical Report to 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. The Public Works Facility Manager/Chief Plant Operator will supervise and prepare this report. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

Causes and Circumstances of the SSO:

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

City's Response to SSO:

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

Water Quality Monitoring:

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

10. Sewer Backup Into/Onto Private Property Claims Handling Policy

It is the policy of the City that a claims form shall be offered to anyone wishing to file a claim. The following procedures will be observed for all sewer overflows/backups into/onto private property:

- City staff will offer a City claim form irrespective of fault whenever it is possible that the sanitary sewer backup may have resulted from an apparent blockage in the City-owned sewer lines or whenever a City customer requests a claim form. The claim may later be rejected if subsequent investigations into the cause of the loss indicate the City was not at fault.

- It is the responsibility of the Public Works Staff and Public Works Facility Manager/Chief Plant Operator to gather information regarding the incident and to notify the City Manager or his/her designee.

- It is the responsibility of the City Manager to review all claims and to oversee the adjustment and administration of the claim to closure.

11. Notification, Reporting, Monitoring and Recordkeeping Requirements

ref. SWRCB Order No. 2006-0003-DWQ Element 6(c)

In accordance with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SSS GWDRs), the City of Live Oak maintains records for each sanitary sewer overflow. Records include:

- Documentation of response steps and/or remedial actions
- Photographic evidence to document the extent of the SSO, field crew response operations, and site conditions after field crew SSO response operations have been completed. The date, time, location, and direction of photographs taken will be documented.
- Documentation of how any estimations of the volume of discharged and/or recovered volumes were calculated including all assumptions made.

Regulator required notifications are outlined in Section 11.1 on the following page.

11.1 Requirements Table

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION	Within two hours of becoming aware of any Category 1 SSO 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, the City will notify the California Office of Emergency Services (CalOES) and obtain a notification control number.	Call Cal OES at: **(800) 852-7550**
REPORTING	• Category 1 SSO: The City will 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: The City will 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: The City will submit certified report within 30 calendar days of the end of month in which SSO the occurred. • SSO Technical Report: The City will 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: The City will 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: The City will update and certify every 12 months	Enter data into the CIWQS Online SSO Database[1] (http://ciwqs.waterboards.ca.gov/) certified by the Legally Responsible Official(s) [2]. All information required by CIWQS will be captured in the Sanitary Sewer Overflow Report. Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the State SSO Program Manager must be contacted to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days.
WATER QUALITY MONITORING	The City will conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.	Water quality results will be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
RECORD KEEPING	The City will maintain the following records: • 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.

[1] In the event that the CIWQS online SSO database is not available, the Public Works Facility Manager/Chief Plant Operator will notify SWRCB by phone or email in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS online SSO database when the database becomes available. A copy of all documents that certify the submittal in fulfillment of this section shall be retained in the SSO file.

[2] The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov.

For reporting purposes, if one SSO event of whatever category results in multiple appearance points in a sewer system, a single SSO report is required in CIWQS that 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 cause the SSO, and descriptions of the locations of all other discharge points associated with the single SSO event.

11.2 Recordkeeping Requirements

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

1. General Records: The City will maintain records to document compliance with all provisions of the Statewide Waste Discharge Requirements for Sanitary Sewer Systems and the Monitoring and Reporting Program including any required records generated by the City's contractor(s).
2. SSO Records: The City will maintain records for each SSO event, including but not limited to:
    i. Complaint records documenting how the City responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not result in SSOs. Each complaint record shall, at a minimum, include the following information:
        a. Date, time, and method of notification.
        b. Date and time the complainant or informant first noticed the SSO.
        c. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains.
        d. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.
        e. Final resolution of the complaint.
    ii. Records documenting steps and/or remedial actions undertaken by the City, using all available information, to comply with the Statewide Waste Discharge Requirements for Sanitary Sewer Systems.
    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.

12. Failure Analysis Investigation

ref. SWRCB Order No. 2006-0003-DWQ Element 6(d)

The objective of the failure analysis investigation is to determine the "root cause" of the SSO and to identify corrective action(s) needed that will reduce or eliminate future potential for the SSO to recur or for other SSOs to occur.

The investigation will include reviewing all relevant data to determine appropriate corrective action(s) for the line segment. The investigation will include:

- Reviewing and completing the Sanitary Sewer Overflow Report (in Appendices B and C) and any other documents related to the incident
- Reviewing the incident timeline and other documentation regarding the incident,
- Reviewing communications with the reporting party and witness.
- Review volume estimate, volume recovered estimate, volume estimation assumptions and associated drawings,
- Reviewing available photographs,
- Interviewing staff that responded to the spill.
- Reviewing past maintenance records,
- Reviewing any Fats, Roots, Oil and Grease (FROG) related information or results
- Post SSO debrief records
- Interviews with the public at the SSO location

The product of the failure analysis investigation will be the determination of the root cause and the identification and scheduling of the corrective actions. The Collection System Failure Analysis Form (in Appendices B and C) will be used to document the investigation.

13. SSO Response Training

ref. SWRCB Order No. 2006-0003-DWQ Element 6(d)

This section provides information on the training that is required to support this Overflow Emergency Response Plan.

13.1 Initial and Annual Refresher Training

All City personnel who may have a role in responding to, reporting, and/or mitigating a sewer system overflow will receive training on the contents of this OERP. All new employees will receive training before they are placed in a position where they may have to respond. Current employees will receive annual refresher training on this plan and the procedures to be followed. The City will document all training.

Affected employees will receive annual training on the following topics by knowledgeable trainers:

- The City's Overflow Emergency Response Plan and Sanitary Sewer Management Plan
- Sanitary Sewer Overflow Volume Estimation Techniques
- Researching and documenting Sanitary Sewer Overflow Start Times
- Impacted Surface Waters: Response Procedures

13.2 SSO Response Drills

Periodic training drills or field exercises will be held to ensure that employees are up to date on these procedures, equipment is in working order, and the required materials are readily available. The training drills will cover scenarios typically observed during sewer related emergencies (e.g. mainline blockage, mainline failure, force main failure, pump station failure, and lateral blockage). The results and the observations during the drills will be recorded and action items will be tracked to ensure completion.

13.3 SSO Training Record Keeping

Records will be kept of all training that is provided in support of this plan. The records for all scheduled training courses and for each overflow emergency response training event and will include date, time, place, content, name of trainer(s), and names and titles of attendees.

13.4 Contractors Working On City Sewer Facilities

All construction contractors working on City sewer facilities will be required to develop a project-specific OERP, will provide project personnel with training regarding the content of the contractor's OERP and their role in the event of an SSO, and to follow that OERP in the event that they cause or observe an SSO. Emergency response procedures shall be discussed at project pre-construction meetings, regular project meetings and after any contractor involved incidents.
All service contractors will be provided, and required to observe contractor procedures. See Appendix D: Contractor Orientation.

14. Authority

- Health & Safety Code Sections 5410-5416
- CA Water Code Section 13271
- Fish & Wildlife Code Sections 5650-5656
- State Water Resources Control Board Order No. 2006-0003-DWQ
- State Water Resources Control Board Order 2013-009-DWQ effective September 9, 2013

15. References

- Sanitary Sewer Overflow and Backup Response Field Guide, 2014, DKF Solutions Group, LLC ("Field Guide")
- Appendix A: Regulatory Notifications Packet
- Appendix B: Sanitary Sewer Backup Packet
- Appendix C: Sanitary Sewer Overflow Packet
- Appendix D: Contractor Orientation

Appendix A

REGULATORY NOTIFICATIONS PACKET

Instructions:

1. Receive call from on-site crew reporting a Sanitary Sewer Overflow.
2. Open this packet.
3. Refer to the Regulatory Reporting Guide (A-1) for instructions.
4. Use the SSO Reporting Checklist for the appropriate category of spill (A-2a or A-2b) to document that all notifications are made according to the reporting schedule.

Contents:

Print on 6”x9” envelope

Reporting Instructions

Deadline	See reverse side for contact information and definitions of the categories of spills of untreated or partially treated wastewater from publically owned sanitary sewer system			Spill from Private Lateral
	Category 1	**Category 2**	**Category 3**	
2 hours after awareness of SSO	• If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 • If the SSO is 50,000 gallons or greater, contact the City Manager at (530) 695-2112	If the SSO is 50,000 gallons or greater, contact the City Manager at (530) 695-2112	-	-
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	-
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-

* In the event that the CIWQS online SSO database is not available, make notifications to the State Water Resources Control Board (SWRCB) by phone or email until the CIWQS online SSO database becomes available. See contact information on Side B.

Note: For reporting purposes, if one SSO event results in multiple appearance points, complete one SSO report in the CIWQS SSO Online Database, and report the location of the SSO failure point, blockage or location of the flow condition that caused the SSO, in the CIWQS SSO Online Database, including all the discharge points associated with the SSO event.

Contact Information

Contact	Telephone/Fax/Email
CalOES	(800) 852-7550
City Manager	(530) 695-2112
York Risk Services Group, Cameron Dewey	Telephone: (530) 243-3249 Fax: (530) 255-9095 Email: cameron.dewey@yorkrsg.com
State Water Resources Control Board (SWRCB):	
Russell Norman, P.E.	(916) 323-5598 Russell.Norman@waterboards.ca.gov
Victor Lopez, Water Resources Control Engineer	(916) 323-5511 Victor.Lopez@waterboards.ca.gov

Authorized Personnel

The following individual is the City's *Legally Responsible Official (LRO) and is authorized to perform regulatory reporting and electronically sign and certify SSO reports in CIWQS:*

Ron Walker
Public Works Facility Manager/Chief Plant Operator
(530) 604-3829

Definitions of SSO Categories

The response crew will complete the SSO Report form in the SSO Packet to document how the category was determined.

Category	Definition
Category 1:	Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either: • Reaches surface water and/or drainage channel tributary to a surface water; or • Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured and disposed of properly.
Category 2:	Discharge of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a sanitary sewer system failure or flow condition that either: • Does not reach surface water, a drainage channel, or an MS4, or • The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.
Category 3:	All other discharges of untreated or partially treated wastewater resulting from a sanitary sewer system failure or flow condition

Regulatory Notifications Packet
Category 1 SSO Reporting Checklist

A-2a

Use this Checklist for Category 1 SSOs only

STEP 1: Receive call from crew.

STEP 2: 2-hour Notification

If the SSO is greater than or equal to 1,000 gallons, notify CalOES within 2 hours of the time the agency was notified of the SSO.

☐ **Notify CalOES** at (800) 852-7550:

- Date Called: _____
- Time called: _____ : _____ ☐AM ☐PM
- CalOES Control number: _____
- City personnel who called CalOES: *Name* _____
  Title _____
- Individual they spoke to at CalOES: _____

STEP 3: Within 2 hours after awareness of SSO

☐ If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact York Risk Services Group.

STEP 4: Within 48 hours after awareness of SSO

☐ Only if 50,000 gallons or more was not recovered, implement Water Quality Monitoring Plan.

STEP 5: Within 3 Days after awareness of SSO

☐ Submit a Draft Spill Report using the CIWQS online reporting database.

STEP 6: Within 15 Days after response conclusion

☐ LRO must certify the Spill Report using the CIWQS online reporting database. Amendments to the Spill Report may be made for up to 120 days following the conclusion of the SSO Response.

STEP 7: Within 45 Days after SSO end date

☐ Within 45 days after the SSO end date, submit an SSO Technical Report using the CIWQS online reporting database only if 50,000 gallons or more was spilled to surface waters.

This form completed by: _____ _____ _____
Name *Title* *Date*

Use this Checklist for Category 2, Category 3 and Private Lateral Sewage Discharges SSOs only

STEP 1: Receive call from crew.

STEP 2: Within 2 hours after awareness of SSO (Category 2 and Category 3 only)

☐ If SSO impacts private property that may be due to a failure in the City sewer and/or if the City believes a claim for damages may be submitted against the City contact York Risk Services Group.

STEP 3: Submit Draft Spill Report (Category 2 and Category 3 only)

☐ Submit a Draft Spill Report using the CIWQS online reporting database within 3 days after awareness of Category 2 SSO.

STEP 4: Certify Spill Report

☐ Certify the Spill Report using the CIWQS online reporting database:

- Category 2 SSO: Within 15 days after the conclusion of the response
- Category 3 SSO: Within 30 days after the end of the calendar month in which the SSO occurred
- Private Lateral Sewage Discharge: Within 30 days after the end of the calendar month in which the discharge occurred

☐ Updates to the Spill Report may be made for up to 120 days following the conclusion of the SSO Response.

This form completed by: _____ _____ _____

Name *Title* *Date*

Appendix B

SANITARY SEWER BACKUP RESPONSE PACKET

Sanitary Sewer Backup Response Packet

Table of Contents

Packet Assembly Instructions:

1. Print the Instructions/Chain of Custody page on a 9” x 12” envelope, or print on a full sheet label and affix to the envelope.
2. Place one copy of each of forms B-1 through B-11, plus a door hanger in the envelope. Note: forms B-4 and B-5 should be printed on 3-copy NCR paper.
3. Print the Customer Service Packet Instructions on the front of a 6” x 9” envelope.
4. Place one copy of each of forms CS-1 and CS-2 plus a Sewer Spill Reference Guide pamphlet.
5. Print the Regulatory Notifications Packet Instructions on the front of a 6” x 9” envelope.
6. Place one copy of each of forms A-1, A-2a and A-2b in the envelope.
7. Place the Customer Service Packet and the Regulatory Notifications packet in the Sewer Backup Response (9” x 12”) envelope.

For pre-assembled packets contact DKF Solutions Group at (707) 373-9709 or losscontrol@sbcglobal.net

In the event of a **Sewer Backup** into a home/business
READ THIS FIRST

- ❑ **If this is a Category 1 SSO greater than or equal to 1,000 gallons, IMMEDIATELY:** Contact the Water Quality Operator III at (530) 682-1469 to make the 2-hour notification to CalOES

- ❑ **If the backup is into/onto private property AND possibly due to a problem in the public sewer, notify:** Cameron Dewey, York Risk Services Group, at (530) 243-3249.

- ❑ **If instructed to call out a cleaning contractor, contact one of the following:**
  - Cleanrite/Buildrite: (866) 753-7453
  - ServiceMaster: (530) 222-8800.

Public Works Staff:

- ❑ Follow the instructions on the Sewer Backup Response Flowchart (B-1). Note: If multiple dwelling units are affected, use one packet per unit and check here: ☐
- ❑ If indicated on the flowchart, give the customer the Bubbled Toilets Letter and/or the Customer Service Packet and have them initial here:
  Customer acknowledgement of receipt of Bubbled Toilets Letter: _____
  Customer acknowledgement of receipt of Customer Service Packet: _____
- ❑ Place completed forms in this envelope, complete the Chain of Custody record (right) and forward this packet to the Public Works Facility Manager/Chief Plant Operator or designee.

