CITY OF LAKEPORT

MUNICIPAL SEWER DISTRICT

SEWER SYSTEM MANAGEMENT PLAN

(SSMP)

City of Lakeport Municipal Sewer District Administration

225 Park Street

Lakeport, CA 95453

(707) 263-5615

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List of Acronyms

AB	Assembly Bill (California)
BAT	Best Available Technology
BMP	Best Management Practice
CALEPA	California Environmental Protection Agency
CCR	California Code of Regulations
CCTV	Closed-Circuit Television
CFR	Code of Federal Regulations
CIP	Capital Improvement Plan
City	City of Lakeport
CLMSD	City of Lakeport Municipal Sewer District, managed by the Community Development/Utilities Department, Sewer Division
CM	Corrective Maintenance
CMMS	Computerized Maintenance Management System
CDFG	California Department of Fish and Game
CWA	Clean Water Act (federal)
CWEA	California Water Environment Association
CVCWA	Central Valley Clean Water Association
CVRWQCB	Central Valley Regional Water Quality Control Board
ERP	Emergency Response Plan
FOG	Fats, Oils, and Grease
FSE	Food Service Establishments
GIS	Geographical Information System
GPS	Global Positioning System
GWI	Groundwater Induced Infiltration
GWDR	General Waste Discharge Requirements and/or Waste Discharge Requirements (WDR)
HMBP	Hazardous Materials Business Plan
HMIRSP	Hazardous Materials Incident Response Plan
I/I	Inflow / Infiltration
ICS	Incident Command System
IERP	Integrated Emergency Response Plan
LACOSAN	Lake County Sanitation District, A.K.A. Special Districts
LRO	Legally Responsible Official
MGD	Million Gallons per Day

MRP	Monitoring and Reporting Program
MSDS	Material Safety Data Sheets
NPDES	National Pollution Discharge Elimination System
NRC	National Research Council
O&M	Operation and Maintenance
OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services
Order	SWRCB General Order No. 2006-0003-DWQ, adopted May 2, 2006
Pd	Predictive Maintenance
PM	Preventative Maintenance
PMP	Preventative Maintenance Program
POTWs	Publicly Owned Treatment Works
R&R	Rehabilitation and Replacement
RWQCB	Regional Water Quality Control Board
SB	Senate Bill (state)
SCADA	Supervisory Control and Data Acquisition
SOP	Standard Operating Procedure or Standard Maintenance Procedure
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
USEPA	United States Environmental Protection Agency (federal)
WDP	Waste Discharge Permit
WDR	Waste Discharge Requirements and/or General Waste Discharge Requirements (GWDR)
WWTP	Wastewater Treatment Plant

List of Terms

Authorized Representative – The person designated, for a municipality, state, federal or other public agency, as either a principal executive officer of ranking elected official, or a duly authorized representative of that person. For CLMSD, this person either would be the Director or the Compliance Officer.

Blockage – Something that partially or fully blocks the wastewater from flowing through a sewer pipeline. The blockage can be caused by debris in the sewer, grease buildup, root intrusion, or a partial or full collapse of the pipeline. If not caught in time, the blockage may cause an overflow. This is also called a stoppage.

California Association of Sanitation Agencies (CASA) - CASA is a non-profit, statewide trade association representing public agencies that provide wastewater collection, treatment, disposal, and/or water reclamation services to about 90 percent of the sewered population in California. Website: http://www.casaweb.org/

California Water Environment Association (CWEA) – CWEA is an association of 8,000-plus professionals in the wastewater industry. CWEA is committed to keeping California's water clean. CWEA trains and certifies wastewater professionals, disseminates technical information, and promotes sound policies to benefit society through protection and enhancement of the water environment. CWEA offers services at the state level and locally through 17 geographical local sections. Through their on-line bookstore, CWEA offers technical references for sewer system operation and maintenance. Website: http://www.cwea.org/ .

Central Valley Regional Water Quality Control Board – Also known as Regional Water Quality Control Board or RWQCB. This is the primary wastewater regulator for CLMSD and the agency that issues agency-specific WDRs. The mission of this state regulatory agency is to: preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. Website: http://www.waterboards.ca.gov/centralvalley/ .

Capital Improvement Plan – Identifies and prioritizes system deficiencies and implements short-term and long-term rehabilitation actions to address each deficiency. The CIP is budgeted in operations and in reserves for long-term projects. It is directly related to depreciation expense, which includes fixed assets (e.g. treatment plant, pump stations, and other appurtenances) equipment, vehicles, and technology (e.g. SCADA replacement, computer refresh, monitoring programs, radio telecommunications, etc.).

Enrollee – The legal public entity that owns a sanitary sewer system, as defined by the GWDR, which has submitted a complete and approved application for coverage under the GWDR. This is

also called a sewer system agency or wastewater collection system agency. CLMSD is the legal owner of the wastewater collection system for the City.

Fats, Oils and Grease (FOG) - Fats, oils, and grease that are discharged into the sanitary sewer collection system by Food Service Establishments (FSE), homes, apartments and other sources. FOG is a major cause of blockages leading to increased maintenance and sometimes SSOs. Due to CLMSD's close proximity to Clear Lake, mitigating FOG is a paramount concern.

FOG Control Program – To be implemented at the Enrollee's discretion. May include public education program; plan and schedule for the disposal of FOG; legal authority to prohibit FOG related discharges; requirement to install grease removal devices; authority to inspect grease producing facilities; identification of sanitary sewer system sections subject to FOG blockages and the establishment of a cleaning schedule for each section; development and implementation of source control measures for all sources of FOG. The CLMSD has a robust FOG Control Program and diligently works with local businesses and residents to ensure awareness and action of FOG issues and BMPs.

Geographical Information System (GIS) – A database linked with mapping, which includes various layers of information used by government officials. Examples of information found on a GIS can include a sewer map; sewer features such as pipe location, diameter, material, condition, last date cleaned or repaired. CLMSDs GIS also contains base information such as streets and parcels. It is updated and maintained by a GIS consultant (North Star Precision Mapping) which has detailed and specific knowledge of the collection and treatment system.

Governing Board – This is the governing board of the sewer entity developing the SSMP. The City Council also acts as the Board of Directors for CLMSD.

GWDR – General Waste Discharge Requirements – A GWDR is an authorization to discharge waste with certain conditions, which can be issued on an individual basis or to a group of dischargers. The Statewide General WDR for Sanitary Sewer Systems was adopted by the SWCRB and will be implemented by the Regional Water Boards and SWRCB.

Groundwater Induced Infiltration (GWI) – Infiltration attributed to groundwater entering the sewer system.

Infiltration – The seepage of groundwater into a sewer system, including service connections. Seepage frequently occurs through defective or cracked pipes, pipe joints, connections or manhole walls and joints.

Inflow – Water discharged into a sewer system and service connections from such sources as, but not limited to, roof leaders, cellars, yard and area drains, foundation drains, cooling water discharges, drains from springs and swampy areas, around manhole covers or through holes in the covers, cross connections from storm and combined sewer system, catch basins, storm

waters, surface runoff, street wash waters or drainage. Inflow differs from infiltration in that it is a direct discharge into the sewer rather than a leak into the sewer itself.

Lateral – The portion of sewer that connects a home or business with the main line in the street. Sometimes sewer system agencies own or maintain a portion of the lateral.

Upper Lateral: Portion of lateral from building to property line (or easement line), usually privately owned and maintained.

Lower Lateral: Portion of lateral from property line (or easement line) to sewer mainline in the street or easement. This portion of the lateral is sometimes privately owned and maintained and sometimes publicly owned and maintained.

Monitoring and Reporting Program - The Monitoring and Reporting Program established in the WDR that establishes monitoring, record keeping, reporting and public notification requirements for the GWDR.

Ordinance - City of Lakeport (CLMSD) Sewer Use Ordinance No.872 (2008), adopted by the Board of Directors to establish basic use provisions for the wastewater collection and treatment system.

Overflow Emergency Response Plan – Identifies measures to protect public health and the environment. A plan must include the following: notification procedure, appropriate response plan, regulatory notification procedures, employee training plan, procedures to address emergency operations, a program that ensures all reasonable steps are taken to contain and prevent discharges.

Private Lateral – That portion of the Lateral that is owned and maintained by the private property owner that it serves. In the CLMSD, the private lateral typically ends at the sewer cleanout at the public right-of-way.

Preventative Maintenance (PM) – Regularly scheduled servicing of machinery, infrastructure or other equipment using appropriate tools, tests, and lubricants. This type of maintenance can prolong the useful life of equipment, infrastructure, and machinery and increase its efficiency by detecting and correcting problems before they cause a breakdown of the equipment, or failure of the infrastructure.

R-Value – Is the amount of rainfall that reaches the collection system via infiltration and inflow. This value is typically expressed as a percentage of total rainfall volume that reaches the collection system. It is used predominantly in the 2008 Master Sewer Plan.

Rainfall Dependent Infiltration and Inflow – Infiltration and Inflow that is attributed directly to rainfall.

Regional Water Board – Is a short name for any of the nine regional boards including the San Francisco Bay Area Regional Water Quality Control Board and the Central Valley Regional Water Quality Control Board.

Sanitary Sewer Overflow (SSO) – The Statewide GWDR defines an SSO as any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system, including overflows or releases that reach waters of the United States, overflows or releases that *do not* reach water of the United States, and backups into buildings and/or private property caused by conditions within the publicly owned portion of the sewer system.

Sanitary Sewer Overflow Categories

Category 1 – All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that equals or exceeds 1000 gallons; or result in a discharge to a drainage channel and/or surface water; or discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

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

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

Spill at the wastewater treatment plant – An SSO or other type of wastewater spill that occurs at the treatment plant. It has unique reporting requirements similar to a Category 1 SSO.

Sanitary Sewer Systems – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant head works used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities are considered to be part of the sanitary sewer system and discharges into these temporary storage facilities are not to be considered SSOs.

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. LACOSAN, or Special Districts, serves as such a system to the north and south of CLMSD. The District and LACOSAN have a mutual aid agreement in place, whereby flows can be sent from CLMSD to LACOSAN in the north and received by CLMSD in the south.

Sewer System Management Plan (SSMP) – A series of written site specific programs that address how a collection system owner/operator conducts their daily business as is outlined in the WDR. Each SSMP is unique for an individual discharger. The plan includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Also must contain a spill

response plan. Certification is offered by technically qualified and experienced persons and provides a useful cost effective means for ensuring that SSMPs are developed and implemented appropriately. For CLMSD, this individual is the Compliance Officer.

Stakeholder - A person or organization that has a vested interest in the development and outcome of the SWRCB Order No. 2006-0003 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

State Water Resources Control Board – This is the State agency that developed and passed the GWDR for collection systems and the agency that maintains the SSO reporting web site.

System Evaluation and Capacity Assurance Plan – A required component of an agency's SSMP and is an important part of any agency's overall Capital Improvement Plan that provides 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.

Wastewater Collection System – A.K.A. Sanitary Sewer System, see above.

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Introduction

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

Sewer System Management Plan Requirement Background

The State Water Resource Control Board (SWRCB) adopted Water Quality Order No. 2006-0003 at its meeting on May 2, 2006, which required all public wastewater collection system agencies in California with sewer systems greater than one mile in length to be regulated under General Waste Discharge Requirements (GWDR). The Order also requires such public collections system agencies to prepare an SSMP and report SSOs using an electronic reporting system.

An SSMP is a document that describes the activities in which a wastewater agency engages to manage its collection system effectively. This includes the following:

1. Maintaining or improving the condition of the collection system infrastructure in order to provide reliable service in the future;
2. Cost-effectively minimizing inflow/infiltration (I/I) and providing adequate sewer capacity to accommodate design storm flows; and
3. Minimizing the number and impact of sanitary sewer overflows (SSOs) that occur.

Completion deadlines for SSMPs are determined by population served by each respective agency. CLMSD's deadline to complete its SSMP is May 2, 2010.

Document Organization

This SSMP is intended to meet the requirements of both the Central Valley Regional Water Quality Control Board (RWQCB) and the Statewide GWDR. Included in this plan are eleven elements, each of which shall make up individual sections, and are as follows:

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

Each elemental section is divided into sub-sections, which shall include:

1. Description of the SWRCB requirement for that element;
2. Identification of associated documents, figures and supporting materials; and
3. Discussion of the element, which may be sub-divided further depending on length and/or complexity.

District Service Area and Sewer System

The City of Lakeport Municipal Sewer District (CLMSD or District) serves the City of Lakeport, a council-manager form of municipal government. It is governed by a board of directors, whose members also serve as the City Council. The boundaries of the district enclose those of the City mostly and also a few additional unincorporated areas to the south and west.

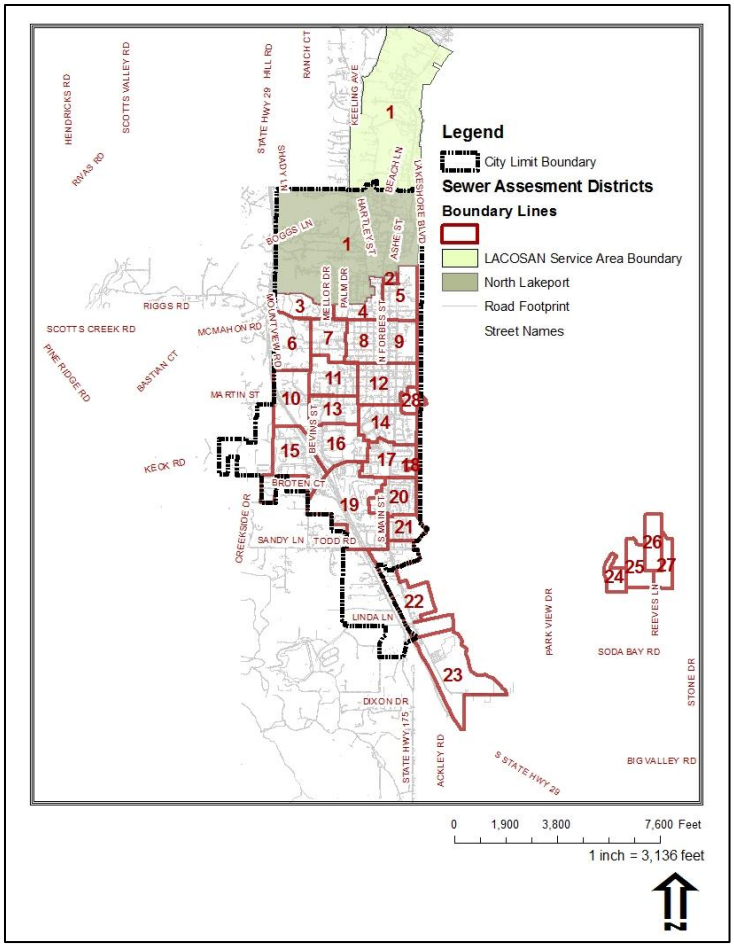


Figure 0.1. City and District Boundaries

(Larger copy available in Appendix 0.A)

Lakeport is located on the western shore of Clear Lake in Lake County. It was incorporated in 1888 and spans 2.44 square miles in size. The sewer system involves approximately 2,200 connections, serving over 5,200 residents, which accounts for eight percent of the entire county population. The District operates and maintains eight sewer lift stations, a secondary treatment and disposal facility, and a collection system to each private property line. The oldest main lines in service are estimated to have been installed 70 years ago. GIS mapping of the system has indicated several areas in need of rehabilitation; otherwise, the sewer performs efficiently and adequately.

