SALINAS

RICH IN LAND | RICH IN VALUES

Sewer System Management Plan

Sanitary Sewer Collection System

General Waste Discharge Requirements (GWDR)

Order 2006-0003-DWQ, May 2, 2006.

December 2019

INTRODUCTION

City of Salinas

Public Works Department

David Jacobs, Public Works Director

The Wastewater Division of the Public Works Department is in charge of developing and implementing the maintenance goals in the activities listed below. The Public Works Department provides engineering services for development and implementation of capital improvement projects and sets standards for design and construction specifications. For questions regarding Wastewater Division activities please call (831) 758-7103.

The goal is to perform maintenance and repairs to the infrastructure which contribute to the health of the region and present a clean, safe, and sanitary environment for residents, businesses, and visitors to the City of Salinas.

This Sewer System Management Plan, prepared by the City of Salinas, Public Works Department outlines and documents the activities that the City utilizes to manage its wastewater collection system effectively. Effective management of a collection system includes:

- Minimizing the number and impact of sanitary sewer overflows (SSOs)
- Providing adequate sewer capacity to convey peak flows, and
- Maintaining and improving the condition of the collection system infrastructure to provide reliable service into the future.

This report was prepared to comply with the requirements adopted May 2, 2006, by the State Water Resources Control Board (Water Board) under Water Quality Order Number 2006-003, State General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems.

There are eleven required elements for an SSMP. The numbering and titles are shown as they appear in the GWDR.

SSMP Sections:

I. Goals
II. Organization
III. Legal Authority
IV. Operations and Maintenance Program
V. Design and Performance Provisions
VI. Overflow Emergency Response Plan
VII. FOG Control Program
VIII. System Evaluation and Capacity Assurance Plan
IX. Monitoring, Measurement, and Plan Modifications
X. SSMP Program Audits
XI. Communication Program

This document is intended to be a dynamic document that serves as a framework for implementation of the Sewer System Management Plan.

Sewer System Management Plan Summary

State of California Water Resources Control Board.

GWDR Order 2006-0003-DWQ

The City maintains 274.24 miles of sanitary sewer collection system pipeline and 11 Sanitary Sewer Lift Stations. The City's Wastewater Division of the Public Works Department, under the direction of the Public Works Director and the Environmental and Maintenance Services Superintendent, is responsible for operation and maintenance of the City's sanitary sewer collection system. The City's Wastewater Manager is the lead person to plan and implement these responsibilities. Current City staffing for operation and maintenance of the sanitary sewer system includes 7.75 full time equivalent (FTE) employees. The Wastewater Division has 11.50 FTE additional staff that is funded through storm sewer, industrial waste or street sweeping programs. All wastewater staff are available for emergency and non-emergency support of the sanitary sewer program. The Wastewater employees may also perform other functions for the storm sewer and industrial waste systems. Employees with the Wastewater Division are trained in spill response and containment, illicit discharge detection and reporting, dry weather monitoring, confined space entry, CPR and First Aid.

In 2019, the City continues as a participating member of the Southern Monterey Bay Dischargers Group. The membership is by way of contractual agreement with the Monterey One Water to assist with a regional comprehensive public education program for source control of fats, oils and grease (FOG). Members in the 2019 program include *the Cities of Salinas, Pacific Grove and Monterey, the Seaside County Sanitation District, Marina Coast Water district, Castroville Water district, County of Monterey, Pebble Beach Community Service District, Carmel Area Wastewater District, and the California American Water Co. *see Section VII, FOG Control Program.

The 2018/19 grease education and outreach program includes print ads, internet ads, radio ads, movie ads and an updated website "clogbusters.org" with grease education information and links to member agencies. The City's 431 food service facilities are currently being inspected in 2019.

The City's Permit Center has responsibility for the following elements of the FOG program.

- Review of all food preparation facility plans that are submitted to the City Permit Center for remodel or new construction.
- Working with architects, mechanical engineers and property owners on proper sizing of grease pretreatment equipment.
- Conducting onsite inspections for new grease pretreatment installations.
- Responding to business owner requests for information, guidance, and education concerning their grease pretreatment equipment and BMPs for their facility.

Monterey One Water is currently under contract to perform storm water compliance inspections in support of the City's National Pollutant Discharge Elimination System (NPDES) Storm water Management Plan. All food service facilities are currently scheduled for NPDES compliance inspections twice within the next 5 years. The inspection of grease traps have been incorporated into the NPDES compliance inspections.

Monterey One Water is also currently under contract through 2022 to perform fats, oils and grease inspections at commercial food facilities. As the regional sewer agency Monterey One Water will continue to respond with assistance at the request of the City to incidents of grease trap or interceptor failures resulting in overflows or identified grease impacts to the City's collection system.

Sewer projects have continued during this five year SSMP 2014-2019 major projects completed in recent years include:

In 2012 the City issued a Sewer Bond that raised approximately $6, 000,000 for a Sanitary Sewer Pipeline and Manhole Repair/Rehabilitation project (CIP No. 9126). The project is a continuation of the City's effort to repair and/or rehabilitate (interior pipe lining) old sanitary sewer pipes and manholes that are deteriorated, damaged, and/or fractured/broken. The repairs/rehabilitations were completed in 2015.

In 2017 the Lake Street Lift Station project was completed upgrading and replacing all valves within station, repairing the wet pit and sealing walls, replacing and enlarging wet pit access doors with updated fall protection and replacing two flow meters at a cost of $600,000.

Supervisory Control and Data Acquisition (SCADA) were installed in all eleven (11) sanitary sewer lift stations during 2018. This projected has given staff a valuable tool for monitoring systems and additional alarming capabilities. Along with station monitoring thirty (30) manhole monitors that run on the same SCADA system were installed in areas with overflow history allowing advanced alarming for surcharging manholes. The SCADA addition has given the division advanced warning to reduce and eliminate potential sanitary sewer overflows.

Due to potential for sanitary sewer overflows, pollutants of concern include raw sewage, bacteria and other chemical waste illegally placed in the waste stream. Due to concerns for public health and potential environmental impacts the sanitary sewer collection system is given a High Priority status. In response to the high priority status the City maintains a comprehensive maintenance schedule for collection system pipes and for sanitary sewer lift stations.

The City has also developed a written spill response plan that is a guide for sanitary sewer and other hazardous spills. During 2019 staff recognized that the current Overflow Emergency Response Plan (OERP) needed updating. The City of Salinas contracted with DKF Solutions LLC to replace current OERP with an updated plan. This project was completed on July 15, 2019 and staff training on this plan was completed on July 25, 2019. Spill responses depending on severity and notification procedures are a collaborative effort that may involve response by the Public Works Department in conjunction with the Salinas Fire Department, Monterey County Environmental Health and other state and local agencies as determined.

Objectives to be considered in prioritizing activities include:

- Prevent any discharges from reaching surface waters. Surface waters that may be affected by discharges from the City include: Santa Rita Creek, Gabilan Creek and tributaries, Natividad Creek and tributaries, Markley Swamp, Reclamation Ditch 1665, and the Salinas River.

- Prevent discharges from reaching the storm drain system and completely contain and clean any discharges that do reach the storm drain system before such discharges reach surface waters.

- Prevent dry weather overflows from public sewers.

- Prevent wet weather overflows from public sewers. Historically, no wet weather overflows due to capacity have occurred in Salinas.

- Response to overflows from private laterals.

The City maintains sanitary sewer overflow records in accordance with State of California Water Resources Control Board, GWDR Order 2006-0003-DWQ.

To insure continued system operation regarding the City's 11 sanitary sewer lift stations the City maintains 5 portable towable diesel powered generators to provide emergency power to lift stations not equipped with permanent on-site electrical generators. This gives effective coverage of all sanitary lift stations and reduces the potential for overflows during power outages. The pump stations are generally inspected daily. The City has a pump maintenance mechanic record book to log maintenance activity at the sewer pump stations. Routine maintenance includes but is not limited to: inspection of electrical panels, pump and level controls, air compressors, wet well and dry well conditions and pump motor operation.

The City keeps an inventory of key replacement parts for the sewer lift stations, so breakdowns and malfunctions can be repaired quickly to avoid potential overflow situations. A spare motor controller, air compressor, alarm dialer, air lines and misc. minor parts are kept in inventory for repairs to lift stations. A lift station maintenance truck with an overhead lift boom and power winch is used to carry a full complement of tools and minor repair parts. Backup pump motors are kept for emergency backup of the highest flow lift stations. Additional pump motors for emergency coverage are also in stock for remaining lift stations. Spare manhole risers and covers are kept in inventory for repairs in the streets. Emergency contact numbers for local parts vendors and contractors are kept for emergency response to pipeline and other system repairs

The City owns the necessary equipment to respond to most overflow situations. This equipment includes three hydro/vacuum trucks, 5 towable portable generators and two 6 inch pumps and flexible hosing are kept in inventory for local bypass operations or pumping of overflows back into the sanitary sewer. The City also maintains 24-hour contacts with contractors and businesses that can be called in response to a major event. The City keeps key materials on-site at the City Yard to respond quickly to overflows. Sandbags and sandbagging material, absorbents, absorbent booms and pads are kept for containment and cleanup. Pipeline plugs for pipe sizes of 6 inches to 24 inches are kept on site for containment of spills and repairs. During 2018-2019 The City Council approved two new 800 HPRTV jetter camera trucks for cleaning and CCTV inspections of the sanitary sewer collection system. Along with replacing one of the 6"bypass pumps and pump mechanic crane truck for lift station operations and maintenance. Also during 2019 an additional backup generator was approved by council for emergency backup of sanitary sewer lift stations. Additions to existing Vac-Con truck a Clearview CCTV camera to inspect line condition while cleaning operation is in progress. A ridged lateral cleaning machine was purchased October 2019 for emergencies on private property when a contractor or property owner cannot be contacted.