Print Name: _____

Initial: _____

Date: _____

Time: _____

Public Works Facility Manager/Chief Plant Operator:

- ❑ Follow the instructions on the bottom of the Sewer Backup Response Flowchart (B-1).
- ❑ Complete the Regulatory Notifications Packet.
- ❑ Complete the Claims Submittal Checklist.
- ❑ Complete the Chain of Custody record (right) and forward this packet to the City Manager or designee.

Print Name: _____

Initial: _____

Date: _____

Time: _____

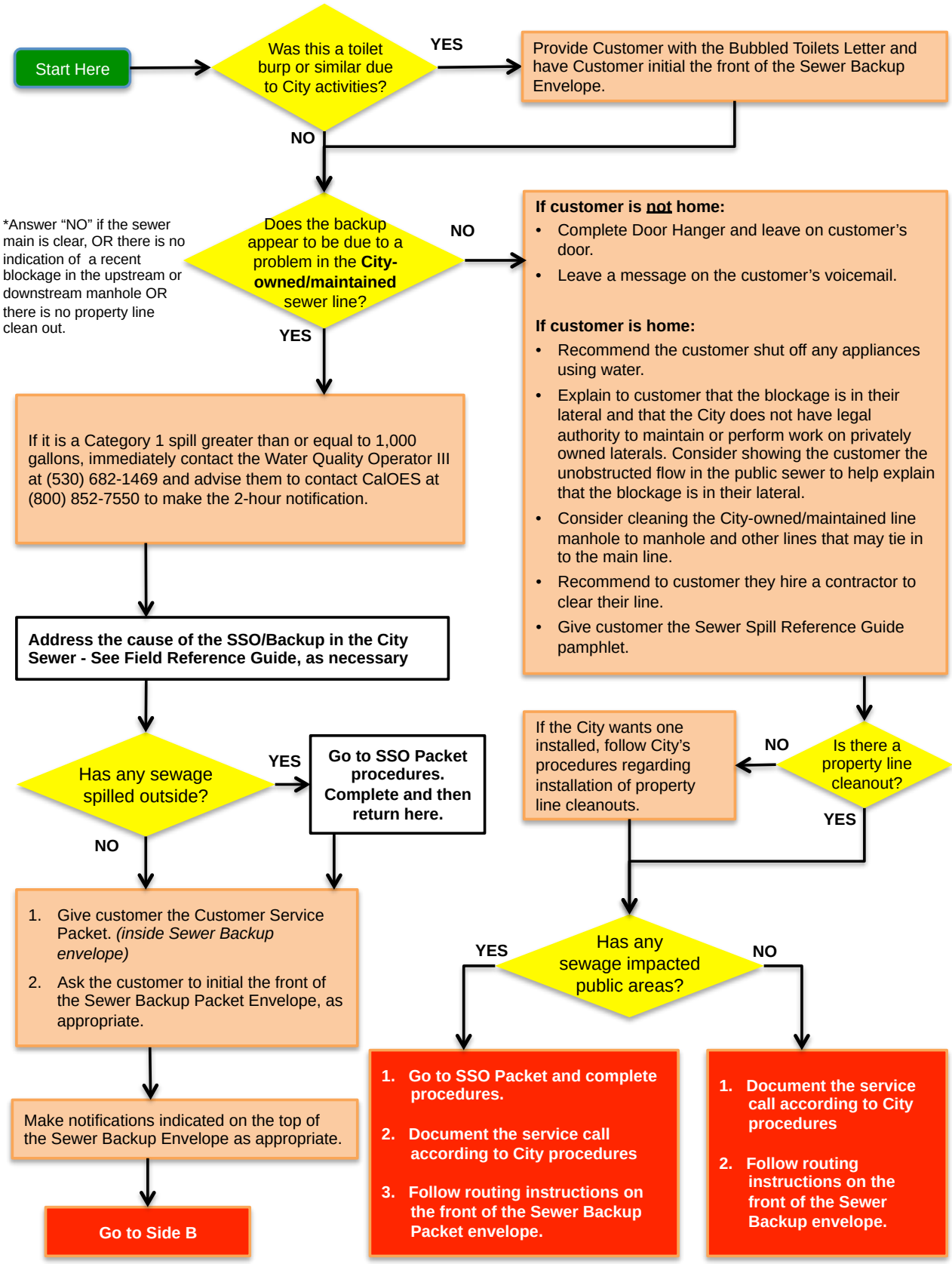
City Manager or designee:

- ❑ Refer to the Claims Submittal Checklist.

Sanitary Sewer Backup Response Packet

Backup Response Flowchart

B-1
Side A



Backup Response Flowchart

Continue Here From Side A

1. Remove the First Responder Form from the Sewer Backup Packet envelope and complete. Immediately contact Cameron Dewey, York Risk Services Group at (530) 243-3249 and provide the information from the completed First Responder Form including the following:
   - Indicate whether the livability assessment indicates that temporary relocation is advised. If so, complete the Lodging Authorization form.
   - Indicate whether the the Customer wants cleaning services. If not, complete the Declination of Sewage Cleaning Services form.

   If instructed to do so, or if Cameron Dewey is not available, contact the Public Works Facility Manager/Chief Plant Operator to contact a restoration/remediation contractor and arrange for temporary lodging as necessary.
2. Ask Customer to take photographs of affected and non-affected areas, if allowed by customer. Try to get pictures showing where the damaged areas stopped.

Complete the following forms (in the Sewer Backup Envelope):
- Sanitary Sewer Overflow Report
- Start Time Determination Form (Remember, the spill was <u>probably</u> already occurring before it was reported.)
- Volume Estimation (Use one or more worksheets and/or methods listed in the Field Guide.)

Clean/disinfect any overflow **<u>outside</u>** of the building. **DO NOT** allow any disinfectants to escape to storm drains.

Can you locate a backwater prevention device (BPD) or cleanout on the affected building?

YES → Photograph the backwater prevention device or cleanout.

NO

Is there any reason to have the lateral televised?

YES → Complete Lateral CCTV Report (inside the Sewer Backup Packet envelope)

NO

1. **Document the service call according to City procedures.**
2. **Complete the remaining instructions in the Public Works Staff box on the front of the Sewer Backup Packet envelope.**
3. **Follow routing instructions as indicated on the front of the Sewer Backup Packet envelope.**

MEDIA AND PUBLIC RELATIONS GUIDELINES:

Exercise caution in contacts with the public or media when you respond to a spill. Any information you provide or statements you make may become pertinent in the event of possible court action, it is important to **<u>AVOID THE FOLLOWING</u>**:

- Giving out the wrong information,
- Speculating about the situation you are responding to
- Providing incorrect facts about a company or other agency
- Making accusations against customers, businesses or other agencies

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.

In most cases, refer media requests to the media coordinator indicated on the front of the Sewer Overflow Packet envelope.

Dear City of Live Oak Customer,

Thank you for informing us that your toilet bubbled while our crews were working in proximity of your property. We apologize for the inconvenience and hope that this letter will answer some of your questions about bubbling toilets.

1. **Is this a health risk?**
   The water that came out of your toilet is potable water from the toilet bowl. Unless your toilet was in use when this occurred, this water is no different than that encountered while cleaning your toilet.

2. **What is the City doing in the street?**
   In order to insure reliable sewer service, the City inspects, cleans, and repairs its sewer system on a continuous basis.

3. **How does sewer cleaning cause my toilet to bubble?**
   Typical industry cleaning equipment uses high-pressure water to clean sewers. The first step is to use the high-pressure water jets to propel the hose and cleaning nozzle upstream as far as 800 feet. During this process, air within the main pipe is displaced and sometimes goes up the private lateral pipe and releases though the toilet. This can also happen during the cleaning phase, when high-pressure water is pulled downstream to the cleaning truck.

4. **What causes the air to come from my toilet?**
   Over the years, City crews have found that the bubbling of toilets have many causes, some of which are:
   - Obstructed vent pipes;
   - Vent pipes that are positioned too far from the toilet;
   - Lateral pipes that may be in use as the crew is cleaning (e.g. draining washing machine, draining bathtub, etc.);
   - Lateral pipes that may have obstructions that are causing them to hold water (e.g. roots, grease, etc.).

5. **What does City staff do, once informed of a bubbling toilet?**
   Once notified of a bubbling toilet, the crew leader explains to the customer what has happened, and checks to see if there is a clean-out in the customer's yard that could be opened in the future during cleaning. The crew leader then makes notes and completes paperwork that puts the address on the City's computerized notification list. In the future, crews will notice that this address was "bubbled" at one time, and, before commencing the cleaning, they will notify the occupant of the possibility of bubbling toilets. In the event the occupant is not present when the cleaning begins, the crews will attempt to open clean-outs and/or lower water pressure to avoid bubbling.

6. **What can I do to prevent my toilet from bubbling?**
   When a sewer begins to drain slowly, it may be a sign that it needs to be cleaned or repaired. Trees and shrubs may have root structures that are entering the lateral pipe. The homeowner needs to make sure to have a clean-out for accessing the line. It is the homeowner's responsibility to keep the sewer lateral pipe in good working condition.

It is always a good idea to keep the toilet lid down when not in use, and not install carpets in the bathroom unless they can be easily removed and cleaned. For more information please contact the Public Works Facility Manager/Chief Plant Operator at rwalker@liveoakcity.org.

Sincerely,

City of Live Oak

City of Live Oak: Overflow Emergency Response Plan

Sanitary Sewer Backup Response Packet

First Responder Form

B-3

Side A

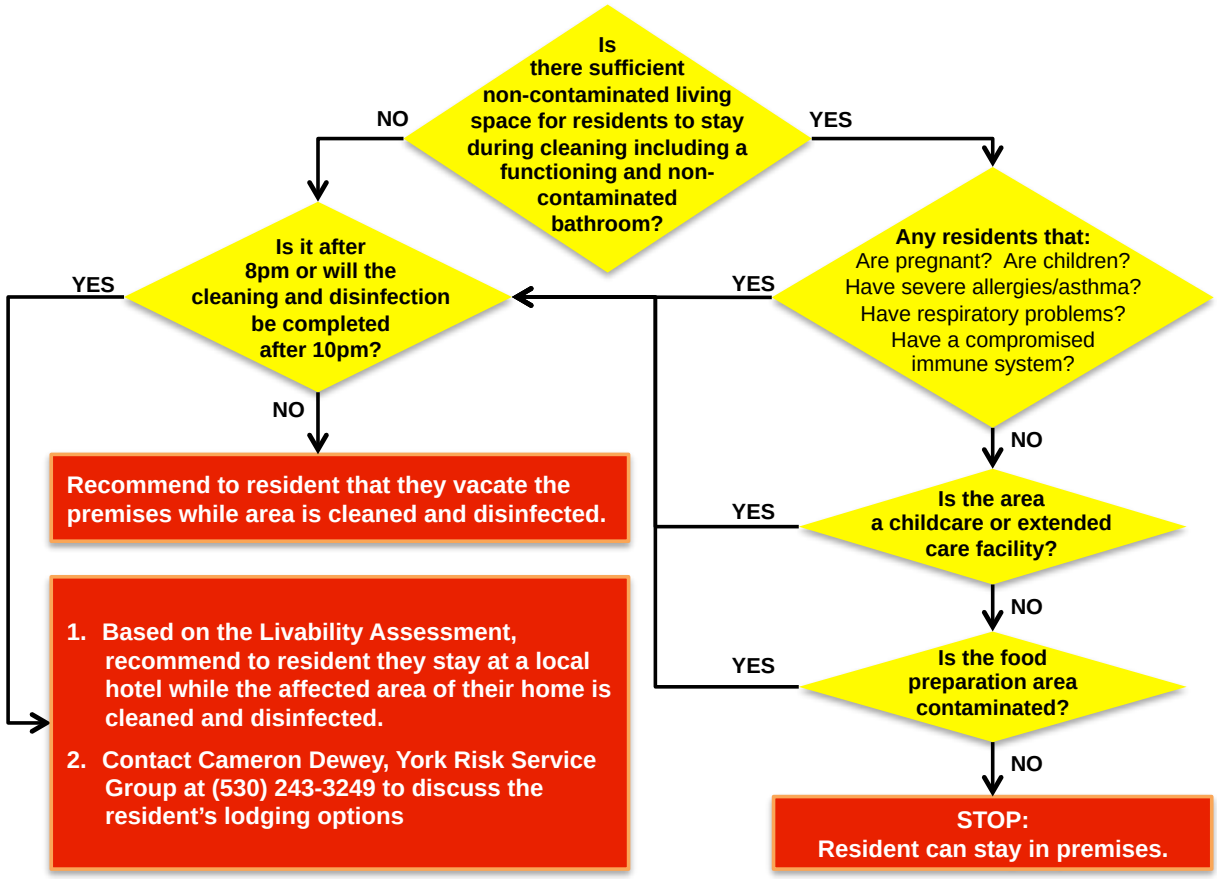
Fill out this form as completely as possible.
Ask customer if you may enter the home. If so, take photos of all damaged and undamaged areas.

PERSON COMPLETING THIS FORM: Name: _____ Title: _____	PHONE: DATE: TIME:
TIME STAFF ARRIVED ON-SITE:	
DOES THE CUSTOMER WANT THE CITY TO CALL A CLEANING CONTRACTOR? ☐ Yes ☐ No IF NO, complete the Declination of Sewage Cleaning Services form. DID CUSTOMER CALL CLEANING CONTRACTOR? ☐ Yes ☐ No If YES, name of contractor:	
RESIDENT NAME: ☐ Owner ☐ Renter	IF RENT, PROPERTY MANAGER(S): OWNER:
STREET ADDRESS: CITY, STATE AND ZIP: PHONE:	STREET ADDRESS: CITY, STATE AND ZIP: PHONE:
Is nearest upstream manhole visibly higher than the drain/fixture that overflowed? ☐ Yes ☐ No	
# OF PEOPLE LIVING AT RESIDENCE:	

Approximate Age of Home:	# of Bathrooms:	# of Rooms Affected:
Approximate Amount of Spill (gallons):	Approximate Time Sewage Has Been Sitting (hrs/days):	

Numbers of Photographs or Videos Taken: ☐ Photographs ☐ Video	Where are photos/video stored?
Does property have a Property Line Cleanout or BPD? ☐ YES ☐ NO ☐ Unknown	
If yes, was the Property Line Cleanout/BPD operational at the time of the overflow? ☐ YES ☐ NO ☐ Unknown	
Have there ever been any previous spills at this location? ☐ YES ☐ NO ☐ Unknown	
Has the resident had any plumbing work done recently? ☐ YES ☐ NO *If YES, please describe:*	

GO TO SIDE B

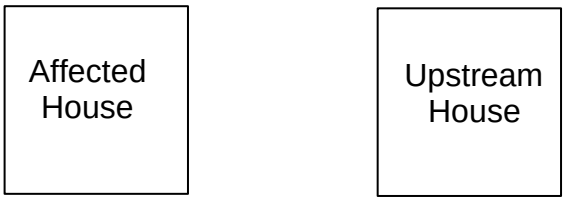


SANITARY SEWER LINE BLOCKAGE LOCATION

PLEASE CHECK THE BOXES THAT DESCRIBE YOUR OBSERVATIONS:	
Customer Cleanout Was: ☐ Non-Existent ☐ Full ☐ Empty	Public Cleanout was: ☐ Non-Existent ☐ Full ☐ Empty

Recommended Follow-Up Action(s):

On the diagram below, indicate the location of the sewer line and where the problem occurred.