Currently, land use in Lakeport is approximately 76 percent commercial/residential, five percent industrial and 19 percent open space/governmental/agriculture. However, apart from enhancing the appeal of Lakeport as a vacation destination, a movement is underway to make the City the focal point of economic and community activity for the County and the region. The City is

aggressively working to attract new retail, hotel, industrial, educational, recreational, and food service establishments to the area.

The District intends to expand the sewer system over the next 10 years to accommodate this potential commercial and residential growth. It also desires to implement programs and activities that will become an example for other similarly sized communities of efficacious wastewater management. To that end, an engineering firm was engaged nearly two years ago to develop a Master Sewer Plan which evaluated the District's sewer capacity and made recommendations to effectively accommodate future growth in the short and long term, while mitigating impact to the environment. Following review and comment from the City, that plan – in conjunction with this SSMP – is a guiding document for the District and the City moving forward. The Master Plan was adopted in July, 2008.

Purpose of this SSMP

The purpose of this SSMP is to describe current activities CLMSD uses, as well as prescribe, develop, and implement plans the District shall engage, to manage its municipal sanitary sewer system, further eliminating preventable SSOs, minimizing SSOs that do occur, and protecting both public and environmental health.

SSMP Work Plan and Schedule

Attached as Appendix 0.B is the work plan and schedule for the development of this SSMP. Each required element, with the exception of Elements 1 and 2, was completed by its due date. The main tenants and their respective due dates are summarized below.

Table 0-1. CLMSD Sewer System Management Plan Schedule		
Required Elements	**Considerations**	**Due Date**
Plan and Schedule	• Design and assign development of SSMP to staff • Determine deadlines	February 2, 2008
Goals	• Minimize sanitary sewer overflows (SSOs). • Prevent public and environmental health hazards. • Minimize inconveniences by responsibly handling interruptions in service. • Protect the large investment in the District's collection system by maintaining adequate capacities and extending useful life. • Prevent unnecessary damage to public and private property. • Use funds available for sewer operations in the most efficient manner. • Convey wastewater to treatment facilities with a minimum of inflow and infiltration (I/I). • Perform all operations in a safe manner to avoid personal injury. • Completion of a Sewer System Master Plan	May 2, 2008
Organization	• Identify agency staff responsible for the SSMP • Identify chain of communication for responding to and reporting SSOs	May 2, 2008
Emergency Response Plan	• Provide SSO notification procedures and identify responsible individuals • Review and describe a plan to respond to SSOs • Develop procedures to report and notify SSOs • Identify and describe procedures to prevent overflows from reaching surface waters, and to minimize or correct any adverse impact from SSOs	November 2, 2009
Legal Authority	• Control I/I from the collection system and laterals • Require proper design and construction of sewers and connections • Require proper sewer installation, testing and inspection • Ability to impose source control requirements	November 2, 2009
O&M Plan	• Maintain up-to-date maps using GIS system • Continue to fund GIS operations and train appropriate personnel on use of software and data collection tools • Review and describe preventative maintenance activities • Provide staff training on a regular basis, encourage continuing education and professional development	November 2, 2009
FOG Plan	• Develop Fats, Oils, and Grease Program • Create and disseminate informational materials to local businesses and residents • Ensure compliance with sewer use ordinance, installation and maintenance of grease traps	November 2, 2009
Design and Performance	• Identify minimum design and construction standards and specifications	May 2, 2010

Standards	• Identify procedures and standards for inspecting and testing	
System Capacity Plan	• Review and describe 2008 Master Sewer Plan • Review and describe CIP and timeline for completion of major rehab projects • Describe City's I&I mitigation program and recent accomplishments	May 2, 2010
Monitoring and Program Modifications	• Measure the effectiveness of each SSMP element • Monitor each SSMP element and make updates as necessary	May 2, 2010
Program Audits	• Conduct bi-annual audit of SSMP and performance of its implementation • Revise SSMP as needed	May 2, 2010
Communications Program	• Review and describe current methods of communication with public, Board of Directors, stakeholders, and community at large • Revise methods, if necessary • Continuously pursue more efficient and effective methods of communication	May 2, 2010
Final SSMP and Certification	• Present final draft SSMP for two-week public review and comment • Review, consider and recommend changes or comments, incorporate those which are appropriate • Certify final SSMP document as complete with RWQCB via CIWQS • Present final, certified document to CLMSD Board of Directors for approval and adoption	May 2, 2010

Table 0.1. SSMP Schedule

Element 1: Goals

This SSMP element identifies goals the District has set for the management, operation and maintenance of the wastewater collection system and will discuss the role of the SSMP in supporting these goals. These goals provide direction for District staff to implement improvements in the management of the District's wastewater collection systems. This section fulfills the Goals requirement of the SWRCB SSMP (Element 1).

1.1 SWRCB Requirements for Goals Element

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

The Enrollee must develop goals to properly manage, operate, and maintain all parts of its sanitary sewer system in order to reduce and prevent SSOs, as well as to mitigate any SSOs that occur.

1.2 Attachments

There are no associated documents or supporting materials associated with this element.

1.3 Element Discussion

Safe, responsive, and reliable sewer service is an integral component to the purpose of the District. Its mission is to provide these things, while maintaining high quality customer service, protecting the environment, and supporting economic development within the City through maintenance of, and improvement to, the community infrastructure. The mission statement of the District reflects that sentiment:

"The [District] is dedicated to fostering a safe and picturesque environment that enhances the quality of life for our community; it is our responsibility to promote the health and safety of City residents and visitors. We are committed to being responsive to the needs of the community, exercising innovation in sustaining and growing a vibrant place in which to live, work, and do business."[1]

[1] City of Lakeport Community Development/Utilities Department Mission Statement, 2008

In support of this mission, the District has developed the following goals for the operation and maintenance of its wastewater collection system. Throughout this SSMP document, responsibilities, procedures and guidelines for maintenance, operation and training activities shall be outlined.

- Minimize sanitary sewer overflows (SSOs).
- Prevent public and environmental health hazards.
- Minimize inconveniences by responsibly handling interruptions in service.
- Protect the large investment in the District's collection system by maintaining adequate capacities and extending useful life.
- Prevent unnecessary damage to public and private property.
- Use funds available for sewer operations in the most efficient manner.
- Convey wastewater to treatment facilities with a minimum of inflow and infiltration (I/I).
- Perform all operations in a safe manner to avoid personal injury.
- Completion of a Sewer System Master Plan

This SSMP will incorporate the District's existing operations and maintenance practices and will provide additional protocols for the management of the District's sewer system. This SSMP will contribute to the development of policies and procedures, which will address issues of customer service, water quality and environmental protection, long-term wastewater collection and treatment service, long-term infrastructure investment, long-term financial stability, and workforce planning and development, which will center on the continued development of the District's employee training program.

Customer service is a primary function of the District. Those whom the District serves include retail businesses, restaurants and other food service establishments, professional offices and service facilities, government agencies, and residential housing. Relationships with its customers will be revitalized as the District improves upon the level of service it offers.

Interaction with the public is imperative. Among other objectives to be achieved, staff will conduct training and public workshops on the proper disposal of fats, oils and grease; engage in a marketing campaign to introduce and inform food service establishments to the City's new sewer ordinance, including the requirement to install and operate grease interceptors; redesign procedures to make working with the City more effective and responsive; develop and implement a sewer later certificate program to reduce I/I issues originating on private property; and make staff and City resources more readily available to the public, fostering a more personable and amiable experience for its customers.

The overall goal of this SSMP is to adopt, create and build upon best management practices for the District's collection system which will result in minimizing the frequency and impacts of SSOs. By providing guidance for appropriate maintenance, capacity management, emergency response, monitoring and reporting, staff will be better equipped to meet federal and state regulations. The District has placed renewed emphasis on its compliance efforts and has recruited highly qualified staff to develop and manage response and reporting programs. Raising awareness of the effects of SSOs and ancillary environmental impacts that result from the operation of its sewer system is something toward which the District is aggressively pushing to achieve. To become an example for other agencies to follow is something to which District staff and the Board of Directors aspires.

Element 2: Organization

This section of the SSMP identifies District staff responsible for implementing this SSMP, responding to SSO events, and meeting SSO reporting requirements. This section also includes the designation of the Authorized Representative to meet SWRCB requirements for completing and certifying spill reports. This section fulfills the Organization requirement of the SWRCB SSMP (Element 2).

2.1 SWRCB Requirements for Organization Element

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

The Enrollee's SSMP must identify:

1. The name of the agency's responsible or authorized representative;
2. The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program, include lines of authority as shown in an organization chart or similar document with a narrative explanation; and
3. 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).

2.2 Documents, Figures and Supporting Materials

Associated documents for Element 2 are included in figures, presented herein, and as appendices, attached hereto (click on the link to follow to the document). They include the following:

1. Staff Directory (Appendix 2.A)
2. SSO Reporting Requirements Reference Guide (Appendix 2.B)
3. Community Development/Utilities Department Policy U-2 (Appendix 2.C)
4. District Organization Chart (Figure 2.A)

5. Contact List (Figure 2.B.)
6. SSO Reporting and Response Chain of Communication (Figure 2.C.)

2.3 Organization Discussion

This section presents the organizational structure for the District and discusses the roles of the wastewater collection system staff, the authorized representative to the SWRCB, and key staff responsibilities for implementing and maintaining the SSMP.

The District is a public wastewater operations and service entity governed by a Board of Directors, which also acts as the City Council. It is managed by the City Community Development/Utilities Department, Sewer Division, under the direction of the Community Development/Utilities Director, also referred to as the District or CLMSD Director. The Sewer Division is divided into three subdivisions: Administration, Compliance, and Operations.

Figure 2.A. represents the organizational structure of the District, which is comprised of the following representatives, whose responsibilities include, but are not limited to, those noted in their descriptions:

- **Board of Directors:** responsible for establishing policy, adopting ordinance, setting usage fees and penalties for infractions;
- **City Manager:** manages the general fiscal and administrative functions of the City and oversees the management of various departments within the City of Lakeport, of which CLMSD is a part;
- **CLMSD Director:** enforces policy, manages staff, allocates resources, authorizes third-party contractor services, and provides general direction for District operations;
- **City Engineer:** tasked with preparing wastewater collection system planning documents, manages capital improvement delivery systems; documents new and rehabilitated assets;
- **Compliance Officer:** primary roles and responsibilities include sewer code enforcement, SSO monitoring and reporting, and coordinating the development and implementation of the SSMP, which incorporates FOG and I/I programs;
- **Utilities Superintendent:** manages field staff and is first administrative responder to SSO incidents;
- **Building Official:** monitors, evaluates, and approves new sewer connections to the District system, ensuring they meet all applicable standards and requirements; and

- **Wastewater Facilities Supervisor:** first responder to sewer issues, delegates tasks and responsibilities to fields crews, which conduct preventive and corrective maintenance activities.

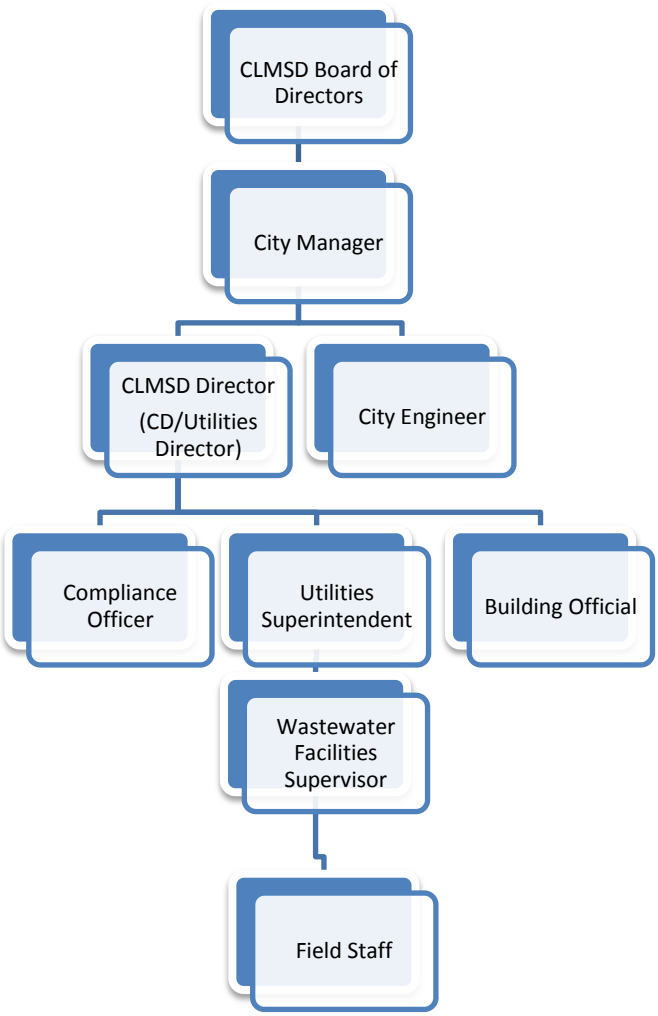


Figure 2.A. CLMSD Org Chart

The District's authorized representative in all wastewater collection system matters is the CLMSD Director, who is authorized to certify electronic spill reports submitted to the State Water Resources Control Board. The Director has also designated that authority to the Compliance Officer.