Alarm systems are installed at the lift stations. These alarms are integrated into the phone system of each lift station and calls out to Monterey County Communications (911) with alarm information. During daytime work hours the Maintenance Services Departments Dispatch Operator is notified at the Maintenance Services Yard and communicates the alarm to appropriate personnel by cellphone or radio. The lift station alarms are also set to call key personnel of the Wastewater Division including the City's pump mechanic in the event of a system alarm. During 2018 waste water collections staff installed supervisory control and data acquisition (SCADA) in all 11 sanitary sewer lift stations. The SCADA provides additional system monitoring and alarming of all the sanitary sewer lift station facilities. First responder response time during daytime work hours is typically 5 to 15 minutes. The City of Salinas, Environmental and Maintenance Services, provides 24-hour on-call personnel that are trained to respond to all types of emergencies, including sewer main line blockages and overflows from public or private properties. During off duty hours and weekends, County Communications and other designated responders are provided with a callout sheet of emergency numbers and contact numbers to the 24 hour on-call person for Environmental and Maintenance Services for emergency response. Response time during off duty hours is typically within 30 minutes of receiving call. The City's on-call personnel have the necessary communications equipment for additional contact of City personnel, as needed, up to and including the declaration of a local emergency. Initial response staff available is the 18-member Wastewater Division Staff with additional support available from the 13-member Street Maintenance Division. Additional staffing is available, if needed, of 50 plus members from other Maintenance Divisions and Parks and Recreation Personnel located at the City Public Service Yard. The central location for information is located at the Maintenance Services Corporation Yard, at 426 Work Street, Salinas, Ca. 93901.

General BMP guidelines are documented in CASQA Water & Sewer Utility Maintenance SC-76 which include but are not limited to:

- Clean sewer lines on a regular basis
- Establish a routine and high priority maintenance program
- Identify areas needing repair or maintenance
- Prioritize repairs
- Review previous maintenance history to help identify "high priority" or areas with frequent maintenance problems and locations of potential system failure.
- Identify and track sanitary sewer discharges
- Identify dry weather and wet weather infiltration/inflow. (The City conducted wet weather flow metering during the 2014/15, 2015/16, 2016/17, 2017/18 and 2018/19 wet weather seasons to assist in identifying infiltration/inflow).
- Disinfection of sewage overflow areas and restrict cleanup materials from entering storm system.
- Identify source of the spill
- Maintain appropriate records
- Develop notification procedures regarding spill reporting
- Public education component for grease related source control

A review of the City's current and ongoing Sanitary Sewer Maintenance and Management history indicate that the program is effective and continues to effectively address and reduce the potential for sanitary sewer overflows. The City has 274.24 miles of sanitary sewer pipeline and for the past several years has experienced less than 5 overflows each year. Timely spill response and containment has kept overflow quantities to a minimum. The Management Plan was further enhanced by the implementation of the FOG source control restaurant grease trap inspection program that began in late 2008 and is currently being implemented during 2018-2019. The City will continue source control inspections in coordination with City's NPDES storm water compliance inspection program and under contract for FOG inspections with Monterey One Water. The commercial food inspection inventory was updated during 2018 with a total of

431 commercial food businesses. There were a total of 428 commercial food businesses inspected for fats, oil and grease thru 2019. The FOG inspection program continues to be administered by the Waste Water Divisions Environmental Compliance staff in coordination with the City's NPDES storm water inspections.

Table of Contents

Definitions, Acronyms, and Abbreviations

Best Management Practices (BMP)
Refers to the procedures employed in commercial kitchens to minimize the quantity of grease that is discharged to the sanitary sewer system. Examples include scraping food scraps into a garbage can and dry wiping dishes and utensils prior to washing.

Calendar Year (CY)

California Integrated Water Quality System (CIWQS)
Refers to the State Water Resources Control Board online electronic reporting system that is used to report SSOs, certify completion of the SSMP, and provide information on the sanitary sewer system.

Capital Improvement Plan (CIP)

Refers to the document that identifies future capital improvements to the City's sanitary sewer system.

City
Refers to the City of Salinas.

Closed Circuit Television (CCTV)
Refers to the process and equipment that is used to internally inspect the condition of gravity sewers.

County Health
Refers to the Monterey County Health Services Agency.

Dispatch
Dispatch refers to Maintenance Services Department Dispatch.

Fats, Oils, and Grease (FOG)
Refers to fats, oils, and grease typically associated with food preparation and cooking activities that can cause blockages in the sanitary sewer system.

Fiscal Year (FY)

Food Service Facilities
Refers to commercial or industrial facilities where food is handled/prepared/served that discharge to the sanitary sewer system.

Full-time Equivalent (FTE)
Refers to the equivalent of 2,080 paid labor hours per year by a regular, temporary, or contract employee.

General Waste Discharge Requirements (GWDR)
Refers to the State Water Resources Control Board Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, dated May 2, 2006.

Geographical Information System (GIS)
Refers to the City's system that is used to capture, store, analyze, and manage geospatial data associated with the City's sanitary sewer system assets.

Infiltration/Inflow (I/I)

Refers to water that enters the sanitary sewer system from storm water and groundwater that increases the quantity of flow. Infiltration enters through defects in the sanitary sewer system after flowing through the soil. Inflow enters the sanitary sewer without flowing through the soil. Typical points of inflow are holes in manhole lids and direct connections to the sanitary sewer (e.g. storm drains, area drains, and roof leaders).

Lateral
Refers to the piping that conveys sewage from a building to the City sewer system.

Legally Responsible Official (LRO)
Refers to the individual who has the authority to certify reports and other actions that are submitted through CIWQS.

Million Gallons per Day (MGD)

Office of Emergency Services (OES)
Refers to the California State Governor's Office of Emergency Services.

Operations and Maintenance (O&M)

Overflow Emergency Response Plan
For the purpose of this SSMP, this plan will be referred to as the Sanitary Sewer Overflow Response Plan (SSORP).

Preventative Maintenance (PM)
Refers to maintenance activities intended to prevent failures of the sanitary sewer system facilities (e.g. cleaning, CCTV, repair).

Central Coast Regional Water Quality Control Board (CCRWQCB)

Refers to the Central Coast Regional Water Quality Control Board, Region 3.

Sanitary Sewer Overflow Response Plan (SSORP)
Refers to the City's Overflow Emergency Response Plan which is a component of this SSMP that addresses the City's response to SSO events.

Sanitary Sewer Overflows (SSOs)
Refers to the overflow or discharge of any quantity of partially treated or untreated wastewater from the sanitary sewer system at any point upstream of the wastewater treatment plant. SSOs are typically caused by blockages, pipe failure, pump station failure, or capacity limitation.

Sanitary Sewer System
Refers to the portion of the sanitary sewer facilities that are owned and operated by the City of Salinas

Sewer System Management Plan (SSMP)

State Water Resources Control Board (SWRCB)
Refers to the California Environmental Protection Agency (EPA) State Water Resources Control Board and staff responsible for protecting the State's water resources.

Water of the State
Water of the State means any water, surface or underground, including saline waters, within the boundaries of California. In case of a sewage spill, storm drains are considered to be waters of the State unless the sewage is completely contained and returned to the sewer system. May also be referred to as surface water(s) or State waterway.

Wastewater Division

Refers to the City of Salinas, Maintenance Services Department, Wastewater Division.

References

Sewer System Management Plan (SSMP) Development Guide, San Francisco Bay Regional Water Quality Control Board in cooperation with Bay Area Clean Water Agencies, July 2005 (www.swrcb.ca.gov/rwqcb2/download/).

State Water Resources Control Board Order No. 2006-0003 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, California State Water Resources Control Board, May 2, 2006.

Monitoring and Reporting Program 2006-0003 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, State Water Resources Control Board, May 2, 2006(www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2008/wqo/wqo2008_0002_exec.pdf).

Sewer System Management Plan
Section I - Goals

A. Introduction

This section of the SSMP formally states the goals of the SSMP.

