



Santa Rosa Water | Our Future in Every Drop!

CITY OF SANTA ROSA WATER SEWER SYSTEM MANAGEMENT PLAN (SSMP)



Protecting public health by sustaining water resources, infrastructure and the environment.

Certified (TBD)
(Revised March 2019)



Santa Rosa Water | Our Future in Every Drop!

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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 Santa Rosa
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
CIWQS	California Integrated Water Quality System
NCRWQCB	North Coast 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
GW	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
LRO	Legally Responsible Official
MGD	Million Gallons per Day
MRP	Monitoring and Reporting Program
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
PACP	Pipeline Assessment Certification Program
PD	Predictive Maintenance
PM	Preventative Maintenance

List of Acronyms

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
SDS	Safety Data Sheets
SOP	Standard Operating Procedure <u>or</u> 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 or ranking elected official, or a duly authorized representative of that person.

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/>

North Coast Regional Water Quality Control Board – Also known as Regional Water Quality Control Board or RWQCB. This is the primary wastewater regulator for Santa Rosa Water 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: <https://www.waterboards.ca.gov/northcoast/>

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, communication enhancements, etc.).

Enrollee – The legal public entity that owns a sanitary sewer system, as defined by the General Waste Discharge Requirements, 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. Santa Rosa Water is the legal owner of the wastewater collection system for the City.

List of Terms

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 Sanitary Sewer Overflows.

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. Santa Rosa Water has a robust FOG Control Program and diligently works with local businesses and residents to ensure awareness and action of FOG issues and Best Management Practice.

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. Santa Rosa Water's GIS also contains base information such as streets and parcels. It is updated and maintained by staff with detailed and specific knowledge of the collection and treatment system.

Governing Board – This is the governing board of the sewer entity developing the SSMP. Santa Rosa Water is governed by the BPU (Board of Public Utilities) and the City Council.

General Waste Discharge Requirements (GWDR) - 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 State Water Resources Control Board 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.

List of Terms

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.

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.

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.

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 North Coast 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* – Sanitary sewer system failure with **ANY** discharge that reaches surface water or drainage channel (dry or wet) or to storm drain system and is not fully captured and returned to sewer.
- *Category 2* – Sanitary sewer system failure with **1,000 gallons or greater** that **do not** reach surface water, a drainage channel, or the storm sewer system unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
- *Category 3* -- All other discharges of sewage resulting from a failure of the sanitary sewer system.

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

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.

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. The SSMP must also 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.

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 as well as any other applicable Orders issued by the SWRCB.

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 (CIWQS).

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.

I certify under penalty of law that this Sewer System Management Plan, and the subparts contained herein, comply with the requirements set forth in the General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems, Order No. 2006-0003 within the time frames identified in the schedule posted in WDRs and as amended by a Memorandum of Agreement executed on June 27, 2006 between the Executive Director of the SWRCB and the California Water Environment Association. I further certify that this document and all attachments were prepared under the City of Santa Rosa's direction and supervision in accordance with its policies and procedure to assure that qualified personnel properly provided, evaluated, and incorporated the information reflected in this document, that the information included in this document is, to the best of my knowledge and belief, true, accurate, and complete, and that this document has been duly presented to and approved by the Santa Rosa Board of Public Utilities on the ___ day of _____ and the City of Santa Rosa City Council on the ___ day of _____.

Ron Marincic

Utility System Superintendent-LRO

Date

RESOLUTION NO 1067

RESOLUTION OF THE BOARD OF PUBLIC UTILITIES RECOMMENDING APPROVAL BY CITY COUNCIL OF THE RE-CERTIFICATION OF THE SANITARY SEWER MANAGEMENT PLAN AS REQUIRED BY THE STATE WATER RESOURCES CONTROL BOARD ORDER NO. 2006-0003 STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

WHEREAS, on May 2006, State Water Resources Control Board (SWRCB) Order No. 2006-0003 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR) was adopted and implemented; and

WHEREAS, the purpose of the WDR is to develop a regulatory mechanism to provide a consistent statewide approach for reducing sanitary sewer overflows (SSOs); and

WHEREAS, the WDR required preparation of a Sanitary Sewer Management Plan (SSMP) to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system in order to help reduce and prevent SSOs, as well as mitigate any SSOs that do occur; and

WHEREAS, in compliance with WDR requirements, a SSMP was prepared by the Utilities Department, recommended for approval by the Board of Public Utilities on April 16, 2009 and approved by Council on April 28, 2009; and

WHEREAS, the WDR requires update and re-certification of SSMPs every five calendar years; and

WHEREAS, the SSMP, updated in March 2014 and ready for re-certification, must be approved by the City Council prior to re-certification into the California Integrated Water Quality System database.

NOW, THEREFORE, BE IT RESOLVED that the Board of Public Utilities recommends to the City Council that it approve the SSMP as revised in March, 2014 for re-certification as required by the State Water Resources Control Board (SWRCB) Order No. 2006-0003 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

DULY AND REGULARLY ADOPTED BY THE City of Santa Rosa Board of Public Utilities this 17th day of April, 2014.

AYES: (7) GALE, GALVIN, ARNONE, DOWD, HOLT, KAUN AND STEFFENKEN

NOES: (0)

ABSENT: (0)

ABSTAIN: (0)

ATTEST: 
Gina Perez
Recording Secretary

APPROVED: 
Stephen Gale
Chair

APPROVED AS TO FORM:


City Attorney

RESOLUTION NO. 28467

RESOLUTION OF THE COUNCIL OF THE CITY OF SANTA ROSA APPROVING THE RE-CERTIFICATION OF THE SANITARY SEWER MANAGEMENT PLAN AS REQUIRED BY THE STATE WATER RESOURCES CONTROL BOARD ORDER NO. 2006-0003 STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

WHEREAS, on May 2006, the State Water Resources Control Board (SWRCB) Order No. 2006-0003-Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR) was adopted and implemented; and

WHEREAS, the purpose of the WDR is to develop a regulatory mechanism to provide a consistent statewide approach for reducing sanitary sewer overflows (SSOs); and

WHEREAS, the WDR required preparation of a Sanitary Sewer Management Plan (SSMP) to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system in order to help reduce and prevent SSOs, as well as mitigate any SSOs that do occur; and

WHEREAS, in compliance with WDR requirements, a SSMP was prepared by the Utilities Department, recommended for approval by the Board of Public Utilities on April 16, 2009 and approved by Council on April 28, 2009 through Resolution 27356; and

WHEREAS, the WDR requires update and re-certification of SSMPs after five calendar years; and

WHEREAS, the SSMP, updated in March 2014 and ready for re-certification, must be approved by City Council prior to re-certification; and

WHEREAS, the City Council must approve the SSMP for online re-certification within the California Integrated Water Quality System database.

NOW, THEREFORE, BE IT RESOLVED that the Board of Public Utilities has reviewed the SSMP and passed a resolution on April 17, 2014 recommending re-certification of the SSMP by City Council as required by the State Water Resources Control Board (SWRCB) Order No. 2006-0003 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

Reso. No. 28467
Page 1 of 2

BE IT FURTHER RESOLVED that the Council, by resolution, approves the SSMP for re-certification as required by the State Water Resources Control Board (SWRCB) Order No. 2006-0003 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

IN COUNCIL DULY PASSED this 29th day of April, 2014.

AYES: (7) Mayor Bartley, Vice Mayor Swinth, Council Members Carlstrom, Combs, Olivares, Ours, Wysocky

NOES: (0)

ABSENT: (0)

ABSTAIN: (0)

ATTEST: David Szym
City Clerk

APPROVED: Sam P. Barth
Mayor

APPROVED AS TO FORM:

Carlene J. Jones
City Attorney

Reso. No. 28467
Page 2 of 2

SSMP - INTRODUCTION

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

SSMP Regulatory Requirement Background

On May 2, 2006, the State Water Resources Control Board Order No. 2006-0003- Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems was adopted and implemented. Prior to this GWDR, the Santa Rosa Water Department reported sanitary sewer overflows (SSOs) under the authority of its NPDES Permit No. R1-2006-0045 for the Reclamation System.

Document Organization

This SSMP is intended to meet the requirements of the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

The Statewide GWDR and their respective deadlines consist of the following elements:

SSMP Development	Implemented
On-Line Sanitary Sewer Overflow (SSO) Reporting	May 2, 2007
Approved by Board of Public Utilities	April 16, 2009
Approved by City Council	April 28, 2009
SSMP Development Plan and Schedule	August 1, 2007
Element 1- Goals	Nov. 1, 2007
Element 2- Organization	Nov. 1, 2007
Element 3- Legal Authority	Nov. 1, 2008
Element 4- O&M Program	Nov. 1, 2008
Element 5- Design & Performance Provisions	May 1, 2009
Element 6- Overflow Emergency Response	Nov. 1, 2008
Element 7- Fog Control Program	Nov. 1, 2008
Element 8- System Evaluation & Capacity Assurance	May 1, 2009
Element 9- Monitoring, Measurement & Modifications	May 1, 2009
Element 10- Program Audits	May 1, 2009
Element 11- Communication Program	May 1, 2009

Each element is organized into the following subsections:

- Overview and exact wording of the WDR language in a highlighted textbox to ensure that all requirements are included in the document.
- Identification of associated appendix and list of supporting information included in the appendix.
- Discussion of contents of the element emphasizing the compliance activities related to that element.

SSMP - INTRODUCTION

The entire SSMP is stored on the City intranet site under Local Water and Wastewater and is only accessible for revisions to those with specific permissions. Pursuant to the WDR, significant updates to the SSMP require re-certification by the agency's governing board.

Document Distribution

The SSMP document is available on the City Intranet. The City Intranet link has been provided as follows:

- Director of Santa Rosa Water
- Santa Rosa Water Senior Staff
- System Superintendents and Supervisors
- Subregional Treatment Plant
- Yard Attendants

City Service Area and Sewer System Overview

The City of Santa Rosa sanitary sewer collection system serves a population of approximately 175,269. There are approximately 50,512 connections. The City's collection system includes:

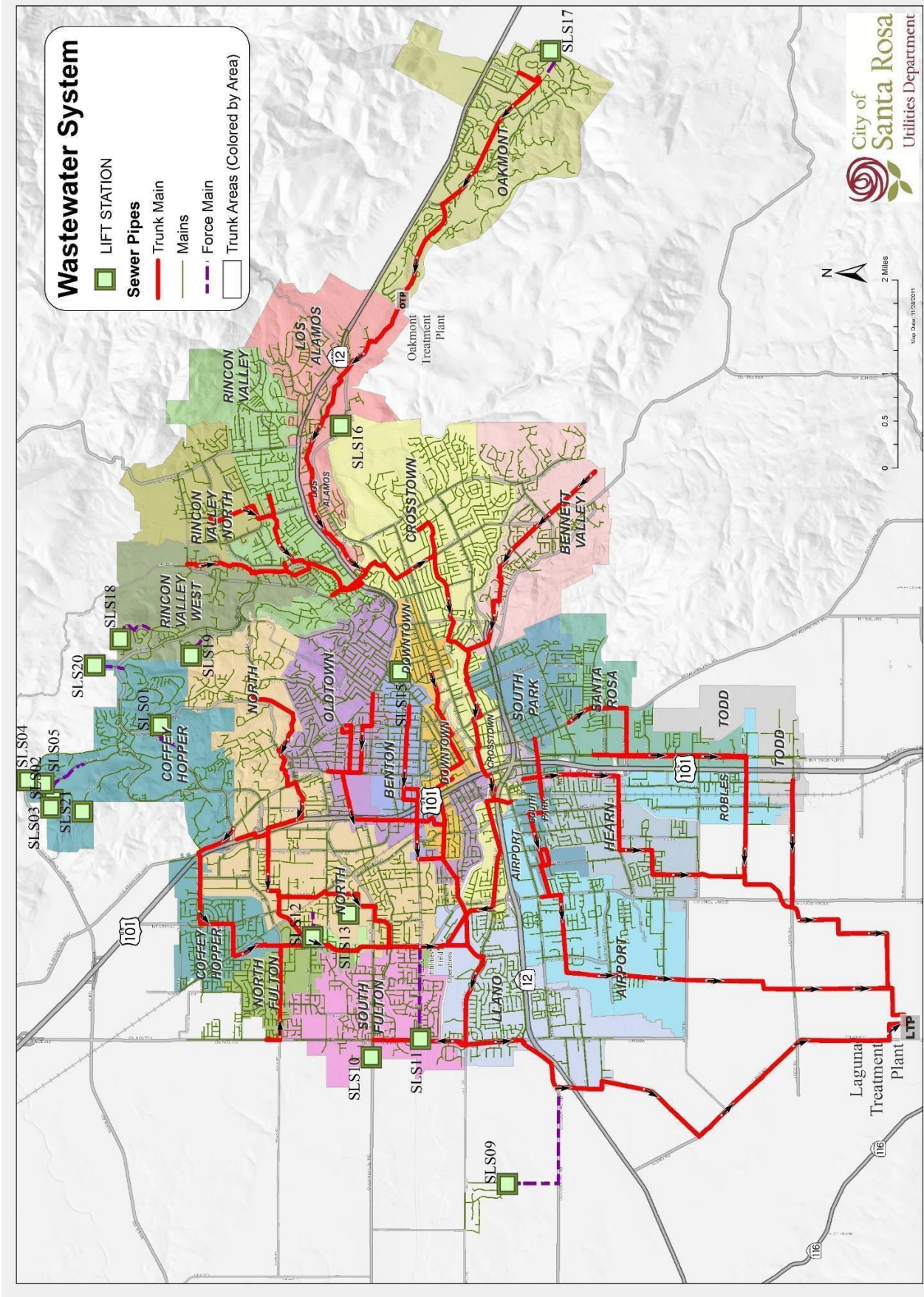
- 587.16 miles of gravity sewers
- 6.4 miles of pressure sewer
- 17 Lift stations

Subregional System Municipal Collection Systems

There are four municipal collection systems that discharge into the Santa Rosa Subregional System. The cities of Cotati, Rohnert Park and Sebastopol own and operate their collection systems. The City of Santa Rosa maintains the South Park County Sanitation District under contract. Each of these cities and South Park are responsible for their respective compliance with the WDR for Sanitary Sewer Systems.

The relationship between the City of Santa Rosa and the municipal collections systems is covered by three contracts:

- 1975 Agreement and, amendments subsequent establishing the Santa Rosa Subregional Sewerage System
- 1993 Commercial/Industrial Inspections Services
- 1996 Agreement and, subsequent amendments for Dissolution of the South Park County Sanitation District and Transfer to the City of Santa Rosa



Element 1: Goals

This Sanitary Sewer Management Plan (SSMP) element identifies goals that the Santa Rosa Water Department has set for the management, operation and maintenance of the sewer system and discusses the role of the SSMP in supporting these goals.

These goals provide focus for the Santa Rosa Water Department staff to continue high quality work and to implement improvements in the management of the City's wastewater collection system. This section fulfills the Goals requirement of the General Waste Discharge Requirements (WDR) - SSMP requirements.

1.1 Regulatory Requirement for Goals Element

The actual language for the Goals element from the WDR is as follows:

The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer collection system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

1.2 Goals Discussion

The Santa Rosa Water Department Operations Division mission statement is, "The Operations section of the Santa Rosa Water Department is dedicated to providing safe, economical, and dependable water distribution, wastewater collection and urban reuse systems in an ethical and informative way to the customers of the City of Santa Rosa."

The City of Santa Rosa's Water Department specific goals for the SSMP are as follows:

1. Maintain and improve the condition of the collection system infrastructure in order to provide reliable service now and into the future.
 - Perform regularly scheduled collection system maintenance, including cleaning, closed circuit television (CCTV) and smoke testing.
 - Perform collection systems repairs and small-scale improvements as determined necessary.
 - Continue the implementation of the Capital Improvement Program (CIP) program of replacement and rehabilitation of the collection system.
 - Maintain the collection system hydraulic model and utilize its output for determination and verification of current and future capacity.
 - Continue to have in effect a sewer code which contains all necessary authority and provision to design, construct, operate and maintain the collection system.

Element 1: Goals

-
- Continue to utilize the Computer Maintenance Management System (CMMS) to plan, track and facilitate long term planning of maintenance and operation of the collection system.
 - Continue to research and use new technologies and tools that will enable efficient management and maintenance of the collection system.
2. Cost-effectively minimize the infiltration/inflow (I&I) and provide adequate sewer capacity to accommodate design stormflows.
 - Maintain and utilize data collected from flow monitors in order to calibrate the sewer model, determine system capacity and sources of I&I.
 - Regularly inspect sources of I&I with the aid of smoke testing and CCTV inspections.
 - Maintain design and construction standards for the collection system.
 3. Minimize the number and impact of sanitary sewer overflows (SSOs) that occur. Continue to:
 - Provide emergency response, cleanup, notification and follow-up for all SSOs in accordance with the guidelines in the Overflow Emergency Response Plan.
 - Map and track any areas of the collection system with frequent or repeat SSOs.
 - Provide education to residents and businesses about the impact of fats, oil and grease (FOG) to the collection system.