The Compliance Officer is responsible for organizing, implementing and maintaining all elements of this SSMP.

Contact information for the positions described above is presented below in Figure 2.B.

CLMSD Contact List Updated 4/6/10		
Position/Title	**Name**	**Telephone Number**
City Manager	Margaret Silveira	(707) 263-5615, ext. 32
CLMSD Director	Mark Brannigan	(707) 263-5615, ext. 15
City Engineer	Scott Harter	(707) 263-5615, ext. 11
Compliance Officer	Dan Buffalo	(707) 263-5615, ext. 30
Utilities Superintendent	Matt Johnson	(707) 349-9493
Building Official	Tom Carlton	(707) 263-5615, ext. 14
Wastewater Facilities Supervisor	Carlos Pradomeza	(707) 245-7154
Wastewater Facilities Operator I	Chris Brians	(707) 813-7647
Construction Supervisor	Rich Johnson	(707) 245-6753
I & I Maintenance Worker	Cesar Arredondo	(707) 349-3126

Figure 2.B. CLMSD Contact List

The Compliance Officer is authorized to submit SSO reports to all appropriate government agencies (i.e., Central Valley Regional Water Quality Control Board, State Office of Emergency Services, and the Lake County Environmental Health Department). The Chain of Communication is presented below as Figure 2.C. It is to be used in conjunction with the District's SSO Reporting Requirements Reference Guide (Appendix 2.B) and Community Development/Utilities Department Policy No. U-2 (Appendix 2.C)

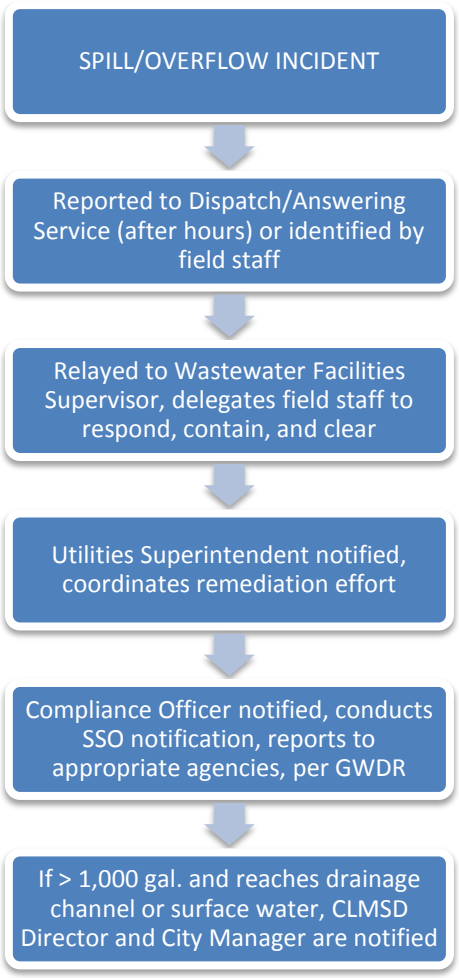


Figure 2.C. Chain of Communication

Element 3: Legal Authority

This section of the SSMP identifies the authority by which the CLMSD effectively operates the public sewer system, insures new sewers are constructed adequately, solves operation and maintenance problems, interacts with the public and developers, and reduces sewer system overflows. This section fulfills the Legal Authority requirement of the SWRCB SSMP (Element 3).

3.1 SWRCB Requirements for Legal Authority Element

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

The Enrollee's SSMP must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

1. Prevent illicit discharges into its sanitary sewer system, including I/I from satellite waste water collection systems and laterals, storm water, unauthorized debris, etc.
2. Require proper design and construction of sewer connections
3. Ensure access for maintenance, inspection, and repairs to publically owned portions of laterals
4. Limit the discharge of FOG and other debris that may cause blockages
5. Enforce violations of its sewer ordinance.

3.2 Documents, Figures and Supporting Materials

Associated documents for Element 3 are included in figures, presented herein, and as appendices, attached hereto. They include the following:

1. Sewer Use Ordinance, No. 872 (2008) (Appendix 3.A)
2. Fines for Violation of the FOG Program, Resolution No. 2315 (2008) (Appendix 3.B)
3. Community Development/Utilities Department Policies U-3, U-4, U-5, and U-6 (Appendix 3.C)
4. Mutual Aid Agreement with LACOSAN (Appendix 3.D)

3.3 Legal Authority Discussion

This section presents the legal authority by which CLMSD complies with SWQCB regulations.

Sewer Use Ordinance No. 872 (2008)

Pursuant to City of Lakeport Ordinance No. 872 (2008), any residence or facility within the boundaries of CLMSD must connect to the municipal sanitary sewer system with limited exception.

The Ordinance defines, in specific detail, the authority and mechanisms granted to CLMSD to ensure discharge to the wastewater collection and treatment system is not harmful to the environment or destructive to existing or future infrastructure. It outlines specific discharge regulations, pretreatment standards, and prescribed enforcement actions (per violation), as well as establishes the basic tenants of the Fats, Oils, and Grease (FOG) and Sewer Lateral Certificate Programs, which include provisions requiring grease traps and interceptors to be installed and maintained by all Users who produce and/or discharge FOG.

CLMSD is granted permit authority in the Ordinance to regulate discharge to the sanitary sewer system. However, such authority has not been exercised and is reserved for industrial Users primarily, categorized by class levels I-IV. The overall majority of current Users are categorized as domestic in nature, meaning the wastewater discharge disposed into the public sewer system is from ordinary living processes of human beings, without special treatment.

The Ordinance requires all identified sources of inflow and infiltration (I & I) be corrected upon discovery. The City actively investigates such sources and continuously works to identify and track new sources. CLMSD's I & I Program is proactive in detection; however, significant fiscal limitations prevent correction of all known I & I locations. The 2008 Master Sewer Plan comprehensively identified known I & I sources and the rehabilitation measures needed to correct the issues surrounding them. That information and newly discovered I & I sources are tracked and stored in the City's GIS mapping program.

Rights of Entry

§5.8 of the Ordinance provides the legal right for CLMSD personnel to inspect connections, appurtenances, and other components of the municipal sanitary sewer collection system on

private property if illicit discharges are known or suspected.

Section 5.8 Rights of Entry[2]

Persons or occupants of premises where wastewater is generated or discharged, or where hazardous substances or hazardous wastes are present, shall allow the CLMSD or its representative ready access to all parts of the premises for the purposes of inspection, sampling, photographing, analysis, records examination, records copying or performance of any of their duties. The CLMSD, or its authorized representative, accompanied by such other representatives of other public agencies as may be appropriate, shall have the right to set up on the User's property such devices as are necessary to conduct sampling, inspection, compliance monitoring and/or metering operations.

Users must allow access to their property during regular business hours with appropriate notice.

The Compliance Officer is responsible for ensuring this ordinance is enforced and that the public is aware of its provisions.

Enforcement Mechanisms

The enforcement mechanisms available to CLMSD for violations of the Ordinance include:

1. Informal administrative action (e.g., Notices of Violation and written warnings)
2. Administrative orders, compliance schedules, and other reports
3. Fines and fees
4. Penalties for non-compliance
5. Assessment of charges for damage to CLMSD facilities and/or operations
6. Suspension or termination of services
7. Civil action
8. Criminal action

Fines related to the general provisions of the Ordinance can range from $300 to $1,000 per day per violation, depending on the infraction. The applicability and severity of such fines is at the discretion of the Utilities Director or designee. The attached policy, U-5 (Appendix 3.C), provides the basic guidelines by which enforcement is implemented. Resolution No. 2315

[2] CLMSD Sewer Use Ordinance, No. 872 (2008), §5.8, pp. 49

(2008) (Appendix 3.B) prescribes specific fines for violations of the FOG Program, pursuant to Chapter 9 of Ordinance No. 872 (2008).

Construction and Design Standards

Through resolution, and referenced by City code, the City adopted the provisions of the California Plumbing Code, currently in version 2007, California Code of Regulations, Title 24, Part 5. Additionally, the City has adopted construction and design standards, promulgated by the City of Santa Rosa, and has incorporated ancillary standards, as discussed in Element 5.

Interagency Agreements

CLMSD maintains a mutual aid agreement with Lake County Sanitation District (LACOSAN), whereby wastewater flows in the northern portion of the district can be directed to the County collection system. Likewise, wastewater flows from areas south of the CLMSD collection area are accepted by CLMSD. A copy of the agreement is attached as Appendix 3.D.

Element 4: Operations and Maintenance Program

This section of the SSMP identifies the authority by which the CLMSD effectively operates the public sewer system, insures new sewers are constructed adequately, solves operation and maintenance problems, interacts with the public, and reduces sewer system overflows. This section fulfills the Operations and Maintenance requirement of the SWRCB SSMP (Element 4).

4.1 SWRCB Requirements for Operations and Maintenance Element

The summarized requirements for the Operations and Maintenance element of the SSMP are as follows:

The Enrollee's SSMP must include those elements listed below that are appropriate and applicable to the system:

1. Maintenance of up-to-date maps of its wastewater collection system facilities, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water pumping and piping facilities;
2. A description of 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;
3. A rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitative actions to address each deficiency;
4. A training program to provide regular instruction on sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
5. Provide equipment and replacement part inventories, including identification of critical replacement parts.

4.2 Documents, Figures and Supporting Materials

Associated documents for Element 4 are included in figures, presented herein, and as appendices, attached hereto. They include the following:

1. Collection System Map (Appendix 4.A)
2. 2008 Master Sewer Plan (Appendix 4.B)
3. Equipment Inventory List (Appendix 4.C)
4. Maintenance Cleaning Schedule (Appendix 4.D)
5. Rehabilitation Schedule (Table 4.1)

4.3 Operations and Maintenance Discussion

This section presents an overview of CLMSD's operations and maintenance program.

CLMSD Collection System Maps

The District retains a GIS consultant who manages the maintenance and updating of its collection system maps and mapping program. Information is made available electronically or in hard-copy format using maps of various sizes. These maps provide detailed information on nearly every component of the collection system, including sewer mains, laterals, manholes, pumping facilities, gravity and force sewer lines, valves, and ancillary appurtenances. Maps are presented in near real-time, real-world fashion and also carry visual information, including video, pictures, field staff notes, distances, etc. All geographical information is presented to scale, which gives CLMSD staff greater ability to identify and address issues quickly as they arise. These GIS maps also detail the existing storm water sewer system, including all known inflows and outfalls.

ArcReader, developed by ESRI, is a stand-alone GIS mapping software application used by CLMSD staff. The Reader, a component of a larger suite of mapping and information applications, is a free program and can be downloaded onto any PC (desktop or notebook) as well as portable GIS devices, such as Trimble mapping tools, or on any Windows mobile phones.

Maps are updated quarterly, or more frequently, depending on the amount of updates for that reporting period. In addition to system condition information (i.e., type and location of sewer system components), significant information is captured related to inflow and infiltration (I&I); the location, volume, type, and destination of sewer overflows (SSOs); as well as service calls and other system issues and failures that affect the ability of the collection system to function optimally.

Staff in the field can update the collection system map on scene or at the office. Access to information is available anywhere an internet connection can be found.

Preventive Operations and Maintenance

The CLMSD collection and treatment system spans approximately 135,400 feet of collector sewer mains and 13,500 feet of interceptor sewers. One treatment plant services the entire system, including routed wastewater flows from LACOSAN in the south.

CLMSD is managed by the Utilities Department of the City of Lakeport. Utilities staff in the sewer division are responsible for management, operations and maintenance, which includes the inspection, cleaning, repair, and the monitoring of the gravity sewer lines, force mains, and lift stations.

The Sewer Division has maintenance and cleaning programs to keep the sanitary sewer system operating efficiently and to minimize the number of main line stoppages and calls for service. Sewer cleaning using hydraulic or mechanical methods performed on a routine basis helps to remove accumulated debris in the pipe such as sand, silt, grease, roots, and rocks.

The Sewer Division has a shared, part-time inspection crew. A CCTV inspection crew typically consists of two Utility Maintenance Workers, which are shared with the Water Division. The inspection data is gathered electronically and is up-loaded into the CMMS (GIS database). Preventative maintenance is set up from the data gathered.

Inspections of the sanitary sewer system are a routine and essential duty for the Sewer Division crew. Regular inspections can help troubleshoot and minimize problems related to grease, roots, and other debris. Connections to the system and unwanted sources of inflow are identified through sewer inspections. As part of the sewer cleaning process, crews inspect and report on any problems or deficiencies within the sanitary sewer system. Such items included in the inspection are:

Visual Inspections

Visual inspections are performed on the sewer system manholes at a higher frequency than CCTV inspections because of the relative ease of performance. This type of inspection can give a good indication as to the condition and proper functioning of the collection system and generally includes:

A. Manhole Inspection

- Frame and cover
- Grade adjustments
- Flow surcharging
- Manhole bottom channels
- Structural integrity/manhole degradation
- I/I into manhole
- Other miscellaneous problems

B. Sewer Inspection

- Debris in line
- Grease in line
- Blockage or obstruction in line
- Excessive flow (relative to upstream flows)
- Any miscellaneous problems

Any of the above items would result in further study of the sewer and include CCTV inspection, sewer repair, or manhole repair. Field staff are required to write up anything they deem to be a problem or potential problem to the sewer system.