Did sewage go under buildings? ☐ Yes ☐ No ☐ Unsure

Place completed form in Sewer Backup Envelope and follow routing instructions

City of Live Oak: Overflow Emergency Response Plan

Sanitary Sewer Backup Response Packet

Declination of Sewage Cleaning Services

B-4

Customer Information		
NAME:	ADDRESS:	TELEPHONE:

ON (date)	AT (time)	Approximately (quantity)	GALLONS OF:
			☐ Sewage ☐ Grey Water ☐ Toilet Bowl Water ☐ Odor ☐ Other (describe):

Overflowed from (or odor emanating from)
- ☐ Toilet
- ☐ Shower/Tub
- ☐ Washer
- ☐ Other (describe):

The overflow affected the following areas *(check one):*
- ☐ Bathroom ☐ Bedroom
- ☐ Hallway ☐ Garage
- ☐ Kitchen ☐ Crawlspace
- ☐ Other (specify):

The overflow affected the following flooring:
- ☐ Tile ☐ Wood Flooring
- ☐ Linoleum ☐ Carpet
- ☐ Other (specify):

and/or additional materials:
- ☐ Area Rugs ☐ Towels
- ☐ Clothing ☐ Other (specify):

Were photos taken?: ☐ Yes ☐ No If yes, where are photos stored?

This Form Completed By: Name: **Date:**

(Write legibly) Title: **Time:**

CUSTOMER, please read the following and sign below:
I/We acknowledge that City of Live Oak (*City)* has offered to provide professional cleaning and decontamination services to remediate the sewage backup and/or overflow described above and that we declined the offer. We further understand and acknowledge that because we have declined, any necessary remediation activities will be conducted without City assistance, and that the City will not accept responsibility for work performed by persons other than those engaged by the City. The City will also not accept responsibility for any charges related to this incident that are not usual and customary. Please refer to the Customer Service Packet for whom to contact if you have any questions.

Customer Signature*:		**Date:**
The information above was explained to the customer by the following employee:	**Name:**	**Title:**
	Signature:	**Date:**

**Note to responders: if customer declines to sign this form, then have a co-worker sign here as a witness:*

Name: _____ *Signature:* _____ *Date:* _____

Recommendations to customer to clean up the spill:

- Keep pets and children out of the affected area
- Turn off heating/air conditioning systems
- Wear rubber boots, rubber gloves, and goggles during cleanup of the affected area.
- Remove and discard items that cannot be washed and disinfected (such as: mattresses, rugs, cosmetics, baby 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 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 ¼ teaspoon of household bleach per 1 gallon of water.
- Wash all clothes worn during the cleanup in hot water and detergent (wash separately from uncontaminated clothes).
- Wash clothes contaminated with flood or sewage water in hot water and detergent. Use a laundromat for washing large quantities of clothes and linens until your onsite wastewater system has been professionally inspected and services.
- Seek immediate attention if you become injured or ill.

Distribution: Top Copy to: City records Middle Copy to: Public Works Facility Manager/Chief Plant Operator Bottom Copy to Customer

Sanitary Sewer Backup Response Packet

Lodging Authorization Form

B-5

INSTRUCTIONS TO EMPLOYEE:

1. Contact Cameron Dewey, York Risk Service Group at (530) 243-3249 to discuss the resident's lodging options.
2. Review this form with the customer and instruct them to read the Instructions to Resident section below.
3. Instruct the customer that this emergency authorization is for LODGING ONLY – NO FOOD, MINIBAR, MOVIE, PHONE or Other Charges).
4. Explain to customer that if circumstances require additional nights' lodging and other incidentals, the City Manager will address them.
5. Have the customer sign the Acknowledgement section of this form.
6. Complete this Authorization Form and sign.
7. Give the bottom copy of this form to the customer.

INSTRUCTIONS TO RESIDENT: The City of Live Oak recommends that you temporarily relocate to a local hotel for your safety and convenience while your residence is being cleaned. Please note that this emergency authorization is granted under the following conditions:

1. This authorization provides for one (1) nights' lodging at the hotel selected below.
2. The authorization is good for **room and tax ONLY**.
3. Additional nights, other allowances, and special circumstances may be discussed by contacting the City Manager at (530) 695-2112.

CUSTOMER ACKNOWLEDGEMENT:

I/we have read and understood the terms and conditions governing this offer of temporary relocation and agree to abide by them as described above.

Customer Name (please print): _____

Customer Address: _____

Phone # where customer may be reached: _____

Customer Signature: _____ Date: _____

☐ Check here to decline this offer of temporary relocation. Customer Signature: _____

Good for one (1) night's stay on (date): _____ Number of affected residents: _____

City of Live Oak Representative's Name: _____ Phone Number: _____

This voucher is valid at the following hotel:

Distribution: Top Copy to: City records Middle Copy to: Public Works Facility Manager/Chief Plant Operator Bottom Copy to Customer

Sanitary Sewer Backup Response Packet

Sanitary Sewer Overflow Report

B-6
Side A

INSTRUCTIONS: Complete all items *EXCEPT* those that are shaded gray

SSO Category *(check one)*:

☐ Category 1: Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either (1) Reaches surface water and/or drainage channel tributary to a surface water; OR (2) Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured and disposed of properly.

☐ Category 2: Discharge of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a sanitary sewer system failure or flow condition that either (1) Does not reach surface water, a drainage channel, or an MS4, OR (2) The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.

☐ Category 3: All other discharges of untreated or partially treated wastewater resulting from a sanitary sewer system failure or flow condition

☐ Spill from Private Lateral (specify): ☐ Single Family Home ☐ Multi-Family Home ☐ High Density Residential (5+ units) ☐ Food Service Establishment (FSE) ☐ Mixed Use Property ☐ Industrial Property ☐ Commercial Property ☐ Public quasi-public institution (hospital, schools, fire department, etc.)

IMMEDIATE NOTIFICATION: If this is a Category 1 SSO ≥1,000 gallons, contact CalOES within 2 hours at (800) 852-7550.

A. SSO LOCATION

SSO Location Name:		
Latitude Coordinates*:	Longitude Coordinates:	
Street Name and Number:		
Nearest Cross Street:	City:	Zip Code:
County:	SSO Location Description:	

B. SSO DESCRIPTION (Complete Volume Estimation Worksheets and/or refer to Field Guide as needed for estimations.)

SSO Appearance Point (check one or more): ☐ Combined Sewer D.I. (Combined CS Only) ☐ Force Main ☐ Gravity Mainline ☐ Lateral Cleanout (Private) ☐ Lateral Cleanout (Public) ☐ Inside Building or Structure ☐ Manhole ☐ Pump Station ☐ Lower Lateral (Private) ☐ Lower Lateral (Public) ☐ Upper Lateral (Private) ☐ Upper Lateral (Public) ☐ Other Sewer System Structure (specify):

Were there multiple appearance points? ☐ No ☐ Yes, number of appearance points:

Did the SSO reach a drainage channel and/or surface water? ☐ Yes (*Category 1)* ☐No

If the SSO reached a storm sewer, was it fully captured and returned to the Sanitary Sewer? ☐ Yes ☐No (*Category 1)*

Was this spill from a private lateral? ☐ Yes ☐No If YES, name of responsible party:

Final Spill Destination: ☐ Ocean/ocean beach* ☐ Surface waters other than ocean ☐ Drainage channel ☐ Building/structure ☐ Separate Storm drain ☐ Combined storm drain ☐ Paved surface ☐ Unpaved surface ☐ Street/curb/gutter ☐ Other:
*Provide name(s) of affected drainage channels, beach, etc.:

Total Estimated SSO volume *(in gallons – 1,000gal or more = Category 1)*: gallons

Est. volume that reached a separate storm drain that flows to a surface water body:	gal	Recovered:	gal
Est. volume that reached a drainage channel that flows to a surface water body:	gal	Recovered:	gal
Est. volume discharged directly to a surface water body:	gal	Recovered:	gal
Est. volume discharged to land:	gal	Recovered:	gal

Calc. Methods: ☐Eyeball ☐Photo Comparison ☐Upstream Lat. Connections ☐Area/Volume (include sketch/photo with dimensions) ☐Other (describe):

C. SSO OCCURRING TIME (complete Start Time Determination Form and then complete information below)

Estimated SSO start date:	Estimated SSO start time:
Date SSO reported to sewer crew:	Time SSO reported to sewer crew:
Date sewer crew arrived:	Time sewer crew arrived:
Who was interviewed to help determine start time?	
Estimated SSO end date:	Estimated SSO end time:

* If multiple appearance points, use the GPS coordinates for the location of the SSO appearance point closest to the failure point/blockage.

Sanitary Sewer Overflow Report

D. CAUSE OF SSO

Where did failure occur? (Check all that apply): ☐ Air Relief or Blow-Off Valve ☐ Force Main ☐ Gravity Mainline ☐ Siphon
☐ Lower Lateral (public) ☐ Lower Lateral (private) ☐ Manhole ☐ Pump Station (specify): ○Controls ○Mechanical ○Power
☐ Upper Lateral (public) ☐ Upper Lateral (private) Other:

SSO cause *(check all that apply)*: ☐ Air Relief or Blow-Off Valve Failure ☐ Construction Diversion Failure ☐ CS Maintenance
☐ Damage by others ☐ Debris (specify): ○from Construction ○from Lateral ○General ○Rags ☐ Flow Exceeded Capacity
☐ FROG (Fats, roots, oil, grease) ☐ Inappropriate Discharge ☐ Natural Disaster ☐ Operator Error ☐ Root Intrusion
☐ Pipe Structural Problem/Failure ☐ Pipe Structural Problem/Failure (Installation) ☐ Rainfall Exceeded Design
☐ Pump Station Failure (specify): ○Controls ○Mechanical ○Power ☐ Siphon Failure ☐ Vandalism
☐ Surcharged Pipe ☐ Non - Dispersible Wipes ☐ Other (specify):

Diameter (in inches) of pipe at point of blockage/spill cause (if applicable):

Sewer pipe material at point of blockage/spill cause (if applicable):

Estimated age of sewer asset at the point of blockage or failure (if applicable):

Description of terrain surrounding point of blockage/spill cause: ☐ Flat ☐ Mixed ☐ Steep

E. SSO RESPONSE

SSO response activities (check all that apply): ☐ Cleaned-Up ☐ Mitigated Effects of Spill ☐ Contained All or Portion of Spill
☐ Restored Flow ☐ Returned All Spill to Sanitary Sewer System ☐ Returned Portion of Spill to Sanitary Sewer System
☐ Property Owner Notified ☐ Other Enforcement Agency Notified (specify) ☐ Other (specify):

SSO response completed (date & time):

Visual inspection result of impacted waters (if applicable):

Any fish killed? ☐ Yes ☐ No Any ongoing investigation? ☐ Yes ☐ No

Were health warnings posted? ☐ Yes ☐ No If yes, provide health warning/beach closure posting/details:

Was there a beach closure? ☐ Yes ☐ No If yes, name of closed beach(es):

Were samples of impacted waters collected? ☐ Yes ☐ No
If YES, select the analyses: ☐ DO ☐ Ammonia ☐ Bacteria ☐ pH ☐ Temperature ☐ Other:

Recommended corrective actions: (check all that apply and provide detail)
☐ Add sewer to preventive maintenance program
☐ Adjust schedule/method of preventive maintenance
☐ Enforcement action against FROG source
☐ Inspect Sewer Using CCTV to Determine Cause
☐ Plan rehabilitation or replacement of sewer
☐ Repair Facilities or Replace Defect
☐ Other (specify)

What major equipment was used in the response?

List all agency personnel involved in the response including name, title and their role in the response:

F. NOTES

G. NOTIFICATION DETAILS

CalOES contacted date and time (if applicable):

CalOES Control Number (if applicable): Spoke to:

This form prepared by: NAME:	TITLE:	DATE:
This form reviewed by: NAME:	TITLE:	DATE:

Place completed form in Sewer Backup Envelope and follow routing instructions.

Sanitary Sewer Backup Response Packet

Start Time Determination Form

SSO Start Date: _____ Location: _____

Accurate start time determination is an essential part of SSO volume estimation. Depending on the flow rate, being even one minute off can have a huge impact on the volume estimation. Be as precise as possible. Do not round to quarter hour increments. Start time must be based on all available information (interviews with neighbors, emergency responders, etc.)

What time was the City notified of the SSO? _____ ☐ AM ☐ PM

Who notified the City? _____

Did they indicate what time they noticed the SSO? ☐ YES ☐ NO If yes, what time? _____ ☐ AM ☐ PM

Who at the City received the notification? _____

What time did the crew arrive at the site of the SSO? _____ ☐ AM ☐ PM

Who was interviewed regarding the start time of the SSO? Include their name, contact information, and the statement they provided:

Name	Contact Information	Statement

Describe in detail how you determined the start time for this particular SSO:

SSO Start Date: _____ SSO Start Time: _____ ☐ AM ☐ PM

SSO End Date: _____ SSO End Time: _____ ☐ AM ☐ PM

SSO Duration: _____ **minutes**

This form completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Backup Response Packet

Volume Estimation: Eyeball Estimation Method

B-8a

Use this method only for small SSOs of less than 200 gallons.

SSO Date: _____ Location: _____

STEP 1: Position yourself so that you have a vantage point where you can see the entire SSO.

STEP 2: Imagine one or more buckets or barrels of water tipped over. Depending on the size of the SSO, select a bucket or barrel size as a frame of reference. It may be necessary to use more than one bucket/barrel size.

STEP 3: Estimate how many of each size bucket or barrel it would take to make an equivalent spill. Enter those numbers in Column A of the row in the table below that corresponds to the bucket/barrel sizes you are using as a frame of reference.

STEP 4: Multiply the number in Column A by the multiplier in Column B. Enter the result in Column C.

	A	B	C
Size of bucket(s) or barrel(s)	**How many of this size?**	**Multiplier**	**Estimated SSO Volume (gallons)**
1 gallon water jug		x 1 gallons	
5 gallon bucket		x 5 gallons	
32 gallon trash can		x 32 gallons	
55 gallon drum		x 55 gallons	
Other: _____ gallons		x _____ gallons	
Estimated Total SSO Volume:			

STEP 5: Is rainfall a factor in the SSO? ☐Yes ☐No

If yes, what volume of the observed spill volume do you estimate is rainfall? _____ gallons

If yes, describe how you determined the amount of rainfall in the observed spill?