1.3 5 Year Strategic Plan Local Operations Division

These goals will be tracked and progress will be reported in the audit required every 2 years. Revisions and updates will be made to the goals as required and these changes will be included in the required audits

Element 2: Organization

This element of the SSMP identifies City staff responsible for implementing this SSMP, responding to SSO events, and meeting the SSO reporting requirements. This section also includes the designation of the Authorized Representative to meet SWRCB requirements for completing and certifying spill reports.

2.1 Regulatory Requirements for Organization Element

The actual language for the Organization element of the WDR is worded as follows:

- 1. The name of the responsible or authorized representative as describe in Section J of the Order.**
- 2. The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an Organization chart or similar document with a narrative explanation; and**
- 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, Sonoma County Water Agency and/or State Office of Emergency Services CalOES).**

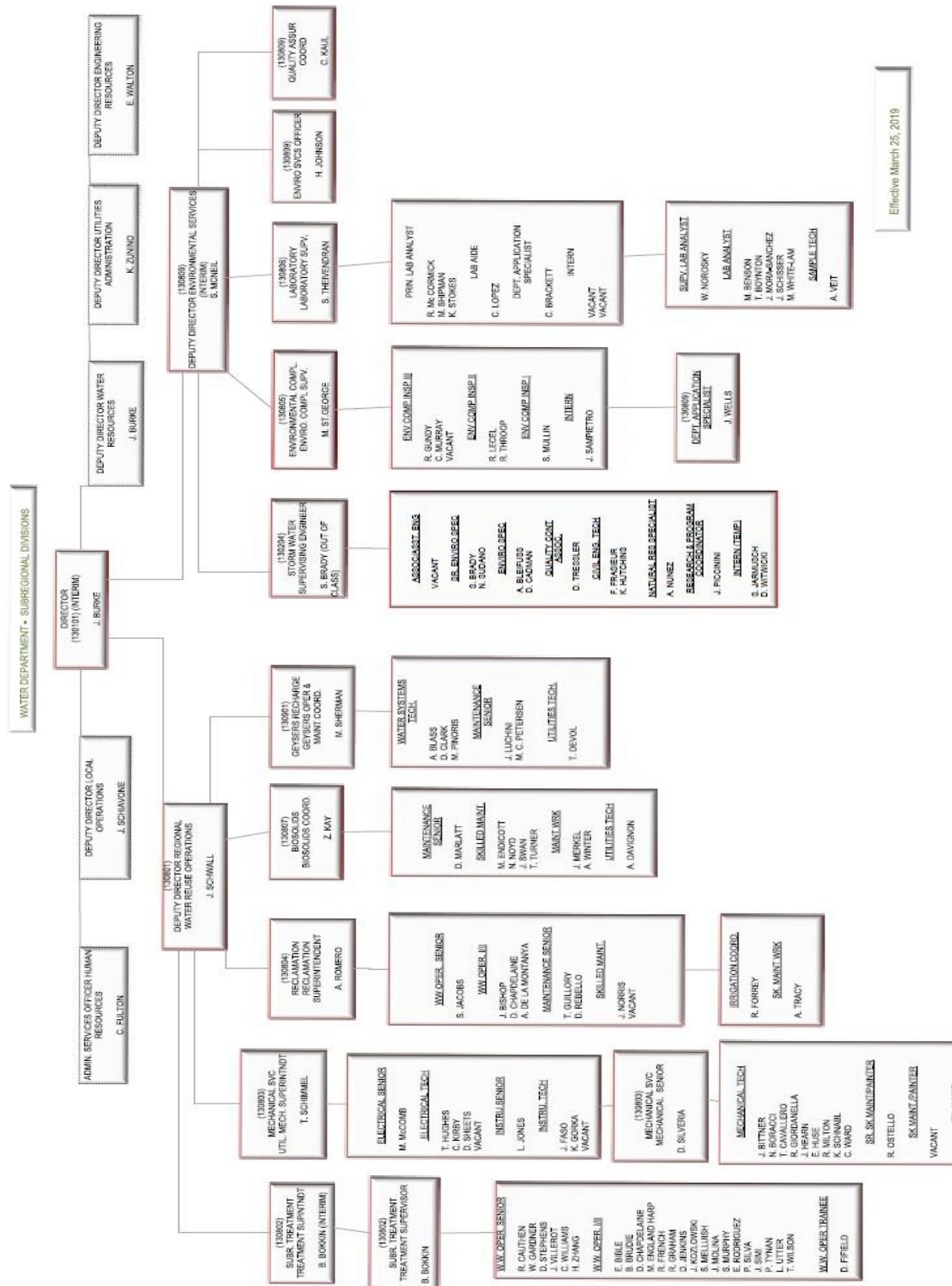
2.2 Element 2 - Organization

The following supporting information for Element 2 is maintained by the Santa Rosa Water Department:

1. Santa Rosa Water Department Organizational Chart for Local Operations and Subregional
2. Table 2.1 List of Santa Rosa Water Department Legally Responsible Officials and Data Submitters
3. SSO Response Flow Chart-Refer to SSOERP Element 6
4. Notification Spill Chart- Refer to SSOERP Element 6
5. Sewer Spill Reporting Process Flow Chart- Refer to SSOERP Element 6
6. Santa Rosa Water Service Call Form
7. Standby List-In-House Only
8. Santa Rosa Water Crew List-In-House Only
9. Table 2.4 Contact Numbers for SSO Chain of Communication



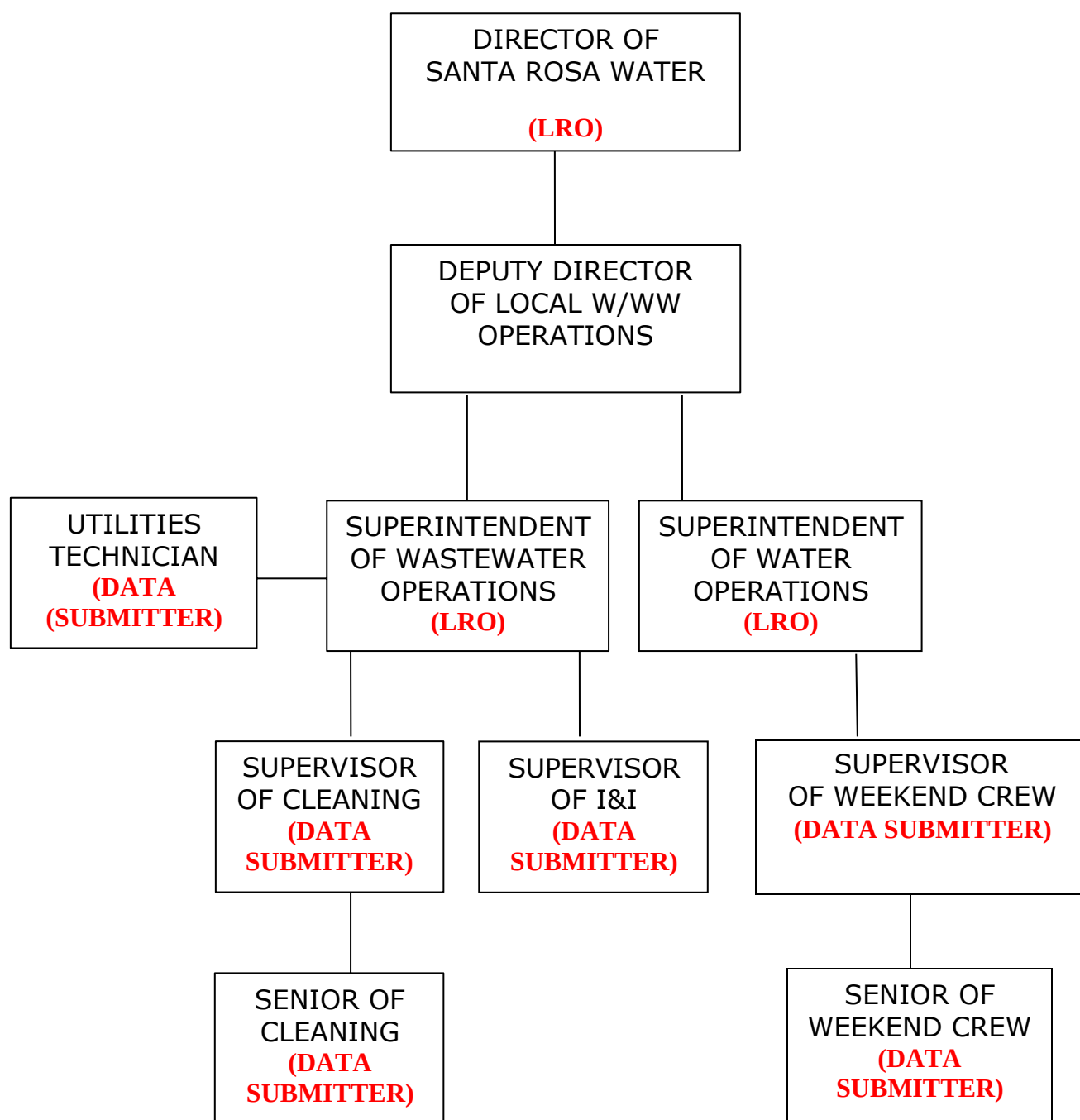
Element 2: Organization



Element 2: Organization

Table 2.1-City of Santa Rosa/South Park Legally Responsible Officials/

Data Submitters for CIWQS as of April 2015



Element 2: Organization

2.3 Department Organization

This section discusses the organization and roles of the Santa Rosa Water Department staff, the authorized representative and the key staff responsible for implementing and maintaining the SSMP.

The Local Operations Division which operates and maintains both water and sewer systems is the primary division responsible for collection system operations and maintenance. The Environmental Compliance section is responsible for the permitting and inspection of commercial and industrial businesses. The Environmental Compliance section also implements and coordinates the Fats, Oil and Grease (FOG) Program. The Asset Management section is responsible for managing the tracking tools such as our asset management program (CMMS), hydraulic modeling, and mapping. The Engineering Division is responsible for the design, construction and inspection of public and private sewer CIP projects. The organizational charts for Santa Rosa Water Local Operations and Subregional divisions are in Element 2.2.

Authorized Representative

As of May 2, 2007, the Santa Rosa Water Department has transitioned to reporting sanitary sewer overflows to the California Integrated Water Quality System (CIWQS) on-line database. The City's authorized representative or Legally Responsible Official (LRO) for all matters concerning the wastewater collection system is the Director of Santa Rosa Water. In addition to the Director of Santa Rosa Water, 2 other LROs have been delegated authority by the Director of Santa Rosa Water. The Santa Rosa Water Department Management Staff members are authorized to act in the Director of Santa Rosa Water's absence.

Data Submitters (DS) have been authorized by the LRO to input SSO data to the CIWQS database. Additional information about the CIWQS Online SSO Reporting process may be found in the City's Sanitary Sewer Overflow Response Plan (SSOERP), Element 6.

Responsibility for SSMP

The Director of Santa Rosa Water and authorized staff are responsible for maintaining all elements of this SSMP. The responsibility for complying with the WDR is spread across several sections in the Santa Rosa Water Department. The following table shows the SSMP elements and the section responsible for compliance or completion of the work.

Element 2: Organization

SSMP Element	Santa Rosa Water Dept. Section Responsible
Plan and Schedule	Local Operations
Goals	Local Operations
Organization	Local Operations
Legal Authority	Local Operations/Environmental Comp/CIP/City Attorney/Right of Way
Operations and Maintenance Plan	Local Operations/Asset Mgmt/CIP/Garage/Warehouse
Design and Performance Standards	Asset Management/CIP and Water Engineering Services Teams
Emergency Response Plan	Local Operations
FOG Plan	Environmental Compliance/Local Operations
System Capacity Plan	Asset Management
Monitoring and Program Modifications	Asset Management
Program Audits	All sections have input
Communications Program	City Website, Public Outreach FOG Program, Bill Inserts, Door Tags

2.4 SSO Reporting Chain of Communication

The “Sewer Spill Response Tracking” flowchart depicts the chain of communication for responding to and reporting SSOs, starting with the initial report of a problem, response, cleanup, enforcement and appropriate regulatory agency reporting and notification. In accordance with the flowchart, the appropriate System Supervisor or Senior USO is notified. Once the spill event has been cleaned up, data is entered on the Santa Rosa Water Service Call form. This spill data is entered into CMMS and the CIWQS database within the time frames required. Outside agencies are also notified of the spill as required. Contact numbers for those outside agencies are included on the Santa Rosa Water Service Call form. All other reporting paperwork is done in accordance with the Sewer Spill Reporting flowchart. Table 2.2 lists contact telephone numbers for the parties included in the chain of communication and also for possible sources of the initial call such as from the City Manager’s office.

Element 2: Organization

Table 2.4 Contact Numbers for SSO Chain of Communication

Contact	Telephone Number
UASC-Utilities Admin Service Center	707-543-4200
After Hours (Yard Attendant)	707-543-3805
Police Department Dispatch Center	707-543-3666
Director of Santa Rosa Water	707-543-3359
Deputy Director of Santa Rosa Water	707-543-3895
System Superintendent	707-543-3943
System Supervisor	707-543-4578 707-543-3981
Senior USO	707-291-5726
On-Call Personnel – Weekend Truck	See current Standby List
Weekend Crew System Supervisor	707-543-3975
Weekend Crew Senior	707-953-4492

Element 3: Legal Authority

This section of the SSMP discusses the City's legal authority to control discharges to the sanitary sewer system. This section fulfills the legal authority requirements for the WDR SSMP Element 3 requirements.

3.1 Overview of Regulatory Requirements for Legal Authority Element

The actual language for the Legal Authority element of the WDR is worded as follows:

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

- (a) Prevent illicit discharges into its sanitary sewer system including I&I from satellite wastewater collection systems and laterals, stormwater, unauthorized debris, etc.**
- (b) Require proper design and construction of sewers and connections;**
- (c) Ensure access for maintenance, inspection, and repairs for portions of the lateral owned or maintained by the Public Agency;**
- (d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages.**
- (e) Enforce any violation of its sewer ordinances.**

3.2 Legal Authority Discussion

Title 15 – Sewers of the City Code of Santa Rosa is the legal authority that governs the use of the sewer system. Title 15 was adopted by the City on October 25, 1955 and has been amended by City Ordinance numerous times. The most recent sewer code revision was in November 2008. A full current version of Title 15 – Sewers may be found online at:
<http://qcode.us/codes/santarosa/?view=desktop>

- (a) Prevent illicit discharges into its sanitary sewer system including I&I from satellite wastewater collection systems and laterals, stormwater, unauthorized debris, etc.**

There are four municipal collection systems that discharge in the Subregional System. The Cities of Rohnert Park, Cotati and Sebastopol own and operate their own collection systems. The City of Santa Rosa maintains the South Park County Sanitation District collection under contract. The City's relationship with all of these collection systems is covered under three separate contracts. The 1975 Agreement and, amendments subsequent that established the Santa Rosa Subregional Sewerage System, 1993 Commercial/Industrial Inspections Services Agreement and the 1996 Agreement and subsequent amendments for

Element 3: Legal Authority

Dissolution of the South Park County Sanitation District and Transfer to the City of Santa Rosa.

The 1975 agreement requires the cities to minimize the infiltration of groundwater to their systems to:

- Proper design, inspection, and testing of public sewers;
- Enactment of a building code or permit ordinance governing the construction of private building sewers;
- A maintenance program for public sewer inspection, repair and replacement of defective sewers.
- Enact a sewer use ordinance that prohibits discharge of substances which may be hazardous, or which may impair downstream facilities, processes, or quality of the end products;
- Issue permits for industrial users.

All four of the cities and district are in compliance with the requirements of the 1975 agreement.

City of Santa Rosa complies through the following City Code Sections:

15-04 Administration
 15-06 General and Pretreatment Enforcement
 15-08 Pretreatment
 15-16 Sewer Connections
 15-20 Sewer Charges
 15-28 Private Sewage Systems

(b) Require proper design and construction of sewers and connections;

City Code language cites “Section 15-16.020 (C) Construction of Sewers and sewer connections- Permit- Compliance Required – All construction of public sanitary sewers, or of sewers to become public sanitary sewers, or of sewer service laterals shall conform to the design criteria and the standard plans and specifications, as adopted by the City and shall be subject to inspection and testing for sanitary sewers in accordance with current City standards.”

City design and construction standards may be found on the City website at the following address: <https://srcity.org/2321/Design-Construction-Standards>

(c) Ensure access for maintenance, inspection, and repairs for portions of the lateral owned or maintained by the Public Agency;

Access to easements on private property is granted through easement agreements that are maintained by the City’s Right-of-Way Agent. The Department’s Collection System crews regularly access easements for cleaning,

Element 3: Legal Authority

TV, or repair work. These easements are also mapped. Details about locked access or any other requirement needed to obtain access are maintained by the crews.