CCTV Inspections

- Requested by Compliance Officer or management because of a suspected problem
- In connection with I/I investigation work
- Routine check on the effectiveness of sewer cleaning

The Sewer Division has maintenance programs and schedules to minimize the number of service line stoppages, lift station failures, and calls for service. There are three full-time employees dedicated to maintenance of services lines, minor manhole repairs, and neighborhood lift stations. These employees perform the following duties:

- Routine maintenance and inspection of lift stations
- Manhole repair and coating
- Traffic control setup on an as needed basis
- Confined space entry on a very limited and as needed basis
- Installing cleanouts (in public right-of-way)

The Utilities Department construction crew performs routine and emergency repairs on the CLMSD's sewer infrastructure. Repair work includes:

- Sanitary sewer replacements
- Spot repairs, lateral, and service tap replacements
- Manhole repairs and manhole replacements.

Inflow and infiltration (I & I) is a significant problem for the collection system. In an effort to try and reduce this I&I load on the system, the City has performed several rehabilitation projects throughout its history:

- A sewer system evaluation survey of the Lakeport sewer system was performed in 1976. From this study, several areas of the City's collection system were identified for rehabilitation work.

- In 1979 the City performed an extensive rehabilitation program made up of sewer reconstruction, sewer video inspection, and grout sealing of sewer joints.

- From 1991 to 1992 the City performed an I & I analysis of the entire sewer system. This analysis involved smoke testing of the collections system to determine sources of inflow, manhole inspections, and wet weather flow monitoring. From this comprehensive analysis, several areas within the collection system were identified as having moderate to severe I&I.

- Using the 1991 and 1992 I&I study discussed above, the City preformed a major collection system rehabilitation project in 1993 and 1994. This project involved video inspecting, testing, and grout sealing approximately 38,000 feet of main line sewer, and replacing 8,200 feet of 6-inch to 10-inch main sewer as well as 3,100 feet of 3-and 4-inch lateral sewers within the right-of-way areas. In addition, the City also expanded the C Street pump station with upgrades to the pumps, control equipment, and the control building.

- Implemented in 2003, the City maintains an ongoing I&I reduction program and staff dedicated to reducing or eliminating I&I within the collection system. The City's I&I efforts have included:

    - Aerial mapping of the city including GIS mapping of the collection system.
    - Inventory of all sewer utilities (i.e., manholes, sewer sizes, etc).
    - GIS utility atlas provided to field crews for constant update.
    - Completion of City Sewer Spillage Geodatabase.
    - Purchase of flow meters for sewage lift stations, 2004
    - Installation of 44 sewer manhole covers, 2005
    - Routine internal close circuit television (CCTV) inspection of all gravity sewer main lines and some laterals using City owned CCTV equipment.
    - Systematic smoke testing to identify open clean outs, leaking manholes, and damaged sewers in areas prone to high I&I and flooding.
    - Identification, documentation, repairs, and enforcement of damaged and illicit connections to the gravity sewer system.
    - Scheduling of maintenance, restoration, and replacement of damaged sewers and laterals.
    - Physical assessment, photographing, and cataloging of all sewer manholes within the Lakeport collection system.
    - Rehabilitation of over 50 deteriorating manholes and lids from 2004 to 2006. Purchase and installation of leak proof manhole covers on a significant number of manholes throughout the system.

Rehabilitation Plan

In addition to normal repair work by Sewer Division field staff, the Utilities Department is committed to rehabilitation of the CLMSD system where needed. However, funding limitations and budgetary decisions have made the implementation of a capital improvement plan challenging. The 2008 Master Sewer Plan (Appendix 4.B) outlines and describes those projects in the most need of completion. Those projects are summarized in Table 4.1 below and include an estimated completion date. It is a 20-year plan.

Table 4.1. Rehabilitation Schedule

Item No.	Project Name	Description	Schedule		
			By 2013	By 2018	By 2028
1	Main Street Sewer Replacement	12" Sewer replacement, 6th Street to Clear Lake Ave	X	X	
2	Chlorination Gas System Replacement	Hypochlorite System installation at treatment plant	X		
3	Inspection and Cleaning of Chlorine Contact Pipe	Inspect/restore chlorine contact pipe capacity at treatment plant	X		
4	Modify Recycle Pump Station No. 1	Modify pump station for time-of-use operation at treatment plant	X		
5	Linda Lane Lift Station Odor Control	Install larger blower	X		
6	Lift Station Radio Telemetry and SCADA Improvements	Install radio telemetry in 5 lift stations, update SCADA		X	
7	I&I Reduction Program - Initial Target Areas	Initial target areas are indicated in Master Plan		X	
8	Lakeshore Blvd and N. High Street Parallel Sewer	8" parallel sewer		X	
9	Clearlake Liftstation Replacement	Replacement		X	
10	Repair Aeration Basins and Remove Sludge	Both aeration basins will be drained, the sludge will be allowed to dry, and the bottom will be scraped		X	
11	Main Street Parallel Sewer	15" parallel sewer installation		X	
12	N. High Street Sewer Replacement	8" replacement sewer		X	
13	Martin Street Parallel Sewer	8" parallel sewer		X	
14	I&I Reduction Program - High I&I Areas	as indicated in the Master Plan			X
15	10th Street Parallel Sewer	8" parallel sewer			X
16	Intallation of 20" Chlorine Contact Pipe	Will increase PWWF chlorine contact time at treatment plant			X
17	Martin Street Lift Station Capacity Improvements	Increase effectiveness at pump station			X
18	Russell Street Sewer Replacement	8" replacement sewer			X

Table 4.1. Rehabilitation Schedule

Training Program

CLMSD has established the following training and certification requirements, pursuant to the California Code of Regulations (CCR):

All sewer collection system personnel, except operator trainees (OIT), are required to hold a minimum Grade I (G1) wastewater operator certification. The CLMSD wastewater treatment facility is a Grade II facility and requires a chief operator with at least a G2 wastewater operator certification. Certified personnel are required to maintain their certifications without interruption and meet all continuing educational requisites.

The Sewer Division holds regular staff training on SSO response and mitigation, backhoe operation, sewer cleaning equipment, hazardous materials, first aid, and limited confined space. Components of that training include:

- Employee safety reviews
- Presentation of safe practice reminders at all meetings
- Hold monthly wastewater safety committee meetings
- Maintaining compliance of OSHA safety rules
- Review of Material Safety Data sheets (MSDS) for new chemicals used
- Employee certifications, renewals and continuing education
- Receipt and renewal of job specific certifications for DMV (Class B license), CPR, and First Aid, as required
- Annual review and training on Confined Space Policy (currently under revision)
- Emergency response procedures.

Equipment and Replacement Parts Inventory

A current list of equipment and replacement parts is found in Appendix 4.C. The Utilities Department has begun the transition to an electronic database system for asset tracking, including parts and equipment. The software, known as SEMS, has been installed on Utility Department desktop computers and is expected to be fully integrated into maintenance and operations by the end of the 2009-2010 fiscal year.

Element 5: Design and Performance Provisions

This section of the SSMP identifies the 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. This section fulfills the Design and Performance requirement of the SWRCB SSMP (Element 5).

5.1 SWRCB Requirements for Design and Performance Element

The summarized requirements for the Design and Performance Provisions element of the SSMP are as follows:

1. The Enrollee must identify design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations, and other appurtenances, and for the rehabilitation and repair of existing sanitary sewer systems; and
2. The Enrollee must identify the procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

5.2 Documents, Figures and Supporting Materials

Associated documents for Element 5 are included in figures, presented herein, and as appendices, attached hereto. They include the following:

1. Adopted Design and Construction Standards (City of Santa Rosa, Appendix 5.A)
2. Additional Design Standards (Appendix 5.B)

5.3 Design and Performance Discussion

This section presents an overview of CLMSD's Design and Performance Provisions.

The California Uniform Plumbing Code contains minimum standards to be adhered to for any sewer construction project. However, CLMSD and the City of Lakeport have adopted design and construction standards as promulgated by the City of Santa Rosa, which provide additional detail and requirements. These standards apply to various construction, replacement, rehabilitation, and other improvement activities, which include sewer and storm water systems. They are supplemented by additional standards found in Appendix 5.B. herein.

The purpose of adopted CLMSD construction standards is to provide specific standards to be applied to construction, replacement, rehabilitation, and other improvements, which may be dedicated to the public and accepted by the District for maintenance or operation, and certain private works, as well as improvements to be installed within existing rights-of-way and easements. This is necessary to ensure services are delivered to the public safely and effectively.

The purpose of the adopted design standards is to provide direction in the application of new construction, replacement, rehabilitation, and other improvements, which may be dedicated to the public and accepted by the City for maintenance or operation, and to provide for coordinated development of those facilities to be used by, and for the protection of, the public. This includes certain construction, replacement, rehabilitation, and other improvement projects conducted on private property, as well as improvements to be installed within existing public rights-of-way and easements. Whereas it is the intent of these standards to govern all new construction, rehabilitation, and other improvements, CLMSD shall interpret and apply them as it deems appropriate.

These standards shall apply to, regulate, and guide construction of streets, curbs, gutters, sidewalks, private sewer laterals, sewer cleanouts, sewer mains and other collection appurtenances, storm water drainage, traffic signals, site access, water supply facilities and related public improvements, and shall set guidelines for all private works which involve drainage, grading, trees, façade, and other related improvements.

All connections and modifications to the sanitary sewer must be reviewed and approved by CLMSD as a condition of the requisite building permit. Further conditions are promulgated in Ordinance No. 872 (2008), § 3.14 (Appendix 3.A), and are as follows:

Section 3.14 Connection Requirements[3]

A. Every lot, block, tract or parcel of land occupied by a residence, building, structure or place of business, producing sewage within the CLMSD or area serviced by special agreement with the CLMSD, to which the nearest property

[3] CLMSD Sewer Use Ordinance No. 872 (2008), §3.14, pp. 22

line is within two hundred (200) feet of the point at which a lateral may be connected to the CLMSD, shall be connected to such, excepting only such lots, blocks, tracts or parcels of land served by an adequate, existing septic tank or disposal system in good working order.

B. *Except as provided below, no septic tank or system shall be constructed or connected to any structure built, erected, moved or reconstructed, on any premises within the CLMSD, or on premises in any area contracting for discharge of sewage into the CLMSD, if the nearest line of such premises is within two hundred (200) feet of the point of connection to the system.*

C. *No lateral service connection shall serve more than one ownership.*

D. *No existing septic tank or separate disposal system serving any property or area within such two hundred (200) foot distance which hereafter becomes defective, and requires major repair work or reconstruction, shall be so repaired or reconstructed, except by a special grant permitting a variance authorized by the CLMSD, upon application therefore; but such use or User shall be connected into the CLMSD. "Major repairs or reconstruction" is defined as any repair or reconstruction requiring the installation of a new tank, leaching field or equivalent, or such work as will exceed fifteen percent of the cost of all laterals and connections or appurtenances thereto, constructed on the property of any applicant, or on any area outside the CLMSD shall be inspected and approved by the CLMSD, prior to being covered or concealed and before the connection pursuant to a permit is made.*

E. *It is unlawful to lay any lateral or connection line appurtenance thereto on the property of any User or applicant other than with such materials as the CLMSD may prescribe by resolution.*

F. *It is unlawful for any person, other than the CLMSD, its agents or employees, to connect any pipe, drain or facility with, or cause the same to penetrate, break, injure, remove or open any portion of the sewerage system of the CLMSD, or any line, pipe, manhole, flush tank, pump, meter, motor inspection line or any other part of or appurtenance to such system, without a written permit therefore, issued by the CLMSD.*

Ordinance No. 872 (2008), § 5.6.F., also requires the inspection, testing, and certification of private sewer laterals when any of the following occurs:

Section 5.6.F. Obtaining a Sewer Lateral Certificate of Compliance for the Privately Owned Portion of a Sewer Lateral/Building Sewer.[4]

A. *The application for a new connection to the sewer collection system;*
B. *The application for a building permit for a remodel of any structure being served by the private sewer lateral where the cost of the cumulative value of applicable improvements over the past five years exceeds $45,000 in 2007 dollars and adjusted every year for inflation;*
C. *The application for a building or plumbing permit to install additional toilet facilities on the property served;*
D. *The application for a change of use on property served from residential to commercial or from non-restaurant commercial to restaurant commercial;*
E. *Any repair or replacement of the main sewer to which the private sewer lateral is connected;*
F. *A determination by the Director that the cleaning, inspection, and testing is required for the protection of the public health, safety, and welfare; or*
G. *The User chooses to close and stop payment for an existing Sewer Account without the transfer of such account to another User.*

All inspections and testing of private sewer laterals usually are the responsibility of the owner. CLMSD may conduct CCTV inspections of private sewer laterals, if needed and deemed necessary by the immediate field supervisor, Utilities Superintendent, or Compliance Officer. The primary method of inspection and testing of sewer mains and pipes in the public right-of-way is by smoke injection. Cleanouts in the public right-of-way typically are inspected visually and by CCTV, if further investigation is required. CLMSD may employ dye testing to confirm results from a visual inspection. Field crews rarely will implement hydrostatic pressure testing of any sewer component, private or otherwise.

All improvements within the City rights-of-way shall be installed in accordance with the approved improvement plans and specifications, the City of Santa Rosa Design and Construction Standards, the State of California Department of Transportation Standard Specifications, and at the discretion of the City Engineer.

[4] CLMSD Sewer Use Ordinance, No. 872 (2008), pp. 42

CLMSD's adopted design standards are available online at the City's website. The City Engineer is responsible for maintaining those documents and for ensuring the provisions found therein are enforced and complied with by City construction crews and private, third-party contractors.

Element 6: Overflow Emergency Response Plan

This section of the SSMP outlines the requirements and procedures related to sanitary sewer overflows (SSO). This section fulfills the Overflow Emergency Response Plan requirement of the SWRCB SSMP (Element 6).

6.1 SWRCB Requirements for Legal Authority Element

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

Each enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. The plan must include the following:

1. Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
2. A program to ensure an appropriate response to all overflows;
3. 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 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;
4. Procedures to ensure that appropriate staff and contractor personnel are aware of, and follow, the Emergency Response Plan and are appropriately trained;
5. Procedures to address emergency operations, such as traffic and crowd control, and other necessary response activities;
6. A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to the 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.