STEP 6: Calculate the estimated SSO volume by subtracting the rainfall from the SSO volume:

_____ gallons (Estimated SSO Volume) − _____ gallons (Rainfall) = _____ gallons **Total Estimated SSO Volume**

Do you believe that this method has estimated the entire SSO? ☐Yes ☐No

If no, you MUST use additional methods to estimate the entire SSO. If yes, it is advisable to use additional methods to support the estimation. Explain why you believe this method has/has not estimated the entire SSO:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Backup Response Packet

Volume Estimation: Duration and Flow Rate Comparison Method

B-8b
Side 1

SSO Date: _____ Location: _____

STEP 1: Compare the SSO to reference images on Side 2 to estimate flow rate of the current overflow. Describe which reference photo(s) were used and any additional factors that influenced applying the reference photo data to the actual SSO:

Flow Rate Based on Photo Comparison: _____gallons per minute (gpm)

STEP 2: Complete the **Start Time Determination Form** to provide a detailed description of how start time was determined. Copy the SSO Duration from the Start Time Determination Form here:

SSO Duration: _____minutes

STEP 3: Multiply the flow rate by the SSO duration to calculate the estimated SSO volume.

_____gpm X _____minutes = _____gallons
Flow Rate SSO Duration Estimated SSO Volume

STEP 4: Did the SSO occur during a period of consistent flow in this portion of the system? □Yes □ No

If no, explain how, based on this portion of the collection system and its users, you believe it may have impacted the estimated SSO volume:

By what percentage are you adjusting the estimation? □ increase □ decrease _____%

Translate the percentage into gallons: _____gallons

STEP 5: Calculate the adjusted SSO volume estimate:

_____gallons + or - _____gallons = _____gallons
Estimated SSO Volume Adjustment **Estimated SSO volume**

Do you believe that this method has estimated the entire SSO? □Yes □No

If no, you MUST use additional methods to estimate the entire SSO. If yes, it is advisable to use additional methods to support the estimation. Explain why you believe this method has/has not estimated the entire SSO:

This worksheet completed by:

Name: _____ Signature: _____

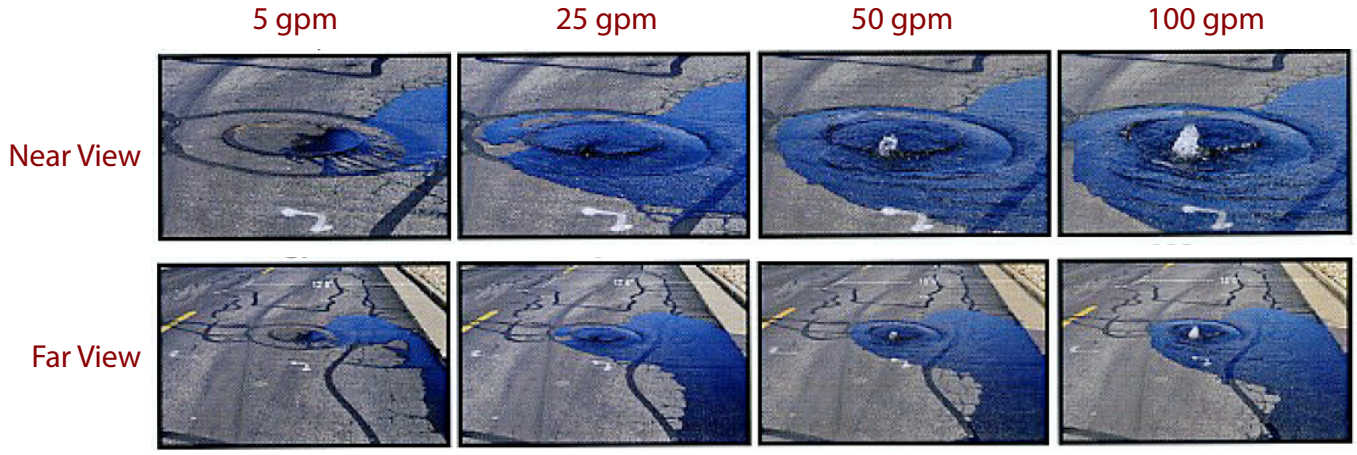
Job Title: _____ Date: _____

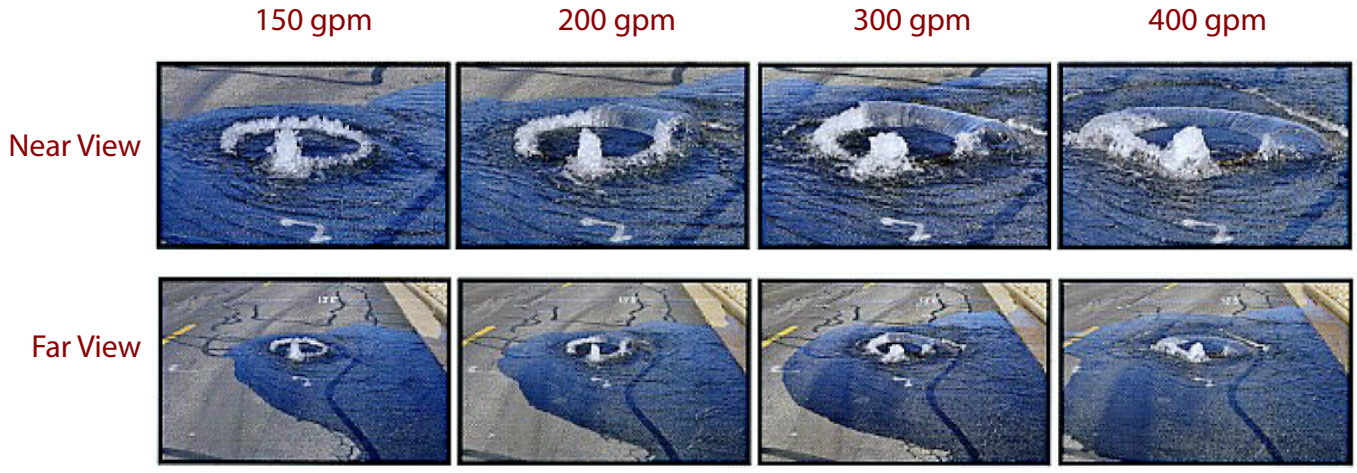
IMPORTANT NOTE:

These photographs are provided as examples only and will change with many factors.

SSCSC Manhole Overflow Gauge

CWEA Southern Section Collections Systems Committee
Overflow Simulation courtesy of Eastern Municipal Water District





Sanitary Sewer Backup Response Packet

Volume Estimation: Upstream Lateral Connections Method

B-8c

SSO Date: _____ Location: _____

STEP 1: Determine the number of Equivalent Dwelling Units (EDUs) for this SSO: _____ EDUs
NOTE: A single-family residential home = 1 EDU. For commercial buildings, refer to agency documentation.

STEP 2: This volume estimation method utilizes daily usage data based on flow rate studies of several jurisdictions in California. Column A shows how an average daily of usage of 180 gallons per day is distributed during each 6-hour period. Adjust the table as necessary to accurately represent the actual data.

Complete Column E by entering the number of minutes the SSO was active during each 6-hour time period. Multiply column D times Column E to calculate the gallons spilled during each time period. Add the numbers in Column F together for the Total Estimated SSO Volume per EDU.

	Flow Rate Per EDU				SSO	
	A	**B**	**C**	**D**	**E**	**F**
Time Period	Gallons per Period	Hours per period	A÷B = Gallons per Hour	C÷60 = Gallons per Hour	Minutes SSO was active during period	D × E = Gallons spilled per period
6am-noon	72	6	12	0.20		
noon-6pm	36	6	6	0.10		
6pm-midnight	54	6	9	0.15		
midnight-6am	18	6	3	0.05		
Total Estimated SSO Volume per EDU:						

STEP 3: Multiply the Estimated SSO Volume per EDU from Step 2 by the number of EDUs from Step 1.

_____ gallons X _____ = _____ gallons

Volume per EDU # of EDUs Estimated SSO Volume

STEP 4: Adjust SSO volume as necessary considering other factors, such as activity that would cause a fluctuating flow rate (doing laundry, taking showers, etc.). Explain rationale below and indicate adjusted SSO estimate (attach a separate page if necessary):

Estimated SSO Volume: _____ gallons

Do you believe that this method has estimated the entire SSO? ☐Yes ☐No

If no, you MUST use additional methods to estimate the entire SSO. If yes, it is advisable to use additional methods to support the estimation. Explain why you believe this method has/has not estimated the entire SSO:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Backup Response Packet

Lateral CCTV Report

PLEASE COMPLETE AS THOROUGHLY AS POSSIBLE

PERSON COMPLETING THIS FORM:

DATE:
PHONE:

CAMERA TYPE:

LOCATION OF CAMERA ENTRY:

AFFECTED PROPERTY STREET ADDRESS:

LOCATION OF CAMERA STOP:

CITY, STATE AND ZIP:

DESCRIBE AREA TV'd:

PHONE

UPSTREAM MANHOLE #:

WEATHER AT TIME OF CCTV WORK:

PLEASE CHECK ALL THAT WERE DISCOVERED – *Describe Extent & Location Using Camera Entry Point As Reference*:

- ❒ Broken Lateral – Describe:
  Depth:
- ❒ Roots – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Grease – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Sag – Describe:
  Depth:
- ❒ BPD – Describe:
  Location:
- ❒ Cleanout – Describe:
  Location:
- ❒ Joint/Junction – Describe:
  Depth
- ❒ Grade – Describe:
- ❒ Grit – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Other – Describe:

TIME OF OVERFLOW:

TIME BLOCKAGE RELIEVED:

TIME LATERAL TV'd:

DEPTH OF LATERAL:

RECOMMENDED
FOLLOW UP WORK ACTIONS:

Mark for USA location? ☐ Yes ☐ No

Lateral Locations Marked in Green Paint? ☐ Yes ☐ No

SIGNATURE OF EMPLOYEE PERFORMING TV WORK:

DATE

If applicable, place completed form in Sewer Backup Packet and follow routing instructions.

Public Works Facility Manager/Chief Plant Operator

1. **Complete the following information:**

   Title: _____

   Name: _____

   Phone: _____

   Today's Date: _____

2. **Copy the items listed below and retain originals for internal archiving purposes.**

3. **Place the copies in the Backup Response Envelope and forward to the City Manager:**

   - ☐ **Form B-3: First Responder Form**
   - ☐ **Form B-4: Declination of Sewage Cleaning Services**
   - ☐ **Form B-5: Lodging Authorization Form**
   - ☐ **Form B-6: Sanitary Sewer Overflow Report**
   - ☐ **Form B-7: Start Time Determination Form**
   - ☐ **Form B-8: Volume Estimation Forms (a, b and/or c)**
   - ☐ **Form B-9: Lateral CCTV Report**
   - ☐ **Form B-10: Claims Submittal Checklist** *(this form)*
   - ☐ **All photos taken: Check here if digital photographs will be forwarded separately** ☐
   - ☐ **Any other information you feel is important in this claim**

4. **Go to Regulatory Notifications Packet and make all appropriate notifications.**

5. **Complete Form BP-11: Collection System Failure Analysis**

City Manager or Designee

1. **Verify claims packet is complete.**
2. **Notify York Risk Services Group:**

   Cameron Dewey, Unit Manager
   York Risk Services Group
   P.O. Box 619079
   Roseville, CA 95661
   Telephone: (530) 243-3249
   Fax: (530) 255-9095
   Email: cameron.dewey@yorkrsg.com

To be completed by the Public Works Facility Manager/Chief Plant Operator

Incident Report #		Prepared By	
SSO/Backup Information			
Event Date/Time	Address		
Volume Spilled	Volume Recovered		
Cause			
Summary of Historical SSOs/Backups/Service Calls/Other Problems			
Date	Cause	Date Last Cleaned	Crew
Records Reviewed By:		Record Review Date:	
Summary of CCTV Information			
CCTV Inspection Date		Tape Name/Number	
CCTV Tape Reviewed By		CCTV Review Date	
Observations			

Go to Side B

Recommendations					
✓	Type	Specific Actions	Who is Responsible?	Completion Deadline	Who Will Verify Completion?
	No Changes or Repairs Required	n/a	n/a	n/a	n/a
	Repair(s)				
	Construction				
	Capital Improvement(s)				
	Change(s) to Maintenance Procedures				
	Change(s) to Overflow Response Procedures				
	Training				
	Misc.				

Comments/Notes:

Review Date:

Customer Service Packet

Contents:

Form	Form Number
Customer Information Letter	CS-1
Claim Form	-2
Sewer Spill Reference Guide	pamphlet

Instructions:

1. Review the Customer Information letter to determine actions that need to be taken immediately.
2. See the Customer Information letter for information about filing a claim.
3. Review the Sewer Spill Reference Guide pamphlet.

If you have any questions contact:

Public Works Facility Manager/Chief Plant Operator at rwalker@liveoakcity.org or

Cameron Dewey at York Risk Services Group at (530) 243-3249.

This packet provided by: _____

Phone: _____

Print on 6” x 9” envelope

Sanitary Sewer Backup Response Packet

Customer Information Regarding Sewer Backup Claims

Dear Resident:

We recognize that sewer back flow incidents can be stressful and require immediate response when all facts concerning how an incident occurred are unknown. Rest assured that we do all we can to prevent this type of event from occurring. Nevertheless, occasionally tree roots or other debris in the sewer lines cause a backup into homes immediately upstream of the blockage. At this time the City is investigating the cause of this incident.

If the City is found to be responsible for the incident, we are committed to cleaning and restoring your property, and to protecting the health of those affected during the remediation process.

The cleaning contractor provided by the City has been selected because of their adherence to established protocols that are designed to assure all parties thorough, cost-effective and expeditious cleaning services. You also have the right to select your own cleaning contractor, but the City does not guarantee payment of fees/expenses incurred and reserves the right to dispute fees/expenses deemed not usual and customary.

If you wish to discuss this matter, please contact the Public Works Facility Manager/Chief Plant Operator at rwalker@liveoakcity.org.

If you wish to submit a claim for damages, please contact the City Manager at (530) 695-2112 for instructions on how to obtain a City Claim Form and to receive instructions on claims filing procedures. Completed Claims Forms are to be submitted to the City Manager at 9955 Live Oak Boulevard, Live Oak, CA 95953. Claims against the City must comply with the California Government Code Sec. 910-913.2.

What you need to do now:

The City has prepared this brief set of instructions to help you minimize the impact of the loss by responding promptly to the situation.