(d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages.

Section 15-08.070 Prohibited Discharge Standards addresses the permitted and prohibited discharges that would give the City the authority to limit the discharges of fats, oils and grease and other debris that may cause blockages.

(e) Enforce any violation of its sewer ordinances.

Title 15, Chapter 15-06 General and Pretreatment Enforcement gives the authority to enforce this ordinance.

The Enforcement Response Plan is a companion document to the sewer code and stipulates the penalties and the progressive enforcement applied to users who are in noncompliance with the sewer code.

Element 4: Operation and Maintenance Program

This section of the SSMP discusses the City's Operation and Maintenance Program for the collection system. This section fulfills the Operation and Maintenance Program requirements for the WDR SSMP Element 4 requirements.

4.1 Overview of Regulatory Requirements for Operation and Maintenance Program Element

The actual language for the Operation and Maintenance element of the WDR is worded as follows:

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

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

Element 4: Operation and Maintenance Program

4.2 Element 4 Supporting Information

The following supporting information for Element 4 is maintained by the Santa Rosa Water Department staff and located on the Internal Website:

- Department Equipment Inventory List
- SOPs and Equipment Training materials
- Cleaning Schedule
- Maintenance performance reports
- Lift Station inspection checklist
- List of Asset Groups for Sewer Mains
- Santa Rosa Water Service Indicators for Local Wastewater Collections and Engineering
- Smoke testing workflow process

4.3 Operation and Maintenance Program Discussion

This section will address each of the regulatory requirements in the order written above.

(a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;

Sewer maps are continually updated by the Santa Rosa Water Asset Management Team including the storm drain system. A staff person is assigned primary responsibility to update and maintain the maps. The maps show street names, property address, pipe size and material, direction of flow, invert elevation, manhole and cleanout numbers and rim elevations, year of installation, force main and lift station locations. Separate detail sheets for sewer lift stations show plan and profile views, emergency pump connection details and various other installation information.

Mapping data is entered into the AutoCAD mapping system. Each portion of the system is given a unique identifier to allow the data to be exported to other programs like GIS or the CMMS. Data such as diameter, installation date, pipe type, Improvement Plan number, inverts and rim elevations are maintained in AutoCAD. Data from AutoCAD is converted to Geodatabase feature classes which are used in arc view and the City's GIS site.

This Santa Rosa Water Geodatabase stores spatial coordinates and geometries for sewer pipes and structures as well as additional attributes loaded from CAD and related datasets. Ongoing work is comparing CMMS and Geodatabase features and fixing discrepancies through the use of database views and CMMS GeoAdministrator. A better integration of AutoCAD mapping, GIS and CMMS has been achieved.

Element 4: Operation and Maintenance Program

Collection system maps are kept current in several ways. Field crews will mark up a hard copy of the map with items discovered in the field that need updating or correction. All projects, including current development (private), CIP, encroachments permits and field crew changes are routed to the mapping section after completion. This information is relayed to the mapping staff via improvement plans that are delivered after final acceptance. Once an asset is mapped it is assigned a unique ID in the CMMS system and a work order may be written against that asset.

Mapping information is made available online via the intranet to field personnel and engineering staff. Maps are also printed and bound for field and office staff reference. Wall maps are available in the Engineering Department and in the field staff offices. The maps are also available to field crews who have online field access via laptop either wirelessly or by use of a flashdrive.

(b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;

Preventive operation and maintenance activities for the water and wastewater systems are performed by the Local Operations Division of the Santa Rosa Water Department. No outside contractors are utilized in the operation and maintenance of the collection system except for extenuating circumstances. The following sections are responsible for operations and maintenance of the wastewater collection system:

- Collection System Cleaning Crew- Hydro Flushing, Rodding, Root control, Manhole inspections, FOG outreach-residential.
- Inflow/Infiltration Crews- Smoke testing, CCTV and Trunk line surveys.
- General Construction Crew- Sewer repairs.
- Weekend Crew- Emergency & nonemergency repairs, investigate complaints.
- Distribution Crew- Lift Station maintenance and inspections
- Service Truck- First responder to all wastewater calls during work hours.
- 24/7 Stand-by personnel - First responder to all after hour wastewater calls.

The Department has utilized a CMMS since 2001 and utilizes the system for managing Water assets and monitoring performance. Reports (performance indicators) for Local Wastewater maintenance results can be found on the Santa Rosa Water Intranet site.

Element 4: Operation and Maintenance Program

The Department prioritizes its maintenance activities into four categories: Urgent, High, Medium and Low. The Department also uses information gathered during routine maintenance to help change or modify future maintenance priority or to develop work orders for required repairs.

Condition inspection and assessment of the collection system is accomplished through televising the lines; visual inspection; manhole surveys, smoke testing, and trunk line survey. Assessment, repairs or corrections are made by the Local Construction division and larger projects for repair or replacement are developed through a Capital Improvement Project.

Collection System Cleaning

The cleaning crews clean and maintain approximately 600 miles of sewer main ranging from 6" to 36" in diameter. The frequency of sewer line cleaning is determined and adjusted by its history, with the goal of preventing sewer line blockages and SSOs.

The entire collection system is cleaned on a five-year maintenance schedule. Other cleaning zones with more cleaning frequency have been formed for the more problematic areas. The Department maintains their cleaning zone schedules and lists of cleaning groups maintained and updated on the Asset Management data base.

Closed Circuit Televising

The Department's goal for CCTV of the collection system is to televise the entire system every 7 years. Parts of the system that are within 200 feet of creek crossings are an additional focus of the CCTV program and are televised every 5 years. The focus of all CCTV activity is to identify defects that could contribute to infiltration and inflow and pipe failure.

CCTV is done year-round using 2 CCTV trucks. Since 2004, the Department has been using a software program which allows CCTV data to be transported between our Asset Management System, and GIS CCTV system. Large amounts of data that used to be stored on VHS is now stored on a central server. The CCTV data is capable of being viewed by Engineering and Operations staff using GIS or a viewer that is installed on each user's computer. Operators performing inspections utilize PACP standards and are PACP certified.

Smoke Testing

The Department's goal for smoke testing is to complete the entire system in 5 years. Smoke testing is usually performed during the months of July, August and September when groundwater levels are lowest. Areas to be smoke tested are prioritized by high flow data provided by the Department's flow monitoring system. After notification of the residents in the area to be smoke tested, crews

Element 4: Operation and Maintenance Program

will perform the smoke testing in accordance with the Smoke Test Procedures. If any defects are discovered from smoke testing, either a work order will be prepared if the defect falls on the City side or a series of letters requesting the property owner to correct the defect will be sent. Code Enforcement staff will be notified if the defect is not corrected in a cooperative or timely manner. Code Enforcement will then begin to work with the resident to correct the defect.

Documents and procedures pertaining to smoke testing are contained on the U: drive under U:\LocOps\I&I\smoke testing.

Odor Control

The Department historically receives very few odor complaints. If an odor complaint is received, manholes and cleanouts in the area will be investigated as possible sources. If not, then smoke testing or CCTV may be performed to determine the cause of the odor. If the cause of the odor is a cross-connection, the property owner may be notified of the situation and that removal of the cross-connection is required. Typically, the Department will work to ensure removal of the cross-connection by sending a series of letters requesting compliance. If compliance is not received in a cooperative manner, the Department will work with Code Enforcement staff to ensure enforcement.

Root Control

Root control is determined and identified by CCTV, Hydro Flushing and Rodding of the collection system or in areas experiencing blockages due to excessive roots.

Preventative work orders are grouped into projects (hot spots) in our CMMS, the groups consist of 3, 6 and 12-months preventative maintenance groups (rodding/hydro flushing) and a yearly chemical root control program. The crews use the rodder equipment to cut roots and clear the pipes. A chemical root control product is then applied to the interior of the pipe on a yearly schedule.

Chemical control of roots in the collection system is not considered a permanent solution in most situations. One common use of chemical root treatment is to treat areas that are planned to be replaced by a CIP project but need the root treatment to keep the pipe clear until the replacement project can be completed.

Corrosion Control

Every seven years, the City has a CCTV and Sonar inspection performed of the 13 miles of the large diameter trunk (36" to 66") and performs a sonar inspection of the 37 siphons. Any segment identified as needing rehabilitation due to the material condition will be prioritized into the 5-year and future CIP program. Routine corrosion control for reinforced concrete pipe and concrete structures is

Element 4: Operation and Maintenance Program

generally included with issues that are identified during manhole inspections. It may be as simple as replacing manhole bolts and frames or if more complex, it will be referred to CIP planning.

Lift Station Maintenance

Each of the City's 17 Lift Stations are operationally inspected once a month using a standard checklist of items to be inspected and operated. Comments on operational issues are entered into the logbook in each station and used as history and a way of determining any operational patterns that may need correction. Emergency generators are tested monthly and exercised on a load bank annually. Preventative maintenance is regularly scheduled. Annual wet well cleaning and Pump and motor maintenance are part of regular maintenance. Results of inspections and testing, along with review of alarms, are used to identify corrective maintenance and operational changes. All work history performed on facilities, as well as make/manufacturer and nomenclature of all associated equipment at each site is stored in the CMMS database. All Lift Stations are continually monitored by use of SCADA system. Alarms are sent via auto-dialer to redundant systems as well as visual displays. Devices responsible for sending alarms send a daily report indicating correct operation. SCADA system is also used to remotely check operational status as well as run reports to indicate corrective action or to improve operations.

Documents and procedures pertaining to lift station maintenance and operation are contained on the U drive under U:\LocOps\WtrDist\folders.

(c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;

The Santa Rosa Water Department has had an ongoing robust and successful Capital Improvement Plan for many years. The annual Sewer CIP Replacement budget is approximately 12 million dollars and its replacement goal is 1.2%

Element 4: Operation and Maintenance Program

annually. See Santa Rosa Water Service Indicators for the annual replacement numbers. Projects are identified, scheduled and coordinated by several methods:

1. Using the Sewer and Water Master Plans, sewer and water projects are often identified and constructed together to minimize interruption to the public. Coordination with other utility projects, such as storm drain replacement is also factored into the prioritization process.
2. If the proposed CIP project is in proximity to the annual overlay project, then it will be constructed first and possibly accelerated if it was a lower priority.
3. Condition information is communicated to the CIP Planning section by the Local Operations staff and is included in the prioritization of other CIP projects.
4. Deficiencies discovered during CCTV or during routine maintenance and repairs that are relatively minor in cost will be completed by our Department's General Construction Crew.

The Department's Capital Improvement Plan is prepared for intervals of 5 years. However, the Department's budget preparation cycle is every 2 years to allow rates to be studied and adjusted on a more frequent basis. The Department's budget is separated into Local Water, Local Wastewater and Subregional sections.

(d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and

Utilities Systems Operators (USO) I and II's rotate on an annual basis to achieve as much cross-training as possible in the Water and Wastewater Maintenance Operations. USOs I and II's are given a manual listing of the expectations of each section. They are then trained in accordance with this manual, tested and signed off on the required tasks.

Besides other certifications, all USO's are required to have a minimum of a CWEA Grade 1 certification by the end of their third year of employment. The Santa Rosa Water Department also provides monthly in-house training to all employees to obtain Contact Hours to maintain their certification.

The Santa Rosa Water Department also provides many other training opportunities on a frequent basis. Training is offered in all areas of collection system operations and is performed by Utility System Supervisors, Senior

Element 4: Operation and Maintenance Program

USO's, and by our Safety and Training Coordinator. Outside trainers are also utilized for specialized equipment and products.

Specific training is provided in the following:

- Confined Space Entry
- Temporary Traffic Control for Construction Sites
- Flagger Training
- Crane Operator Training
- Forklift Training
- Competent Person Excavation Safety
- Backhoe Training
- Hearing Conservation
- Conflict Resolution
- CPR/First Aid
- Emergency Operations and Response
- First Responder (HAZMAT 8hr refresher)
- HAZCOM
- CMMS
- Anti-Harassment
- Leadership
- Operation of a Class A Vehicles
- PLCs for pump station staff
- Rules of Workplace
- Sewer Maintenance equipment operation (semi-annual rotation training)
- Spill Response reporting and Mitigation
- Supervision
- Work Order completion (given by CMMS staff)

Training hours are tracked on a CMMS /Asset Management program for each employee.

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

The Department maintains an equipment inventory of replacement and spare parts in multiple locations. A list of available equipment and emergency vendors are kept in a red binder called "Emergency Information" that is available to Supervisors and Seniors. In the case of emergency, Supervisors all have procurement cards and access to local vendors during working hours. The City warehouse stocks consumable items such as rod, hose, fittings and small pipe. Individual supervisors maintain spare and replacement parts for the functions that their crews perform.

Element 4: Operation and Maintenance Program

Contingency equipment for sewer lift stations to facilitate effective response to emergency conditions includes sewer bypass pumps and piping, emergency backup generators, combination sewer cleaner, and hydro excavator trucks.

Element 5: Design and Performance Provisions Discussion

This section of the SSMP discusses the City's design and performance provisions for the installation of the sanitary sewer system. This section fulfills the design and performance provisions requirements for the WDR SSMP Element 5 requirements.

5.1 Overview of Regulatory Requirements for Design and Performance Provisions Element

The actual language for the Design and Performance Provisions element of the WDR is worded as follows:

The SSMP must identify

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

5.2 Design and Performance Provisions Discussion

- (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and**

The City maintains design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances. Design and construction of rehabilitated portions of the existing sewer system are mainly designed by the Capital Improvement Team and are done on a case-by-case basis. If alternative technologies such as micro tunneling, pipe bursting or cure-in-place methods are used, the design and construction standards and specifications are given by the material supplier or installer.

The latest version of the Sewer System Design and Construction Standards is dated 2018. Design and Construction Standards are periodically reviewed, updated and adopted by the BPU. The Sewer System Design and Construction Standards, Sewer System Construction Standard Specifications: Section 71. Sewers and the Engineer's List of Approved Items can be found on the City's website at the following address: <https://srcity.org/1250/Engineering-Resources>

Element 5: Design and Performance Provisions Discussion

This link leads to a page called “Water Engineering Resources” which includes all City water and sewer standard specifications as well as Water and Wastewater Master Plans.

(b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

The procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances are also maintained in the latest version of the Sewer System Design and Construction Standards. Standard Specification-Section 71- Sewers gives the specific details for types of material, installation and inspection procedures and requirements. In addition, the Caltrans standard specifications and drawings are frequently used on CIP projects.

In a similar manner as for the design of rehabilitation or repair projects, installation and inspection are frequently handled on a case-by-case basis depending on the type of rehabilitation. The City specifications for these projects will include the manufacturer’s recommended installation and special provisions.

Element 6: Overflow Emergency Response Plan

This section of the SSMP discusses the City's Sanitary Sewer Overflow Emergency Response Plan (SSOERP). This section fulfills the Overflow Emergency Response plan requirements for the WDR SSMP Element 6.

6.1 Overview of Regulatory Requirements for Overflow Emergency Response Plan Element

The actual language for the Overflow Emergency Response Plan element of the WDR is worded as follows:

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

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

6.2 Element 6 Supporting Information

The following supporting information for Element 6 is maintained by the Santa Rosa Water Department:

- SSOERP document
Contains all necessary forms for reporting.

Element 6: Overflow Emergency Response Plan

6.3 Overflow Emergency Response Plan Discussion

The Santa Rosa Water Department Overflow Emergency Response Plan was based upon a template plan provided by the American Public Works Association (APWA) written in 1999. The Department's plan was first written using the APWA template in 2001 and has been revised several times. The Department also maintains a binder that contains emergency information including contact information for City staff and local agencies, lift station information, emergency suppliers and spill cleanup resources. The Department also uses the Hazardous Materials Response Plan in the event of a large sewer spill requiring assistance from the Fire and Police Departments.

6.4 Summary of Overflow Emergency Response Plan

All the requirements under this element are satisfied in the Department's Overflow Emergency Response Plan which is included in this element.

The Department's Overflow Emergency Response Plan (SSOERP) is divided into eight sections as follows:

I. Authority

The SSOERP is written to satisfy requirements stipulated under the authority of NPDES Permit No. CA0022764 State Water Resources Control Board Water Quality Order No. R1-2013-0001 for the Santa Rosa Subregional Water Reclamation System and under the Statewide General Waste Discharge Requirements for Sanitary Sewer System WQO No. 2006-0003-DWQ, and the Revised Monitoring and Reporting Program (WQ 2013-0058-EXEC).

II. General Objectives, Organization of Plan, SSO Tracking

The primary objectives of the SSOERP are to protect public health and the environment, satisfy regulatory agencies and waste discharge permit conditions and minimize risk of enforcement actions against the City of Santa Rosa.