6.2 Documents, Figures and Supporting Materials

Associated documents for Element 6 are included in figures, presented herein, and as appendices, attached hereto. They include the following:

1. SSO Reporting Form to RWQCB (Appendix 6.A)
2. Hazardous Materials Incident Response Plan (Appendix 6.B)
3. CLMSD Notification Procedures (Figure 6.A)
4. SSO Regulatory Reporting Requirements Reference Guide (Appendix 2.B)
5. Department Policy, U-2 (Appendix 2.C)

6.3 Overflow Emergency Response Plan Discussion

This section presents an overview of CLMSD's Overflow Emergency Response Plan.

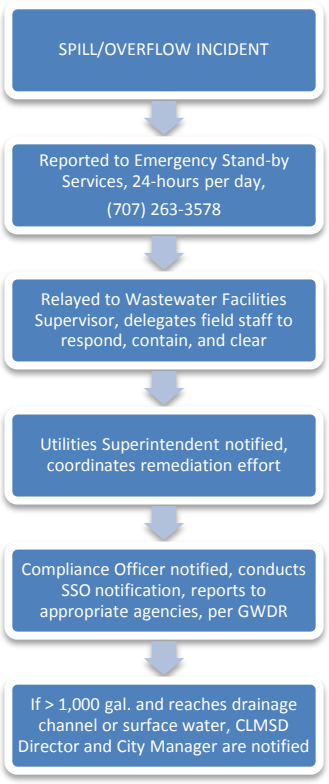
Notification Procedures

CLMSD staff responds immediately to any report of an SSO or other sewer system malfunction. Incident reports may come from any source (e.g., a local resident, business owner, police officer or fire official, etc.) but are typically received by telephone. The City has established a telephone number (listed below in Figure 6.1) for the public to call in the event of a sewer issue.

Upon receipt of an incident report, the Wastewater Facilities Supervisor contacts staff and delegates the containment, correction, and clean up effort, and notifies the Utilities Superintendent. The Wastewater Facilities Supervisor conducts an initial evaluation of the incident and briefs the Utilities Superintendent upon his arrival to the scene. The Utilities Superintendent provides additional direction to the Wastewater Facilities Supervisor and informs the Compliance Officer by phone of the incident.

The Compliance Officer is responsible for reporting all sewer overflows to emergency and regulatory agencies.

Figure 6.A. CLMSD Notification Procedures



Position/Name	Phone Number (707) area code, unless otherwise noted
Wastewater Facilities Supervisor- Carlos Pradomeza	(W) 263-3578, ext 15 (C) N/A
Utilities Superintendent – Matt Johnson	(W) 263-3578, ext 14 (C) 349-9493
Compliance Officer – Dan Buffalo	(W) 263-5615, ext 30 (C) 326-2149
Utilities Director – Mark Brannigan	(W) 263-5615, ext 15 (C) 245-0468
City Manager – Margaret Silveira	(W) 263-5615, ext 32 (C) (209) 505-0858

Operational Policies and Procedures

The attached policy and procedure (Appendix 2.C) is CLMSD's written document outlining proper response protocols following an SSO. Staff are trained and aware of this policy and its procedures. It is kept in a policy binder and available in all wastewater service vehicles.

Emergency Procedures

CLMSD maintains a Hazardous Materials Incident Response Plan (attached as Appendix 6.B), which dictates protocol during an emergency involving a chemical spill or uncontrolled release. This plan is applicable to incidents involving a sewer overflow deemed as a major emergency threatening public health, which may require emergency action and public notification. Staff are trained on this plan annually and, pursuant to state law, it is updated regularly with copies distributed to Lake County Environmental Health Department and the Lakeport Fire District.

Essential tenants of the plan involve evacuation and public notification of an emergency. First responders, charged with management, mitigation, and remediation of the emergency situation, include the Lakeport Police Department, Lake County Sheriff's Department, Lake County OES, and the Lakeport Fire District. CLMSD staff are trained and required to not engage in any emergency activity other than notification and evacuation.

Copies of the plan are located at the four (4) water and wastewater facilities: the surface water treatment plant, the groundwater storage facility, the corporation yard (sewer office), and the wastewater treatment plant.

Additionally, the City maintains a general Emergency Operations Plan. The City Manager is responsible to implement its provisions and manage the overall operation of the City during a major emergency, as well as ensure the plan is updated regularly and that staff and trained on it adequately.

Training and Awareness

The City's Community Development/Utilities Department has established and implemented the following SSO response training:

Sewer Division employees are required to complete SSO response procedures training. Spill response is covered regularly during weekly staff scheduling meeting.

Contractors are provided with the Hazardous Materials Response Plan and are made aware of the policies and procedures related to the wastewater collection and treatment system. They are required to train all of their employees on these policies and procedures prior to performing work on the City's wastewater collection and conveyance system.

Reasonable Assurances

CLMSD maintains an identification and mitigation program of sewer blockages and other known problems in the collection system. This program is an important activity ensuring SSOs do not recur in the same locations, in mitigating the effects of SSOs when they do occur, and identifying and correcting problems before they impact public health and/or the environment. This program is outlined in Appendix 7.G. and discussed in greater detail in Element 7.

CLMSD maintains appropriate vehicles (such as vacuum trucks), equipment (such as waddles, sandbags, etc.), tools (such as disinfectant, water testing kits, warning signs and notices, etc.),

and personnel to manage SSOs quickly and efficiently with the overall goal of limiting their impact on Clear Lake if not preventing them entirely.

The City's GIS system contains the locations of all storm drains, creeks, and other drainage channels that flow to Clear Lake, as well as the location of every manhole, sewer cleanout, lateral, and main in the City. This information can be compared to determine where potential problems can most directly affect Clear Lake. The identification and mitigation program relies on this analysis when determining future schedules and needs.

Element 7: Fats, Oils, and Grease Program

This section of the SSMP describes the District's efforts to control and mitigate fats, oils, and grease in the sanitary sewer system. This section fulfills the Fats, Oils, and Grease Control Program (FOG) requirement of the SWRCB SSMP (Element 7).

7.1 SWRCB Requirements for the Fats, Oils, and Grease Element

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

The 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 as to 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:

1. An implementation plan and schedule for a public education and outreach program that promotes proper disposal of FOG;
2. 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 the sanitary sewer system service area;
3. The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
4. Requirements to install grease removal devices (such as traps and interceptors), design standards for the removal of devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
5. Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
6. An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
7. Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (6) above.

7.2 Documents, Figures and Supporting Materials

Associated documents for Element 7 are included in figures, presented herein, and as appendices, attached hereto. They include the following:

1. FOG Informational/Educational Documents (Appendix 7.A)
2. Grease Trap/Interceptor Inspection Policy (Appendix 7.B)
3. FOG Program Variance Policy (Appendix 7.C)
4. FOG GIS Map (Appendix 7.D)
5. Sewer System Cleaning Schedule (Appendix 4.D)
6. Resolution Establishing Fines and Penalties for Violation of FOG Program (Appendix 3.B)
7. Sewer Use Ordinance No. 872 (2008) (Appendix 3.A)

7.3 FOG Control Program Discussion

This section presents an overview of CLMSD's FOG Control Program. The Compliance Officer, under the Community Development/Utilities Department, manages the program and ensures compliance and enforcement of the associated ordinance.

Public Education and Outreach Plan

CLMSD has devised and implemented a public education and outreach plan promoting its FOG program, beginning in the summer of 2008. A simple marketing campaign, depicting Uncle Sam exclaiming, "I Want *You* to Help Stop FOG: No Grease Down the Drain," was developed to draw attention to the subject.

Information and educational materials (Appendix 7.A) were developed describing the program and offering suggestions and best management practices to local FSEs in the control of FOG. This information was assembled in a comprehensive packet and distributed by mail to all FSEs within the city boundaries. A similar packet is distributed to any new FSE that applies for a business license within City limits.

A database was established to track information regarding which FSEs were sent information, which were required to comply with the FOG program requirements, and which had contacted the City to discuss their FOG situation or to request assistance or additional information.

Information is also available online at the city's website, www.cityoflakeport.com, under Utilities/Sewer/FOG Program.

FOG Disposal

Sewer Use Ordinance No. 872 (2008) (Ordinance) prohibits the untreated discharge of any fats, oils, or grease into the municipal sanitary sewer system. CLMSD requirements dictate the installation and operation of grease traps and/or grease interceptors for all FSEs that generate or work with FOG. The Compliance Officer and the City's Building Official are responsible for inspecting these devices upon installation and if a FOG problem is suspected at the facility.

Several FSEs store FOG at their facilities, usually near the outdoor trash area, in a tallow bin or similar container. Some FSEs allow their generated FOG to solidify and then dispose of it in the regular trash. However, this practice is only permitted for those FSEs who produce nominal amounts of FOG. FOG generators (i.e. FSEs, commercial establishment, residences) are advised to contact a local grease hauler to service their traps and interceptors and to relieve them of collected FOG.

FSEs are required to keep a cleaning record or log of their grease traps and interceptors. Such records are required to be available for inspection by the Compliance Officer or and inspector from Lake County Environmental Health.

CLMSD encourages FSEs and residents to exercise BMPs for the removal and disposal of FOG, including dry-wiping plates, utensils, etc. before washing in the sink or dishwasher.

Legal Authority

Chapter 9 of the Ordinance provides the legal authority to implement and enforce a FOG program within City jurisdictional boundaries. The Ordinance requires grease traps and interceptors to be installed at all facilities that produce "grease or any other substance deemed harmful to the CLMSD."

A variance to the FOG program requirements may be obtained by an FSE or other commercial FOG producer on a case-by-case basis.

The Ordinance has not yet been codified. References pertaining to the Ordinance found herein may be revised after it has been incorporated into the City's municipal code.

FOG Program Requirements

The following sections of the Sewer Use Ordinance (2008) outline the requirements of FSEs to install and maintain grease traps and interceptors:

Section 9.2. Application to Install a FOG Pretreatment System [5]

Properly sized Grease Interceptors are required for all commercial food and restaurant facilities connected to the CLMSD, and all facilities described in Section 9.2.B of this document unless otherwise designated by the Director. The CLMSD does not accept waste products with FOG into the sanitary sewer system or any of the wastewater treatment facilities.

A. Interceptors Required

1. *Grease, oil and sand interceptors shall be provided when in the opinion of the Director, they are necessary for the proper handling of liquid wastes containing Grease in excessive amounts, or any flammable wastes, sand, and other harmful ingredients; except that such interceptors shall not be required for buildings used solely for residential purposes. All Grease Interceptors shall be of a type and capacity approved by the Director, meet minimum design capability and follow all E-BMPs. Grease Interceptors shall be so located as to be readily and easily accessible for User cleaning and CLMSD inspection.*

C. Facilities to install Interceptors

1. All facilities described in Section 9.2.B.1 shall be required to install Grease Interceptors within one year of written notification by the Director, or file a Variance for Cause request within six months of the same notification (Section 9.6). If the variance is not granted by the Director the User will have six months, from written notification of denial, to complete said installation as directed.

2. If an overflow or failure of the sanitary sewer collection system to convey sewage can be attributed in part or in whole to an accumulation of Grease from an existing FSE without a Grease Interceptor, the CLMSD will require the FSE to

[5] CLMSD Sewer Use Ordinance, No. 872 (2008), pp. 66

install a Grease Interceptor within one-hundred eighty (180) days of written notification. Any additional fixtures that are added to the existing FSE, that discharge grease-laden waste streams, shall be plumbed into the Interceptor. If said fixtures cause the Interceptor to exceed its minimum design capability, a new Interceptor may be required by the Director.

Authority, Enforcement, and Staffing

The Compliance Officer is responsible for managing the FOG program while ensuring the Ordinance is enforced, and that those subject to it comply. All City Utility (water and sewer) staff are available to perform inspection and enforcement activities at his discretion, including the Utility Superintendent and all subordinate supervisors. The following sections of the Ordinance outline the prohibitions and fines associated with FOG discharge.

Section 9.4. FOG Prohibitions and Violations [6]

A. No User shall contribute or cause to be contributed into the sanitary sewer collection system any of the following:

1. Hot water running continuously through a Grease Interceptor.

2. Discharge of concentrated alkaline or acidic solutions into a Grease Interceptor.

3. Discharge of concentrated detergents into a Grease Interceptor.

4. Discharge of FOG into the sanitary sewer system.

B. It shall be a violation of this Ordinance for any person or User to:

1. Modify a Grease Interceptor's structure without consent from the Director.

2. Provide falsified data and/or information to the CLMSD, including but not limited to Grease Interceptor maintenance and/or cleaning records.

3. Violate or fail to comply with any applicable section or provision of this Chapter.

Violation Days from Notification to Correct Violation

Equipment Not Registered	30 days
Equipment Not Properly Installed	90 days
Major Violations	30 days
Intermediate Violations	60 days
Minor Violations	90 days

[6] CLMSD Sewer Use Ordinance, No. 872 (2008), pp. 73

Section 9.5. FOG Fines [7]

A. Any User that is identified, in whole or in part, as the source of a sanitary sewer blockage and/or overflow, shall be assessed a fine of no less than $500 and no more than $25,000 per incident, plus Cost Recovery, in addition to any fines dispensed from the State of California. Users committing one or more of the offenses listed herein will be assessed the corresponding amounts on a calendar year basis. The User will have no more than 180 days from written notification by the Director to surrender said moneys to the CLMSD.

The fines associated with all violations of this chapter including Minor, Intermediate, and Major Violations and subsequent violations will be set from time to time by the CLMSD Board.

The following section outlines the requirements for a variance from the FOG program:

Section 9.6. FOG Variance for Cause Request/Appeals [8]

A. Variance

1. A variance to deviate from any/all requirements set forth in Section 9.2 may be requested of the CLMSD upon submission of sufficient documentation. Such documentation shall provide a written explanation for the need to vary from the requirements of Section 9.2 of this Ordinance. After submission of a request to the CLMSD, the CLMSD will review all information submitted and will notify the User in writing of its acceptance or denial of the variance request. All Users requesting a variance shall agree to submit to a variance study and the associated fee.