B. Regulatory Requirements for Goals Section

The summarized requirements for the Goals section of the SSMP are:

GWDR Requirement

a) The collection system agency must develop goals to properly manage, operate, and maintain all parts of its wastewater collection system in order to reduce and prevent SSOs, as well as to mitigate any SSOs that occur.

SSMP Goals (Item a)

The goals of the City of Salinas SSMP are to:

a) Properly ***manage***, ***operate***, and ***maintain*** the wastewater collection system;
b) ***Maintain*** design construction standards and specifications for the installation of new wastewater systems;
c) ***Verify*** the wastewater collection system has adequate capacity to convey sewage during peak flows;
d) ***Minimize*** the frequency of sanitary sewer overflows;
e) ***Respond*** to sanitary sewer overflows quickly and mitigate the impact of the overflow;
f) ***Provide*** training on a regular basis for staff in collection maintenance and operations;
g) ***Maintain*** a Fats, Oil, and Grease (FOG) program to limit fats, oils, grease, and other debris that may cause blockages in the sewage collection system;
h) ***Maintain*** a closed-circuit televising (CCTV) program for the sewer collection system;
i) ***Identify*** and ***prioritize*** structural deficiencies and implement short-term and long-term maintenance and rehabilitation actions to address each deficiency;
j) ***Meet*** all applicable regulatory notification and reporting requirements; and
k) ***Provide*** excellent customer service.

Sewer System Management Plan
Section II - Organization

A. Introduction

This section of the SSMP identifies City staff that is responsible for implementing this SSMP, responding to SSO events, and reporting SSOs.

B. Regulatory Requirements for Organization Section

The summarized requirements for the Organization section of the SSMP are:

GWDR Requirement

The collection system agency's SSMP must identify:

a) The name of the responsible or authorized representative;

b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. Include lines of authority as shown in an organization chart or similar document with a narrative explanation; and

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

Organization

Reporting Structure

The City of Salinas Wastewater Division of the City's Environmental & Maintenance Services, a Division of the Public Works Department is responsible for maintenance of the City's Wastewater Collection System. The Public Works Department provides engineering services, develops standards and collection system analysis for Capital Improvements. Environmental and Maintenance Services is a Division of the Public Works Department which reports to the Public Works Director who in turn reports to the City Manager.

The Wastewater Division is responsible for the daily operation and maintenance of the Wastewater Collection Systems including the sanitary sewer, storm water and the Industrial Waste collection systems. The Wastewater Crew Supervisor reports to the Wastewater Manager who in turn reports to the Environmental and Maintenance Services Superintendent.

Authorized Representative

The City's authorized representative in all wastewater collection system matters is the Wastewater Manager. The Wastewater Manager and the Wastewater Crew Supervisor are the City's legally responsible officials (LRO) authorized to certify electronic spill reports submitted to the SWRCB.

The City's Environmental Compliance Inspector and the Wastewater Public Service Maintenance Worker IV may serve as the Acting Wastewater Crew Supervisor (Wastewater Supervisor) in his/her absence and is authorized to act as the City's Authorized Representative in collection system matters in the Wastewater Supervisor's absence. The Wastewater Supervisor, and the Wastewater Manager are authorized to submit verbal, and written spill reports to the SWRCB, the CCWB, the County Health Agency, and the Governor's Office of Emergency Services.

Responsibility for SSMP Development, Implementation, and Maintenance

The Wastewater Manager has responsibility for developing, implementing, periodically auditing, and maintaining the City's SSMP. The Wastewater Manager may delegate the responsibility for developing, implementing, periodically auditing, and maintaining portions of the City's SSMP to other Public Works staff.

Other City staff responsible for developing, implementing, and maintaining specific elements of the City's SSMP, along with their job titles and contact information, is shown in Figure 3.

SSO Reporting Chain of Communication

The SSO Reporting Chain of Command follows the Organization Chart shown on Figure 3. The SSO Reporting process and responsibilities are described in detail in Section VI of the SSMP, Sanitary Sewer Overflow Emergency Response Plan.

The following Organization Charts and SSO Reporting and Response Flow Charts are included in the following pages:

- Figure 1 – City of Salinas Organization Chart.
- Figure 2 - Organization chart for the City's Maintenance Services Department.
- Figure 3 - Organization chart for the management, operation, and maintenance of the City's Sanitary Sewer and Storm Water Collection Systems.
- Figure 4 – Sanitary Sewer Overflow Response Flow Chart.
- Figure 5 – Sanitary Sewer Overflow Reporting Flow Chart.

The City contracts with the Monterey One Water through a partnership with other regional agencies to implement a public education program to promote the proper disposal of fats, oils and grease to reduce grease-related sanitary sewer overflows.

Service Calls/Sanitary Sewer Overflow Reporting

The City of Salinas receives communications through the Maintenance Services Department's Administrative Office. During normal business operations (Monday through Friday, 7 a.m. to 3:30 p.m.), sewer calls are received through the Maintenance Services Department. Sewer related calls may be received by other City departments but are routed to Maintenance Services for response.

The Maintenance Services Department's Administrative Office phone number is (831) 758-7233.

During all other hours, calls are received by County Communications. This is the County 911 system and is staffed 24/7. Additional cellular alarming through the City SCADA program for all eleven (11) sanitary sewer lift stations calls Wastewater staff directly via telephone call, text and email. This SCADA alarming system will continue calling down list of contacts until the alarm has been acknowledged. This has been a quicker emergency notification system process. By directly contacting staff immediately instead of the sensaphone 911 call to County Communications staff. The SCADA system has reduced the time duration or delay for contacting on call staff. Both alarming systems are in place as a backup if either fails.

Upon receiving the information, the Wastewater On-Call Person is immediately contacted. After hours, the Wastewater On-call Person is provided a cell phone and utility truck and must have a response time of 45 minutes or less. The Wastewater On-call Person will evaluate the situation and determine if additional help is necessary.

The Wastewater On-call Person must notify the Wastewater Supervisor if:

- An SSO occurs;
- The SSO enters surface water or drainage channel;
- The SSO causes property damage or flooding in a home structure; or
- The SSO constitutes an imminent danger to the public or environment.

The Wastewater On-call Person completes an Illicit Discharge Report and the Sanitary Sewer Overflow packet that has time determination sheets, flow estimations and overflow reporting forms for all SSOs. The report is forwarded to the Wastewater Supervisor for investigation and/or follow-up. The Wastewater Supervisor may also interview appropriate personnel and completes the Sanitary Sewer Overflow Report.

Figure 1:

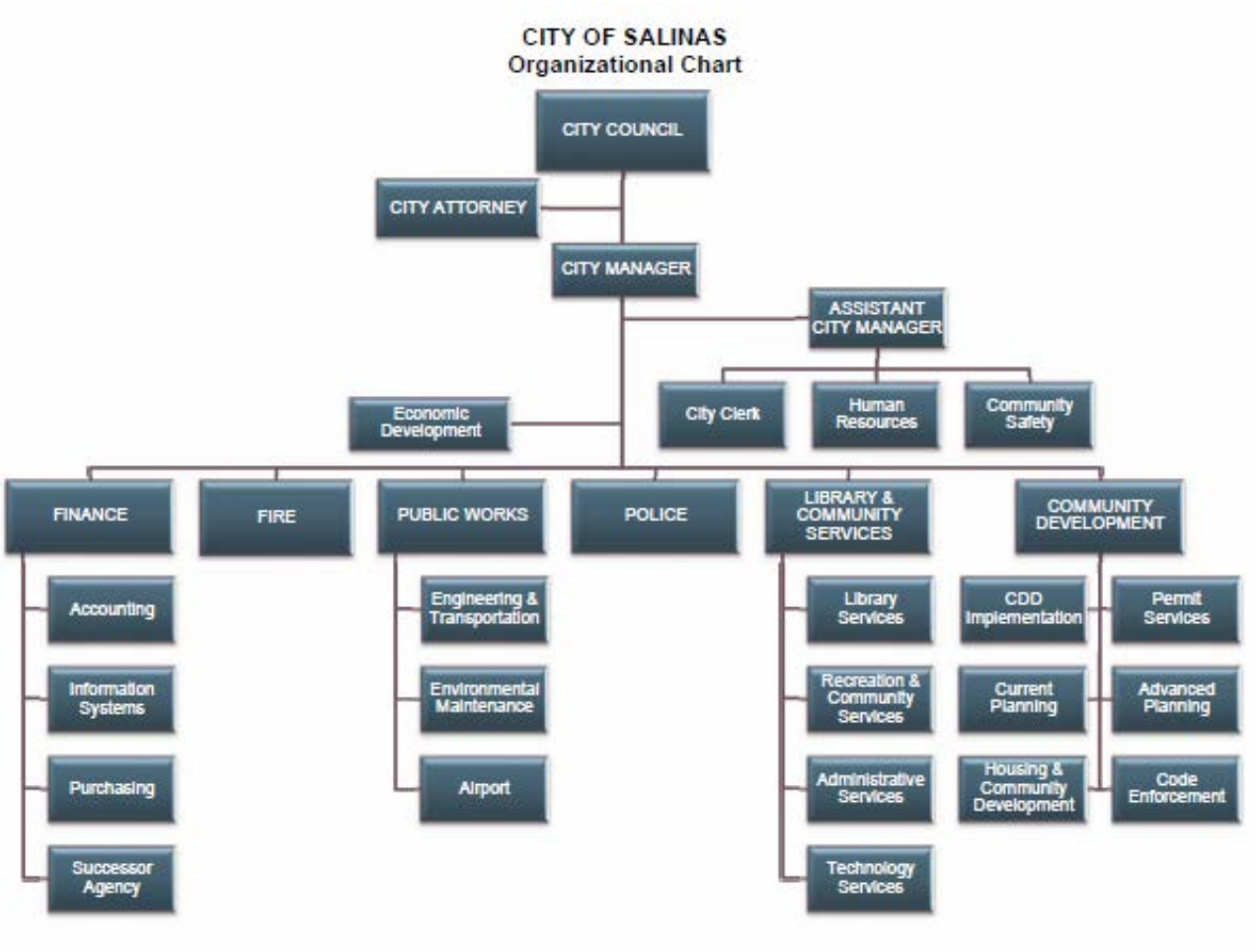

CITY OF SALINAS
Organizational Chart
CITY COUNCIL
CITY ATTORNEY
CITY MANAGER
ASSISTANT CITY MANAGER
Economic Development
City Clerk
Human Resources
Community Safety
FINANCE
FIRE
PUBLIC WORKS
POLICE
LIBRARY & COMMUNITY SERVICES
COMMUNITY DEVELOPMENT
Accounting
Information Systems
Purchasing
Successor Agency
Engineering & Transportation
Environmental Maintenance
Airport
Library Services
Recreation & Community Services
Administrative Services
Technology Services
CDD Implementation
Current Planning
Housing & Community Development
Permit Services
Advanced Planning
Code Enforcement

Figure 2:

CITY OF SALINAS

Environmental Maintenance Services

Organization Chart

426 Work Street, Salinas, Ca. 93901

Administration: (831) 758-7233

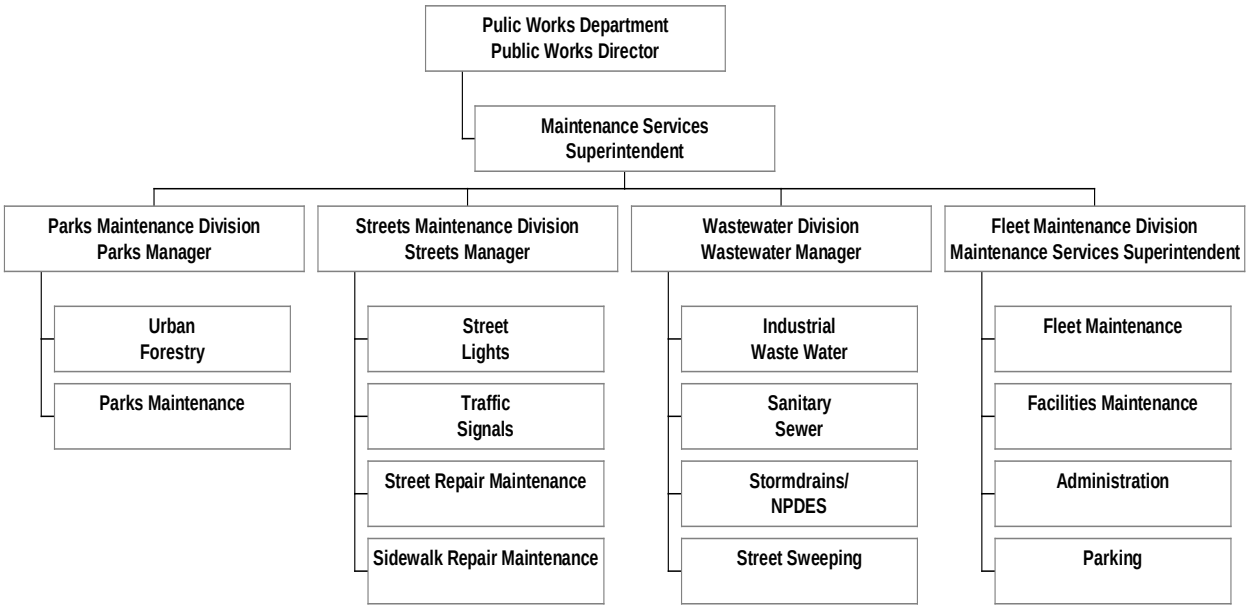


Figure 3:

PUBLIC WORKS ORGANIZATION CHART
Persons Responsible for SSMP Implementation

Maintenance Services -Wastewater Division

WASTEWATER PUBLIC WORKS DEPARTMENT

Environmental and Maintenance Services Superintendent
JOE ALBERTONI
(831) 758-7911

Wastewater Manager – LRO
GARY GABRIEL – LRO DESIGNEE
(831) 758-7103

Wastewater Crew Supervisor
Ray Lerma - LRO DESIGNEE
(831) 758-7150

Wastewater Crew
(831) 758-7103

ROBERT REYNA	PSMW IV
SAL VARGAS	PSMW III
MANUAL MATA	PSMW III
DOYLE MCFARLAND	PUMP MECH
RAUL ZAGAL	SWEEPER OP
RAMON HERRERA	SWEEPER OP
ROBERTO JIMENEZ	SWEEPER OP
DAINEL ALEDO	PSMW II
JAMES MCGANN	PSMW II
LORENZO MONCAYO	PSMW II
ISACC GARCIA	PSMW II
PETE PEREZ	PSMW II
ALBERT ARIES	PSMW II

Industrial Wastewater

CHARLES JOHNSON	WASTE WATER OPERATOR
AMBIKA PRASAD	WASTE WATER OPERATOR

(831) 758-7158

Public Works Director
DAVID JACOBS, P.E., L.S.
(831) 758-7390

Assistant Public Works Director/ City Engineer
Rodger Olds, P.E
(831) 758-7429

Senior Civil Engineer – Water, Waste, and Energy
BRIAN FRUS, P.E
(831) 758-7485

JOB DESCRIPTIONS / RESPONSIBILITY MATRIX

Superintendent of Maintenance Services

To plan, organize, direct and review the activities of the divisions comprising Environmental & Maintenance Services Division of Public Works including street and sewer maintenance, wastewater treatment, landscape construction inspection, parks and forestry operations, building and vehicle/equipment maintenance; and to provide professional and technical staff assistance. Receives administrative direction from the Public Works Director. Exercises general direction and supervision over professional, technical, and clerical positions.

Duties may include, but are not limited to the following:
Direct work and participate in the development and implementation of goals, objectives, policies and procedures. Plan, organize, direct and review the operation and maintenance of the city's wastewater facilities. Plan, organize, direct and review public works maintenance and service functions. Review and approve plans for public works improvement projects. Supervise and participate in the development and implementation of the capital improvement program and budget.

Wastewater Manager

Under general direction plan, organize, direct, and review the work in a Wastewater Division, including sanitary sewers, storm water sewers, and an industrial wastewater sewer treatment facility; to provide high level staff and technical support for Public Works operations.

Receives general direction from the Public Works Director. Exercises direction and general supervision over supervisory, maintenance, technical and clerical personnel.

Duties may include, but are not limited to the following:
Direct a city-wide maintenance for sanitary sewers, storm water sewers and an industrial wastewater facility. Provide operations supervision of a wastewater treatment plant, including on-going liaison with the California Water Resources Control Board. Oversee and administer the activities of sanitary sewer collections and maintenance, including representing the city to all involved outside agencies regulating these activities. Participate in the development and implementation of goals, objectives, policies and priorities for the maintenance services department; recommend and implement policies and procedures.

Wastewater Crew Supervisor

To assume substantial responsibilities for the daily supervision of multiple small crews in the Street and Sewer Division of the Maintenance Services Division; and to perform a variety of semi-skilled and skilled task in the construction, maintenance, and repair of streets, sidewalks, signs, sewers, storm drains, pump stations, or traffic systems. Coordinate with the assigned Maintenance Manager in organizing and planning work assignments. Supervises, train and evaluate subordinate employees. Assign specific tasks to individuals and crew to accomplish assigned work. Lead a large crew for major

construction and maintenance jobs. Assist the assigned Maintenance Manager with administration of division activities; keep records, prepare reports, estimate job costs, order materials, evaluate work procedures. Supervise and assist crews performing weed abatement projects; special event traffic and crowd circulation projects; and storm pipe, drain and catch basin cleaning and maintenance work. Direct and perform sewer and pump maintenance crew work; operate and supervise others using maintenance equipment and tools such as power tools, hydraulic jet cleaner, vac-all, front loader, compressor, power wench, boom truck, main and auxiliary pumps, and related equipment and tools. Supervise and perform routine preventive maintenance on equipment per manual specifications. Supervise and assist in the installation and repair of underground pipes, and maintenance of sewer and storm drain systems.