The organization of the key elements of the SSOERP are listed in this section. A brief discussion of the process for tracking SSOs in our Asset Management program and in the CIWQS database and the associated reporting capability for each database is included.

III. Overflow Emergency Response Procedure

This section discusses how a sanitary sewer overflow is first reported to the City, the dispatch of appropriate crews to the site, correction containment and clean-up of the overflow and how the overflow report is completed and submitted.

Element 6: Overflow Emergency Response Plan

IV. Public Advisory Procedure

This section describes the actions the City of Santa Rosa takes, in cooperation with the Sonoma County Health Services Department, Hazardous Materials Response Unit, Cal OES, California Department of Fish and Wildlife and the North Coast Regional Water Quality Control Board (NCRWQCB) to limit public access to areas potentially impacted by unpermitted discharges of pollutants to surface water bodies from the wastewater collection system.

V. Regulatory Agency Notification Plan

This section discusses the procedures which the City of Santa Rosa follows to provide formal notice to the Sonoma County Health Services Department, NCRWCB, Cal OES, and the Department of Fish and Wildlife. Reporting and notification is done in accordance with criteria in the WDR for SSOs.

VI. Media Notification Procedure

This section discusses the actions taken when a sanitary sewer overflow has been confirmed to be a threat to public health. The steps to be taken for media notification and the personnel involved are described in this section.

VII. Distribution and Maintenance of SSOERP

This section describes how the SSOERP has been distributed, staff training, a description of reference materials, how the SSOERP will be maintained and updated, and where it will be located.

VIII. Sanitary Sewer Overflow (SSO) Response Tracking & Notification Protocol and Documents

This section includes flow charts for SSO Response Tracking and Reporting. Copies of these flowcharts are included in the Appendix.

SSOERP

Sanitary Sewer Overflow Emergency Response Plan



Revised February 2019

Element 6: Overflow Emergency Response Plan

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Element 6: Overflow Emergency Response Plan



SANITARY SEWER OVERFLOW EMERGENCY RESPONSE PLAN

I. AUTHORITY

- A. NPDES Permit No. CA0022764
State Water Resources Control Board Water Quality Order
No. R1-2013-0001**
- B. Statewide General Waste Discharge Requirements for Sanitary Sewer System
WQO No. 2006-0003-DWQ**
- C. Revised Monitoring and Reporting Program (WQ 2013-0058-EXEC)**

II. GENERAL OBJECTIVES, ORGANIZATION OF PLAN, SSO TRACKING

The Sanitary Sewer Overflow Emergency Response Plan (SSOERP) is designed to ensure that every report of a confirmed sewage overflow is immediately dispatched to the appropriate crews so that the effects of the overflow can be minimized with respect to impacts to public health and adverse effects on beneficial uses and water quality of surface waters and customer service. The SSOERP further includes provisions to ensure safety pursuant to the directions provided by the Sonoma County Health Services Department and that notification and reporting is made to the appropriate local, state and federal authorities. For purposes of this SSOERP, “confirmed sewage spill” is also sometimes referred to as “sewer overflow,” “overflow,” or “SSO.” The effective date of this plan is July 2006.

Effective November 2, 2006, the Santa Rosa Water Department collection system came under the Statewide General Waste Discharge Requirements (GWDR) for Sanitary Sewer System-WQO No. 2006-0003-DWQ. The GWDR requires the completion and implementation of a Sanitary Sewer Management Plan (SSMP) by May 2, 2009. This SSOERP is one of 11 elements that comprise the SSMP. Additionally, the reporting and notification procedures under the GWDR now require that all City SSOs be entered into the California Integrated Water Quality System (CIWQS) database administered and maintained by the State Water Resources Control Board. Any changes to the City’s SSO response, notification, and tracking have been incorporated into this SSOERP.

Element 6: Overflow Emergency Response Plan

A. Objectives

The primary objectives of the SSOERP are to protect public health and the environment, satisfy regulatory agencies and waste discharge permit conditions which address procedures for managing sewer overflows, and minimize risk of enforcement actions against the City of Santa Rosa.

Additional objectives of the SSOERP are as follows:

- Provide appropriate customer service.
- Protect wastewater treatment plant and collection system personnel.
- Protect the collection system, wastewater treatment facilities, and all appurtenances.
- Protect private and public property beyond the collection and treatment facilities.

This plan shall not supersede existing emergency plans or standard operating procedures (SOPs) unless directed by a Hazardous Materials Incident Commander.

B. Organization of Plan

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

Section III	Overflow Emergency Response Procedure
Section IV	Public Advisory Procedure
Section V	Regulatory Agency Notification Procedure Plan
Section VI	Media Notification Procedure
Section VII	Distribution and Maintenance of SSOERP
Section VIII	Sanitary Sewer Overflow (SSO) Response Tracking Notification Protocol and Documents

C. SSO Tracking

A procedure to track the frequency and location of SSOs has been implemented in the Computer Maintenance Management System (CMMS). The required SSO data for entry into the CIWQS database has also been entered into the Computer Maintenance Management System (CMMS). Reports may be generated from either the CIWQS or CMMS database. The information included in these reports is used by Local Operations managers in the decision-making process for directing the correction of SSOs and for prioritizing maintenance activities.

Element 6: Overflow Emergency Response Plan

III. OVERFLOW EMERGENCY RESPONSE PROCEDURE

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

A. Receipt of Information Regarding an SSO

An overflow may be detected by system employees or by others. The Utilities Administrative Services Center is primarily responsible for receiving phone calls from the public of possible sewer overflows from the wastewater collection system. They forward the information to the Service Truck Operator who responds, and after handling the situation writes a Service Request, and a Call form. Depending on the action required, a Work Order is generated, prepared afterwards. Quick response and mitigating the problem is the first priority.

Generally, telephone calls from the public reporting possible sewer overflows are received by telephone operators at the Santa Rosa Water Department main office. The emergency phone line is staffed 24 hours per day, 365 days a year. The Standby Truck is dispatched and responds to after-hours and holiday service calls.

1. The Utilities Administrative Service Center or the Yard Attendant during evenings, weekends and holidays will obtain all relevant information available regarding the overflow including: ***See Service Request form attached.***
 - a. Time and date call were received;
 - b. Specific location;
 - c. Description of problem;
 - e. Caller's name and phone number;
 - f. Observations of the caller (e.g., odor, duration, back or front of property) and caller comments;
 - g. Other relevant information that will enable the responding investigator and crews, if required, to quickly locate, assess and stop the overflow.
2. Pump station failures or alarms that are received by phone are immediately conveyed to the Local Operations Distribution Senior USO, or the Standby Operator during off-hours, to initiate the investigation.
3. Sewer overflows detected by any personnel in the course of their normal duties are reported immediately to the Utilities Administrative Services Center, and/or Supervisor. Dispatching personnel record all relevant overflow information and dispatch the Service Truck or Standby Operator. Crew Supervisors or Seniors may dispatch additional response crews as needed.

Element 6: Overflow Emergency Response Plan

4. The Service Truck Operator confirms the overflow. Until verified, the report of a possible spill will be referred to as a “spill” and not be referred to as a “sewer overflow.”

Once determined a “sewer overflow,” Local Operations Crew Supervisor or Senior calls Cal OES, completes the Service Call form (*see attached Service Request form*) and begins required notification of local agencies in accordance with CIWQS reporting requirements, Wastewater Superintendent and any other applicable agency depending upon the quantity of the sewer overflow. All overflow data is entered into the CMMS. Additionally, all City overflow data is entered into the CIWQS database.

B. Dispatch of Appropriate Crews to Site of Sewer Overflow

Failure of any element within the wastewater collection system that threatens to cause or causes an SSO triggers an immediate response to isolate and correct the problem. Crews and equipment are available to respond to any SSO locations. Dispatch crews to any site of a reported SSO immediately. Also, place additional maintenance personnel “on Standby call” in the event extra crews are needed.

1. Dispatching Crews

- The Utilities Administrative Service Center or Yard Attendant receives notification of sewer overflows as outlined in Section A “Receipt of Information Regarding an SSO” and dispatches the Service Truck or the Standby Operator.

2. Crew Instructions and Work Orders

- Dispatch responding crews by cell phone. Response crew receives instructions from Crew Supervisors or designated Seniors regarding appropriate crews, materials, supplies, and equipment needed.
- Dispatchers verify that the entire message has been received and acknowledged by the crews who were dispatched. Follow all standard communications procedures. All employees being dispatched proceed immediately to the site of the overflow. Report any delays or conflicts in assignments immediately to the Crew Supervisor or Seniors for resolution.
- In all cases, response crews report their findings, including possible damage to private and public property, to the Crew Supervisor or Seniors immediately upon making their investigation.
- The Service Truck Operator or Standby Operator refers all pertinent information to the Cleaning Crew Supervisor or designated Senior, including any details of the problems described by customers.

Supervisor or Senior responds to the overflow site. At this time, the site is evaluated for additional personnel, material, supplies, and equipment.

Element 6: Overflow Emergency Response Plan

3. Preliminary Assessment of Damage to Private and Public Property

- The focus is to mitigate/resolve the problem. The response crews use discretion in assisting the property owner/occupant as reasonably as they can. Be aware that the Santa Rosa Water Department could face increased liability for any further damages inflicted to private property during such assistance. The response crew generally should not enter private property for purposes of assessing damage. Take appropriate still photographs and video footage, if possible, of the outdoor area of the sewer overflow and impacted area in order to thoroughly document the nature and extent of impacts. Forward all photographs to Local Operations Cleaning Section for filing with the Service Request form.

4. Field Supervision and Inspection

- The Wastewater Superintendent, as well as a Crew Supervisor or a Senior shall be notified of all overflows to ensure that provisions of this overflow response plan and other directives are met.
- The Collections System Superintendent (LRO) for Local Operations is responsible for overseeing the Sewer Spill Reporting Process in accordance with the Sewer Spill Response Tracking flow chart.

5. Coordination with Hazardous Materials Response

- Upon arrival at the scene of a sewer overflow, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g., gasoline) not common to the sewer system be detected, the Service Truck Operator or Standby Operator immediately contacts the City of Santa Rosa Communications Center and requests the Fire, Police or Sheriff Department respond for Hazardous Materials. Environmental Compliance is also notified of the situation.
- Should it be determined to alert the Hazardous Materials Response team, the Service Truck Operator, crew or Standby Operator awaits the arrival of the Incident Commander to take over the scene. **Remember that any vehicle engine, portable pump or open flame (e.g., cigarette lighter) can provide the ignition for an explosion or fire should flammable fluids or vapors be present. Keep a safe distance and observe caution until assistance arrives.**
- Upon arrival of the Hazardous Materials Response, the Santa Rosa Water Operators take direction from the person with the lead authority of that team. Only when that authority determines it is safe and appropriate for the crew to proceed they then continue to follow the SSOERP with the containment, clean-up activities and correction.

Element 6: Overflow Emergency Response Plan

C. SSO Correction, Containment, Clean-Up and Wastewater Sampling

Sanitary sewer overflows of various volumes occur from time to time in spite of concerted prevention efforts. Spills may result from blocked sewers, pipe failures, or mechanical malfunctions among other natural or man-made causes. The City of Santa Rosa is constantly on alert and ready to respond upon notification and confirmation of an overflow.

Other than the notice and reporting requirements of the Supervisor, this section describes specific actions to be performed by the crews during an SSO.

The objectives of these actions are:

- To contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into surface waters;
- To protect public health, environment and property from sewage overflows and restore surrounding area back to normal as soon as possible;
- To establish perimeters and control zones with appropriate traffic cones and barricades, vehicles or use of natural topography (e.g., hills, berms);
- To promptly notify the regulatory agency's communication center of preliminary overflow information and potential impacts.

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

Circumstances may arise when the City could benefit from the support of private-sector contractor assistance. This may be true in the case of large diameter pipes buried to depths requiring sheet piling and dewatering should excavation be required. The City may also choose to use private contractors for open excavation operations that might exceed one day to complete.

1. Responsibilities of Response Crew upon Arrival to an SSO

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

Element 6: Overflow Emergency Response Plan

- Determines the cause of the overflow, e.g., sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.;
- Takes immediate steps to stop the overflow, e.g., relieves pipeline blockage, manually operates pump station controls, repairs pipe, etc.;
- Identifies and requests, if necessary, assistance or additional resources to correct the overflow or to assist in the determination of its cause;
- Requests additional personnel, materials, supplies, or equipment that will expedite and minimize the impact of the overflow;
- Determines if private property is impacted. If yes, inform the **Crew Supervisor or Senior** so the Sonoma County Health Services Department and **Cal OES** will be advised. The daytime number to contact Public Health is 565-6565, after hours/weekends 288-2159. **The 24-hour number to contact Cal OES is 1-800-852-7550.**
- The owner, Police, Sheriff or Supervisor if present, has the authority to grant City crews permission to break a blockage on private property. However, if the spill is occurring on private property and overflowing onto public property, the crew may enter upon the property to mitigate a public nuisance that could affect health and public safety.

Element 6: Overflow Emergency Response Plan

Sanitary Sewer Overflow Sampling
Standard Operation Procedure
Revision 29 November 2018

WASTEWATER SAMPLING

SAMPLING OF WATERWAYS THAT WASTEWATER HAS ENTERED DUE TO A WASTEWATER SPILL.

- LOOK IN THE STORM DRAIN MAP BOOK TO DETERMINE THE WATERWAY THE STORM DRAIN CATCH BASIN DRAINS INTO.
- ACCESS THE SITE TO PERFORM THE SAMPLING OF THE WATERWAY.
- THREE GROUPS OF SAMPLES WILL BE TAKEN FROM THE SITE. EACH WILL BE COLOR COORDINATED. (GREEN, BLUE, ORANGE)
- THE FIRST GROUP WILL BE AT THE SOURCE OF THE STORM DRAIN OUTFALL INTO THE WATERWAY. (GREEN)
- THE SECOND GROUP WILL BE UPSTREAM OF THE STORM DRAIN OUTFALL. (BLUE) (Far enough upstream to be away from any effects of the spill – a rushing spill can eddy upstream in some cases.)
- THE THIRD GROUP WILL BE DOWNSTREAM OF THE STORM DRAIN OUTFALL. (ORANGE) (Samples will be taken far enough downstream to be representative of the combined spill and receiving water. Typically, this is approximately 75 feet downstream (or more if safety is an issue).)

SAMPLES

<u>SOURCE</u>	<u>UPSTREAM</u>	<u>DOWNSTREAM</u>
2L PLASTIC	2L PLASTIC	2L PLASTIC
1L PLASTIC	1L PLASTIC	1L PLASTIC
2 Sterile COLIFORM (GREEN)	2 sterile COLIFORM (BLUE)	2 sterile COLIFORM (ORANGE)

- WEAR SAFETY GLASSES AND DISPOSABLE GLOVES DURING THE SAMPLING PROCESS.
- EACH GROUP WILL HAVE ITS OWN SAMPLER BOTTLE. THIS BOTTLE IS TO BE USED **ONLY** FOR ITS DESIGNATED GROUP.
- PLACE THE SAMPLER BOTTLE INTO THE SAMPLING DIPPER, THEN REACH OUT INTO THE WATERWAY TO FILL THE BOTTLE.

Element 6: Overflow Emergency Response Plan

- POUR THE CONTENTS OF THE SAMPLER BOTTLE INTO THE APPROPRIATE SAMPLE BOTTLES, BEING CAREFUL NOT TO OVERFILL THE BOTTLES. (NOTE: SAMPLE BOTTLES ARE MARKED FOR THEIR SPECIFIC GROUP). AFTER BOTTLE HAS BEEN USED, THROW THE BOTTLE AWAY **(in the lab's recycled bottle can)**.
- THE **COLIFORM** BOTTLE IS THE ONLY ONE THAT IS **NOT** FILLED WITH THE SAMPLER BOTTLE. THIS BOTTLE IS HAND DIPPED INTO THE WATERWAY BEING CAREFUL NOT TO OVERFILL THE BOTTLE WASHING OUT THE PRESERVATIVE PILL. WITH THIS BOTTLE, TRY TO KEEP IT AS CLEAN AS POSSIBLE. **DO NOT TOUCH THE INSIDE OR THE RIM OF THE BOTTLE.**
- SEE EXAMPLES OF THE CHAIN OF CUSTODY PAPER WORK. FILL OUT THE YELLOW HIGHLIGHTED AREAS. **Sample time is the time that the last bottle of each sample set is collected.**
- FILL OUT THE LAB CHAIN OF CUSTODY PAPER AND LAB LOG STICKERS FOR THE DIFFERENT GROUPS OF SAMPLES AS YOU GO. SEE EXAMPLES OF THE LAB LOG STICKERS. FILL OUT THE YELLOW HIGHLIGHTED AREAS. PLACE THE APPROPRIATE STICKERS ON THE BOTTLES. THE YELLOW BORDERED STICKERS WITH THE H₂SO₄ MARKINGS MUST BE PLACED ON THE SAMPLE BOTTLES WITH THE YELLOW H₂SO₄ STICKERS ON THE LIDS. **BE CAREFUL WITH THESE SAMPLES, THERE IS A SMALL AMOUNT OF CONCENTRATED ACID IN THE SAMPLE BOTTLE.**
- ONCE THE GROUPS OF SAMPLES ARE COLLECTED, PLACE THE SAMPLES IN THE ICE CHEST AND DELIVER THEM TO THE LAB AT THE LAGUNA TREATMENT PLANT **WITHIN 4 HOURS.**
- **NOTIFY THE LAB BEFORE GOING OUT TO DROP OFF SAMPLES: MAKE SURE THEY CAN ACCOMMODATE THE SAMPLES AND IF IT IS GOING TO BE AFTER 4:00 PM BEFORE YOU ARRIVE:**
LTP LABORATORY 543-3364.
- CHECK IN WITH A LAB TECHNICIAN. THEY WILL HELP YOU WITH THE LOGIN OF THE SAMPLES. EACH SAMPLE GROUP WILL HAVE ITS OWN LAB LOGIN NUMBER.
- THE LAB WILL HAVE REPLACEMENT SAMPLE BOTTLES AND LABSTICKERS FOR THE SAMPLE KITS. IN THE EVENT THE LAB DOES NOT, NOTIFY THE WASTEWATER SUPERVISOR THE FOLLOWING DAY.
- **Sample bottles containing acids must be changed out by the lab every 3 months. You will be notified when it is time to bring your bottles in for exchange.**

SAMPLE KITS ARE KEPT IN THE CLEANING STORAGE ROOM.