2. The CLMSD has the right to discontinue the variance study at any time the FSF or other Director-designated facility adversely affects the sanitary sewer collection system or treatment works. Fees associated with the variance request will be set from time to time by the CLMSD Board, which includes estimated costs associated with processing and conducting the variance study. All fees are non-refundable and shall be paid in advance.

3. A variance to exceed the interval requirement for scheduled maintenance set forth in this ordinance may be granted if the accumulated grease cap and sludge

[7] CLMSD Sewer Use Ordinance, No. 872 (2008), pp. 74
[8] CLMSD Sewer Use Ordinance, No. 872 (2008), pp. 74

pocket measurements remain below twenty-five (25) percent of the total depth from the Grease Interceptor's interior floor to the static or working water level, at any point between the influent and effluent pipes/baffles of the Grease Interceptor.

4. No variance will be granted to exceed a one-hundred eighty (180) day maintenance interval, with the exception of schools and seasonal event facilities that may exceed a one-hundred eighty (180) day maintenance interval upon submitting a variance application to the Director and receiving written permission from the Director.

5. Any User who is found to violate the twenty-five (25) percent rule as set forth in Section 9.6.B.6 herein below, may be required to pump more frequently than monthly.

Subsequent procedures related to the variance process can be found in succeeding sections of the Ordinance.

FOG Identification and Cleaning Schedule

CLMSD maintains a comprehensive GIS layer devoted to FOG and sewer system "hot spots" involving blockages, overflows, and backups related to fats, oils, and grease. The map (attached as Appendix 7.F) is updated regularly, and cleaning schedules are built around the information contained therein. Additionally, such cleaning and maintenance information is entered into the layer and associated with specific geographical locations and system features.

The current CLMSD sewer system cleaning schedule is attached as (Appendix 7.G). It includes an inspection schedule of areas known to be prone to problems resulting from FOG or other types of blockages.

Source Control Measures

In addition to requiring treatment of discharge prior to receipt by the CLMSD municipal sanitary sewer system (i.e., grease traps, grease interceptors, grease separators, etc.), the Ordinance does grant CLMSD with the authority to issue discharge permits and regulate wastewater effluent. The use of such permits has not been considered for existing or future FSEs or residential users; rather, future commercial and industrial users may be required to apply for and obtain such permits.

Section 5.4 et al of the Ordinance outlines the requirements of the wastewater discharge permit process.

Element 8: System Evaluation and Capacity Assurance Plan

This section of the SSMP describes the District's capital improvement plan to provide hydraulic capacity of key sanitary sewer elements for dry, storm, and wet weather peak flow conditions. This section fulfills the system evaluation and capacity assurance requirement of the SWRCB SSMP (Element 8).

8.1 SWRCB Requirements for System Evaluation and Capacity Assurance Element

The summarized requirements for the system evaluation and capacity assurance element of the SSMP are as follows:

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

1. 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 the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key systems 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.
2. Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in (1) above to establish appropriate design criteria; and
3. Capacity Enhancement Measures: The steps needed to establish a short and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.

4. Schedule: CLMSD shall develop a schedule of completion dates for all portions of the CIP developed in (1) – (3) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements, as described in Section D.14.

8.2 Documents, Figures and Supporting Materials

Associated documents for Element 8 are included in figures, presented herein, and as appendices, attached hereto. They include the following:

1. CIP Project Timetable (Appendix 8.A)
2. CIP Project Funding Source Schedule (Appendix 8.B)
3. 2008 Master Sewer Plan (Appendix 4.B)

8.3 System Evaluation and Capacity Assurance Discussion

In September 2006, the City of Lakeport authorized PACE Civil, Inc., to work jointly with City (CLMSD) staff to prepare a master sewer plan. The emphasis of this Master Plan was to review and analyze the existing sewer system and treatment plant and recommend improvements needed to handle potential development over the next 20 years. The findings of the wastewater collection system evaluation and the City's wastewater treatment plant are presented in the 2008 City of Lakeport Master Sewer Plan, included as Appendix 4.B.

The Master Plan provides estimates of peak wet weather and dry weather flow capacities, estimated to be 3.0 million gallons per day (MGD) and 0.51 MGD, respectively. It also analyzes the capacity of key system components, which include sewer lift stations, main line pipe sizing, wet wells, head works, and various components of the treatment plant. Major causes of SSOs, or overflow events, are discussed in detail, and recommendations to mitigate those events are made.

A CIP plan is outlined and discussed in detail in the latter half of the Master Plan. Recommendations include measures to reduce inflow and infiltration (I/I), improvements to the existing collection system and treatment plant, and necessary changes and expansion to the sewer system to accommodate future growth and development. A summary of those recommendation are as follows:

2008 Master Sewer Plan[9]

1. The City should focus its comprehensive I&I reduction program within the I&I target areas that was defined during wet weather monitoring in January 2008. The first stage of the program would involve having City crews continue to investigate and identify I&I sources within these target area. The second stage would involve rehabilitation and repair. The City's I&I staff should continue the flow-monitoring program that was developed as part of this Master Plan study in order to provide reliable data for verification of the estimated flows, as well as provide flow information needed for evaluating the ongoing I&I reduction program.

2. Parallel or replace existing sewers in order to relieve current or impending surcharging and possible blockages and; provide sufficient sewer capacity for the projected 20-year conditions. In some areas where I&I flows are extremely high or the sewers are in poor condition or where there is not enough room to install parallel sewers, it may be necessary to replace existing sections of sewer instead of adding a parallel relief sewer.

3. Renovate existing lift stations that are inefficient and are considered to have operational deficiencies.

4. Modify and improve the City's Wastewater Treatment Plant facilities in order to increase PWWF capacity of the chlorine contact pipeline to 3.4 MGD. Repair the aeration basin dikes and remove sludge to restore capacity. Replace the gas chlorine system with a hypochlorite system to increase safety at the plant and the surrounding areas.

The schedule for proposed CIP projects, and the proposed funding sources for those projects, is outlined in Figure 4.1 above and included as Appendix 8.A and Appendix 8.B, respectively. It is also available in the 2008 Master Sewer Plan (Appendix 4.B).

[9] City of Lakeport 2008 Master Sewer Plan, PACE Civil Engineering, June, 2008

Element 9: Monitoring, Measurement, and Program Modification

This section of the SSMP describes the District's program to accurately and consistently track and archive data on its collection and treatment system. This section fulfills the monitoring, measurement, and program modification requirement of the SWRCB SSMP (Element 9).

9.1 SWRCB Requirements for Monitoring, Measurement, and Program Modification Element

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

The Enrollee shall:

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

9.2 Documents, Figures and Supporting Materials

Associated documents for Element 9 are included in figures, presented herein, and as appendices, attached hereto. They include the following:

1. Summarized Implementation Schedule (Appendix 9.A)
2. Summarized Categorical Measurement Schedule (Appendix 9.B)
3. SSO Report Form (Appendix 6.A)

9.3 Monitoring, Measurement, and Program Modification Discussion

CLMSD has adopted four categories to measure the effectiveness of the various elements of this SSMP. This information shall be summarized and audited during the bi-annual audit:

- System Information
- Financial Information
- Sewer Maintenance, including inspection and cleaning schedules
- Performance Measures

System Information

The following data will be summarized and presented annually describing CLMSD's collection and treatment system:

Description	**Units**
System length	Miles
Service area	Square miles
Population	Residents (based off of data collected by the California Department of Finance
Average age of collection system (pipes)	Years
Average age of collection system (pumps stations)	Years
Average age of wastewater treatment plant	Years
Number of pump stations	#
Number of residential connections (laterals)	#
Number of commercial connections	#
Number of industrial connections	#
Average dry weather flow (June – September)	MGD
Average wet weather flow (October – May)	MGD
Number of rainy days (collected by Lake County)	#

Financial Information

The following data will be summarized and presented annually describing CLMSD's annual budget and finances:

Description	**Units**
Total annual *adopted* operational O&M budget	$ Thousands
Total annual *adopted* CIP budget	$ Thousands
Total annual *requested* operational O&M budget	$ Thousands
Total annual *requested* CIP budget	$ Thousands
Base monthly residential rate	$ per month
Base monthly commercial rate	$ per month
Base monthly industrial rate	$ per month
Base monthly agricultural rate	$ per month
Total revenue	$ Thousands
Total expenditures (actual)	$ Thousands

Sewer Maintenance

The following data will be summarized and presented annually describing CLMSD's annual sewer maintenance activities:

Description	**Units**
Total distance cleaned per year	Yards
Total distance visually inspected per year	Yards
Total distance treated with chemicals for roots	Yards
Total distance cleaned due to FOG	Yards
Total number of lines cleaned due to FOG	#
Total number of lines cleaned due to debris and roots	#
Total distance cleaned due to debris and roots	Yards
Total number of hours spent on line cleaning	#

Performance Measurements

The following data will be summarized and presented annually and will be used to evaluate the effectiveness of CLMSD's efforts to implement its SSMP:

Description	Units
Total number of spills per year	#
Total volume of spills per year	Gallons
Total number of wet weather spills per year	#
Total volume of spills contained and cleaned	Gallons
Total number of spills due to FOG	#
Total number of spills due to debris and roots	#
Total number of spills due to vandalism or malevolency	#
Total number of spills due to I&I or lake water infiltration	#
Total number of spills on private property	#
Total number of hours spent responding to and remediating spills	#
Total number of spills to reach drainage channel, storm drain, or Clear Lake	#
Total distance of pipe repaired or replaced in emergency	Yards
Customer service requests	#
Average response time to service requests	Minutes
Distance of pipe rehabilitated	Yards
Distance of pipe replaced	Yards
Number of pumps rehabilitated	#
Number of pumps replaced	#
Number of new pipes constructed	#
Number of new laterals installed/constructed	#
Total number of surcharges at manholes	#
Total number of pump failures	#

This information is also contained in CLMSD's comprehensive GIS system.

The bi-annual audit of the SSMP shall be used to determine how well CLMSD is meeting the goals described therein. The preventative maintenance program shall be tracked through CLMSD's electronic asset and operations management software (SEMS) by reviewing scheduled and completed preventive maintenance work and corrective maintenance work orders.

Elements within the SSMP are updated as needed based on the results of the annual audit. Significant changes shall be presented to the Board of Directors for review. Minor changes shall be approved by the Director. The Director shall determine what is significant and what is minor.

The Compliance Officer reports all SSO events to the state through the California Integrated Water Quality System (CIWQS). The frequency, volume, location and trends are tracked by CLMSD on a report form (Appendix 9.C), summarized in Appendix 9.B and evaluated annually.

The Compliance Officer shall be responsible to review the SSMP periodically to check the effectiveness and timeliness of the goals and plans found therein.

Element 10: Program Audits

This section of the SSMP describes the District's program audit plan to evaluate the performance and conformance with the SSMP requirements described herein and pursuant to the general WDR. This section fulfills the program audit requirement of the SWRCB SSMP (Element 10).

10.1 SWRCB Requirements for Program Audits

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

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 its requirements identified in this section, including identification of any deficiencies in the SSMP and steps to correct them.

10.2 Documents, Figures and Supporting Materials

Associated documents for Element 10 are included in figures, presented herein, and as appendices, attached hereto. They include the following:

1. Audit Worksheet Template (Appendix 10.A)
2. Audit Report Template (Appendix 10.B)
3. Community Development/Utilities Policy No. U-1: SSMP (Appendix 10.C)
4. SSMP Program Audit Considerations (Table 10.1)

10.3 Program Audit Discussion

The Compliance Officer shall be responsible to conduct and manage the bi-annual audit of the SSMP and produce the summary report to the CLMSD Board of Directors. The audit shall be completed by May 31st of the year in which it is due, the first being May 31, 2012. The report shall be presented to the Board as a "Receive and File" agenda item no later than thirty (30) days

thereafter. The final audit and the summary report shall be kept on file by the Compliance Officer for duration in accordance with City record keeping policy.

The audit should provide information about the challenges and successes experienced by the CLMSD in implementing the SSMP and identify any program or policy changes that may be needed to ensure its effective implementation. Information collected during the audit will be used to plan program and/or procedural revisions necessary to improve program performance.

As part of the audit, the following information should be analyzed and presented:

- System information
- District financial information
- Sewer maintenance information, including inspection and cleaning schedules
- Performance measures

The following table presents issues related to the SSMP that should be considered when performing the program audit and when implementing the SSMP.

Table 10.1. SSMP Audit Considerations

Document Control	Yes	No
Does CLMSD have document control procedures to ensure current and historical documentation recovery?		
Are all documents located in a central place in hard copy and electronic format?		
Are CLMSD staff trained on appropriate documentation procedures?		
Are all documents legible, dated (with revisions) and readily identifiable?		
Do documents have an expiration date or reissuance date?		
Are appropriate records and documents available to appropriate staff?		
Training		
Does staff have a documented and mandatory training program, including coursework title and content requirements?		
Is staff given adequate resources (time and budget) to ensure familiarity with documented procedures as well as industry standards?		
Is staff rewarded for certification or increased proficiency?		
Are training records reviewed and kept by supervisory or other appropriate departments?		
Targets and Objectives		
Does CLMSD have a strategic plan that outlines both short and long-term objectives?		
Does CLMSD set annual objectives and targets with defined outcomes, measures, and assigned responsibilities?		

Data Management		
Does CLMSD maintain performance reports and progress tracking systems that are reviewed by appropriate management on a regular basis?		
Is that data easily transferable or compared to historical data in order to relate to baseline performance?		
Can performance data be benchmarked to other similar agencies for comparison?		
Document Procedures		
Are staff roles and responsibilities clearly identified throughout CLMSD?		
Does CLMSD have established procedures for reviewing performance data?		
Is there an assigned individual or position with authority to conduct regular performance reviews?		
Are audits done internally by a neutral party?		
Are there certain thresholds or incidents that trigger audits?		
Is there an established timeframe for the completion of audits?		
Does CLMSD have procedures for defining responsibility and authority for handling and investigating nonconformance?		
Are audits used as a training tool?		
Is CLMSD's top management involved with the analysis of performance data and program audits?		
Outcomes		
Does CLMSD act appropriately to nonconformance with the SSMP or any WDR requirement?		
Are outcomes or recommendations from performance data review and audit findings documented?		
Are audit findings ultimately considered in the budget process for both CIP and Program Resources?		