- Do not attempt to clean the area yourself; let the cleaning and restoration company handle this.
- Keep people and pets away from the affected area(s).
- Turn off all appliances that use water.
- Turn off heating/air conditioning systems.
- Do not remove items from the area – the cleaning and restoration company will handle this.
- If you had recent plumbing work, contact your plumber or contractor and inform them of this incident.
- If you intend to file a claim, do so as soon as practical in order to have your claim considered. To obtain a claim form contact the City Manager at 9955 Live Oak Boulevard, Live Oak, CA 95953.
    - **Please Note:** The general provisions for the filing of claims against public entities are contained in Part 3 (*commencing at Section 900)* of Division 3.6 of the Government code. Certain claims are not governed by these provisions, including tax and assessment matters, liens, employee compensations, workers' compensation, unemployment compensation, welfare, securities, and others.
    - The form and contents of a claim are specified by Section 910, et seq. A claim relating to a cause of action for death or for injury to person or to personal property or growing crops shall be presented not later than six months after accrual of the cause of action; other claims shall be presented within one year (*Section 911.2).*
    - Claims are to be presented by delivery or mailing to City Manager, Live Oak, CA *(Section 915).*
    - It is suggested that the claimant refer to claims law and be fully advised with respect to the exceptions and further provisions contained therein.

Important Legal Notice: For your protection, read carefully, obtain a reliable translation, and/or consult your attorney.

File With:
Office of City Clerk
City of Live Oak
9955 Live Oak Blvd.
Live Oak, CA 95953

CLAIM FOR MONEY OR DAMAGES AGAINST THE CITY OF LIVE OAK

RESERVE FOR FILING STAMP

CLAIM NO._____

A claim must be presented to a public agency, as required by the Government Code of the State of California, Section 910. Before completing this form, please read the attached instructions. You must complete each section of this form or your claim may be returned to you as insufficient.

If additional space is needed to provide your information, please attach sheets, identifying the paragraph(s) being answered.

1. Name and address of the Claimant:

Name of Claimant: Date of Birth:

Address:

2. Address to which the person presenting the claim desires notices to be sent:

Name of Addressee: Telephone:

Address:

3. The date, place and other circumstances of the occurrence or transaction which gave rise to the claim asserted.

Date of Occurrence: Time of Occurrence:

Location:

Circumstances giving rise to this claim:

4. General description of the indebtedness, obligation, injury, damage or loss incurred so far as it may be known at the time of the presentation of the claim. What specific damage or injury are you claiming?

5. **The name or names of the public employee or employees causing the injury, damage, or loss, if known.**

_____

_____

_____

6. **Was the Police Department or other law enforcement agency contacted? If yes, please provide a police report number and name of agency.**

☐ **Yes** ☐ **No** _____ **Police Report No.** _____ **Name of Agency**

7. **Names and addresses of all witnesses, hospitals, doctors, or other individuals having knowledge relevant to the claim:**

_____

_____

_____

_____

8. **If auto accident, please complete the following:**

_____ _____

Claimant's Vehicle License No. Year/Make/Model

_____ _____

City's Vehicle License No. Year/Make/Model Name of Department

9. **If amount claimed totals less than $10,000:** The amount claimed, if less than ten thousand dollars ($10,000) as of the date of presentation of the claim, including the estimated amount of any prospective injury, damage, or loss, insofar as it may be known at the time of the presentation of the claim, together with the basis of computation of the amount claimed.

Amount Claimed and basis for computation:

_____

_____

_____

If amount claimed exceeds $10,000: If the amount claimed exceeds ten thousand dollars ($10,000), no dollar amount shall be included in the claim. However, it shall indicate whether the claim would be a limited civil case. A limited civil case is one where the recovery sought, exclusive of attorney fees, interest and court costs does not exceed $25,000. An unlimited civil case is one in which the recovery sought is more than $25,000. (See CCP § 86.)

☐ Limited Civil Case ☐ Unlimited Civil Case

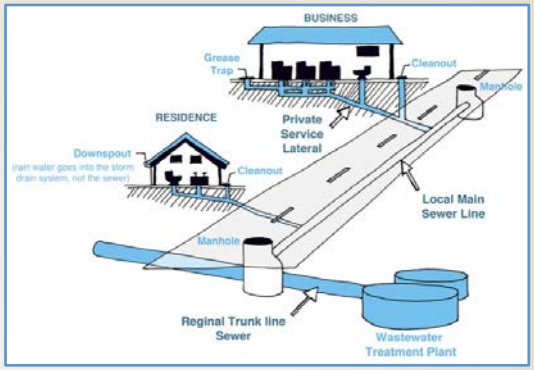
Warning: Presentation of a false claim is a felony (Penal Code §72). Pursuant to CCP §1038, the City/Agency may seek to recover all costs of defense in the event an action is filed which is later determined not to have been brought in good faith and with reasonable cause. I declare under penalty of perjury that the foregoing is true and correct. Please sign below.

Signature: **Date:**

_____

How a Sewer System Works

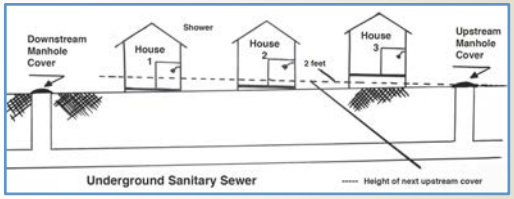
A property owner's sewer pipes are called ***service laterals*** and are connected to larger local main and regional trunk lines.
Service laterals run from the connection at the home to the connection with the public sewer. These laterals are the responsibility of the property owner and must be maintained by the property owner.



Is my home required to have a backflow prevention device?

Section 710.1 of the Uniform Plumbing Code (U.P.C.) states: *"Drainage piping serving fixtures which have flood level rims located below the elevation of the next upstream manhole cover or private sewer serving such drainage piping* ***shall*** *be protected from backflow of sewage by installing an approved type of backwater valve."* The intent of Section 710.1 is to protect the building interior from mainline sewer overflows or surcharges.

Additionally, U.P.C. 710.6 states: *"Backwater valves* ***shall*** *be located where they will be accessible for inspection and repair at all times and, unless continuously exposed, shall be enclosed in a masonry pit fitted with an adequately sized removable cover."*



If you have a sewage spill from your private sewer line that impacts storm drains, waterways or public property, contact:

City of Live Oak
(530) 695-2112

Butte County Environmental Health
(530) 538-7581
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
(916) 464-3291
Requires the prevention, mitigation, response to, and reporting of sewage spills.

California Governor's Office of Emergency Services (CalOES)
(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 to you by:

City of Live Oak

9955 Live Oak Boulevard
Live Oak, CA 95953
(530) 695-2112

www.liveoakcity.org

How 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 public sewer structures. Only our crews are allowed to 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 Backflow Prevention Device

This type of device can help prevent sewage backups into homes and businesses. If you don't already have a Backflow Prevention 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 of Live Oak. Our crews locate the blockage and determine if it is in 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 private 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.

Spill cleanup inside the home:

For large clean ups, a professional cleaning firm should be contacted 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, baby 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 ¼ 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.
- Seek 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 solutions, or ½ 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 ¼ 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.
- Seek immediate attention if you become injured/ill.

City of Live Oak

On (date) _____, at (location) _____ , we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

- ❒ The City sanitary sewer and cleared the line
- ❒ Your sanitary sewer lateral, which is your responsibility to maintain.

If you require assistance to clear your portion of the lateral you can look on the Internet or in the Yellow Pages of your 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 Live Oak representative notes: _____

_____

_____

City of Live Oak Representative:

_____

For questions or comments, please call
City of Live Oak
(530) 695-2112

For sewer emergencies
at night and on weekends, please call
(530) 822-7307

City of Live Oak

On (date) _____, at (location) _____ , we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

- ❒ The City sanitary sewer and cleared the line
- ❒ Your sanitary sewer lateral, which is your responsibility to maintain.

If you require assistance to clear your portion of the lateral you can look on the Internet or in the Yellow Pages of your 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 Live Oak representative notes: _____

_____

_____

City of Live Oak Representative:

_____

For questions or comments, please call
City of Live Oak
(530) 695-2112

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Appendix C

SANITARY SEWER OVERFLOW RESPONSE PACKET

Sanitary Sewer Overflow Response Packet

Table of Contents

Packet Assembly Instructions:

1. Print the Instructions/Chain of Custody page on a 9” x 12” envelope, or print on a full sheet label and affix to the envelope.
2. Place one copy of each of forms C-1 through C-6, plus a door hanger, pamphlet and public posting (printed on orange cardstock) in the envelope.
3. Print the Regulatory Notifications Packet Instructions on the front of a 6” x 9” envelope.
4. Place one copy of each of forms A-1, A-2a and A-2b in the envelope.
5. Place the Regulatory Notifications packet in the Sewer Overflow Response (9” x 12”) envelope.

For pre-assembled packets contact DKF Solutions Group at (707) 373-9709 or losscontrol@sbcglobal.net

In the event of a **Sanitary Sewer Overflow**
READ THIS FIRST

☐ **If this is a Category 1 SSO greater than or equal to 1,000 gallons immediately**
Contact the Water Quality Operator III at (530) 682-1469 to make the 2-hour notification to CalOES

☐ **Check here if you believe that fats, roots, oils and/grease (FROG) caused or contributed to the SSO.**

☐ **For any media requests: Contact the City Manager or designee at (530) 695-2112**

Instructions

Public Works Staff:

- ❑ Follow the instructions on the Sewer Overflow Response Flowchart (C-1).
- ❑ Refer to the Field Guide as necessary.
- ❑ Place completed forms, camera (if applicable), and any additional notes/documentation in this envelope.
- ❑ Complete the Chain of Custody record (right) and forward this packet to Public Works Facility Manager/Chief Plant Operator or designee.

Print Name: _____

Initial: _____

Date: _____

Time: _____

Public Works Facility Manager/Chief Plant Operator or Designee:

- ❑ Review the enclosed forms.
- ❑ Complete the Regulatory Notifications Packet.
- ❑ Complete the Chain of Custody Record (right) and file this completed Sewer Overflow Packet in accordance with City policy.
- ❑ Debrief using the Collection System Failure Analysis Form.

Print Name: _____

Initial: _____

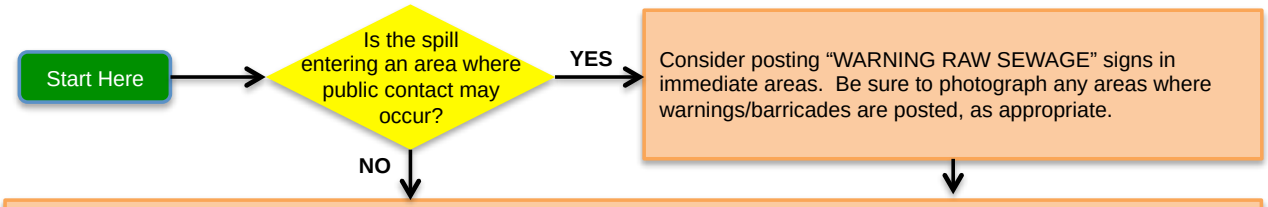
Date: _____

Time: _____

City of Live Oak Overflow Emergency Response Plan: Sanitary Sewer Overflow Packet

Sanitary Sewer Overflow Response Packet
Overflow Response Flowchart

C-1
Side A

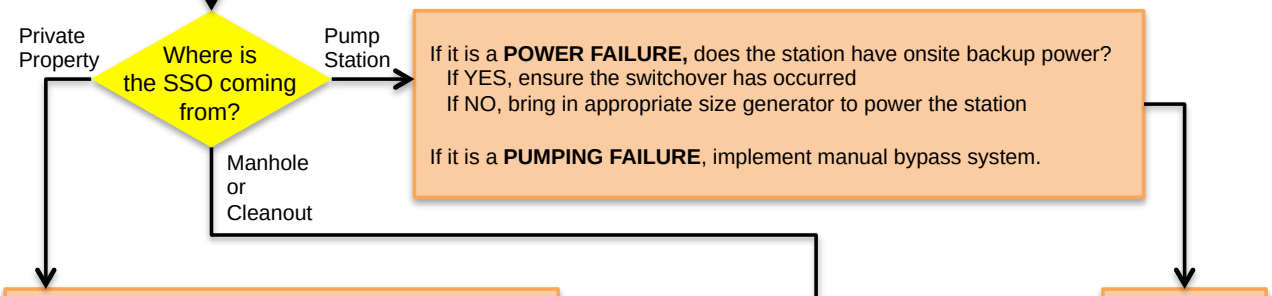


Consider posting "WARNING RAW SEWAGE" signs in immediate areas. Be sure to photograph any areas where warnings/barricades are posted, as appropriate.

Immediately contact the Water Quality Operator III at (530) 682-1469:
- If it is a Category 1 spill greater than or equal to 1,000 gallons, advise them to contact CalOES at (800) 852-7550 to make 2-hour notification, and to make additional notifications as applicable
- Request additional resources if necessary

For spills that aren't easily and/or naturally contained or threaten storm drains
BEGIN DIVERSION AND CONTAINMENT – Otherwise go to Clearing Blockage

1. **DIVERT AWAY FROM SENSITIVE AREAS:**
   a. Cover unplugged storm drains w/mats, or use dirt/other material to divert sewage away from sensitive areas (e.g., schools, playgrounds, intersections, etc.)
   b. ENSURE PUBLIC CONTACT DOES NOT OCCUR. Use cones/barricades to isolate area.
2. **CONTAIN SPILL & RETURN TO SYSTEM, IF POSSIBLE:**
   a. Plug storm drain catch basins or use rubber mats to cover basin inlet and divert flow to catch basin
   b. Build/excavate a berm to channel flow to downstream sanitary sewer manhole (*barricade manhole if left open)*
   c. Use bypass pumps to pump around blockage until it can be removed
   d. Divert to low area of ground where it can be collected later
3. **PHOTOGRAPH HOW THE SSO WAS DIVERTED/CONTAINED, AS APPROPRIATE**



If it is a **POWER FAILURE,** does the station have onsite backup power?
If YES, ensure the switchover has occurred
If NO, bring in appropriate size generator to power the station

If it is a **PUMPING FAILURE**, implement manual bypass system.

PRIVATE PROPERTY SSO

1. Photograph & document **all** evidence that this SSO is from private property.
2. If customer is not home, complete Customer Service door hanger. If they are home, provide them with the pamphlet – "Sewer Spill Reference Guide."
3. If tenant or property owner is unable to unwilling to address the cause of the overflow, immediately contact your supervisor and discuss whether City Code Enforcement, the County Department of Environmental Health or Regional Water Quality Control Board should be notified.

End. Do not continue to Side B

CLEAR BLOCKAGE/STOPPAGE

Use cleaning equipment appropriate to situation to hydroflush, rodder, or hand rod to clear blockage. Make certain to either have the vactor setup at downstream manhole or use a fork/trap at the manhole outlet to catch any debris released. If using the rodder, first set-up dry manhole & run upstream to blockage. Once blockage is broken, pull out rods & cleaning tools. Leaving rods in the line could restrict flow. Once flow is normal, run line to next manhole.