LAGUNA
ENVIRONMENTAL
LABORATORY
ELAP CERT # 1126

Chain of Custody
Page 1 of 1

SUBREGIONAL UTILITIES
4300 Llano Road
Santa Rosa, CA 95407
(707) 543-3364

Department: **Utilities (Local Operations)**

Report To: **Ron Marincic**

Phone: **543-3973**

Project Name: **SSO; Sample site:**

Rush ☐

Due Date: _____

SAMPLER'S NAME:			REQUESTED ANALYSES										Lab Log #					
DATE SAMPLED:	DATE SUBMITTED:		EC	NO2	BOD	NO3	N-ORG and TN	NH3-D	P-TOT	TKN	Total and Fecal Coliform (MTF)	E. Coli: Q-Tray						
TIME	SAMPLE DESCRIPTION	# BOTTLES & TYPE	MATRIX	PRESERVATIVE	SAMPLE METHOD	COMPOSITE	START/END TIME	EC	NO2	BOD	NO3	N-ORG and TN	NH3-D	P-TOT	TKN	Total and Fecal Coliform (MTF)	E. Coli: Q-Tray	Lab Log #
	Upstream	2L_P	WW	U	G	NA		X	X	X	X	calc.	X	X	X			
	Upstream	1L_P	WW	S	G	NA										X		
	Upstream	(2)sterile 100ml	WW	T	G	NA											X	
	Source	2L_P	WW	U	G	NA		X	X	X	X	calc.						
	Source	1L_P	WW	S	G	NA							X	X	X			
	Source	(2)sterile 100ml	WW	T	G	NA										X		
	Downstream	2L_P	WW	U	G	NA		X	X	X	X	calc.						
	Downstream	1L_P	WW	S	G	NA							X	X	X			
	Downstream	(2)sterile 100ml	WW	T	G	NA										X	X	
Remarks/Comments			Relinquished by			Received by			Date			Time						
Temp blank collection time: Initial Temp (°C):																		
Sampler Initials: Initials:																		
Temp blank at arrival (°C): Initials:																		
Sample pH <2 Initials																		
Acid added: by on (date/time)																		
Matrix: WW = Wastewater SO = Soils																		
DW = Drinking Water SW = Surface Water GW = Ground Water																		
SL = Sludge																		

Sample Method: G = Grab C = Composite F = Field Filtered Grab

Bottle Type: VOA = 40 ml VOA 250 ml_P = 250ml Plastic 500ml_P = 500ml Plastic 1L_P = 1 Liter Plastic 1L_G = 1 Liter Glass 2L_P = 2 Liter Plastic

Preservative: U = Unpreserved Z = Zinc Acetate C = HCl H = HNO₃ T = Na₂S₂O₃ S = H₂SO₄ N = NaOH O = Other (Please Note)

Element 6: Overflow Emergency Response Plan

2. Initial Measures for Containment

Initiate measures to contain the overflowing sewage and recover where possible, minimizing impact to public health or the environment.

- Determine the immediate destination of the overflow, e.g., storm drain, street curb gutter, body of water, creek bed, etc.
- Take immediate steps to contain the overflow, e.g., block or bag storm drains, recover through vacuum truck, divert into downstream manhole, etc.
- Identify and request the necessary materials and equipment to contain or isolate the overflow.

3. Additional Measures under Potentially Prolonged Overflow Conditions

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

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

4. Cleanup

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

- Where practical, thoroughly flush the area and clean of any sewage or wash-down water. Solids and debris are to be flushed, swept, raked, picked-up, and transported for proper disposal.
- Secure the overflow to prevent contact by members of the public until the site has been thoroughly cleaned.
- Where sewage has resulted in ponding, pump the pond dry and dispose of the residue using proper disposal.
- If a ponded area contains sewage that cannot be pumped dry, it may be treated with bleach. If sewage has discharged into a body of water that may contain fish or other aquatic life, bleach or other appropriate disinfectant should not be applied and the (state fish and wildlife agency) should be contacted for specific instructions.
- Use of portable aerators may be required where complete recovery of sewage is not practical and where severe oxygen depletion in existing surface water is expected.

Element 6: Overflow Emergency Response Plan

D. Lift Station Capacity

SANTA ROSA WASTEWATER LIFT STATIONS																	
STATION	ADDRESS/LOCATION	PUMPS-GPM EA	WW CAP/GAL	FORCED MAIN CAP/GAL	EMERGENCY	GEN CON	PUMPER CON	HIGH LV/LFT	DIALER PHONE #	NO. OF PUMPS *2STAGE	H.P. EACH	GPM 1 PUMP	LEAD PUMP ON/OFF	LAG PUMP	LOW H2O ON/OFF	HIGH H2O ON/OFF	HIGH FLOAT H2O
SLS01	2101 STAGECOACH ROAD	2 @ 800	7,180	9,481	Y	Y	Y	7	524-5283	2	60	800 @ 140'	4.6/2.5'	5.1/3.0'	1.2'	7.0'	
SLS02	3957 SKYFARM DRIVE "A"	2 @ 170	734	2,001	Y	Y	Y	3.0	524-5696	2/2*	20	170 @ 115'	1.6/0.6'	1.8/0.7'	0.3'	3.0'	
SLS03	3987 CLEARBROOK COURT	2 @ 96	733	440	Y	N	Y	4.7	568-6389	2	10		4.0/2.0'	4.5/2.2'	1.4'	4.7'	
SLS04	4021 SKYFARM DRIVE "B"	2 @ 130	1,056	1,402	Y	Y	Y	4.1	573-1051	2/2*	25	130 @ 220'	3.5/2.0'	3.7/2.5'	1.0'	4.1'	
SLS05	3925 FAWNGLIN PLACE	2 @ 80	587	389	Y	Y	Y	3.6	524-5697	2	5	80 @ 95'	1.3/0.5'	2.0/1.0'	0.4'	3.6'	
SLS09	601 PIEZZI ROAD	2 @ 185	1,899	11,413	Y	Y	Y	6.9	524-5390	2	15	185 @ 62'	4.0/1.6'	5.0/1.9'	0.8'	6.9'	
SLS10	1426 COUNTRY MANOR DR	2 @ 80	734	416	Y	Y	Y	6	524-5560	2	1.5	80 @ 13.5'	4.0/2.5'	4.5/3.0'	1.4'	4.9'	
SLS11	1098 FULTON ROAD	3 @ 2,400	2,513	82,857	Y	Y	Y	9	524-5258	4	40	P-1: 1,487 P-2: 1,502 P-3: 1,730	5.4/2.5'	6.0/4.2*** 6.3/4.5***	1.5'	9.0'	5.8'
SLS12	2818 MOHAWK STREET	2 @ 225	1,597	2,093	N	Y	Y	4.0	545-6084	2	5	130 @ 15'	2.8/0.8'	3.0/1.0'	0.3'	4.0'	
SLS13	2541 PAWNEE STREET	2 @ 80	513	294	N	N	Y	5.6	524-5096	2	5	60 @ 23'	2.8/1.5'	3.8/2.0'	1.3'	5.6'	
SLS15	111 ALDERBROOK LANE	2 @ 45	213	10	N	N	N	3.8	524-5091	2	2	45 @ 10'	2.5/0.6' L-0 North	1.7/0.6' L-1 South	0.4'	3.8'	4.1'
SLS16	5391 MONTGOMERY DRIVE	2 @ 185	1,535	1,535	Y	Y	Y	6.0	539-9013	2	6.0	185 @ 44'	4.0/1.7'	5.5/2.0'	0.3'	6.0'	

SANTA ROSA WASTEWATER LIFT STATIONS																	
STATION	ADDRESS/LOCATION	PUMPS-GPM EA	WW CAP/GAL	FORCED MAIN CAP/GAL	EMERGENCY	GEN CON	PUMPER CON	HIGH LV/LFT	DIALER PHONE #	NO. OF PUMPS *2STAGE	H.P. EACH	GPM 1 PUMP	LEAD PUMP ON/OFF	LAG PUMP	LOW H2O ON/OFF	HIGH H2O ON/OFF	HIGH FLOAT H2O
SLS17	8810A OAKMONT DRIVE	2 @ 270	2,513	2,612	Y	Y	Y	6.3	833-5280	2	15	270 @ 51'	4.8/2.0'	5.8/2.5'	1.0'	6.3'	
SLS18	3975 SHELTER GLEN WAY	2 @ 135	1,215	3,580	Y	Y	Y	4.0	525-0117	2/2*	15	180 @ 196'	3.0/1.0'	3.5/1.5'	0.5'	4.0'	
SLS19	3710 NEWBURY CT.	2 @ 120	845	2,613	Y	Y	Y	4.3	541-7316	2/2*	10	200 @ 124'	3.0/1.7'	3.5/2.5'	0.9'	4.3'	
SLS20	3978 HANSFORD CT.	2 @ 130	1,057	2,496	Y	Y	Y	3.6	576-7925	2/2*	10		2.0/1.0'	2.6/1.5'	0.5'	3.6'	
SLS21	3919 FLINTRIDGE DR.	2 @ 215	733	616	Y	Y	Y	4.5	566-6804	2	23		3.5/1.5'	4.0/2.0'	1.0'	4.5'	

VACTOR TRUCK MOST DESIRABLE INITIAL RESPONSE

* = Two Stage Pumps

** Standby Pump: ON=4.0'; OFF= 3/7'

EMERGENCY EQUIPMENT

EQUIP #	EQUIPMENT DESCRIPTION	FUEL	LOCATION
38103	Lift Station Mobile Generator	diesel	UFO BUILD. "A" BAY 7
38337	Light Trailer	propane	UFO BUILD. "A" BAY 5
40305	6" Mobile Pump	gasoline	LTP
40407	8" Wastewater Trash Pump	gasoline	UFO BUILD. "A" BAY 6
28004 trailer 28004 pump	6" Wastewater Trash Pump	diesel	UFO BUILD. "A" BAY 6

Element 6: Overflow Emergency Response Plan

E. Spill estimation Work Sheet

Spill Estimation Guide Sheet

Conversion

Inches = Feet

1/32" = .0026'

1/16" = .0052'

1/4" = .02'

3/8" = .03'

1/2" = .04'

5/8" = .05'

3/4" = .06'

7/8" = .07'

1" = .08'

2" = .17'

3" = .25'

4" = .33'

5" = .42'

6" = .50'

7" = .58'

8" = .67'

9" = .75'

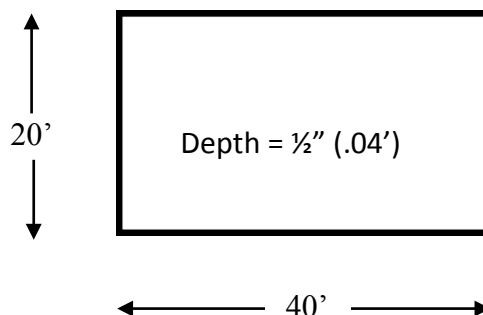
10" = .83'

11" = .92'

12" = 1.00'

AREA/VOLUME OF A RECTANGLE OR SQUARE

Formula: **Length X Width X Depth X 7.48 cu ft/gal = Gallons**



Length (40') X Width (20') X Depth (.04') X 7.48 cu ft/gal = **239.36 Gallons**

Note: 1/32" (.0026') use this depth for wet spots on concrete and asphalt areas.

Element 6: Overflow Emergency Response Plan

Area Spill Estimation Work Sheet

Formula: Length x Width x Depth x 7.48 cu ft/gal = gallons

Area #1 (L) _____ x (W) _____ x (D) _____ x 7.48gal/cu ft = _____ **Gallons**

Ave Depth: _____ ☐ Use this depth for wet spot on concrete/asphalt 0.0026' (1/32")

Area #2 (L) _____ x (W) _____ x (D) _____ x 7.48gal/cu ft = _____ **Gallons**

Ave Depth: _____ ☐ Use this depth for wet spot on concrete/asphalt 0.0026' (1/32")

Area #3 (L) _____ x (W) _____ x (D) _____ x 7.48gal/cu ft = _____ **Gallons**

Ave Depth: _____ ☐ Use this depth for wet spot on concrete/asphalt 0.0026' (1/32")

Area #4 (L) _____ x (W) _____ x (D) _____ x 7.48gal/cu ft = _____ **Gallons**

Ave Depth: _____ ☐ Use this depth for wet spot on concrete/asphalt 0.0026' (1/32")

Area #5 (L) _____ x (W) _____ x (D) _____ x 7.48gal/cu ft = _____ **Gallons**

Ave Depth: _____ ☐ Use this depth for wet spot on concrete/asphalt 0.0026' (1/32")

Notes: _____

_____ Gallons:

#1 _____, #2 _____, #3 _____, #4 _____, #5 _____, = _____ Gallons Spilled

Element 6: Overflow Emergency Response Plan

F. SSO Report Data Collection and Notification

Notification, Reporting, Monitoring, and Record Keeping Requirements

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION (see section B of MRP)	Within two hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number.	Call Cal OES at: (800) 852-7550
REPORTING (see section C of MRP)	- Category 1 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. - Category 2 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. - Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which SSO the occurred. - SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. "No Spill" Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. - Collection System Questionnaire: Update and certify every 12 months.	Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by enrollee's Legally Responsible Official(s).

Element 6: Overflow Emergency Response Plan

WATER QUALITY MONITORING (see section D of MRP)

- Conduct water quality sampling **within 48 hours** after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.

Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.

RECORD KEEPING (see section E of MRP)

- SSO event records.
- Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP.
- Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters.
- Collection system telemetry records if relied upon to document and/or estimate SSO Volume.

Self-maintained records shall be available during inspections or upon request.

SSO Categories

CATEGORIES

DEFINITIONS Sewer Overflow (SSO) definition:

CATEGORY 1

Discharges of untreated or partially treated wastewater of **any volume** resulting from an enrollee's sanitary sewer system failure or flow condition that:

- Reach surface water and/or reach a drainage channel tributary to a surface water; or
- Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).

CATEGORY 2

Discharges of untreated or partially treated wastewater of **1,000 gallons or greater** resulting from an enrollee's sanitary sewer system failure or flow condition that **do not** reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

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CATEGORY 3

All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

PRIVATE LATERAL SEWAGE DISCHARGE (PLSD)

Discharges of untreated or partially treated wastewater resulting from blockages or other problems **within a privately owned sewer lateral** connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be voluntarily reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.

Information regarding a sewer overflow includes the following:

- Notification:
 3. For any discharges of sewage that results in a discharge to surface water either directly or by way of a drainage channel or MS4, the Crew Supervisor or Senior shall, as soon as possible, but not later than two (2) hours after;
 - A. The Crew Supervisor or Senior has knowledge of the discharge.
 - B. Notification is possible.
 - C. Notification can be provided without substantially impeding cleanup of other emergency measures, notify the **California Office of Emergency Services (Cal OES)** and obtain a notification control number @ 800 825-7550.

Notification requirements for each applicable SSO, the Crew Supervisor or Senior shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES shall include:

4. Name of person notifying Cal OES and direct return phone number.
 5. Estimated SSO volume discharged (gallons).
 6. If ongoing, estimated SSO discharge rate (gallons per minute).
- a. SSO Incident Description:
- Brief narrative.
 - On-scene point of contact for additional information (name and cell phone number).
 - Date and time enrollee became aware of the SSO.
 - SSO cause (if known).
 - Indication of whether the SSO has been contained.
 - Indication of whether surface water is impacted.
 - Name of surface water impacted by the SSO, if applicable.
 - Indication of whether a drinking water supply is or may be impacted by the SSO.
 - Any other known SSO impacts.