Public Maintenance Worker IV

To lead and perform variety of semi-skilled and skilled work in the construction, maintenance, and repair of streets, sidewalks, signs, sewers, storm drains, pump stations, and traffic systems; to direct the work of small crews; and to provide guidance, assistance and training to less experienced personnel. Lead small work crews in the performance of a variety of maintenance duties on streets, sewers, storm drains, traffic signs, and other elements of the City's infrastructure. Provide leadership, guidance and training to less experience workers.

Oversee and perform storm drain and catch basin maintenance. Perform sewer and pump maintenance duties; operate maintenance equipment and tools such as power tools, sewer rodder, hydraulic jet cleaner, vac-all, front loaders, compressor, power wench, boom truck, main and auxiliary pumps, and related equipment and tools. Perform and assist others with preventive maintenance on tools and equipment as required by manual specifications. Coordinate and assist others in the installation and repair of underground pipes; and removal of sewer's line and storm drain blockages.

Public Service Maintenance Worker III

To operate heavy construction and maintenance equipment in performing excavating, grading, trenching, loading and related operations according to required standards; serve as a lead worker to less experienced personnel in performing semi-skilled and skilled tasks in the construction, maintenance and repair of streets, sidewalks, signs, sewers, storm drains, pump stations, or traffic systems.

Perform routine and complex street maintenance duties; operate construction and maintenance equipment such as backhoes, rollers, trucks, tractors, street sweepers, bulldozers, graders, grade-alls, milling machine, paving box scrapers and front loaders for a variety of construction and maintenance operations involving streets, sidewalks, curbs, gutters, drainage channels, water and sewer lines. Perform sewer maintenance duties; operate maintenance equipment and tools such as power tools, hydraulic jet cleaner, vac-all, front loader, compressor, power wench, boom truck, main and auxiliary pumps, and related equipment and tools. Perform emergency and non-emergency street, sewer, storm drain or related public infrastructure maintenance work.

Public Service Maintenance Worker II

To perform a variety of semi-skilled and skilled tasks in the construction, maintenance, and repair of streets, sidewalks, signs, sewers, storm drains, pump stations or traffic systems. May be assign to the Wastewater Division:

ASSIGNMENT TO THE WASTEWATER DIVISION: Perform a variety of construction and maintenance operations involving sanitary sewer and storm sewer lines and drainage channels. Perform sewer maintenance duties; operate maintenance equipment and tools such as power tools, sewer maintenance equipment, hydraulic jet cleaner, vac-all, front loader, compressor, power wench, boom truck, main and auxiliary pumps and related equipment and tools. Read and interpret maps of underground sewer and drainage systems. Install and repair underground pipes; remove blockages from sewer and storm drain lines. Clean and maintain storm drainpipes and catch basins. Inspect ditches, drainage areas and roadside shoulders for noxious weeds; identify weeds; remove weeds and apply appropriate herbicides. Assist with performing operations, maintenance and repairs to lift stations.

Public Service Maintenance Worker I

Under immediate supervision, to perform a variety of semi-skilled and skilled tasks in the construction, maintenance, and repair or streets, sidewalks, signs, sewers, storm drains, pump stations, or traffic systems.

ASSIGNMENT TO THE WASTEWATER DIVISION: Perform a variety of construction and maintenance operations involving sanitary sewer and storm sewer lines and drainage channels. Perform sewer maintenance duties; operate maintenance equipment and tools such as power tools, sewer maintenance equipment, hydraulic jet cleaner, vac-all, sweeper, front loader, compressor, power wench, boom truck, main and auxiliary pumps and related equipment and tools. Read and interpret maps of underground sewer and drainage systems. Install and repair underground pipes; remove blockages from sewer and storm drain lines. Clean and maintain storm drainpipes and catch basins. Inspect ditches, drainage areas and roadside shoulders for noxious weeds; identify weeds; remove weeds and apply appropriate herbicides.

Motor Sweeper Operator

To operate a motor sweeper used in street, gutter and other paved surface cleaning; and to perform minor servicing to the sweeper. This position is in the maintenance services department, wastewater division. Receives general supervision from the public service maintenance crew supervisor. Functional supervision is also provided by other high level maintenance services personnel. No supervision is exercised.

Duties may include, but are not limited to the following:
Operate a motor sweeper and sweep streets and gutters. Assist the supervisor in selecting effective and efficient method to cover assigned route; adjust gutter and pickup brooms to effectively sweep streets and gutters; dump hopper when full. Perform general servicing, including cleaning of motor sweeper; check for broom and chain wear; replace brooms; report mechanical or other equipment problems. Assist in trash and debris control activities such as picking up of litter and other public service maintenance activities as required or when weather does not permit sweeping operations.

Operate other public service maintenance equipment such as trucks, vac-all, sewer jetting truck, tractors, and fork lifts as required. Perform general public service maintenance duties as required. Perform related duties as assigned.

Senior Civil Engineer

To supervise and participate in and conduct complicated engineering planning and design; to oversee activities of design engineering, surveying, engineering records management, development review and traffic engineering; and to participate in the enforcement of the City's standards and codes for development.

This is an advanced journey and supervisory level in the professional engineering class series. Work of this class involves the supervision of professional and technical personnel. Assignments are general and of a continuing nature, requiring the exercise of independent judgment and initiative in prioritizing, scheduling, assigning and coordinating work. Incumbents are also expected to perform the most complex professional engineering work requiring a substantial level of professional training and experience. Receives general direction from the Deputy City Engineer or Engineering and Transportation Director. Exercises general supervision over professional and technical personnel.

Duties may include, but are not limited to the following:
Respond and take appropriate action to public inquiries and concerns related to capital improvement, development, traffic and public works programs/projects. Prepare and supervise the preparation of staff reports and make oral presentations at City Council, City Commissions and other boards as assigned. Prepare and monitor the annual budget for the assigned team. Program, process, budget and monitor State and Federal grants and funds for all types of public works projects and programs as assigned. Prepare grant applications for all types of capital improvements. Represent City at meetings with outside agencies. Select, supervise, train and evaluate professional and technical subordinates. Plan, assign, direct and review the work of staff engineers developing engineering designs, specifications, estimates, and contracts for a variety of municipal projects. Prepare and review plans specifications, estimates, survey maps and technical reports for accuracy, suitability, and completeness, and make recommendations for revision and improvement. Prepare preliminary and final cost estimates. Confer with contractors, consulting engineers; sub-dividers, and members of the public on engineering problems and public work programs. Perform and supervise difficult and complex civil engineering design work. Review and prepare comments for all levels of environmental review to address project and cumulative impacts to transportation and other public facilities. Review development proposals and building plan checks and prepare conditions of approval and recommend corrections. Supervise the preparation of official maps and the maintenance and filing of base maps, engineering drawings, street address maps, and related materials. May coordinate the preparation, distribution, explanation, tabulation and review of bid proposals. Promote and maintain safety in the work place. Perform related duties as assigned.

Public Works Director

Direct and participate in the development and implementation of goals, objectives, policies and procedures. Plan, organize, direct, and review all engineering activities including design, and inspection. Plan, organize, direct and review transportation, parking, and traffic engineering activities. Oversee and provide general supervision of airport division and permit center. Confer with and advise administrative staff on problems related to building, housing and construction inspection

and code enforcement and the design and operation of traffic systems. Review plans, engineering reports, budget estimates, and proposed ordinances submitted by administrative staff. Review and approve plans for public works improvement projects. Serve as technical advisor to the City Manager and City Council on engineering matters; develop comprehensive recommendations for management use. Supervise and participate in the development and implementation of the capital improvement program and budget.

The Chain of Communication for Reporting SSO's

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, and/or State Office of Emergency Services (OES)). Illustrated in Figures 4 and 5 on the following pages.