Photograph staff activities to document City actions as appropriate.

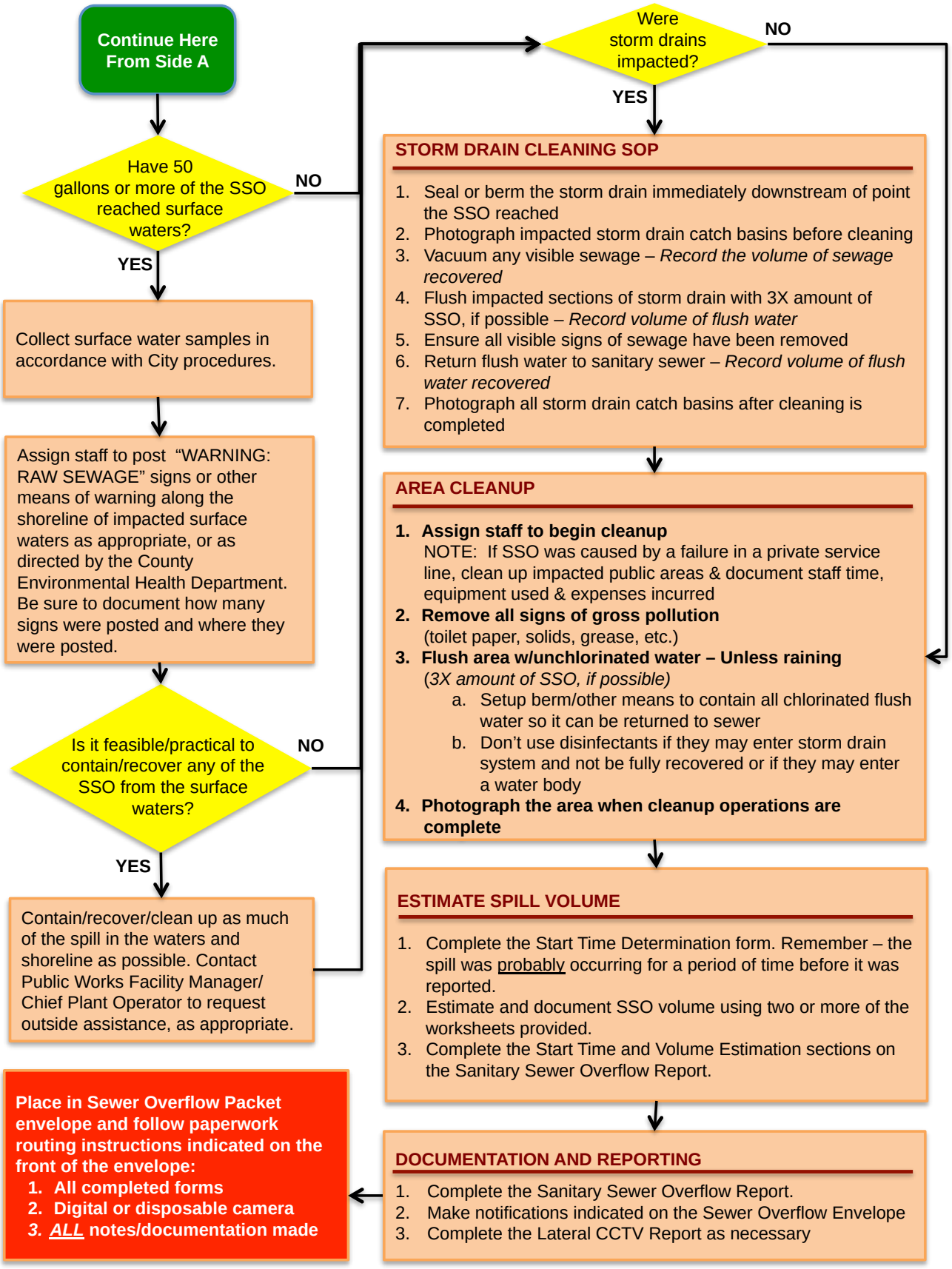
Go to Side B

MEDIA AND PUBLIC RELATIONS GUIDELINES:

Exercise caution in contacts with the public or media when you respond to a spill. Any information you provide or statements you make may become pertinent in the event of possible court action, it is important to **AVOID THE FOLLOWING**:

- Giving out the wrong information,
- Providing incorrect facts about a company or other agency
- Speculating about the situation you are responding to
- Making accusations against customers, businesses or other agencies

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. In most cases, refer media requests to the media coordinator indicated on the front of the Overflow Packet envelope.



Sanitary Sewer Overflow Response Packet

Sanitary Sewer Overflow Report

C-2 Side A

INSTRUCTIONS: Complete all items *EXCEPT* those that are shaded gray

SSO Category *(check one)*:

☐ Category 1: Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either (1) Reaches surface water and/or drainage channel tributary to a surface water; OR (2) Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured and disposed of properly.

☐ Category 2: Discharge of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a sanitary sewer system failure or flow condition that either (1) Does not reach surface water, a drainage channel, or an MS4, OR (2) The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.

☐ Category 3: All other discharges of untreated or partially treated wastewater resulting from a sanitary sewer system failure or flow condition

☐ Spill from Private Lateral (specify): ☐ Single Family Home ☐ Multi-Family Home ☐ High Density Residential (5+ units) ☐ Food Service Establishment (FSE) ☐ Mixed Use Property ☐ Industrial Property ☐ Commercial Property ☐ Public quasi-public institution (hospital, schools, fire department, etc.)

IMMEDIATE NOTIFICATION: If this is a Category 1 SSO ≥1,000 gallons, contact CalOES within 2 hours at (800) 852-7550.

A. SSO LOCATION

SSO Location Name:		
Latitude Coordinates*:	Longitude Coordinates:	
Street Name and Number:		
Nearest Cross Street:	City:	Zip Code:
County:	SSO Location Description:	

B. SSO DESCRIPTION (Complete Volume Estimation Worksheets and/or refer to Field Guide as needed for estimations.)

SSO Appearance Point (check one or more): ☐ Combined Sewer D.I. (Combined CS Only) ☐ Force Main ☐ Gravity Mainline ☐ Lateral Cleanout (Private) ☐ Lateral Cleanout (Public) ☐ Inside Building or Structure ☐ Manhole ☐ Pump Station ☐ Lower Lateral (Private) ☐ Lower Lateral (Public) ☐ Upper Lateral (Private) ☐ Upper Lateral (Public) ☐ Other Sewer System Structure (specify):

Were there multiple appearance points? ☐ No ☐ Yes, number of appearance points:

Did the SSO reach a drainage channel and/or surface water? ☐ Yes (*Category 1)* ☐No

If the SSO reached a storm sewer, was it fully captured and returned to the Sanitary Sewer? ☐ Yes ☐No (*Category 1)*

Was this spill from a private lateral? ☐ Yes ☐No If YES, name of responsible party:

Final Spill Destination: ☐ Ocean/ocean beach* ☐ Surface waters other than ocean ☐ Drainage channel ☐ Building/structure ☐ Separate Storm drain ☐ Combined storm drain ☐ Paved surface ☐ Unpaved surface ☐ Street/curb/gutter ☐ Other:

*Provide name(s) of affected drainage channels, beach, etc.:

Total Estimated SSO volume *(in gallons – 1,000gal or more = Category 1)*: gallons

Est. volume that reached a separate storm drain that flows to a surface water body:	gal	Recovered:	gal
Est. volume that reached a drainage channel that flows to a surface water body:	gal	Recovered:	gal
Est. volume discharged directly to a surface water body:	gal	Recovered:	gal
Est. volume discharged to land:	gal	Recovered:	gal

Calc. Methods: ☐Eyeball ☐Photo Comparison ☐Upstream Lat. Connections ☐Area/Volume (include sketch/photo with dimensions) ☐Other (describe):

C. SSO OCCURRING TIME (Complete Start Time Determination Form and then complete information below.)

Estimated SSO start date:	Estimated SSO start time:
Date SSO reported to sewer crew:	Time SSO reported to sewer crew:
Date sewer crew arrived:	Time sewer crew arrived:
Who was interviewed to help determine start time?	
Estimated SSO end date:	Estimated SSO end time:

* If multiple appearance points, use the GPS coordinates for the location of the SSO appearance point closest to the failure point/blockage.

Sanitary Sewer Overflow Response Packet

Sanitary Sewer Overflow Report

C-2
Side B

D. CAUSE OF SSO

Where did failure occur? (Check all that apply): ☐ Air Relief or Blow-Off Valve ☐ Force Main ☐ Gravity Mainline ☐ Siphon
☐ Lower Lateral (public) ☐ Lower Lateral (private) ☐ Manhole ☐ Pump Station (specify): ○Controls ○Mechanical ○Power
☐ Upper Lateral (public) ☐ Upper Lateral (private) Other:

SSO cause *(check all that apply)*: ☐ Air Relief or Blow-Off Valve Failure ☐ Construction Diversion Failure ☐ CS Maintenance
☐ Damage by others ☐ Debris (specify): ○from Construction ○from Lateral ○General ○Rags ☐ Flow Exceeded Capacity
☐ FROG (Fats, roots, oil, grease) ☐ Inappropriate Discharge ☐ Natural Disaster ☐ Operator Error ☐ Root Intrusion
☐ Pipe Structural Problem/Failure ☐ Pipe Structural Problem/Failure (Installation) ☐ Rainfall Exceeded Design
☐ Pump Station Failure (specify): ○Controls ○Mechanical ○Power ☐ Siphon Failure ☐ Vandalism
☐ Surcharged Pipe ☐ Non - Dispersible Wipes ☐ Other (specify):

Diameter (in inches) of pipe at point of blockage/spill cause (if applicable):

Sewer pipe material at point of blockage/spill cause (if applicable):

Estimated age of sewer asset at the point of blockage or failure (if applicable):

Description of terrain surrounding point of blockage/spill cause: ☐ Flat ☐ Mixed ☐ Steep

E. SSO RESPONSE

SSO response activities (check all that apply): ☐ Cleaned-Up ☐ Mitigated Effects of Spill ☐ Contained All or Portion of Spill
☐ Restored Flow ☐ Returned All Spill to Sanitary Sewer System ☐ Returned Portion of Spill to Sanitary Sewer System
☐ Property Owner Notified ☐ Other Enforcement Agency Notified (specify) ☐ Other (specify):

SSO response completed (date & time):

Visual inspection result of impacted waters (if applicable):

Any fish killed? ☐ Yes ☐ No Any ongoing investigation? ☐ Yes ☐ No

Were health warnings posted? ☐ Yes ☐ No If yes, provide health warning/beach closure posting/details:

Was there a beach closure? ☐ Yes ☐ No If yes, name of closed beach(es):

Were samples of impacted waters collected? ☐ Yes ☐ No
If YES, select the analyses: ☐ DO ☐ Ammonia ☐ Bacteria ☐ pH ☐ Temperature ☐ Other:

Recommended corrective actions: (check all that apply and provide detail)
☐ Add sewer to preventive maintenance program
☐ Adjust schedule/method of preventive maintenance
☐ Enforcement action against FROG source
☐ Inspect Sewer Using CCTV to Determine Cause
☐ Plan rehabilitation or replacement of sewer
☐ Repair Facilities or Replace Defect
☐ Other (specify)

What major equipment was used in the response?

List all agency personnel involved in the response including name, title and their role in the response:

F. NOTES

G. NOTIFICATION DETAILS

CalOES contacted date and time (if applicable):

CalOES Control Number (if applicable): Spoke to:

This form prepared by: NAME:	TITLE:	DATE:
This form reviewed by: NAME:	TITLE:	DATE:

Place completed form in Sewer Backup Envelope and follow routing instructions.

Sanitary Sewer Overflow Response Packet

Start Time Determination Form

C-3

SSO Start Date: _____ Location: _____

Accurate start time determination is an essential part of SSO volume estimation. Depending on the flow rate, being even one minute off can have a huge impact on the volume estimation. Be as precise as possible. Do not round to quarter hour increments. Start time must be based on all available information (interviews with neighbors, emergency responders, etc.)

What time was the City notified of the SSO? _____ ☐ AM ☐ PM

Who notified the City? _____

Did they indicate what time they noticed the SSO? ☐ YES ☐ NO If yes, what time? _____ ☐ AM ☐ PM

Who at the City received the notification? _____

What time did the crew arrive at the site of the SSO? _____ ☐ AM ☐ PM

Who was interviewed regarding the start time of the SSO? Include their name, contact information, and the statement they provided:

Name Contact Information Statement

_____

_____

_____

_____

Describe in detail how you determined the start time for this particular SSO:

SSO Start Date: _____ SSO Start Time: _____ ☐ AM ☐ PM

SSO End Date: _____ SSO End Time: _____ ☐ AM ☐ PM

SSO Duration: _____ **minutes**

This form completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Overflow Response Packet

Volume Estimation: Eyeball Estimation Method

C-4a

Use this method only for small SSOs of less than 200 gallons.

SSO Date: _____ Location: _____

STEP 1: Position yourself so that you have a vantage point where you can see the entire SSO.

STEP 2: Imagine one or more buckets or barrels of water tipped over. Depending on the size of the SSO, select a bucket or barrel size as a frame of reference. It may be necessary to use more than one bucket/barrel size.

STEP 3: Estimate how many of each size bucket or barrel it would take to make an equivalent spill. Enter those numbers in Column A of the row in the table below that corresponds to the bucket/barrel sizes you are using as a frame of reference.

STEP 4: Multiply the number in Column A by the multiplier in Column B. Enter the result in Column C.

	A	B	C
Size of bucket(s) or barrel(s)	**How many of this size?**	**Multiplier**	**Estimated SSO Volume (gallons)**
1 gallon water jug		x 1 gallons	
5 gallon bucket		x 5 gallons	
32 gallon trash can		x 32 gallons	
55 gallon drum		x 55 gallons	
Other: _____ gallons		x _____ gallons	
Estimated Total SSO Volume:			

STEP 5: Is rainfall a factor in the SSO? ☐Yes ☐No

If yes, what volume of the observed spill volume do you estimate is rainfall? _____ gallons

If yes, describe how you determined the amount of rainfall in the observed spill?