Element 6: Overflow Emergency Response Plan

- SSO incident location (address, city, state, and zip code).

Following the initial notification to Cal OES and until such time the Wastewater Superintendent, Crew Supervisor or Senior (data submitters) submit a draft report in the CIWQS Online SSO Database, the Crew Supervisor or Senior shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).

As soon as possible, but no later than 2 hours after becoming aware of a discharge to a surface water and/or reaches a drainage channel tributary to a surface water or reaches a storm sewer system (MS4) and is not fully captured and returned to the sanitary sewer, the NCWQCB will be notified by phone followed by a fax letter acknowledging that Cal OES and County Environmental Health have been informed of this event. A follow up letter will be sent to NCWQCB within five days after event has been mitigated.

The Wastewater Superintendent, Cleaning Crew Supervisor or designated Senior USO completes the draft Online Overflow Report (CIWQS). If not completed by the Wastewater Superintendent, an e-mail is sent to the Wastewater Superintendent (LRO) for review and certification.

Investigation

- Determination of the stop time of the sewer overflow by any of the following methods:
 - a. When the blockage is cleared.
 - b. Talk with surrounding residents/public that may have observed the overflow to better establish duration of the overflow.

Determination of volume and flow estimations may be based on the following:

- a. Calculation of the area and depth of the SSO (involves investigating the surrounding area for evidence of ponding or other evidence of SSO volumes);
 - b. Where the rate of overflow is known, multiply the duration of the overflow by the overflow rate;
 - c. Estimation of CWEA Manhole Overflow Gauge Worksheet;
 - d. Flow meter reading or SCADA in the collection system or pump stations;
 - e. Pump run times and pump discharge volume ratings;
 - f. Water usage information for customers who discharge into the collection system;
 - g. If the entire spill is captured, the tank level indicator; and/or
 - h. Any other relevant technical or collection system information.
 - i. Where safe and possible, photographs should be taken that may aid in establishing and justifying spill volume.
- Assessing damage:
 - a. Assessment of any damage to the exterior areas of public/private property. Personnel generally should not enter private property for purposes of estimating damage to structures, floor and wall coverings and personal property. Contact our Risk Management immediately in accordance with the "Sewer Backup Response Claim Procedures."

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G. Customer Satisfaction

The Crew Supervisor or the Seniors follow up on-site with the citizen(s) reporting the overflow. They will disclose the cause of the overflow and its resolution to interested persons on-site

H. Post SSO Discussion

After an SSO has been contained and recovered, failure analysis will be performed by the Wastewater Superintendent, Cleaning Crew Supervisor and first responders involved on the pipe or pump station to minimize the chance of the SSO reoccurring. This analysis is designed to determine the cause of the stoppage, the condition of the pipe and develop a preventative maintenance schedule or corrective measure to mitigate the risk of another SSO occurring at the same location as well as enhancing best practices and operating procedures. This type of analysis should enhance future responses and improve the agency's overall handling of these events.

Element 6: Overflow Emergency Response Plan

IV. PUBLIC ADVISORY PROCEDURE

This section describes the actions the City of Santa Rosa takes, in cooperation with the Sonoma County Health Services Department, Hazardous Materials Response Unit, Cal OES, Public Works Storm Water Response Team, California Department of Fish and Wildlife and NCRWQCB to limit public access to areas potentially impacted by unpermitted discharges of pollutants to surface water bodies from the wastewater collection system.

A. Temporary Signage

The **Sonoma County Health Services Department in conjunction with the City of Santa Rosa** has primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled wastewater discharges from its facilities. The postings do not necessarily prohibit use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination. It is important to document how many and locations.

B. Other Public Notification

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

V. REGULATORY AGENCY NOTIFICATION PLAN

The Regulatory Agency Notification Plan establishes procedures which the City of Santa Rosa follows to provide formal notice to the **Sonoma County Health Services Department, NCRWQCB, Cal OES, and Fish and Wildlife** as necessary in the event of SSOs. The reporting criteria below explains to whom various forms of notification should be made and lists agencies/individuals to be contacted.

NCRWQCB Telephone Notifications are as follows:

During business hours: (707) 576-2220 (Front office will page Lisa Bernard, David Leland, or other staff in charge. After hours: (707) 696-7179 (emergency page number)

Element 6: Overflow Emergency Response Plan

Secondary Notification

Crew Supervisors or Seniors will contact other agencies, as necessary, as well as other interested and possibly impacted parties.

VI. MEDIA NOTIFICATION PROCEDURE

When an overflow has been confirmed and is a threat to public health, take the following actions, if necessary, to notify the media:

- A. The Service Truck Operator or response crew verifies overflow and calls the Police Department, reports the spill and requests a Hazardous Materials response, and reports back to the Crew Supervisor or delegated Senior.
- C. The Hazardous Materials Incident Commander informs the Public Information Office (PIO). Table III provides the PIO contact names and numbers. The PIO shall be the "first-line" of response to the media for any overflow.
- C. After hours and weekend sewer overflows are reported to the PIO at the number(s) listed on Table III.
- D. Calls received by the dispatcher from the media at any time are referred to the PIO.
- E. The following personnel are authorized to be interviewed by the media and are the designated spokespersons:

Elise Howard – Communications Coordinator, Santa Rosa Water

Jennifer Burke – Acting Director of Santa Rosa Water

Joe Schiavone– Deputy Director, Operations

Table III

Public Information Office

City of Santa Rosa

Contact Name	Office	Pager	Mobile
(Primary) Elise Howard	707-543-3799	N/A	707-321-6498
(Backup #1) Jennifer Burke	707-543-3359	N/A	707-303-0769
(Backup #2) Joe Schiavone	707-543-3895	N/A	707-696-3108

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VII. DISTRIBUTION AND MAINTENANCE OF SSOERP

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

A. Submittal and Availability of SSOERP

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

Santa Rosa Water Director, Deputy Director, and Superintendents office, UFO, LTP, Originator of Report, Utility System Supervisors, Code Enforcement for Private Spills, Storm Water Department and Risk Management.

The SSOERP will be posted on the Santa Rosa Water Department intranet website under the Local Water and Wastewater/SSMP/1 SSMP elements/Elements 06-overflow emergency response plan.

Familiarize all other personnel who may become incidentally involved in responding to overflows with the SSOERP.

B. Review and Update of SSOERP Annually

Review the SSOERP annually and amend as appropriate. The City of Santa Rosa should:

- Update the SSOERP with the issuance of a revised or new NPDES permit or state waste discharge permit;
- Conduct annual training sessions with appropriate personnel.
- Review and update, as needed, the various contact person lists included in the SSOERP.

C. Training

Utilities Systems Operators (USO) I and II's rotate on an annual basis to achieve as much cross-training as possible in the Water and Wastewater Maintenance Operations. USO I and IIs are given a manual listing the expectations of each section. They are then trained in accordance with this manual, tested and signed off on the required tasks.

All USOs are required to obtain a valid, Grade I (minimum) Wastewater Collection Certificate, issued by the California Water Environmental Association that must be obtained by the end of the third year of employment. The Santa Rosa Water Department also provides in-house training to all employees and also provides Contact Hours to maintain their certification.

All employees in the Cleaning section are trained in the proficient operation of the equipment used to clean and maintain the sewer collection system.

Element 6: Overflow Emergency Response Plan

They are also trained to be knowledgeable in emergency response. Employees are trained to respond swiftly, assess the situation, and then determine what needs to be done quickly and appropriately.

A Training Checklist for each piece of equipment is used as an outline and to provide consistency in training. All employees are required to become knowledgeable in the use of all Cleaning equipment. The Cleaning Crew Seniors give periodic review in their sections to better evaluate the employee's knowledge and skill level.

The Cleaning section also has written instructions and procedures (SOPs) for each type of truck. They contain these documents in a book titled "Wastewater Cleaning Trucks Operating Procedures."

Overflow training is given by the Cleaning Supervisor. This training helps keep employees up-to-date on procedures that will help provide immediate response to SSOs in a manner designed to minimize water quality impacts and potential nuisance conditions.

Training consists of:

- Overflow response
- Take steps to contain or divert the overflow
- Mitigate overflow
- Spill assessment
- Notification
- Provide cleanup
- Public notification (posting)
- Water Sampling process
- Overflow estimating
- Follow up, determine the cause of the overflow

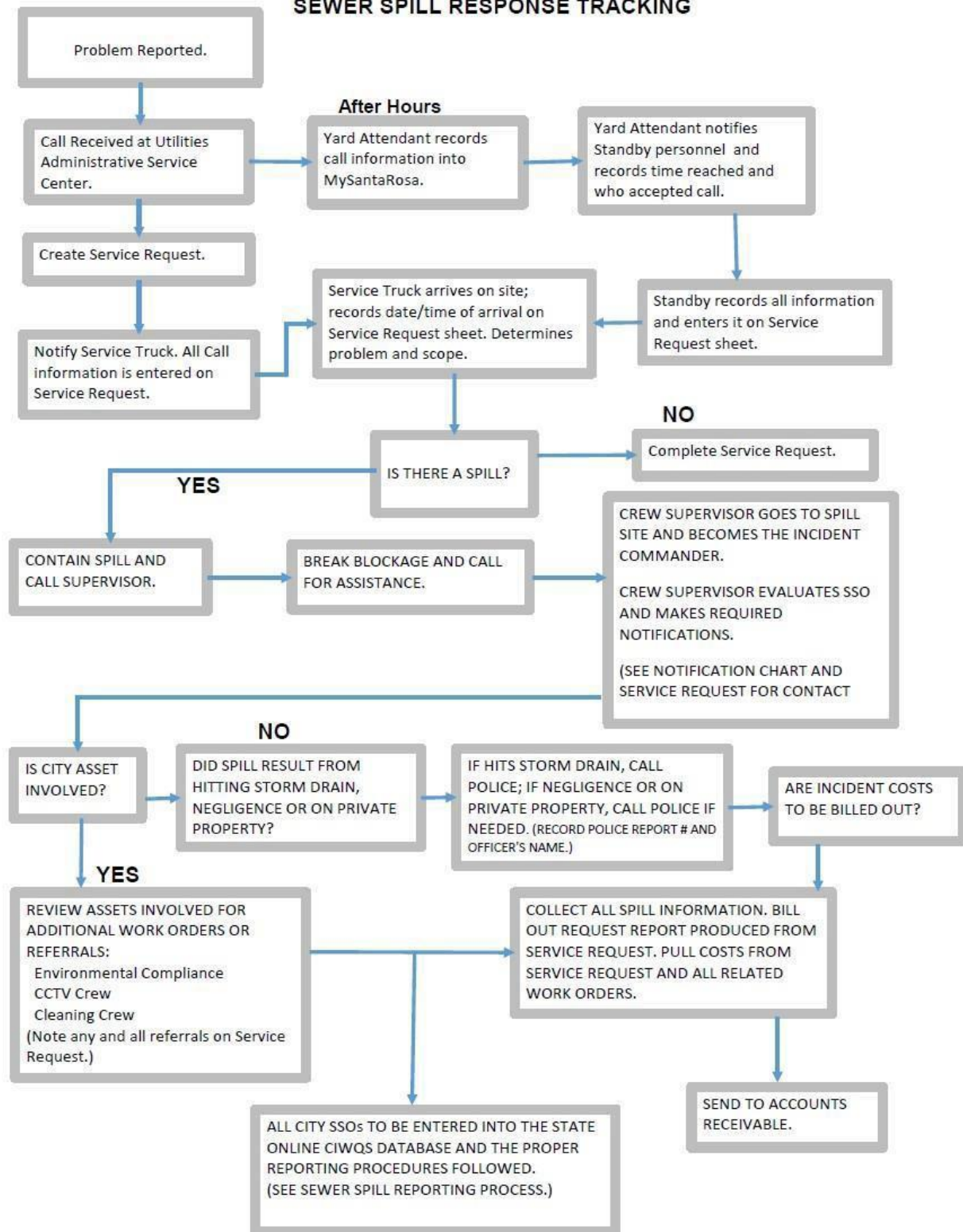
VIII. SANITARY SEWER OVERFLOW (SSO) RESPONSE TRACKING & NOTIFICATION PROTOCOL AND DOCUMENTS

Following Documents:

- SSO Response Flow Tracking
- SSO Reporting Process (CIWQS)
- Spill Notification Chart
- Reporting Phone Numbers
- 2-hr / 24-hr Fax Notification to NCRWQCB
- Category 1 Discharge Reporting Letter RWQCB
- Service Request Form

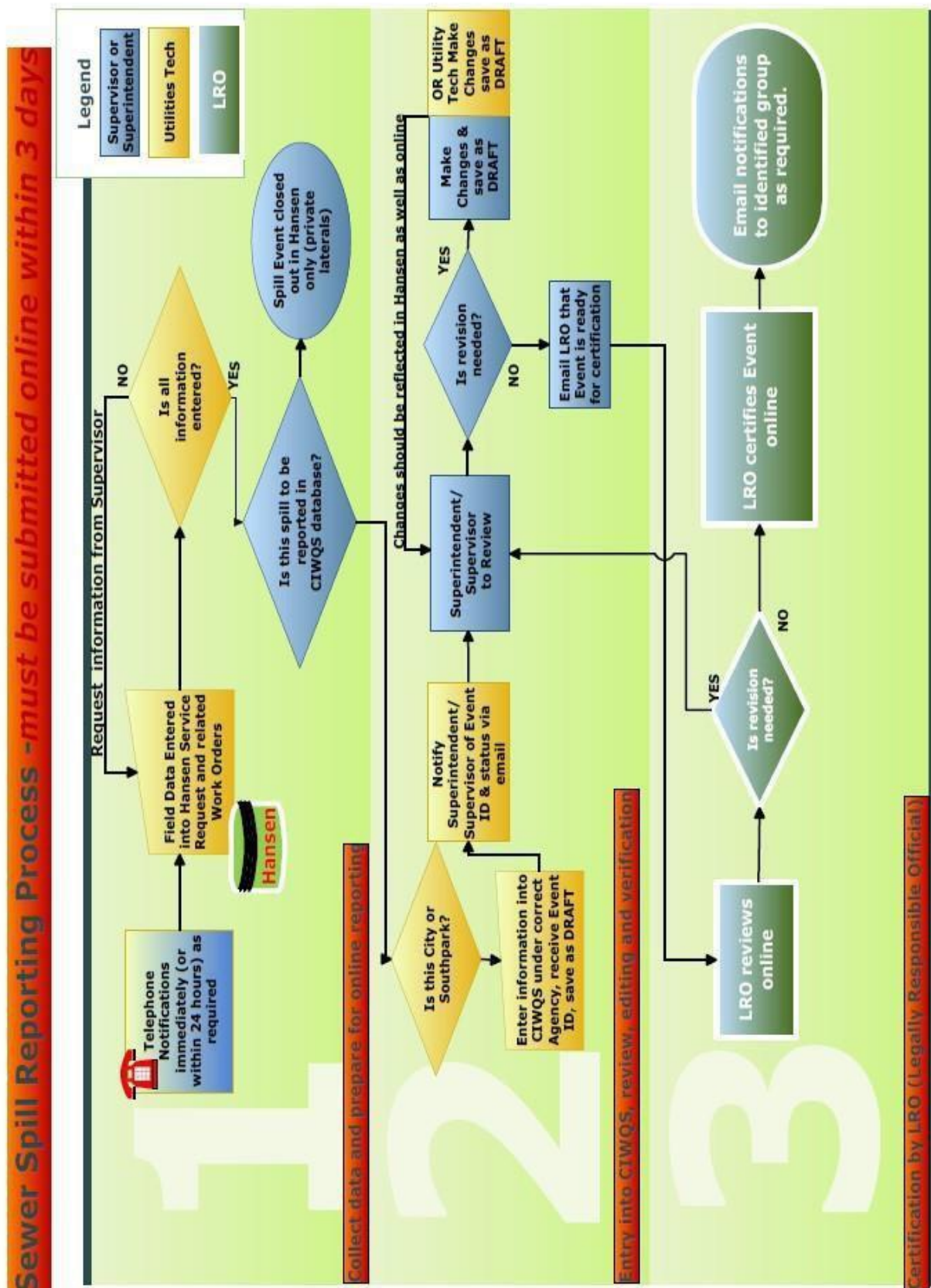
Element 6: Overflow Emergency Response Plan