Figure 4:

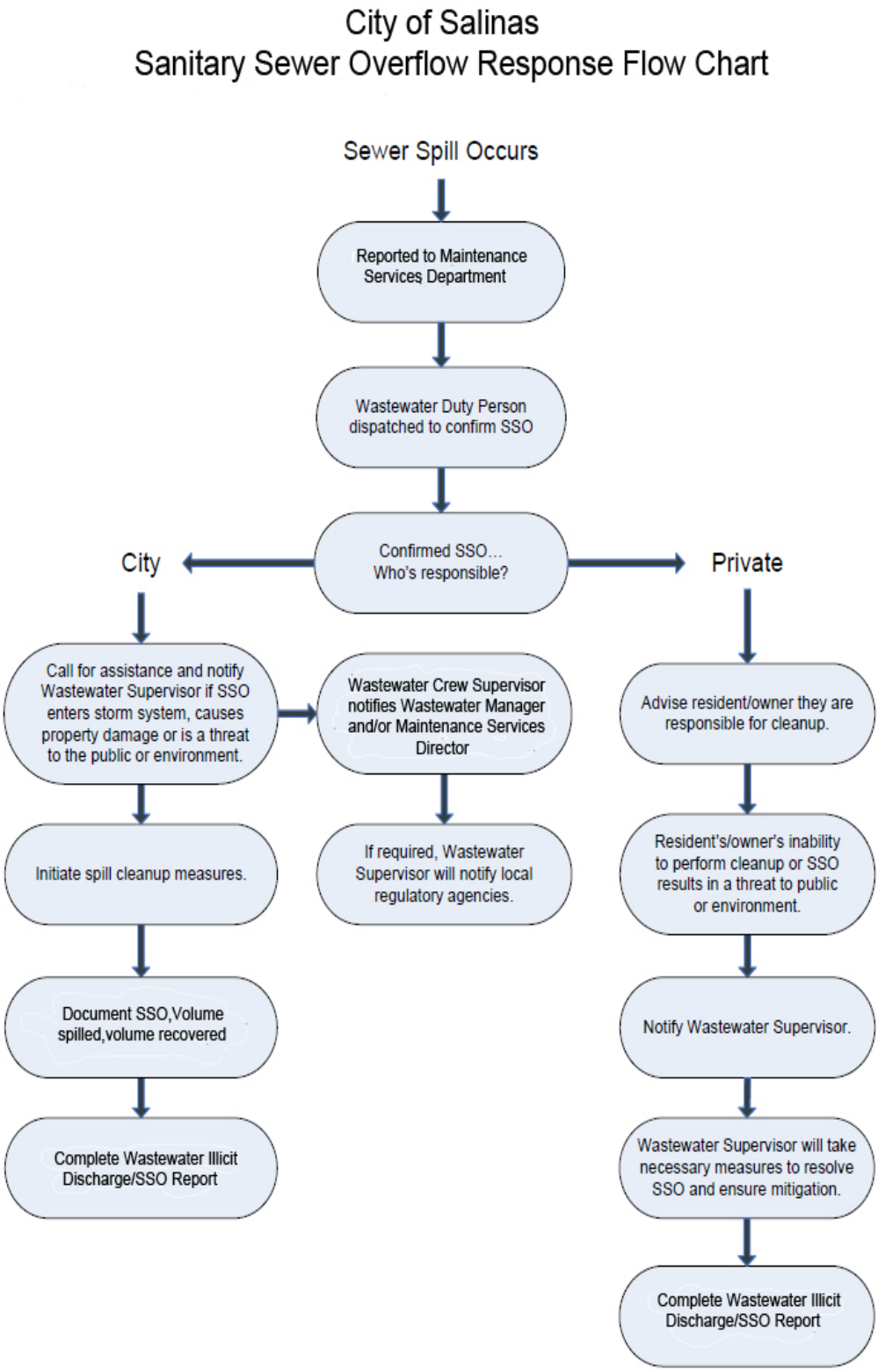
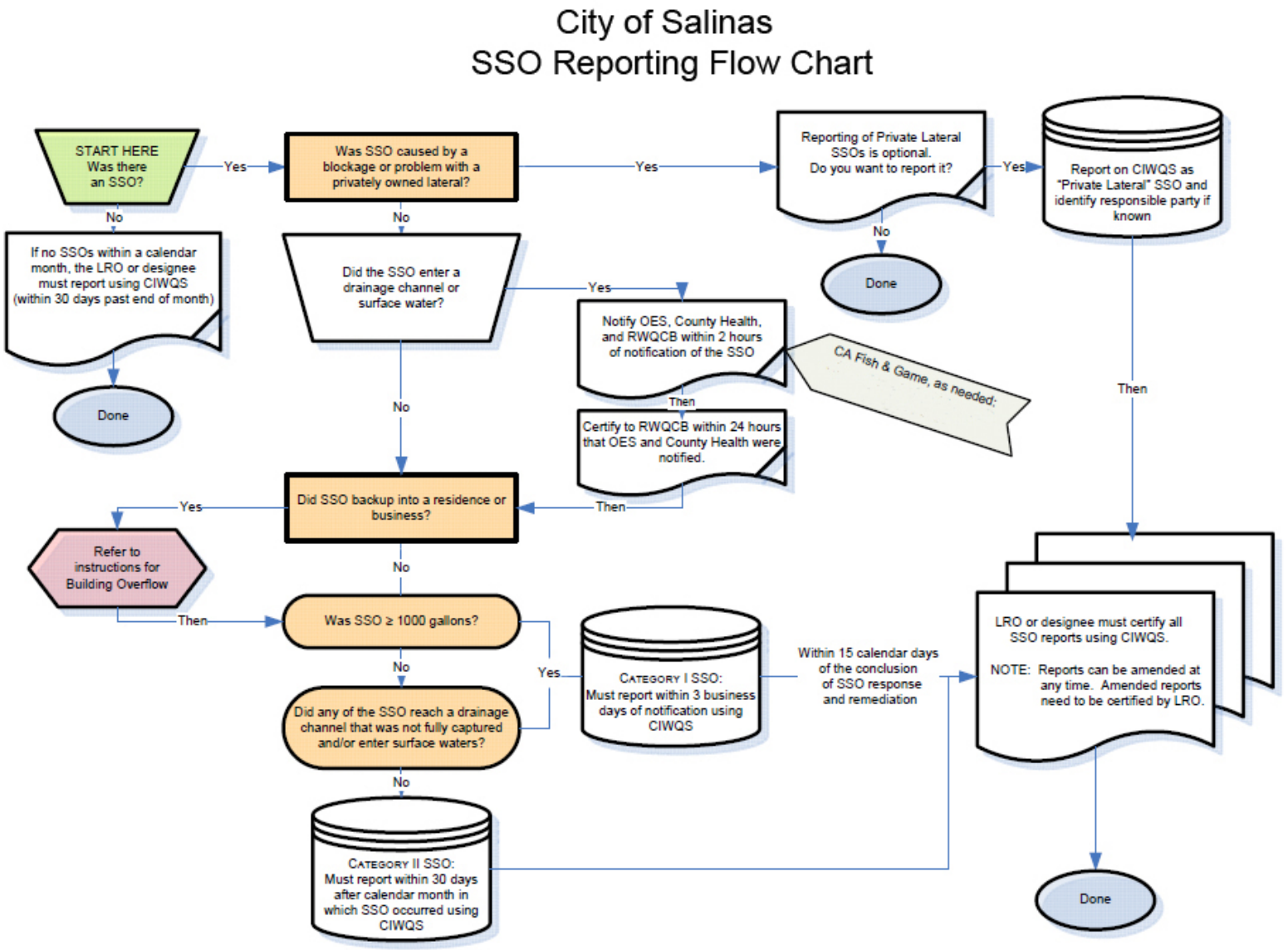

City of Salinas
Sanitary Sewer Overflow Response Flow Chart
Sewer Spill Occurs
Reported to Maintenance Services Department
Wastewater Duty Person dispatched to confirm SSO
Confirmed SSO… Who's responsible?
City
Private
Call for assistance and notify Wastewater Supervisor if SSO enters storm system, causes property damage or is a threat to the public or environment.
Wastewater Crew Supervisor notifies Wastewater Manager and/or Maintenance Services Director
Advise resident/owner they are responsible for cleanup.
Initiate spill cleanup measures.
If required, Wastewater Supervisor will notify local regulatory agencies.
Resident's/owner's inability to perform cleanup or SSO results in a threat to public or environment.
Document SSO,Volume spilled,volume recovered
Notify Wastewater Supervisor.
Complete Wastewater Illicit Discharge/SSO Report
Wastewater Supervisor will take necessary measures to resolve SSO and ensure mitigation.
Complete Wastewater Illicit Discharge/SSO Report

Figure 5


City of Salinas
SSO Reporting Flow Chart
START HERE
Was there an SSO?
Yes
No
If no SSOs within a calendar month, the LRO or designee must report using CIWQS (within 30 days past end of month)
Done
Was SSO caused by a blockage or problem with a privately owned lateral?
Yes
No
Reporting of Private Lateral SSOs is optional. Do you want to report it?
Yes
No
Done
Report on CIWQS as "Private Lateral" SSO and identify responsible party if known
Then
Did the SSO enter a drainage channel or surface water?
Yes
No
Notify OES, County Health, and RWQCB within 2 hours of notification of the SSO
CA Fish & Game, as needed:
Then
Certify to RWQCB within 24 hours that OES and County Health were notified.
Then
Did SSO backup into a residence or business?
Yes
Refer to instructions for Building Overflow
Then
No
Was SSO ≥ 1000 gallons?
Yes
No
Did any of the SSO reach a drainage channel that was not fully captured and/or enter surface waters?
Yes
No
CATEGORY I SSO: Must report within 3 business days of notification using CIWQS
CATEGORY II SSO: Must report within 30 days after calendar month in which SSO occurred using CIWQS
Within 15 calendar days of the conclusion of SSO response and remediation
LRO or designee must certify all SSO reports using CIWQS.
NOTE: Reports can be amended at any time. Amended reports need to be certified by LRO.
Done

Sewer System Management Plan
Section III – Legal Authority

A. Introduction

This section of the SSMP discusses the City's Legal Authority, including the Municipal Code and agreements with other agencies.