STEP 6: Calculate the estimated SSO volume by subtracting the rainfall from the SSO volume:

_____ gallons (Estimated SSO Volume) − _____ gallons (Rainfall) = _____ gallons **Total Estimated SSO Volume**

Do you believe that this method has estimated the entire SSO? ☐Yes ☐No

If no, you MUST use additional methods to estimate the entire SSO. If yes, it is advisable to use additional methods to support the estimation. Explain why you believe this method has/has not estimated the entire SSO:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Overflow Response Packet

Volume Estimation: Duration and Flow Rate Comparison Method

SSO Date: _____ Location: _____

STEP 1: Compare the SSO to reference images on Side 2 to estimate flow rate of the current overflow. Describe which reference photo(s) were used and any additional factors that influenced applying the reference photo data to the actual SSO:

Flow Rate Based on Photo Comparison: _____gallons per minute (gpm)

STEP 2: Complete the **Start Time Determination Form** to provide a detailed description of how start time was determined. Copy the SSO Duration from the Start Time Determination Form here:

SSO Duration: _____minutes

STEP 3: Multiply the flow rate by the SSO duration to calculate the estimated SSO volume.

_____gpm X _____minutes = _____gallons

Flow Rate | SSO Duration | Estimated SSO Volume

STEP 4: Did the SSO occur during a period of consistent flow in this portion of the system? □Yes □ No

If no, explain how, based on this portion of the collection system and its users, you believe it may have impacted the estimated SSO volume:

By what percentage are you adjusting the estimation? □ increase □ decrease _____%

Translate the percentage into gallons: _____gallons

STEP 5: Calculate the adjusted SSO volume estimate:

_____gallons + or - _____gallons = _____gallons

Estimated SSO Volume | Adjustment | **Estimated SSO volume**

Do you believe that this method has estimated the entire SSO? □Yes □No

If no, you MUST use additional methods to estimate the entire SSO. If yes, it is advisable to use additional methods to support the estimation. Explain why you believe this method has/has not estimated the entire SSO:

This worksheet completed by:

Name: _____ Signature: _____

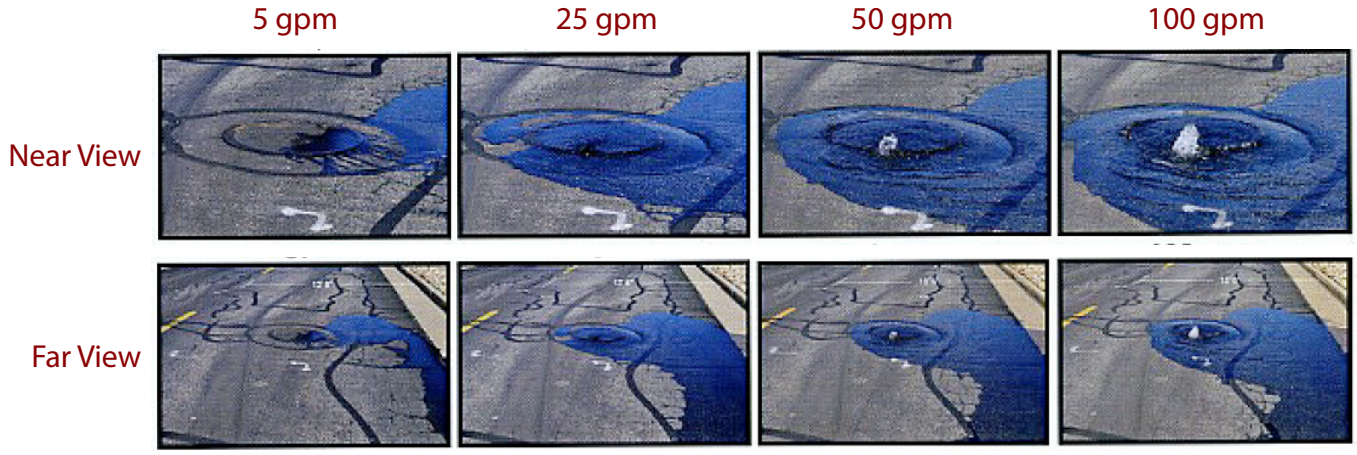
Job Title: _____ Date: _____

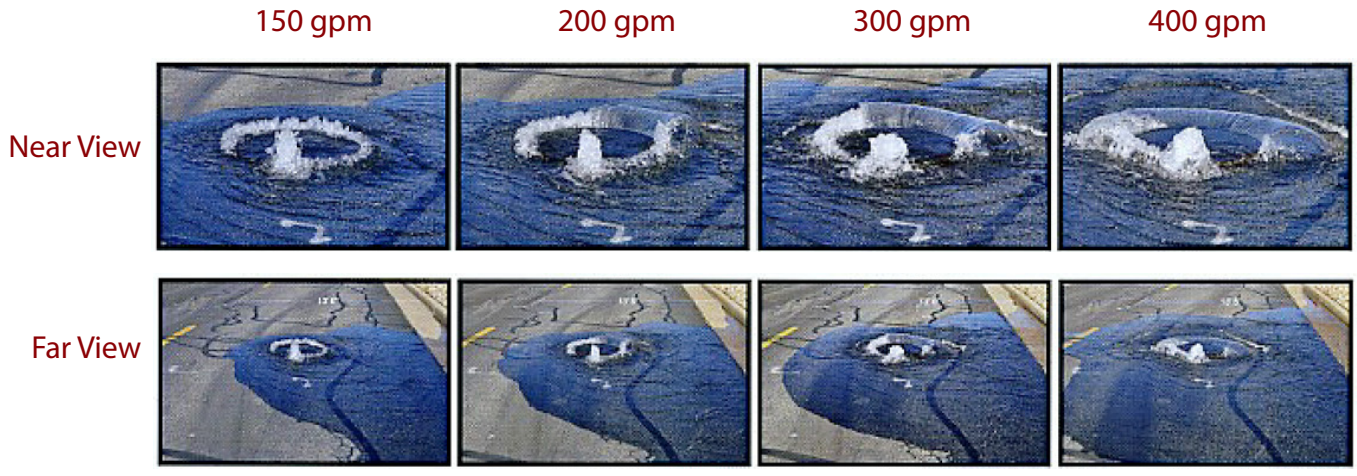
IMPORTANT NOTE:

These photographs are provided as examples only and will change with many factors.

SSCSC Manhole Overflow Gauge

CWEA Southern Section Collections Systems Committee
Overflow Simulation courtesy of Eastern Municipal Water District





Sanitary Sewer Overflow Response Packet

Volume Estimation: Upstream Lateral Connections Method

C-4c

SSO Date: _____ Location: _____

STEP 1: Determine the number of Equivalent Dwelling Units (EDUs) for this SSO: _____ EDUs
NOTE: A single-family residential home = 1 EDU. For commercial buildings, refer to agency documentation.

STEP 2: This volume estimation method utilizes daily usage data based on flow rate studies of several jurisdictions in California. Column A shows how an average daily of usage of 180 gallons per day is distributed during each 6-hour period. Adjust the table as necessary to accurately represent the actual data.

Complete Column E by entering the number of minutes the SSO was active during each 6-hour time period. Multiply column D times Column E to calculate the gallons spilled during each time period. Add the numbers in Column F together for the Total Estimated SSO Volume per EDU.

	Flow Rate Per EDU				SSO	
	A	**B**	**C**	**D**	**E**	**F**
Time Period	Gallons per Period	Hours per period	A÷B = Gallons per Hour	C÷60 = Gallons per Hour	Minutes SSO was active during period	D × E = Gallons spilled per period
6am-noon	72	6	12	0.20		
noon-6pm	36	6	6	0.10		
6pm-midnight	54	6	9	0.15		
midnight-6am	18	6	3	0.05		
Total Estimated SSO Volume per EDU:						

STEP 3: Multiply the Estimated SSO Volume per EDU from Step 2 by the number of EDUs from Step 1.

_____ gallons (Volume per EDU) X _____ (# of EDUs) = _____ gallons (Estimated SSO Volume)

STEP 4: Adjust SSO volume as necessary considering other factors, such as activity that would cause a fluctuating flow rate (doing laundry, taking showers, etc.). Explain rationale below and indicate adjusted SSO estimate (attach a separate page if necessary):

Estimated SSO Volume: _____ gallons

Do you believe that this method has estimated the entire SSO? ☐Yes ☐No

If no, you MUST use additional methods to estimate the entire SSO. If yes, it is advisable to use additional methods to support the estimation. Explain why you believe this method has/has not estimated the entire SSO:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Sanitary Sewer Overflow Response Packet

Lateral CCTV Report

C-5

PLEASE COMPLETE AS THOROUGHLY AS POSSIBLE

PERSON COMPLETING THIS FORM:

DATE:
PHONE:

CAMERA TYPE:

LOCATION OF CAMERA ENTRY:

AFFECTED PROPERTY STREET ADDRESS:

LOCATION OF CAMERA STOP:

CITY, STATE AND ZIP:

DESCRIBE AREA TV'd:

PHONE

UPSTREAM MANHOLE #:

WEATHER AT TIME OF CCTV WORK:

PLEASE CHECK ALL THAT WERE DISCOVERED – *Describe Extent & Location Using Camera Entry Point As Reference*:

- ❒ Broken Lateral – Describe:
  Depth:
- ❒ Roots – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Grease – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Sag – Describe:
  Depth:
- ❒ BPD – Describe:
  Location:
- ❒ Cleanout – Describe:
  Location:
- ❒ Joint/Junction – Describe:
  Depth
- ❒ Grade – Describe:
- ❒ Grit – Severity: ☐ Light ☐ Moderate ☐ Heavy
- ❒ Other – Describe:

TIME OF OVERFLOW:

TIME BLOCKAGE RELIEVED:

TIME LATERAL TV'd:

DEPTH OF LATERAL:

RECOMMENDED
FOLLOW UP WORK ACTIONS:

Mark for USA location? ☐ Yes ☐ No

Lateral Locations Marked in Green Paint? ☐ Yes ☐ No

SIGNATURE OF EMPLOYEE PERFORMING TV WORK:

DATE

If applicable, place completed form in Sewer Overflow Packet and follow routing instructions.

To be completed by the Public Works Facility Manager/Chief Plant Operator

Incident Report #		Prepared By	
SSO/Backup Information			
Event Date/Time	Address		
Volume Spilled	Volume Recovered		
Cause			
Summary of Historical SSOs/Backups/Service Calls/Other Problems			
Date	Cause	Date Last Cleaned	Crew
Records Reviewed By:		Record Review Date:	
Summary of CCTV Information			
CCTV Inspection Date		Tape Name/Number	
CCTV Tape Reviewed By		CCTV Review Date	
Observations			

Go to Side B

Recommendations					
✓	Type	Specific Actions	Who is Responsible?	Completion Deadline	Who Will Verify Completion?
	No Changes or Repairs Required	n/a	n/a	n/a	n/a
	Repair(s)				
	Construction				
	Capital Improvement(s)				
	Change(s) to Maintenance Procedures				
	Change(s) to Overflow Response Procedures				
	Training				
	Misc.				
Comments/Notes:					
Review Date:					

Overflow Emergency Response Plan
Public Posting

DANGER

RAW SEWAGE • AVOID CONTACT

PELIGRO

AGUA CONTAMINADA • EVITE TODO CONTACTO

City of Live Oak
(530) 695-2112

After hours and on weekends: (530) 822-7307

City of Live Oak

On (date) _____, at (location) _____ , we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

- ❒ The City sanitary sewer and cleared the line
- ❒ Your sanitary sewer lateral, which is your responsibility to maintain.

If you require assistance to clear your portion of the lateral you can look on the Internet or in the Yellow Pages of your 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 Live Oak representative notes: _____

_____

_____

City of Live Oak Representative:

_____

For questions or comments, please call
City of Live Oak
(530) 695-2112

For sewer emergencies
at night and on weekends, please call
(530) 822-7307

City of Live Oak

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City of Live Oak representative notes: _____

_____

_____

City of Live Oak Representative:

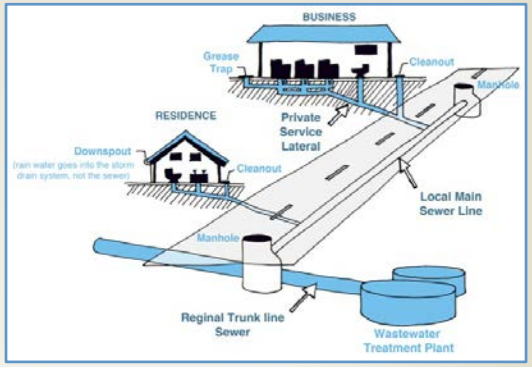
_____

For questions or comments, please call
City of Live Oak
(530) 695-2112

For sewer emergencies
at night and on weekends, please call
(530) 822-7307

How a Sewer System Works

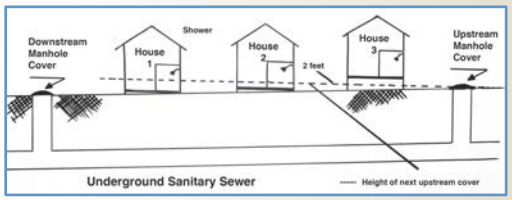
A property owner's sewer pipes are called ***service laterals*** and are connected to larger local main and regional trunk lines.
Service laterals run from the connection at the home to the connection with the public sewer. These laterals are the responsibility of the property owner and must be maintained by the property owner.



Is my home required to have a backflow prevention device?

Section 710.1 of the Uniform Plumbing Code (U.P.C.) states: *"Drainage piping serving fixtures which have flood level rims located below the elevation of the next upstream manhole cover or private sewer serving such drainage piping* ***shall*** *be protected from backflow of sewage by installing an approved type of backwater valve."* The intent of Section 710.1 is to protect the building interior from mainline sewer overflows or surcharges.

Additionally, U.P.C. 710.6 states: *"Backwater valves* ***shall*** *be located where they will be accessible for inspection and repair at all times and, unless continuously exposed, shall be enclosed in a masonry pit fitted with an adequately sized removable cover."*



If you have a sewage spill from your private sewer line that impacts storm drains, waterways or public property, contact:

City of Live Oak
(530) 695-2112

Butte County Environmental Health
(530) 538-7581
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
(916) 464-3291
Requires the prevention, mitigation, response to, and reporting of sewage spills.

California Governor's Office of Emergency Services (CalOES)
(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 to you by:

City of Live Oak

9955 Live Oak Boulevard
Live Oak, CA 95953
(530) 695-2112

www.liveoakcity.org

How 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 public sewer structures. Only our crews are allowed to 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 Backflow Prevention Device

This type of device can help prevent sewage backups into homes and businesses. If you don't already have a Backflow Prevention 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 of Live Oak. Our crews locate the blockage and determine if it is in 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 private 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.

Spill cleanup inside the home:

For large clean ups, a professional cleaning firm should be contacted 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, baby 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 ¼ 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.
- Seek immediate attention if you become injured or ill.