SEWER SPILL RESPONSE TRACKING



03-16-2016

Element 6: Overflow Emergency Response Plan



Element 6: Overflow Emergency Response Plan

SPILL NOTIFICATION CHART

SSO Category	Reporting	Notification	CIWQS Regulatory Requirements
Category - 1	All SSO that reaches surface water <u>or</u> any SSO that reaches a drainage channel (MS4) and is not fully captured and returned to the sewer system.	1. Utility System Supervisor 2. Cal OES - ASAP no later 2hrs 3. NCWQCB -ASAP no later 2 hrs. <i>Fax letter within 24hrs/follow up letter within 5 days</i> 4. SR Police/Environ Crime Unit 5. County Environmental Health 6. Fish & Wildlife 7. Storm Water	Category 1 & 2 Draft reports for Category 1 & 2 SSO shall be submitted to the CIWQS Online SSO Database <u>within three (3) business days</u> of the enrollee becoming aware of the SSO. A final Category 1 or 2 SSO report shall be certified through the CIWQS Online SSO Database <u>within 15 calendar days</u> of the end date of the SSO. Technical Report within 45 days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters.
Category - 2	All SSO greater than or equal to 1,000 gallons that do not reach a surface water <u>or</u> drainage channel (MS4) unless the entire SSO discharge to the storm drain system is fully recovered and disposed of properly	1. Utility System Supervisor 2. Cal OES - ASAP no later 2hrs 3. NCWQCB - ASAP no later 2 hrs. <i>Fax letter within 24hrs/follow up letter within 5 days</i> 4. SR Police/Environ Crime Unit 5. County Environmental Health	
Category - 3	All other SSO less than 999 gallons	1. Utility System Supervisor 2. Cal OES – ASAP no later 2hrs 3. NCWQCB - 100 to 999 gal - no later than 2 hrs. 4. SR Police/Environ Crime Unit (if enters storm drain) 5. County Environmental Health – ASAP no later 2 hrs.	All Category 3 SSO shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs.
Private Spill	All Private Spills	Utility System Supervisor	Any spill resulting from a blockage or other problems within a privately-owned sewer connection may be <u>voluntarily</u> reported to the CIWQS Online SSO Database.
	5 Gallons or greater	In addition - County Environmental Health	
	Enters Storm Drain & recovered	In addition – Cal OES & SR Police	
	100 to 999 Gallons	In addition - NCWQCB – ASAP no later than 2 hrs.	
	>1000 gal/no surface water	Refer to category 2 notification	
	Reaches surface water	Refer to category 1 notification	

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Reporting Phone Numbers

Agency	Phone Number	After Hours	Contact person
Cal OES	800 852-7550		
NCWQCB	576-2220	696-7179	Lisa Bernard
SR Police/Environ Crime Unit	543-3666		
County Environ Crime Unit	565-2121		
County Environ Health Dept	565-6565	889-7443	Terry Macute
LTP Environ Compliance	543-3350	695-2692	Martin St George
Calif Dept of Fish & Wildlife	916 341-6957	916 358-1300	
Red Com	576-1365		
City of SR - PED	543-3200		
City of SR - Storm Water	543-3800	H-874-6285 C-486-6492	Steve Brady
		H-876-1806 C-477-5302	Alistair Bleifuss

Wastewater Spill Response Quick Guidelines

- All spills need to be reported to a Utility System Supervisor ASAP.
- All spills need to be reported to the proper agencies, refer to the **Notification Chart** for appropriate categorizing
 - Sonoma County Environmental Health**
 - Working hours 565-6565
 - After hours/Weekends 889-7443
 - Police: 543-3666**
 - Sonoma County Environmental Crimes**
 - 565-2121
 - NCWQCB:**
 - Office 576-2220
 - After hours 696-7179
 - Fax number 523-0135
 - Cal OES: 800-852-7550**
 - Fish and Wildlife**
 - Working hours 916-341-6957
 - Weekend hours 916-358-1300
 - City of Santa Rosa, Storm Water: Office 543-3800**
 - After Hours:**
 - Steve Brady: Home 874-6285 Cell 486-6492
 - Alistair Bleifuss: Home 876-1806 Cell 477-5302

Element 6: Overflow Emergency Response Plan

3. Samples may be taken on spills that enter a waterway; instructions for sampling are in the red sample kits (red coolers) located in Cleaning's storage area.
4. In the event of a spill that has the potential to adversely impact public health, property or the environment, the Supervisor can authorize to have the lateral blockage cleared.
5. When a police officer arrives at a spill, the officer becomes the Incident Commander.
6. The online spill reporting must be completed within the proper time frames in order to meet CIWQS regulatory requirements (refer to spill **Notification Chart**). It is critical that all spill information be directed to the designated personnel that have access to online reporting.
7. **Access to online reporting (Legally Responsible Officials):** Ron Marincic; **(Data Submitters):** Chris Kilgore, Vince Villarreal, Tony Llamas, Steve Myers, Jason Tibbals, Dave Ward, Pedro Gomez, Jose Valencia and Casey Arents.
8. Take as many photos before and after as necessary for proper documentation.
9. Diagrams are to be used to assist with estimates and documentation.

Element 6: Overflow Emergency Response Plan

CERTIFICATION OF CATEGORY 1 DISCHARGE NOTIFICATION

To: North Coast Regional Water Quality Control Board

Fax Number: (707) 523-0135

Date: **From:** City of Santa Rosa Water Department

Agency: City of Santa Rosa **WDID:** 1SSO11491

Agency: South Park **WDID:** 1SSO10070

Subject: Discharge Certification Notice

In accordance with notification procedures required by Executive Order No. WQ 2008-0002 and Order No. 2006-2003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, the **City of Santa Rosa** is hereby certifying that the State Office of Emergency Services (OES) and the County Environmental Health have been notified of a discharge to a drainage channel or surface water within the required two-hour period after becoming aware of the discharge.

Date/Time when City of Santa Rosa notified about discharge:

Discharge Location:

Notified Office Cal OES

Control No.

Date **Time:**

Notified County Environmental Health

Date: **Time:**

Contact Person:

Fax sent by: **Phone number:**

Date: **Time:**

FAX TO NORTH COAST RWQCB NO LATER THAN 24 HOURS AFTER DISCHARGE

Element 6: Overflow Emergency Response Plan



Date

Matthias St. John
Executive Officer
California RWQCB
5550 Skylane Blvd., Ste. A
Santa Rosa, CA 95403

NPDES Permit No. CA0022764
WDID No. 1B830990SON (treatment plant)

Reporting Spills from Collection System

Agency: City of Santa Rosa Water
Sanitary Sewer System: City of Santa Rosa CS
WDID: 1SSO11491

OR

Agency: South Park Co Sanitation District
Sanitary Sewer System: South Park CSD CS
WDID: 1SSO10070

Dear Mr. St. John,

The City of Santa Rosa Collection System has met all reporting requirements, and all agencies have been notified for the mandatory reporting procedures addressing this spill.

Time Spill discovered: _____

Location of Spill: _____

Entered surface water, or drainage channel: Yes _____ No _____

Volume in Gallons: _ gal _____
Sample Taken: Yes _____ No _____

Corrective Action Taken: _____

Cal OES control number: _____

Element 6: Overflow Emergency Response Plan



I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Should you have any further questions or comments, please contact Mr. Ron Marincic, Utility System Superintendent, telephone number (707) 543-3943.

Jennifer Burke
Acting Director of Santa Rosa Water

Attachments:
24hr Fax Notification
CIWQS Report form

Element 6: Overflow Emergency Response Plan

SERVICE REQUEST #	☐ CALL CENTER	☐ YA ☐ OTHER	Date Received Call		
CALLER	☐ WATER	☐ OTHER	Time Received Call	TIME ☐ AM ☐ PM	
PHONE	☐ WASTEWATER		Time Arrived Onsite	TIME ☐ AM ☐ PM	
ADDRESS	TYPE OF PROBLEM & CALLER COMMENTS		Inspection Complete	TIME ☐ AM ☐ PM	
X-STREET					
MAP PAGE					
Alarms ☐ WATER STATION ☐ RESERVOIR ☐ LIFT STATION ☐ LEVEL HI / LO ☐ PUMP FAIL ☐ POWER FAIL ☐ TROUBLE ALARM ☐ COMMUNICATION FAILURE ☐ OTHER _____					
CONDITIONS FOUND - CHECK ALL THAT APPLY - ADD COMMENTS					
W A T E R	LEAKS ☐ PROP SIDE ☐ CITY SIDE ☐ IRR ☐ GROUND WATER ☐ HYDRANT ID# _____ ☐ MAKE INET NOTIFICATION ☐ FIRELINE ☐ PRIVATE HYDRANT ☐ KNOCKDOWN ☐ LEAK DURATION _____ INCLUDE WATER LOSS IN THOUSAND GALLON UNITS: _____ ☐ VALVE ID# _____		PIPE INFORMATION ☐ PLASTIC ☐ COPPER ☐ 3/4" ☐ 1" ☐ 1 1/2" ☐ 2" ☐ SHORT ☐ LONG ☐ A ☐ B ☐ C ☐ D MAIN SIZE _____ ☐ CURB STOP METER # _____ READING _____		
	ACTIONS TAKEN ☐ WATER ON ☐ WATER OFF ☐ REPAIRS MADE ☐ CONDITION CORRECTED ☐ LEFT OOPS TAG ☐ NEED WORK ORDER ☐ REFER TO _____ ☐ NOTIFIED ☐ NOTIFY WUE ☐ NOTIFIED ☐ NOTIFY BILLING ☐ INFORMED CUSTOMER \$130 TURN ON FEE, AFTER HOURS, HOLIDAYS, WEEKENDS AND ALTERNATING FRIDAYS WHEN CITY OFFICES ARE CLOSED: CUSTOMER APPROVE INITIALS: _____ # OCCUPANTS _____				
S E W E R	SEWER STOPPAGE LOCATION ☐ MAIN ☐ LATERAL LOWER ☐ LATERAL UPPER ☐ HIGH WATER ☐ LATERAL CLEANOUT UPSTREAM ☐ WET ☐ DRY MAP# _____ NODE _____		SEWER STOPPAGE CAUSE ☐ ROOTS ☐ GREASE ☐ SAND/GRAVEL ☐ PAPER ☐ BREAK/OFFSET ☐ OTHER _____ DOWNSTREAM _____ NODE _____ MAP# _____ SPILL APPEARANCE POINT _____		
	☐ IF SEWER SPILL, CHECK HERE. PUT ADD'L INFORMATION ON REVERSE LATITUDE: _____ LONGITUDE: _____				
	PERSON IN CHARGE OF SPILL REPORT		OWNER: ☐ CITY ☐ COUNTY ☐ PRIVATE		
	ACTIONS TAKEN ☐ HYDRA FLUSH/VACUUM ☐ RODDER ☐ HAND ROD/SNAKE ☐ MINICAM LAT ☐ CCTV MAIN ☐ REPAIRS MADE ☐ CONDITION CORRECTED ☐ NEED WO (NOTE WO # IF KNOWN) ☐ REFER TO _____ ☐ NOTIFIED ENVIRO. COMPLIANCE ☐ POSTED WATERWAY # _____ LOCATION _____				
☐ NEED USA TICKET# _____ ☐ MARKED IN WHITE DATE/TIME DIG _____		NOTIFIED CUSTOMER WHO IS THE ☐ OWNER ☐ TENANT ☐ IN PERSON ☐ BY PHONE ☐ LEFT DOOR TAG ☐ CALLER ☐ LEFT MESSAGE ☐ OTHER _____			
FIELD CREW UTO _____ UTO _____ UTO _____ TRUCK# _____ ADD'L EQUIPMENT _____		BUDGET# _____ TOTAL TIME _____ ☐ REGULAR ☐ OT			
CHECKED BY _____ ☐ RESOLVED		DATE _____			

11/19/2018

Element 6: Overflow Emergency Response Plan

ADDITIONAL COMMENTS			
DIRECTIONS TO UASC			
CHECK AGENCIES NOTIFIED BY INCIDENT COMMANDER			
☐ SR ENVIRONMENTAL CRIMES 543-3666 OFFICER NAME: _____ OFFICER NUMBER: _____ INCIDENT REPORT # _____	☐ Cal OES 800-852-7550 DATE/TIME: _____ CONTROL NUMBER _____ CAT. 1 & 2 - NOTIFY ASAP, BUT NO LATER THAN 2 HRS ☐ NCWQCB ☐ OFFICE 576-2220 AFTER HRS 696-7179 DATE/TIME OF CALL _____ CAT.1 & 2 - NOTIFY ASAP, BUT NO LATER THAN 2HRS FAX CERTIFICATION NOTICE WITHIN 24HRS 523-0135 ☐ COUNTY ENVIRONMENTAL HEALTH DEPT TERRY MACUTE: (707)565-6544, 565-6565 AFTER HRS/WKND'S 889-7443 DATE/TIME: _____ CONTACT: _____ CAT.1 & 2 - NOTIFY ASAP, BUT NO LATER THAN 2HRS	☐ FISH & WILDLIFE 916-341-6957 SAT-SUN 916-358-1300 ☐ STORM WATER 543-3800 AFTER HOURS:- STEVE BRADY HOME: 874-6285 CELL: 486-6492 ALISTAIR BLEIFUSS HOME: 876-1806 WORK CELL: 477-5302 ☐ REFER TO LTP ENVIRONMENTAL COMPLIANCE 543-3369 ☐ REFER TO PED 543-3200 ☐ REFER TO RISK MANAGEMENT 543-3024	
☐ CO. ENVIRONMENTAL CRIMES 565-2121 OFFICER NAME: _____ OFFICER NUMBER: _____ INCIDENT REPORT # _____			

AMOUNT OF OVERFLOW		☐ SEWER	☐ WATER
	To STREET	To STORM DRAIN	RETRIEVED FROM STORM DRAIN
GPM			
TOTAL GALLONS			
STORM DRAIN DISCHARGES TO	TYPE OF FACILITY		
ESTIMATED TOTAL TIME OF SPILL=	TIME SPILL WAS STOPPED?	TOTAL TIME OF CLEANUP	CALLER FIRST OBSERVED

CITY CREW / EQUIPMENT				
CREW	HOURS	EQUIPMENT	HOURS	MATERIAL

TO BE FILLED OUT BY CLEANING CREW ONLY!	
☐ CLEAN AFFECTED MAINS ☐ UPGRADE CLEANING FREQUENCY ☐ TV MAIN ☐ TV LATERAL ☐ REFER TO: ☐ BILL OUT	
NOTE: THIS REPORT MUST BE COMPLETED BY THE CREW SUPERVISOR OR SENIOR WORKER WITHIN 24 HOURS OF THE SPILL.	

11/19/2018

Element 7: Fats, Oils and Grease (FOG) Program

This section of the SSMP discusses the City's FOG control measures, including identification of problem areas, focused cleaning, and source control. This section fulfills the FOG control requirements for the WDR SSMP Element 7 requirements.

7.1 Overview of Regulatory Requirements for FOG Control Element

The actual language for the FOG Control element of the WDR is worded as follows:

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

- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;**
- (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;**
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;**
- (d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;**
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;**
- (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and**
- (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.**

The following supporting information for Element 7 is maintained by the Santa Rosa Water Department on the City of Santa Rosa Website Link to FOG Program: <https://srcity.org/DocumentCenter/View/8869/Restaurants-PDF>

Element 7: Fats, Oils and Grease (FOG) Program

7.2 FOG Control Discussion

This section addresses each of the regulatory requirements in the order written above. The Santa Rosa Water Department divides its FOG Source Control Program between the Environmental Compliance and the Local Wastewater sections. The existing FOG Source Control Program implemented by the Environmental Compliance section has been an element of the City of Santa Rosa Non-Residential Source Control Program from the inception of the program in 1986. The Local Wastewater section is responsible for maintenance of the collection system including cleaning, televising, and smoke testing. High priority is placed upon residential areas with significant amounts of grease as evidenced by more frequent cleaning and inspection and public education about grease disposal.

(a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;

The Santa Rosa Water Department has performed significant public outreach and education on the subject of grease control for both residential and commercial/industrial customers. Utility bill inserts are sent to customers. The City participates annually in public outreach events such as the Water Smart Expo, the Sonoma County Fair, and the Santa Rosa Senior Center Health Fair. Some of the residential areas requiring more frequent cleaning due to grease are door tagged. Other examples of public education materials may be found on the City's website at: <https://srcity.org/1233/Sewerman>

(b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;

The responsibility for grease disposal is placed upon the business owner as a condition of its Wastewater Discharge Permit. The Environmental Compliance Section informs the user of possible grease disposal providers and requires a certification of grease disposal at varying intervals. Although the majority of grease haulers utilize the grease disposal site at EBMUD in Oakland, California, a new high strength waste facility has recently been constructed at Santa Rosa's Laguna Treatment Plant. There is also a grease disposal site at Napa Sanitation in Napa, California. The City of Santa Rosa FOG Source Control Program maintains a list of possible grease haulers. The list is provided to businesses in need of a FOG hauler with a new permit package and upon request.