B. Regulatory Requirements for Legal Authority Section

The summarized requirements for the Legal Authority section of the SSMP are:

GWDR Requirement

The wastewater collection system agency must demonstrate, through collection system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

a) Prevent illicit discharges into its wastewater collection system (examples may include infiltration and inflow (I/I), storm water, chemical dumping, unauthorized debris and cut roots, etc.);
b) Require that sewers and connections be properly designed and constructed;
c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the City;
d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages;
e) Enforce any violation of its sewer ordinances;
f) Authority to inspect grease producing dischargers; and
g) Authority to enforce sewer-related ordinances.

Summary of Existing City of Salinas Authority

As described in this section, the City of Salinas has adequate existing legal authority to meet the WDR requirements for its sanitary sewer collection system. The City under agreement receives flows from the unincorporated Boronda community located to the northwest of the City and a limited area of the Bolsa Knolls community located north of the City. This authority derives from the City Charter, the City Code and the City Design Standards and Specifications, and by incorporation of all Monterey One Water regulations into the City Code.

The City of Salinas is a charter city with corporate powers derived directly from the California Constitution. California Constitution, Article XI, §3(a). Through its charter, the City of Salinas has supremacy over municipal affairs subject only to conflicting provisions in the state or federal constitutions and preemptive state law on matters of statewide concern. Unless preempted by state legislation on matters of statewide concern, the City's laws will prevail over inconsistent state laws.

Consistent with this authority, the City has adopted a municipal code arranged by chapter and subject. The City has also established Standard Specifications, Design Standards and Standard Plans, with design and construction requirements for repair, rehabilitation and construction of infrastructure.

The sanitary sewer and industrial sewer requirements are addressed in Chapter 36 of the City Code. Both collection systems are addressed more specifically in separate articles within the Chapter. Additional requirements are established through City Council resolution. The City currently has adequate legal authority to regulate and to monitor its sanitary sewer and industrial sewer.

Interagency Agreement with Monterey One Water

The City of Salinas sanitary sewer collection system is tributary to a regional treatment facility owned and operated by Monterey One Water (M1W or Agency). In 1979, the City joined with other cities in Northern Monterey County to adopt an interagency agreement forming Monterey One Water.

The joint powers agreement calls for Monterey One Water to acquire, construct, and operate facilities for the collection, transmission, treatment, disposal and reclamation of sewage and wastewater for the benefit of lands and inhabitants with their respective boundaries. Under this agreement Monterey One Water is obligated to undertake and to implement the common power and authority of its members to study, plan for, design, construct and operate regional wastewater treatment facilities for the North Monterey County area. The joint powers agreement enables Monterey One Water to levy wastewater charges and fees to fulfill its responsibilities.

Monterey One Water ORDINANCE NO. 2008-01

The City of Salinas Code expressly requires that all dischargers to the municipal sanitary sewer system (community sewer) must comply with all Monterey One Water (Agency) requirements. Monterey One Water established ORDINANCE NO. 2008-01, an ordinance establishing regulation for the interception, treatment and disposal of sewage and wastewater; providing for and requiring charges and fees therefore: and fixing penalties for the violation of said regulations.

Ordinance 2008-01, http://montereyonewater.org/about_ordinances.html, is the legal authority which sets uniform requirements for discharges into the wastewater collection and treatment system of the Agency and all tributary collection systems and enables the Agency to comply with the administrative provisions of the Clean Water Grant Regulations, and specifically incorporates and enforces National Categorical Pretreatment Standards as defined in 40 CFR 403 "*General Pretreatment Regulations for Existing and New Sources of Pollution*." This Ordinance also enables the Agency to comply with the water quality requirements set by the Regional Water Quality Control Board of the State of California and all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and any other discharge criteria which are required or authorized by state or federal law, and to derive the maximum public benefit by regulating the quality and quantity of wastewater discharged into the Agency sewer system. This Ordinance provides a means for determining wastewater volumes, constituents and characteristics, and setting of charges and fees, and the issuance of permits to certain users. Revenues derived from the application of this Ordinance shall be used to defray the Agency's cost of operating and maintaining adequate wastewater collection and treatment systems, enforcing Categorical Pretreatment Standards, implementation of source control and waste minimization programs and to provide improvements and depreciation. This Ordinance also enables

the Agency to comply with water quality requirements set by the Regional Water Quality Control Board of the State of California and all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and other discharge criteria required or authorized by state or federal law.

City Code Chapter 36 – Industrial Waste, Wastewater Collection and Discharge

Chapter 36 of the Salinas City Code – *Industrial Waste, Wastewater Collection and Discharge* regulates the City's sanitary sewer collection system and the industrial wastewater system. Chapter 36 contains relevant regulations for the sanitary sewer system:

Prevent Illicit Discharge to Wastewater Collection System (Item a)

City Municipal Code:

- Sec. 36-12.2. Compliance with discharge requirements of Monterey One Water**.**

  All dischargers into the sanitary sewer shall comply with all the discharge requirements of Monterey One Water. (Ord. No. 2102 (NCS).)

- Sec. 36-20.1. Disposal of hazardous and unacceptable waste.

  Hazardous waste and other unacceptable waste not permitted to be discharged into the public sewer must be transported to a state-approved disposal site. (Ord. No. 2102 (NCS).)

- Sec. 36-20.4. Prohibition on storm drainage, ground water and unpolluted water.

  Storm water, ground water, rain water, street drainage, roof runoff and unpolluted water shall not be discharged through direct or indirect connections to the city's industrial waste sewer line unless special approval in writing is authorized by the director. (Ord. No. 2102 (NCS).)

Through a Regional Pretreatment Program and Regional Oil and Grease Program, the City has historically delegated authority and responsibility for the application and enforcement of various aspects of the pretreatment program (source control) to Monterey One Water (M1W) under a joint powers agreement. It is anticipated the City's relationship with Monterey One Water will continue and City staff will continue to develop specific policies, procedures and requirements for design, maintenance and operation of grease traps or other devices.

The City of Salinas contracts with the Monterey One Water (M1W), for specific services including fats, oils and grease source control inspections at food service facilities discharging into the City's collection system. The City's also contracts with the M1W through a partnership with other regional agencies to implement a public education program to promote the proper disposal of fats, oils and grease to reduce grease-related sanitary sewer overflows.

Require That Sewers and Connections Be Properly Designed and Constructed (Item b)

The City's *Design Standards and Standard Specifications* were updated in 2008 to reflect current municipal engineering practices and metrication. Future updates will consider other appropriate changes to the design standards that may be needed to comply with and/or provide guidance for future local legislation.

The City's design criteria for new and rehabilitated sewers are specified in the *City of Salinas Standard Specifications, Design Standards and Standard Plans, 2008 Edition*. An electronic copy of the City of Salinas Standard Specifications, Design Standards and Standard Plans, 2008 Edition is available on the City of Salinas web site at: https://www.cityofsalinas.org/our-city-services/public-works/development-engineering

The following sections of the municipal code address this requirement.

City Municipal Code:

CHAPTER 30A Standards Specifications and Design Standards for Public Works.*

- Sec. 30A-01.03 Compliance required.

  It shall be unlawful for any person, as a principal, agent or otherwise, to construct or have constructed public works facilities which do not conform to the standard specifications or design standards established in accordance with the terms of this article. (Ord. No. 1184 (NCS), Art. 3, § 1; Ord. No. 2009 (NCS), § 1.)

CHAPTER 36 – INDUSTRIAL WASTE, WASTEWATER COLLECTION AND DISCHARGE

- Section 36-11 requires that all private sewage disposal system conform with the city plumbing code currently in effect.
- Section 36-16 requires that The size, slope, alignment, materials of construction of a building sewer and the methods to be used in excavating, placing the pipe, jointing, testing, backfilling of the trench, shall all conform to the requirements of the city plumbing code and the city design standards and standard specifications currently in effect at the time of installation. Permits for building sewers which do not conform in design to the plumbing code may be granted if the plans have been approved by the city engineer/public works director. (Elsewhere in the City Code, the California Plumbing Code is adopted by reference.)
- Section 36-19 requires that the applicant for a building sewer permit notify the director and the chief building official when the building sewer is ready for inspection and connection to the public sewer. The connection shall be made during the presence and under the inspection of the chief building official or their representatives.

Monterey One Water Resolution 2008-01:

- Section 2.11 requires that all new sewers and connections to the community sewer shall meet all design requirements of the public entity member of the Agency having area jurisdiction in questions, pursuant to the applicable Uniform Pluming Code adopted by said member, and shall also meet all design requirements as may be established from time to time by the Agency.