Audit findings will be presented to the CLMSD Director and appropriate division managers along with recommendations for improvements and a schedule for such improvements to be made. Any changes to the SSMP will be certified by the Compliance Officer on the state's online SSO database.

Element 11: Communication Program

This section of the SSMP describes CLMSD's communication program with its customers, regulators, community, and other stakeholders. This section fulfills the Communication Program requirement of the SWRCB SSMP (Element 11).

11.1 SWRCB Requirements for Communication Program Element

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

1. 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 CLMSD as the program is developed and implemented.
2. The Enrollee shall create a plan of communication with systems that are tributary and/or satellite to its sanitary sewer system.

11.2 Documents, Figures and Supporting Materials

Associated documents for Element 11 are included in figures, presented herein, and as appendices, attached hereto. They include the following:

1. Mutual Aid Agreement with Lake County Special Districts (Appendix 3.D)
2. Hazardous Materials Incident Response Plan (Appendix 6.B)
3. List of Stakeholders (Figures 11.1 – 11.4)

11.3 Communication Program Discussion

CLMSD uses various media to communicate with the public and other stakeholders but plans to focus most of its efforts on electronic format media, including: web-based content; E-mail notifications; and social media outlets, such as Facebook, Twitter, You-Tube, blogs, etc. This promises to increase the effectiveness of outreach efforts while reducing costs. The following is a description of that plan divided by stakeholder:

Internal Communication: Board of Directors, Staff, Consultants

CLMSD communicates with it governing body through staff reports, memorandums, and E-mail. CLMSD management is also available to speak with Board Directors individually through scheduled office hours. A list of these stakeholder groups and their potential issues of interest are as follows:

Figure 11.1. Internal Stakeholders

Stakeholder Group	Potential Issues of Interest
Lakeport Community Development Department (Building and Planning Divisions)	FOG Program, design standards, emergency response plans
Lakeport City Engineer	Design standards, systems maps, operating procedures, laws and regulations, current enforcement actions
City of Lakeport Municipal Sewer District Board of Directors	SSMP Progress, costs, public impacts, communication program, rate increases, pending enforcement actions
Labor unions and employee organizations	Training and proposed contract work
Lakeport Redevelopment Agency	Rehabilitation and repair costs, infrastructure location, known issues and problems
Consultants/Contractors	Design standards, operating procedures and policies, CIP efforts, potential consulting/contracting opportunities

External Communication: Interagency and Regulators

The bulk of communication between CLMSD and other governmental agencies (e.g. Lake County Environmental Health, Lake County Sanitation District [a.k.a. Special Districts], Lake County Office of Emergency Services, etc.) is through telephone and E-mail. Formal communication is done by mail on official City or CLMSD letterhead. CLMSD staff enjoy a collaborative relationship with these agencies. A list of these stakeholder groups and their potential issues of interest are as follows:

Figure 11.2. External Stakeholders - Governmental

Stakeholder Group	Potential Issues of Interest
Central Valley Regional Water Quality Control Board	SSOs, capital improvement plan (CIP), FOG Program, permits, impacts to storm water, capacity issues, I&I mitigation, possible enforcement actions
State Water Resources Control Board	Permits and environmental regulations
Lake County Environmental Health Department	SSO's, impacts to Clear Lake and public health
California Department of Public Health	SSO's and impacts to drinking water
Lake County Sanitation District (LACOSAN) a.k.a. Special Districts	CIP and sewer flows
State Office of Emergency Services (OES)	SSOs

Emergency Communications

CLMSD is termed a "9-1-1 and run" operation, meaning that in the event of an emergency, such as an accidental chemical release, operators and other staff are to evacuate the premises and dial 9-1-1. County Central Dispatch will coordinate the response to the incident, including notifying the County Office of Emergency Services (OES), Lakeport Fire District, Lakeport Police Department, and Lake County Sheriff's Department.

Further detail related to this can be found in the Hazardous Materials Incident Response Plan, attached as Appendix 11.A.

The City has a generic emergency operations plan. However, City staff have not been trained on it. Further information should be obtained from the Lakeport Police Department.

A list of these stakeholder groups and their potential issues of interest are as follows:

Figure 11.3. External Stakeholder - Emergency Services

Stakeholder Group	Potential Issues of Interest
Lake County OES	Hazardous materials release and incidence
Lakeport Police Department	Public safety in event of hazardous materials release
Lakeport Fire Protection District	Public safety in event of hazardous materials release
Lake County Sheriff's Department	Public safety immediately outside District limits

Public Communication: Residential, Commercial, Industrial, Media

Historically, CLMSD has communicated with its customers through notices included in their sewer service bill or by special mailing. Future communication will continue to employ this method; however, additional media will be used to augment its effectiveness, reach a larger audience, and reduce costs associated with postage, staff time, and materials.

Attention will be focused on the City's website as a means of disseminating accurate, up-to-date information. Social media, such as Facebook, Twitter, and You-Tube will further enhance communication in the virtual realm and allow the community to enjoy a more engaging and intimate dialogue with CLMSD. Use of these media sources has already begun, with full implementation expected by the end of the 2010 fiscal year.

CLMSD plans to develop and implement a quarterly newsletter, which will be distributed via E-mail and made available on the website. Limited hardcopies will be available at City Hall. Features will include commentary by the City's Compliance Officer or Utilities Director, articles highlighting achievements in environmental stewardship by local businesses and residents, and issues related to the latest environmental news affecting Clear Lake. The first issue is scheduled for release July 1, 2010.

Formal public communication may also be done through press releases and notices in the Lake County Record Bee (hard copy publication) and Lake County News (internet-based).

A list of these stakeholder groups and their potential issues of interest are as follows:

Figure 11.4. External Stakeholders - Public and Media

Stakeholder Group	Potential Issues of Interest
Ratepayers and local neighborhood associations	Proposed rate increases, FOG program, local impacts from CIP efforts
Developers and developer associations	Master planning, capacity issues, legal authority, design standards, proposed fee increases
Environmental groups	Emergency response plans, overall SSMP development and implementation, program audits, SSO's and impacts to Clear Lake
Restaurants	FOG program, SSO's
Lake County Record Bee	Environmental issues, proposed rate increases, public notices
Lake County News (online)	Environmental issues, proposed rate increases, public notices

Tributary/Satellite Communication: LACOSAN (Special Districts)

CLMSD accepts and delivers sewer flows to Lake County Special Districts and operates under a mutual aid agreement to do so, attached as Appendix 11.B. CLMSD has the ability to deliver flows to the county in the northern part of the district and receive flows in the south. Flow acceptance or delivery is managed through request by telephone between the city and county utilities superintendents. Both agencies track the flows delivered and accepted and invoice one another for those services at a mutually agreed upon rate.

City code requires all residential, governmental, non-profit, and commercial properties, etc. to be connected to the municipal sanitary sewer system. Septic systems, though still present in many areas, are not to be used but can still pose harmful effects to the CLMSD system if decaying or leaking.

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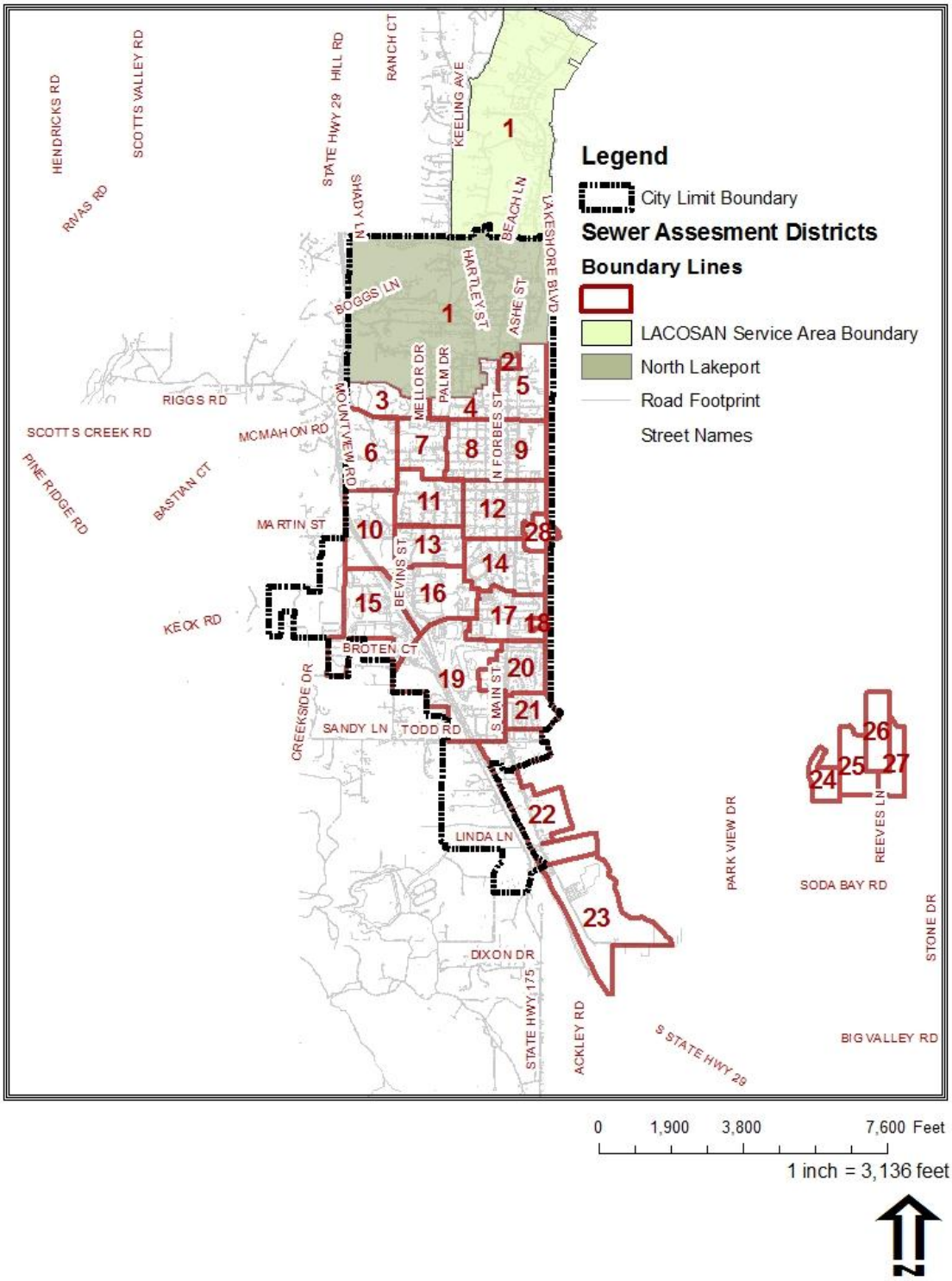
APPENDIX 0.0

Appendix 0.A: City and District Boundaries



Appendix 0.B: SSMP Work Plan and Schedule

[ATTACHED]

SSMP Development Plan and Schedule

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Develop SSMP Work Plan and Schedule	2/2/08	6/4/08	6/4/08	Buffalo, Brannigan, Johnson	
Present the Work Plan and Schedule to the Board of Directors for approval	2/2/08	6/17/08	6/17/08	Brannigan	
Certify to the State Water Resources Control Board that this portion of the SSMP has been completed	2/2/08	6/20/08	6/17/08	Buffalo	Certification done through the Online SSO Database Questionnaire followed by printing and signing a form generated by the database and sending the form to SWRCB. Specific details are found in the GWDR

SSMP Goals

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section	5/2/08	6/11/08	6/11/08	Buffalo	
Develop SSMP Goals	5/2/08	6/11/08	6/11/08	Buffalo, Bannigan, Johnson	
Certify to SWRCB that Goals have been completed	5/2/08	6/20/08	6/17/08	Buffalo	

SSMP Organization

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	5/2/08	6/11/08	6/11/08	Buffalo	
Develop Facility Services Organziational Chart to show chain of command from Council to Field staff	5/2/08	6/11/08	6/11/08	Buffalo	
Develop list of names and phone numbers of key people on above chart	5/2/08	6/11/08	6/11/08	Buffalo	
Develop communication tree for Emergency Response Plan	5/2/08	6/11/08	6/11/08	Buffalo, Johnson	Reviewed City's Hazardous Response Plan
Implement and communicate the new SSMP organization and response charts to staff and maintenance crews	5/2/08	6/20/08		Johnson	Revised spill report form will also be presented to staff and maintenance crews
Certify to SWRCB that this portion of the SSMP has been completed	5/2/08	6/20/08	6/17/08	Buffalo	

SSMP Legal Authority

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	11/2/09	9/2/09	10/27/09	Buffalo	
Present new sewer ordinance to Board of Directors for approval	11/2/09	3/4/08	3/4/08	Brannigan	
Codify new sewer ordinance and prepare it for inclusion into SSMP appendix	11/2/09	6/20/08	N/A	Chapman	
Obtain copy of agreement with LACOSAN for mutual aid on north and south sides of town; revise, if needed	11/2/09	9/2/09	10/26/09	Buffalo	written agreement does not exist for sending flows to the north on an as-needed basis
Review current building and grease interceptor permitting processes and business license process; revise	11/2/09	9/2/09	4/1/09	Carlton, Buffalo	
Certify to SWRCB that this portion of the SSMP has been completed	11/2/09	11/2/09	11/2/09	Buffalo	