Element 7: Fats, Oils and Grease (FOG) Program

(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;

Legal authority to prohibit discharges to the system is provided by Chapter 15-08.070 (14) Prohibited Discharge Standards of Title 15- Sewers of the Santa Rosa City Code. Businesses that produce grease are required as a condition of their WWDP to install grease removal devices with requirements to clean at frequent intervals and provide certification and record keeping of this maintenance.

(d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;

Title 15 of City Code gives adequate authority to inspect and enforce violations of its provisions related to grease removal and prevention. Chapter 15-08.566- Grease Removal Devices requires that a grease removal device shall be installed when necessary to handle excessive amounts of grease and oil. Design standards for grease removal devices are included in the City of Santa Rosa standards. A link to the City design standards for grease removal devices can be found online at:

<https://srcity.org/DocumentCenter/View/18369/Sewer-Construction-Standards?bidId=>

Maintenance and BMP requirements, record keeping, and reporting requirements are included in the standard WWDP conditions. Any additional requirements can be added to the standard conditions, if necessary.

(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;

The Environmental Compliance Section permits, inspects and implements compliance activities for sources of grease discharged to the wastewater collection system within the Subregional area. New water account lists, plan check identification and local trade magazines are used to identify new food service facilities. The Food service facilities are permitted every six years and inspected annually, biannually, or triennially dependent upon the record of inspection, documentation of grease removal, and compliance status.

Should local crews find grease buildup in sanitary sewer lines, area sweeps of surrounding food service facilities are implemented to look for the source of

Element 7: Fats, Oils and Grease (FOG) Program

increased grease accumulation. Compliance enforcement actions consist of Notice of Violations and Administrative Orders when necessary. Escalation supported by the City of Santa Rosa Code Title 15- Sewers has Termination of Services as a final resort to end a non-compliant situation. The Enforcement Response Plan, used by the City of Santa Rosa Inspectors for consistency purposes, is a companion document to Title 15- Sewers. The Environmental Compliance section has five Environmental Compliance Inspectors and a three-quarter time administrative person for the implementation of the whole pretreatment program. Job duties of plan check, grease removal device sizing, site inspection and enforcement account for two employee equivalents in the section. The inspectors also work with the Environmental Crimes Unit in the Police Department. The Unit investigates and acts in cases where there have been illegal or unauthorized discharges to the collection system.

The Master Agreement with the Subregional partners requires each User Agency to collect and convey sewage to the Subregional System in such a manner as to comply with all applicable laws, rules, and regulations. They also mutually agreed that the User Agencies will enact Sewer Use Ordinances addressing specific limitations and prohibitions of discharges. The Subregional Environmental Compliance Inspectors enforce the rules and regulations applied to non-domestic discharger and industrial users for the Subregional partners.

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

Collection system cleaning is performed as a function of preventative maintenance. All preventative maintenance is managed within the CMMS database. Collection System Cleaning supervisors review the closed preventative maintenance work orders and determine if a change to cleaning frequency is required. The Environmental Compliance section keeps a history of food service establishments and any FOG related issues they may be experiencing. Environmental Compliance and Local Wastewater collection system staff coordinate on areas needing more frequent cleaning or inspection.

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

Source control measures for sections of the collection system previously identified as having FOG related issues include more frequent inspection by Environmental Compliance and continued public outreach and education. Local Wastewater crews coordinate with Environmental Compliance on any repeat or continued FOG issues.

Element 8: System Evaluation and Capacity Assurance Plan

This section of the SSMP discusses the City's capacity management measures, including the most recent Master Plan and recommended capacity improvement projects. This section fulfills the System Evaluation and Capacity Assurance requirements for the WDR SSMP Element 8 requirements.

8.1 Overview of Regulatory Requirements for the System Evaluation and Capacity Assurance Element

The actual language for the System Evaluation and Capacity Assurance element of the WDR is worded as follows:

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

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

8.2 System Evaluation and Capacity Assurance Element Discussion

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

Element 8: System Evaluation and Capacity Assurance Plan

The City has a comprehensive sanitary sewer master plan to evaluate the adequacy of the sewer collection system, identify system deficiencies both present and future, and to develop a prioritized list of improvement projects that will be needed to meet the City's collection system needs.

The City's Asset Management Section has a static H2O Sewer model for the collection system, and the Info SWMM dynamic model for the major trunk lines to the treatment plant. The models are used to check capacity in the local collection system, in the large diameter trunk system to the treatment plant. The City's model is also used to optimize operations rules for use of the wet weather facility during major storm events. In addition, the City maintains a year-round flow monitoring at three locations in which data is collected for the major tributaries of the treatment plant. The City anticipates installing temporary flow meters at 30 locations in the sewer system during the winter of 2020/2021. The data from this monitoring will be used for calibration of the models and to analyze basins for inflow and infiltration factors. Flow meter data is also used to predict by-pass flows needed during pipe rehabilitation and replacement projects.

Evaluation: The City is currently planning improvements to the trunk system, including realignment and/or upsizing, to prevent surcharging during future build out condition during a storm event.

Every seven years, the City has a CCTV and Sonar inspection performed of the 13 miles of the large diameter trunk (36" to 66") and performs a sonar inspection of the 37 siphons. Any segment identified as needing rehabilitation due to the material condition will be prioritized into the 5-year and future CIP program.

All of the City's sewer assets are inventoried in our Asset Management database. Annually, during the development of the CIP budget, the Asset Management Section performs a review of the database, the database is queried: each pipe segment receives a score, and each described CIP project receives a composite score. The pipe score is based upon a variety of criteria, hydraulic and preventative maintenance efforts, such as hydraulic capacity, pipe age, material type, and CCTV inspection condition.

This process verifies that the most critical segments of the City's collection system are described in a project, funded and constructed by priority.

Once the annual review of the City's assets is performed, and the CIP budget is being developed, a Delphi review is scheduled with operations staff, to validate the priorities discovered in the database review.

The master plan is available on the City's website at:
<https://srcity.org/1172/Planning-Documents>

Element 8: System Evaluation and Capacity Assurance Plan

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

The City's sewer main sizing criteria are included in its Sewer Design Standards, dated October 18, 2018 and are as follows:

MAIN SIZING CRITERIA

- A. Public mains will be sized to serve the entire tributary area at build out densities conforming to the General Plan. Engineers for large developments may be required to provide trunk or collection system calculations or have a wastewater model run performed.
- B. The design flows will be based on the following criteria:
 - 1. Use population densities for various zoning on the chart "Sewage Contribution" in Appendix "D." Average domestic flow will be 125 gallons per person per day.
 - 2. Multiply average flow as determined in VII-B(1) above, by Peak Load Factor from the graph "Sewage Peak Load Factor vs. Population," also in Appendix-D, to obtain the design flow.
 - 3. Public sewers will be designed to carry infiltrated water at the rate of 7% of the design flow in addition to the volumes above.
- C. Design all gravity sewers to achieve a minimum velocity of 2 fps when the pipe is flowing full. Lesser velocities require the approval of the City Engineer. When analyzing the existing or proposed sewer systems, use Manning's Formula to determine the design flow and velocity. Use $n = 0.013$.
- D. The minimum size is 8" in diameter.

Element 8: System Evaluation and Capacity Assurance Plan

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

In Section No. 6 – Capital Improvement Plan Update of the 2014 Sanitary Sewer Master Plan Update, a series of collection system projects that are needed to correct existing problems and accommodate planned growth through the year 2035 were prioritized and then given phasing recommendations. Condition assessment metrics such as physical condition, capacity and operation and maintenance (O&M) costs were compared to consequences of failure. Consequences of failure metrics included looking at how loss of service would affect institutions such as schools, hospitals, or businesses, how a loss of service would affect critical infrastructure (roads, railways, etc.) or any potential environmental impacts.

From the condition assessment metrics, the Capital Improvement Program was determined. The 2014 Sewer Master Plan Update recommended CIP Program was then integrated with other determining factors such as coordinating or combining water and road reconstruction projects. The funding for the CIP Program is through the revenue generated by rate payers.

Short term: high priority mains that are in critical condition are removed and placed or lined as appropriate. The sewer fund is budgeted for the various prioritized projects, and amounts budgeted to increase each year for the following four years of the five-year budget.

Long term: The City's large diameter trunks from the City to the treatment plant vary in condition and age. Rehabilitation projects are being created and prioritized based upon the condition discovered in the high definition CCTV and sonar inspection. The CCTV sled also carried an on board H₂S gas monitor to further identify problem areas. The CCTV/Sonar inspection is planned and budgeted annually and is expected to be performed on a seven-year return. It is anticipated that priorities for the large trunk rehabilitation may change as degradation of the system is not constant throughout.

Element 8: System Evaluation and Capacity Assurance Plan

Capacity CIP example 1: Optimize the use of both the City and the treatment plants wet weather storage ponds. Using the Info SWMM model, rules have been established for the use of the various storage ponds to optimize the use of their storage volumes. The City has radio communications capability to strategic flow meters which will allow the meter to send real time data to the treatment plant, which in turn will activate the various storage ponds based upon the rules established in the model study.

Capacity CIP example 2: The City is in the process of planning improvements to the trunk system, including realignment and/or upsizing to prevent surcharging during future build out condition during a storm event. The schedule for this project is very preliminary. Funding for the planning phase is scheduled over the next five-year CIP budget. Full funding for design and construction are expected in future years.

The CIP budget may be viewed on the City website:
<https://ca-santarosa.civicplus.com/696/Capital-Projects-Engineering>

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

Since the 2014 Sewer Master Plan Update was completed and incorporated into the department-wide CIP Program and budget, its recommendations are carried forward and reprioritized according to the other factors mentioned previously such as water or road reconstruction projects. As budget and priorities allow, the projects identified in the 2014 Master Plan are being completed.

Element 9: Monitoring, Measurement and Program Modifications

This section of the SSMP discusses the monitoring, measurement and program modifications that will be implemented to fulfill the requirements for the WDR SSMP Element 9.

9.1 Overview of Regulatory Requirements for Monitoring, Measurement and Program Modifications Element

The actual language for the monitoring, measurement and program modifications element of the WDR is worded as follows:

The Enrollee shall:

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

9.2 Monitoring, Measurement and Program Modifications Discussion

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

Performance Indicator

Sanitary Sewer Overflows and Response	Number of dry weather SSOs
	Number of wet weather SSOs
	Total number of SSOs
	Number of SSOs per 100 miles of sewer per year
	Number of SSOs < 100 gallons
	Number of SSOs 100 to 999 gallons
	Number of SSOs 1,000 to 9,999 gallons
	Number of SSOs >10,000 gallons
	Total volume of SSOs
	Total volume recovered
	Net volume of SSOs (total minus recovered)
	Total annual volume conveyed to wastewater treatment plant

Element 9: Monitoring, Measurement and Program Modifications

	Net volume of SSOs compared to total annual volume conveyed (% conveyed)
	Number of SSOs caused by:
	Roots
	Grease
	Debris
	Pipe failure
	Pump station failure
	Capacity-limited pipe segment (no debris)
	Other
	Number of locations with more than one SSO in the past year
	Average response time during business hours
	Average response time outside of business hours
Rehabilitation/Replacement	Miles of pipe replaced by CIP
	Number of laterals replaced
	Number of manholes replaced or rehabbed
	Length of pipe referred for rehabilitation
Operations and Maintenance	Number of blockages in the past year
	Number of blockages due to:
	Roots
	Grease
	Debris
	Other
	Number of customer complaints in the last year
	Planned cleaning (miles)
	Unplanned cleaning (miles)
	Ratio of unplanned to planned cleaning (miles)
	Length of sewer CCTV'd
	Smoke testing
	Records of lift station testing
	Records of lift station maintenance
FOG Source Control Program	Number of FOG Inspections completed
	Number of FOG violations
	Number of FOG enforcement actions

Element 9: Monitoring, Measurement and Program Modifications

All of the performance indicators in the previous table are tracked and measured. Most of the data is available either through our Asset Management database (Microsoft SQL Reporting Services Reports) or Environmental Compliance staff.

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

The Santa Rosa Water Department staff uses a process of continual improvement for the implementation of the SSMP. There is a quality control process over all data entries into the work order system that allows for increases or decreases in preventative maintenance if required.

(c) Assess the success of the preventative maintenance program

One of the primary indicators of success of the preventative maintenance program is the quantity of SSOs and blockages. Another indicator of success is the quantity of pipe identified during preventative maintenance that needs to be replaced. When pipe needs to be replaced, it is referred to the Engineering Division to be developed into a project.

Another way to assess success is by identifying areas that could develop into bigger problems and placing them on an accelerated maintenance program. These areas are often located in residential areas and decrease in grease quantities can be seen as a result of placing educational door tags.

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

Any required program element updates will be sourced from the information gathered during the audits that must occur every two years. In between the two-year audits, Santa Rosa Water Department staff will document required updates as they occur to assist in gathering data for the audits.

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

Data for all SSOs are tracked both in our Asset Management program and for City SSOs on the CIWQS database. Reports can be created with our Asset Management data using Microsoft SQL Reporting Services Reports. Data from CIWQS can be exported to an Excel spreadsheet and used to create reports as well.

Element 10: SSMP Audits

This section fulfills the requirements for the WDR SSMP Audits- Element 10.

10.1 Overview of Regulatory Requirements for SSMP Audits Element

The actual language for the SSMP Audits element of the WDR is worded as follows:

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

10.2 SSMP Audits Discussion

City of Santa Rosa Water Department Compliance Approach

The City of Santa Rosa Water Department will produce internal audits every two years to determine the effectiveness of the SSMP elements and programs. The program audit will include a review of relevant data and trends maintained as part of the SSMP Monitoring and Measurements Program to determine opportunities to improve compliance with the SSMP requirements. Monitoring and Measurements Performance Indicator data recorded in Section 9 of this plan will be used in preparation of the audit. A list of CIP projects will be updated and initiated based on priority and available funding as part of the audit program.

Points of consideration consist of the following:

- Identification of successes of implementing SSMP and associated improvements
- Description of system improvements during the audit period
- Description of system improvements planned for the next audit period

The audit will include each element of the SSMP:

- Goals
- Organization
- Legal Authority
- Operation and Maintenance Program
- Design and Performance Provisions Discussion
- Overflow Emergency Response Plan
- Fats, Oil and Grease (FOG) Program
- System Evaluation and Capacity Assurance Plan
- Monitoring, Measurement and Program Modifications

Element 10: SSMP Audits

- SSMP Audits
- Communication Program

In addition, the City will complete the annual SSO Questionnaire on the CIWQS' SSO database as required under the State Water Resources Control Board's Sanitary Sewer Overflow Reduction Program.

All completed audits will be kept on file and on the City's INET site.

Element 11: Communication Program

This section of the SSMP discusses the City's Communication Program with the public on the development of its SSMP. This section fulfills the Communication Program requirements for the WDR SSMP Element 11 requirements.

11.1 Overview of Regulatory Requirements for the Communication Program Element

The actual language for the Communication Program element of the WDR is worded as follows:

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

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

11.2 Communication Program Discussion

The Santa Rosa Water Department continues to look for avenues to communicate and encourage public participation in City programs. Santa Rosa Water has a Communications Team that develops outreach materials for the city's website, social media, Water eNews and printed collateral to assist in educating the community about water and wastewater activities. Additionally, Santa Rosa Water participates in many events to provide the community with the opportunity to talk to staff about city programs and participate in hands-on activities. Other methods used to engage customers include: distributing a bi-monthly electronic newsletter to over 10,000 subscribers, bill inserts to over 50,000 customers, booths at events and social media posts that inform and engage citizens about the Department's activities, including information on Capital Improvement Projects.

In addition, Santa Rosa Water routinely engages in targeted communication and outreach efforts by placing door tags on homes and businesses. For example, when deposits of grease are found in our sanitary sewer system in a specific area, staff will place door tags in that area that educate customers about the correct way to dispose of fats, oils and grease (FOG) and the negative impacts they have on our sanitary sewer. Staff also notifies the Department's Environmental Compliance section who will visit the business in the area, perform an inspection and work with business owners to mitigate any erroneous grease discharges.

Element 11: Communication Program

SSMP Re-certification: Statewide Sanitary Sewer System Waste Discharge Requirements specify that our SSMP be re-certified every five years.

Every five years the re-certification of the SSMP is brought before the Board of Public Utilities as a recommendation. During this meeting, the Board of Public Utilities votes on a resolution approving the recommendation for the re-certification of the SSMP. It is then presented to the City Council for approval of re-certification. Advance notice of these meetings is given, and the meetings are available for public attendance and input. BPU and City Council Minutes as well as Resolutions are available online on the City's website.

The Subregional Reclamation System receives sewer flow from the cities of Sebastopol, Rohnert Park and Cotati. Representatives of these cities meet monthly as the Technical Advisory Committee (TAC) to discuss common interests and issues. Although the Subregional system receives flow from these cities, they are considered separate collection systems. They will be responsible for the preparation and re-certification of their own SSMP.

A.1 – Change Log

MRP Section E. 3. – Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.

[illegible]