Spill cleanup outside the home:

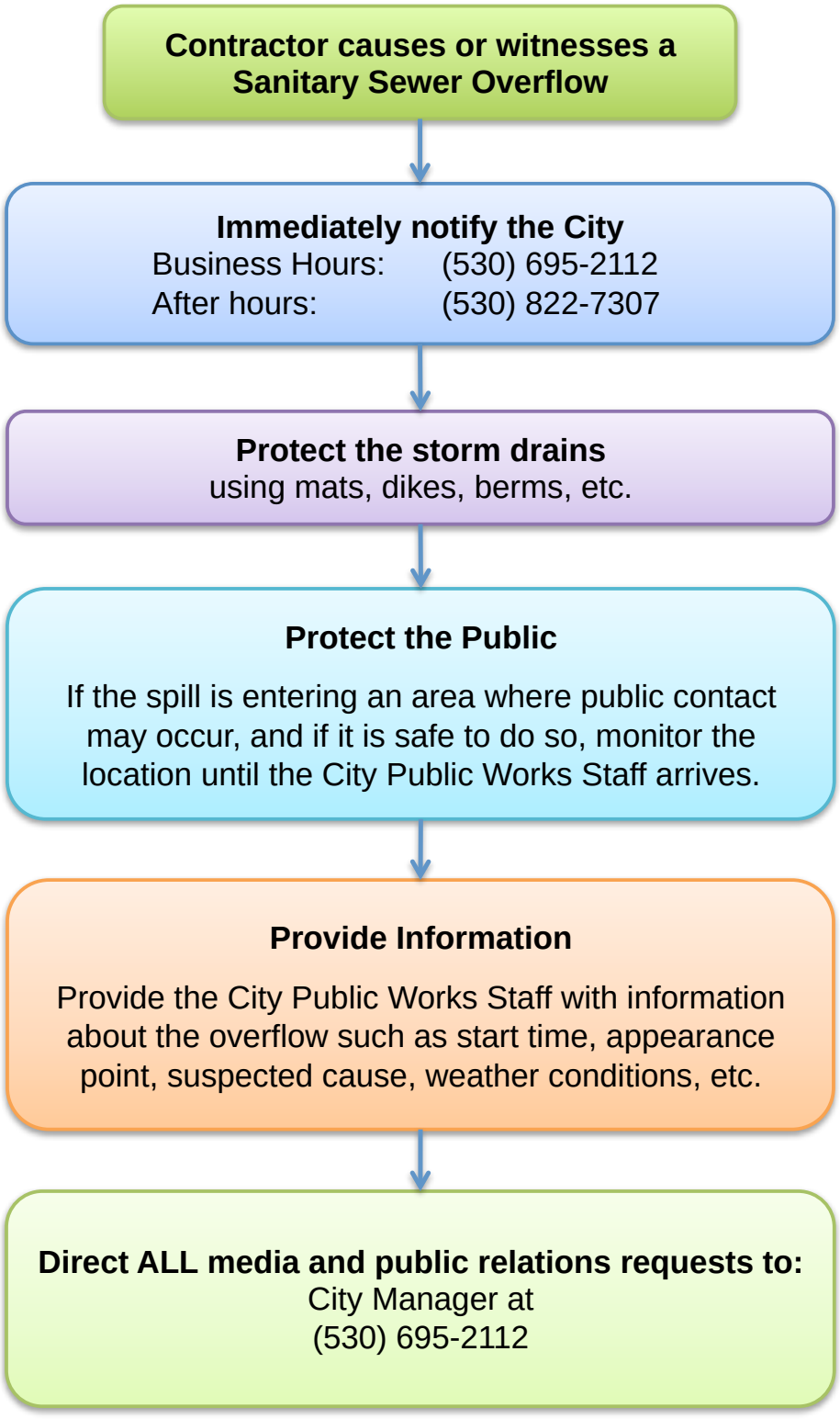
- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard surfaces areas such as asphalt or concrete, it is safe to use a 2% bleach solutions, or ½ 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 ¼ 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.
- Seek immediate attention if you become injured/ill.

Appendix D

CONTRACTOR ORIENTATION

CONTRACTOR ORIENTATION

The following procedures are to be followed in the event that you cause or witness a Sanitary Sewer Overflow.



Sanitary Sewer Overflows

How to avoid them and what to do if you don't

What? A sanitary sewer overflow (SSO) is a discharge of untreated human and industrial waste before it reaches the wastewater treatment facility.

Where? SSOs usually occur through manholes, plumbing fixtures and service cleanouts.

Why? SSOs are usually caused by grease, debris, root balls, or personal hygiene products blocking the sewer lines, or by unusually high flow volume.

How to prevent SSOs:

…when clearing plugged sewer laterals:

- Remove root balls, grease blockages and any other debris from the sewer
- If you can't prevent root balls, grease or debris from entering the sewer main, call us at (530) 695-2112, so we can work with you to remove the blockage and prevent blockages further downstream
- Use plenty of water to flush lines.

…when constructing or repairing sewer laterals:

- Contact the Building Department at (530) 695-2112 for a permit and lateral specifications.
- Check your work area. Make sure there is no debris left in the sewer line before you backfill.
- Avoid offset joints, which may make sewer lines vulnerable to root intrusion and grease or debris accumulation. Properly bed your joints and don't hammer tap.

If you cause or witness an SSO, immediately contact:

City of Live Oak

(530) 695-2112

After Hours:
(530) 822-7307

City of Live Oak

9955 Live Oak Boulevard, Live Oak, CA 95953

www.liveoakcity.org

APPENDIX D

CALIFORNIA INTEGRATED WATER QUALITY SYSTEM (CIWQS) SSO DATA

SSO - SSO Search ? SSO Menu

Regional Water Board: Region 5S - Sacramento
Agency: Live Oak City
Sanitary Sewer System: City Of Live Oak CS
WDID: 5SSO10898

Enter any search criteria and click "Search".

Agency: Live Oak City
Sanitary Sewer System: City Of Live Oak CS
WDID: 5SSO10898
Event ID:
Location Name:
Physical Address:
City: **Zip:** **County:**
Regional Water Board: Region 5S - Sacramento
Latitude: deg. min. sec. **OR** decimal degrees
Longitude: deg. min. sec. **OR** decimal degrees
Spill Date Range: to **(Date Format: MM/DD/YYYY)**
SSO Certification Step: Any

Search | Create New SSO Report | Export All Search Details To Excel

Search Results:

Previous 1-3 of 3 Next

SSO Event ID	Spill Start	Location Name	Agency	Collection System	WDID	Physical Address	Spill Type	Region
742939	0009-07-13 00:00:00.0	Walnut Drive	Live Oak City	City Of Live Oak CS	5SSO10898	2431 East Walnut Drive City of Live Oak, CA 95953	Category 1	5S
742938	0009-07-13 00:00:00.0	2431 Walnut Drive	Live Oak City	City Of Live Oak CS	5SSO10898	2431 East Walnut Drive City of Live Oak, CA 95953	Category 1	5S
730224	2008-12-03 01:30:00.0	2419 Ivy	Live Oak City	City Of Live Oak CS	5SSO10898	2419 East Ivy Way Live Oak, CA 95953	Category 2	5S

APPENDIX E

SSMP AUDIT CHECKLIST &
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 & connections to be properly designed & 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 & construction standards and specifications			
		Inspection and testing procedures & standards			
6.	Overflow Emergency Response Plan	Notification procedures for primary responders & regulatory agencies			
		Response program for SSOs			
		Notification procedures for regulatory agencies & 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 & 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 & 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			
11.	Communication Program	Public communication plan			
		Tributary or satellite systems communication plan			

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: _____

LIVE OAK
CALIFORNIA

LIVE OAK CALIFORNIA

SSMP AUDIT/UPDATE SCHEDULE

Update Type	Sections Revised	Date of Audit/ Update	Signature
Bi-Annual Audit			
Bi-Annual Audit			
SSMP Update			

SSMP Audit/Update Notes:

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

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 F

FOG PUBLIC OUTREACH DOCUMENTS

Controlling Fats, Oils and Grease (FOG)

Residential Fact Sheet

Why am I receiving this information?	The City is attempting to reduce the number of sewer pipe blockages and related overflows by educating residents about properly disposing of fats, oils and grease.
What is considered fats, oils and grease?	Fats, oils and grease are natural by-products of the cooking and food preparation process. Common sources include food scraps, meat fats, lard, cooking oil, butter and margarine, baking goods, sauces, and dairy products.
Why is it important to properly dispose of fats, oils and grease?	Preventing grease-related sewer blockages and overflows benefits your home, your pocketbook and the environment. The buildup of fats, oils and grease in the sewer system eventually results in sewer backups that can overflow onto streets and even into homes, damaging properties and the environment. Approximately 80% of grease-related sewer blockages and overflows occur in residential areas. Sewer system maintenance in neighborhoods that experience sewer blockages due to fats, oils and grease is expensive and can contribute to the amount that customers pay for sewer service.
What are the proper methods for disposing of fats, oils and grease in the kitchen?	Proper disposal is easy! 1. Fats, oils and grease should never be poured down the sink. Sink drains and garbage disposals are not designed to properly handle these materials. 2. Before washing, scrape and dry wipe pots, pans and dishes with paper towels and dispose of materials in the trash. 3. Pour fats, oils and grease after it has cooled into a container, such as an empty glass jar or coffee can. Once the container is full, secure the lid and place it in the trash. For large volumes, contact the city for recycling options. 4. Use sink strainers to catch food items, then empty the strainer into the trash. 

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City of Live Oak
Building Department
9955 Live Oak Boulevard
Live Oak, CA 95953
(530) 695-2112

Control de la Grasas, el Aceite y la Manteca

Hecho Residenciales Hoja

¿Por qué estoy recibiendo esta información?	La ciudad está tratando de reducir el número de bloqueos de tuberías de alcantarillado y se desborda por la educación de los residentes sobre la correcta eliminación de grasas, el aceit y la manteca.
¿Qué se considera grasas, aceit y la manteca?	Grasas, aceites y la manteca son subproductos naturales de la cocina y el proceso de preparación de alimentos. Las fuentes más comunes son restos de comida, carnes grasas, manteca, aceite, mantequilla y margarina, la levadura en productos, salsas y productos lácteos.
¿Por qué es importante disponer correctamente de grasas, aceit y la manteca?	Prevención de obstrucciones y la alcantarilla se desborda beneficios su casa, su billetera, y el medio ambiente. La acumulación de grasas, aceites y la manteca en el sistema de alcantarillado eventualmente se traduce en copias de seguridad de drenaje que puede desbordarse en las calles e incluso en las casas, dañando propiedades y el medio ambiente. Aproximadamente el 80% de las obstrucciones de la alcantarilla relacionados con la grasa y desbordamientos se producen en zonas residenciales. Mantenimiento del sistema de alcantarillado en los barrios que la experiencia de alcantarillado debido a obstrucciones grasas, aceites y la manteca es cara y puede contribuir a la cantidad que los clientes pagan por el servicio de cloacas.
¿Cuáles son los métodos apropiados para la eliminación de grasas, aceit y la manteca en la cocina?	¡La eliminación adecuada es fácil! 1. No vierta grasas, aceites y la manteca en el fregadero. Lavabo desagües y triturador de basura no están diseñadas para manejar adecuadamente estos materiales. 2. Antes de lavar, raspar y seco para limpiar ollas, sartenes y platos con toallas de papel y desechar los materiales en la basura. 3. Vierta las grasas, aceites y la manteca después de que se haya enfriado en un contenedor, como un frasco de vidrio o lata de café vacía. Una vez que el contenedor está lleno, asegure la tapa y colóquela en la basura. Para grandes volúmenes, póngase en contacto con la ciudad por las opciones de reciclaje. 4. Utilice el colador de fregadero para atrapar los alimentos, a continuación, vacíe el colador en la basura. 

LIVE OAK
CALIFORNIA

City of Live Oak
Building Department
9955 Live Oak Boulevard
Live Oak, CA 95953
(530) 695-2112

Best Management Practices

Controlling Fats, Oil, and Grease from Food Services Establishments

BMPs For Grease Traps

- Do not discharge wastewater with a temperature above 120° F to any grease trap.
- Do not connect dishwasher to grease traps. Discharge from mechanical dishwashers must bypass grease traps.
- Do not discharge solids into grease traps. Clean screens regularly.
- Clean and maintain your grease trap regularly.
- When cleaning your grease trap:
  * Skim off the waste FOG collected on top of the grease trap and transfer it to a recycling barrel on a daily basis, or more frequently, if necessary.
  * Inspect grease traps to determine that all parts are in good working condition and installed properly.

Protect the public health and the environment.
Prevent sewage blockages and spills.

LIVE OAK CALIFORNIA

City of Live Oak
Building Department
9955 Live Oak Boulevard
Live Oak, CA 95953
(530) 695-2112

Mejores Prácticas de Manejo

Control la grasa, el aceite y la manteca de los establecimientos de servicios de alimentos

BMPs para las Trampas de Grasa

- No descarga de aguas residuales con una temperatura por encima de 120° F a una trampa de grasa.
- No conecte la lavadora a las trampas de grasa. Aprobación de la gestión de lavaplatos mecánico deben pasar por las trampas de grasa.
- No descarga de sólidos en las trampas de grasa. Limpie las pantallas regularmente.
- Limpie y dé mantenimiento regularmente a la trampa para la grasa.
- Al limpiar su trampa para grasa:
  * Quite la grasa que se junte en la parte superior de la trampa para grasa y transfiérala diariamente o con mayor frecuencia si es necesario, a un barril de reciclaje.
  * Inspeccione las trampas para grasa y verifique que todos las partes estén instaladas apropiadamente y se encuentre en buenas condiciones para trabajar.

Protega la salud pública y el medio ambiente.
Evite derrames y obstrucciones en el drenaje.

LIVE OAK CALIFORNIA

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Best Management Practices

Controlling Fats, Oil, and Grease from Food Services Establishments

BMPs For Grease Interceptors

- Check solids depth routinely.
- Check thickness of waste FOG routinely.
- The combined thickness of the waste FOG on top and the solids on the bottom should not be more than 25% of the total interceptor depth.
- Have a contract with a licensed hauler to pump and clean your grease interceptor regularly.
- Carefully check the interceptor after service to make sure service was performed correctly.
- Keep a maintenance log.
- Train all staff to regularly check the depth of solids and thickness of retained waste FOG.

Protect the public health and the environment.
Prevent sewage blockages and spills.

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Mejores Prácticas de Manejo

Control la grasa, el aceite y la manteca de los establecimientos de servicios de alimentos

BMPs para las Interceptores de Grasa

- Verifique rutinariamente la profundidad de los sólidos.
- Verifique rutinariamente el grosor de la grasa.
- El grosor total del desperdicio del FOG en la parte superior y los sólidos en el fondo no debe ser superior al 25% de la profundidad total del interceptor.
- Tengá un contrato con un colector de la bomba y limpiar el interceptor de grasa con regularidad.
- Verifique cuidadosamente del interceptor después de servicio a hacer el servicio seguro y que se haya realizado correctamente.
- Mantenga un registro de mantenimiento.
- Capacitar a todo el personal para que verifique regularmente la profundidad de los sólidos y el grosor del FOG residuos conservados.

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