SSMP Operations and Maintenance Program

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	11/2/09	9/2/09	10/30/09	Buffalo	
Draft description of GIS maps currently being used by City along with procedures for updating maps	11/2/09	9/2/09	10/30/09	Buffalo, Engstrom	
Research preventative maintenance information	11/2/09	9/2/09	3/5/09	Buffalo	
Research work order system for preventive maintenance	11/2/09	9/2/09	9/2/09	Buffalo	
Develop and draft a Preventive Maintenance Program	11/2/09	9/2/09	7/1/09	Johnson, Buffalo	The program should address criteria and results for short-term and long-term prioritization of corrective actions based on structural or other deficiencies identified during preventive maintenance activities.
Draft a Rehabilitiation and Replacement Program	11/2/09	9/2/09	9/2/09	Johnson, Buffalo	A Capital Improvement Plan (CIP) will be part of the Sewer System Master Plan, being developed by PACE
Collect information on existing employee training program, including methods of recording individual training	11/2/09	9/2/09	9/2/09	Perez	The SSMP will include a description of our training program and whether changes or improvements are anticipated in the near future. The City currently requires contractors to be compliant with City's training requirements.
Evaluate current Parts and Equipment Inventory Program and update, if necessary	11/2/09	9/2/09	3/6/09	Perez, Brannigan	to be incorporated into SEMS management software
Write Parts and Inventory portion of SSMP	11/2/09	9/2/09	10/30/09	Buffalo	
Certify to SWRCB that this portion of the SSMP has been completed	11/2/09	11/2/09	11/2/09	Buffalo	

SSMP Overflow Emergency Response Plan

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	11/2/09	9/2/09	10/30/09	Buffalo	
Evaluate existing Overflow Emergency Response Plan to ensure it meets the new GWDR requirements; draft policy to update Plan	11/2/09	9/2/09	9/2/09	Buffalo	Plan will include the following: notification scenrios and the process for receiving, response, reporting and notification, impact mitigation, and training
Review field report forms to verify that appropriate data is being collected; re-write as necessary	11/2/09	6/13/08	6/13/08	Buffalo	Appropriate data is any information required by the online SSO reporting system
Train all personnel on the plan	11/2/09	9/2/09	7/1/09	Buffalo	Training will be conducted annually as a refresher for existing staff and introduction to
Certify to SWRCB that this portion of the SSMP has been completed	11/2/09	11/2/09	11/2/09	Buffalo	

SSMP FOG Control Program

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	11/2/09	9/2/09	10/28/09	Buffalo	
Develop FOG control program	11/2/09	8/29/08	8/1/09	Buffalo	Ordinance No. 872 (2008) requires all FSE's to have a grease trap installed and functioning
Develop implement marketing plan strategy to inform local businesses of new ordinance and FOG program	11/2/09	7/31/08	7/5/08	Buffalo	
Develop grease trap inspection protocols	11/2/09	7/31/08	6/2/08	Buffalo	
Present FOG ordinance to City Council for approval	11/2/09	3/4/08	3/4/08	Brannigan	FOG Ordinance part of new sewer ordinance
Characterization data integration of FOG sources into GIS	11/2/09	9/2/09	11/2/09	Engstrom	incorporation of database information into GIS program
Certify to SWRCB that this portion of the SSMP has been completed	11/2/09	11/2/09	11/2/09	Buffalo	

SSMP Design and Construction Standards

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	5/2/10	3/2/10	4/1/10	Buffalo	
Identify and review existing design standards and process for revising those standards	5/2/10	3/2/10	7/1/09	Harter, Carlton, Buffalo	The SSMP can also include a list of the design standards and specifications most commonly referenced in the Agency's specifications or contract documents
Review and outline procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitiation and repair projects	5/2/10	3/2/10	7/1/09	Harter, Carlton, Buffalo	The SSMP can describe the existing compliance inspection standards that are in place and can also describe an assessment of the porcess to imrove these standards.
Draft this section of the SSMP	5/2/10	3/2/10	3/26/10	Harter	
Review and revise draft of this section	5/2/10	4/2/10	4/5/10	Buffalo	
Certify to SWRCB that this portion of the SSMP has been completed	5/2/10	5/2/10	5/2/10	Buffalo	

SSMP System Evaluation and Capacity Plan

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	5/2/10	3/2/10	3/16/10	Buffalo	
Review and include the Sewer System Master Plan in this SSMP	5/2/10	3/2/10	11/3/08	Brannigan, Buffalo	
If capital improvements are needed, develop a plan to fund, design, and construct them	5/2/10	6/30/09	6/15/08	Brannigan	CIP is included in 2008 Master Sewer Plan, which includes project time-lines and costs
Certify to SWRCB that this portion of the SSMP has been completed	5/2/10	5/2/10	5/2/10	Buffalo	

SSMP Monitoring, Measurement, and Program Modifications

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	5/2/10	3/2/10	3/25/10	Buffalo	
Develop performance measurements and a system for tracking them	5/2/10	3/2/10	3/25/10	Buffalo	used to evaluate the effectiveness of the SSMP on reducing SSOs
Ensure we are capable of identifying and illustrating SSO trends, including frequency, location, and volume	5/2/10	3/2/10	7/1/09	Engstrom	This will be done using GIS
Certify to SWRCB that this portion of the SSMP has been completed	5/2/10	5/2/10	5/2/10	Buffalo	

SSMP Internal Program Audits

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	5/2/10	3/2/10	3/22/10	Buffalo	
Draft an SSMP policy for the Utilities Department that outlines audit requirements and protocols	5/2/10	3/2/10	8/14/08	Buffalo, Brannigan, Johnson	Audit needs to be performed on SSMP program at least every two years; found in Community Development/Utilities Policy No. U-1
Prepare a written report on the audit and add the report to the SSMP document	5/2/10	3/2/10	3/22/10	Buffalo	template was developed and audit forms created
Certify to SWRCB that this portion of the SSMP has been completed	5/2/10	5/2/10	5/2/10	Buffalo	

SSMP Communication Program

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Write introduction to this section of the SSMP	5/2/10	3/2/10	3/11/10	Buffalo	
Identify key stakeholders and issues associated with the development of the SSMP	5/2/10	3/2/10	3/11/10	Brannigan	Stakeholders include: sewer operations, management, Environmental Health, RWQCB/WRCB, Fish and Game, Lakeport Chamber of Commerce, etc.
Develop methods of communicating the status of the SSMP preparation and use to the public	5/2/10	3/2/10	7/1/09	Buffalo	
Certify to SWRCB that this portion of the SSMP has been completed	5/2/10	3/2/10	5/2/10	Buffalo	

SSMP Completion and Certification

Activities	Required Due Date	Expected Comp Date	Date Completed	Responsible Person(s)	Comments
Present the final version of the SSMP to the City Council for approval and implementation	5/2/10	4/20/10	5/4/10	Buffalo	plan will be certified by required deadline, presented to Council thereafter to accommodate adequate review period
Certify to the State Water Resources Control Board that the entire SSMP has been developed and that the programs contained within are being implemented	5/2/10	5/2/10	5/2/10	Buffalo	

APPENDIX 2

Appendix 2.A: Staff Directory

[ATTACHED]

Appendix 2.B: SSO Reporting Requirements Reference Guide

SSO Reporting Requirements Reference Guide

SSO Incident	Volume	Category	Notification	Certification
Discharge reaches drainage channel or surface water	Any	N/A	Within 2 hours of City becoming aware, notify State OES, Lake County Health Officer or Environmental Health, and RWQCB	1. 24 hours after becoming aware, certify to the RWQCB that OES and Environmental Health were notified of discharge 2. Send SSO Report Form to RWQCB and certification letter within 2 weeks
Greater than or equal to 1,000 gallons, discharges to a drainage channel/surface water, or discharges to a storm drainpipe that was not fully recaptured	Greater than or equal to 1,000 gallons	Category 1	SWRCB: Online SSO System no later than 3 business days after becoming aware of spill RWQCB: Notify by phone as soon as becoming aware	SWRCB: Online SSO System 15 days after response and remediation has been completed RWQCB: Send SSO Report Form and certification letter within 2 weeks
All other discharges of sewage resulting from failure of sanitary sewer system	<1,000 gallons	Category 2	SWRCB: Report to Online SSO System within 30 days after end of calendar month in which SSO occurred RWQCB: Notify by phone as soon as becoming aware of spill	SWRCB: None RWQCB: Send SSO Report Form and certification letter within 2 weeks

Sewage discharges caused by blockages or other problems with a privately owned lateral	Any	Private Lateral Discharge (Category 3)	SWRCB: Report at discretion of District RWQCB: If a nuisance is created, notify by phone as soon as becoming aware	SWRCB: If reported, must identify responsible party RWQCB: Send SSO Report Form and certification letter within 2 weeks
Spill at the treatment plant	Any	N/A	Within 2 hours of City becoming aware, notify State OES, Lake County Health Officer or Environmental Health, and RWQCB	1. 24 hours after becoming aware, certify to the RWQCB that OES and Environmental Health were notified of discharge 2. Send SSO Report Form to RWQCB and certification letter within 5 business days

Appendix 2.C: Community Development/Utilities Department Policy U-2

[ATTACHED]

APPENDIX 3

Appendix 3.A: Sewer Use Ordinance No. 872 (2008)

[ATTACHED]

Appendix 3.B: CLMSD Board Resolution No. 2315 (2008)

[ATTACHED]

Appendix 3.C: Community Development/Utilities Department Policies U-3, U-4, U-5, and U-6

[ATTACHED]

Appendix 3.D: Mutual Aid Agreement with LACOSAN

[ATTACHED]

APPENDIX 4

Appendix 4.A: Collection System Map

[ATTACHED]

Appendix 4.B: 2008 Master Sewer Plan

[ATTACHED]

Appendix 4.C: Equipment Inventory List

[ATTACHED]

Appendix 4.D: Maintenance Cleaning Schedule

[ATTACHED]

APPENDIX 5

Appendix 5.A: Adopted Design and Construction Standards (Sewer and Water)

[ATTACHED]

Appendix 5.B: Additional Design Standards

[ATTACHED]

APPENDIX 6

Appendix 6.A: SSO Reporting Form to RWQCB

[ATTACHED]

Appendix 6.B: Hazardous Materials Incident Response Plan

[ATTACHED]

APPENDIX 7

Appendix 7.A: FOG Informational/Educational Documents

[ATTACHED]

Appendix 7.B: Grease Trap/Interceptor Inspection Policy

[ATTACHED]

Appendix 7.C: FOG Program Variance Policy

[ATTACHED]

Appendix 7.D: FOG GIS Map

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APPENDIX 8

Appendix 8.A: CIP Project Timetable

Scope and Schedule

Item No.	Project Name	Description	Schedule		
			By 2013	By 2018	By 2023
1	Main Street Sewer Replacement	12" Sewer replacement, 6th Street to Clear Lake Ave	X	X	
2	Chlorination Gas System Replacement	Hypochlorite System installation at treatment plant	X		
3	Inspection and Cleaning of Chlorine Contact Pipe	Inspect/restore chlorine contact pipe capacity at treatment plant	X		
4	Modify Recycle Pump Station No. 1	Modify pump station for time-of-use operation at treatment plant	X		
5	Linda Lane Lift Station Odor Control	Install larger blower	X		
6	Lift Station Radio Telemetry and SCADA Improvements	Install radio telemetry in 5 lift stations, update SCADA		X	
7	I&I Reduction Program - Initial Target Areas	Initial target areas are indicated in Master Plan		X	
8	Lakeshore Blvd and N. High Street Parallel Sewer	8" parallel sewer		X	
9	Clearlake Liftstation Replacement	Replacement		X	
10	Repair Aeration Basins and Remove Sludge	Both aeration basins will be drained, the sludge will be allowed to dry, and the bottom will be scraped		X	
11	Main Street Parallel Sewer	15" parallel sewer installation		X	
12	N. High Street Sewer Replacement	8" replacement sewer		X	
13	Martin Street Parallel Sewer	8" parallel sewer		X	
14	I&I Reduction Program - High I&I Areas	as indicated in the Master Plan			X
15	10th Street Parallel Sewer	8" parallel sewer			X
16	Intallation of 20" Chlorine Contact Pipe	Will increase PWWF chlorine contact time at treatment plant			X
17	Martin Street Lift Station Capacity Improvements	Increase effectiveness at pump station			X
18	Russell Street Sewer Replacement	8" replacement sewer			X

Appendix 8.B: CIP Project Funding Source Schedule

[ATTACHED]

APPENDIX 9

Appendix 9.A: Summarized Implementation Schedule

SSMP Implementation Plan and Schedule

Elements	Description	Plan Due Date	Date Completed	Implementation Date	Responsible Person(s)	Comments
	Development Plan	2/2/08	6/17/08	6/4/08	Dan Buffalo	
	Implementation Schedule	5/2/10	3/25/10	5/2/10	Dan Buffalo	
1	Goals	5/2/08	6/17/08	5/2/10	Dan Buffalo	
2	Organization Chart, Roles, and Responsibilities	5/2/08	6/17/08	6/4/08	Dan Buffalo	
3	Legal Authority	11/2/09	10/27/09	3/18/08	Mark Brannigan	
4	Operation and Maintenance	11/2/09	10/30/09	N/A	Matt Johnson	this element was already incorporated into operations; SSMP describes current program
5	Design and Performance	5/2/10	4/30/10	N/A	Matt Johnson, Scott Harter	this element was already incorporated into operations; SSMP describes current program
6	Overflow Emergency Response Plan	11/2/09	10/30/09	9/1/08	Dan Buffalo	
7	FOG Program	11/2/09	10/28/09	9/1/09	Dan Buffalo	compliance deadline for grease trap installation
8	System Evaluation and Capacity Assurance Plan	5/2/10	4/30/10	6/1/08	Matt Johnson	schedule present in 2008 Sewer Master Plan
9	Monitoring, Measurement, and Program Modification	5/2/10	3/26/10	7/1/10	Matt Johnson	
10	SSMP Audits	5/2/10	3/22/10	5/30/12	Dan Buffalo	
11	Communication Program	5/2/10	3/11/010	N/A	Dan Buffalo, Matt Johnson	already implemented
	Final SSMP	5/2/10	5/2/10	5/2/10	Dan Buffalo	

Appendix 9.B: Summarized Categorical Measurement Schedule

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APPENDIX 10

Appendix 10.A: Audit Worksheet Template

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Appendix 10.B: Audit Report Template

[ATTACHED]

Appendix 10.C: Community Development/Utilities Policy No. U-1

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CLMSD

SSMP

2010

Prepared by
Daniel Buffalo,
Compliance Officer

May 2, 2010