City Resolution No. 11648 for Installation of Sewer Laterals

Resolution No. 11648 establishes rules and regulations for the installation of sewer laterals in the City. Relevant rules include:

- The rules specify a minimum lateral size and requirements for larger sizes when additional capacity is needed.
- All plumbing work for sewer laterals must meet the minimum standards of the current Plumbing Code.
- Sewer laterals must be inspected and installation approved by a City representative before they are backfilled.
- Maintenance of laterals and appurtenances is the responsibility of the property owner. Any leaks or openings that allow water drainage or storm water to enter the system must be promptly repaired.
- Connection of storm drain facilities, such as catch basins, sumps, downspouts, outside drains and laterals, to the sanitary sewer system is expressly prohibited. Except with specific written approval of the City Engineer, no yard drainage can be discharged to the sanitary sewer. The City Engineer shall not give this approval unless other material is in the runoff that would pollute the water in the storm drains. In such instance, the amount of drainage entering the sanitary sewer shall be kept to a minimum. Industrial waste is prohibited from discharge into the sanitary sewers, without specific written approval of the City Engineer.
- Sewer laterals between the main line and the property sewer must be constructed according to the Standard Specifications currently in effect, including watertight joints.
- Maintenance and repair the sewer lateral (i.e. building sewer), is the responsibility of the property owner from the point of connection to the private property building up to and including the wye adapter on the sewer main.
- **Note:** The City of Salinas does not provide maintenance or repair to private sewer laterals

Ensure Access for Maintenance, Inspection, or Repairs for Portions of the Lateral Owned or Maintained by the City (Item c)

CHAPTER 31. SUBDIVISIONS.

Article 8. Dedications and Reservations.

- Sec. 31-801. Dedication of streets, alleys, and other public rights-of-way or easements.

- As a condition of approval of a tentative map or parcel map, the city may require the sub divider to dedicate or make an irrevocable offer to dedicate to the public all real property within the subdivision that is needed for public use or benefit, including, but not limited to, streets and alleys, including access rights and abutters' rights; drainage and stormwater facilities; public greenways, and scenic or open space easements; trails; public utility easements, including but not limited to water, sewer, electricity, gas, telephone, cable television, dark fiber conduit/high speed internet/telecommunications facilities, and other communication systems; buffer easements, avigation easements, agrarian easements and other public easements. The city may require improvements to property that is to be dedicated in accordance with this chapter. Rights-of-way shall be of sufficient size to accommodate the required improvements to be added/upgraded. Where parcels front on a city-maintained road of insufficient width, or when the existing right-of-way is not deeded, the sub divider shall dedicate right-of-way sufficient for the ultimate improvement of the facility. Dedications shall include the construction of public street improvements along the property's street frontage(s).

(Ord. No. 2585 (NCS), § 1, 12-13-2016)

Limit the Discharge of Fats, Oils, and Grease and Other Debris That May Cause Blockages (Item d)

City Municipal Code:

- Sec. 36-12.2. Compliance with discharge requirements of Monterey One Water.

  All dischargers into the sanitary sewer shall comply with all the discharge requirements of Monterey One Water. (Ord. No. 2102 (NCS).)

- Section 36-31 requires that grease traps (grease, oil, wax and sand interceptors) be provided when, in the opinion of the director, they are necessary for the proper handling of liquid wastes, sand or other harmful ingredients. All interceptors must be of a type and capacity approved by the director and located so as to be readily and easily accessible for cleaning and inspection. Failure by the owner to clean and maintain the interceptors is sufficient cause for punitive action as provided in the chapter, or for disconnection from the industrial sewer.

Monterey One Water Ordinance 2008-01:

- Section 2.01.1 General Prohibitions. No user shall discharge into the Treatment Works or community sewer any pollutant(s) which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in paragraph §2.01.2 of this section apply to each user introducing pollutants into the Treatment Works, whether or not the user is subject to National Pretreatment Standards or any Federal, State, or local pretreatment requirements.
- Section 2.03 and 2.04 state that storm water, groundwater, rain water, street drainage, subsurface drainage or yard drainage, or unpolluted water shall not be discharged through direct or indirect connections to a community sewer unless a permit is issued by the Agency.

The Agency may approve such discharge only when no reasonable alternative method of disposal is available.

- Section 2.10.2 prohibits any person from discharging any wastewater containing oil and grease of animal, vegetable, petroleum or mineral origin in such quantities to cause or to contribute significantly to: 1) disruptions of sewer lines and other collection system components; 2) interference with treatment plant operations, or 3) exceedances of plant NPDES discharge limitations. Significant dischargers of oil and grease shall implement best practicable technologies for reducing the oil and grease content of their discharges.

Monterey One Water also developed guidance to explain the oil and grease limitations in the Ordinance 2008-01, as summarized below.

For Polar Oil and Grease (animal or vegetable):

- Oil/grease concentration less than or equal to 300 mg/L – no action required.
- Oil/grease concentration greater than 300 mg/L but less than or equal to 450 mg/L – Monterey One Water will increase monitoring or require self-monitoring of the waste stream to determine if a trend exists. The industrial or commercial facility will be required to implement source control or waste minimization measures.
- Oil/grease concentration greater than 450 mg/L is a significant discharge. The industrial or commercial facility is required to self-monitor the waste stream, install pretreatment equipment using Best Practicable Technology (BPT), implement measures to reduce the specific pollutant level to below 450 mg/L, or cease the process that is causing the excessive animal/vegetable oil and grease concentration.

For Non-Polar Oil and Grease (petroleum or mineral):

- Oil/grease concentration less than or equal to 100 mg/L – no action required.
- Oil/grease concentration greater than 100 mg/L but less than or equal to 150 mg/L – MRWPCA will increase monitoring or require elf monitoring of the waste stream to determine if a trend exists. The industrial or commercial facility is required to implement source control or waste minimization measures.
- Oil/grease concentration greater than 150 mg/L is a significant discharge. The industrial or commercial facility will be required to self –monitor the waste stream, install pretreatment equipment using Best Practicable Technology (BPT), implement measures to reduce the specific pollutant level below 150 mg/L, or cease the process that is causing the excessive petroleum/mineral oil and grease concentration.
- Section 2.10.3 requires that all National Categorical Pretreatment Standards, upon their promulgation, shall apply in any instance where they are more stringent than those in the Ordinance.
- Section 2.10.4 requires that all wastes not permitted to be discharged into the community sewer must be transported to a state approved disposal site.

Enforce Any Violation of Its Sewer Ordinances (Item e)

CHAPTER 36. INDUSTRIAL WASTE, WASTEWATER COLLECTION AND DISCHARGE.

- Sec. 36-12.2. Compliance with discharge requirements of Monterey One Water.

  All dischargers into the sanitary sewer shall comply with all the discharge requirements of Monterey One Water. (Ord. No. 2102 (NCS).)

Monterey One Water Ordinance 2008-01:

- Articles 6 and 7 provide for enforcement and abatement authority for the Agency to enforce all provisions of Ordinance 2008-1, and to abate any public nuisance, violation of the ordinance, damage to the regional facility, and allows the Agency to correct violations and recover the costs from the user.

Authority to Inspect Grease Producing Dischargers (Item f)

- Article 4.07 gives the Agency the authority to inspect the facilities of any user to ascertain whether the purpose of the Ordinance is being met and all requirements are being complied with, and to conduct any sampling or metering operations as necessary.

Authority to Enforce Sewer-Related Ordinances (item g)

The City of Salinas is a charter city with corporate powers derived directly from the California Constitution. California Constitution, Article XI, §3(a). Through its charter, the City of Salinas has supremacy over municipal affairs subject only to conflicting provisions in the state or federal constitutions and preemptive state law on matters of statewide concern. Unless preempted by state legislation on matters of statewide concern, the City's laws will prevail over inconsistent state laws.

Consistent with this authority, the City has adopted a municipal code arranged by chapter and subject and Standard Specifications, Design Standards and Standard Plans, with design and construction requirements for repair, rehabilitation and construction of infrastructure.

The following Municipal Code Chapters are in support of the requirement.

CHAPTER 1. GENERAL PROVISIONS.

- Sec. 1-01.08 Misdemeanors; infractions; general penalty; continuing violations. *

  Whenever in this Code or in any other ordinance of the city or in any order, rule or regulation issued or promulgated by any duly authorized officer or agent of the city, any act is prohibited or is made or declared to be unlawful or an offense, or the failure to do any act is declared to be unlawful or an offense, the violation of any such provision of the Code or any other ordinance of the city or any such order, rule or regulation shall be a misdemeanor or

infraction.

Whenever in this Code or in any other ordinance of the city or in any order, rule or regulation issued or promulgated by any duly authorized officer or agent of the city, any act or the failure to do any act is made or declared to be a misdemeanor, where no specific penalty is provided therefore, the violation of any such provision shall be punishable by a fine not exceeding one thousand dollars or imprisonment for a term not exceeding six months, or by both such fine and imprisonment.

Whenever in this Code or in any other ordinance of the city or in any order, rule or regulation issued or promulgated by any duly authorized officer or agent of the city, any act or failure to do any act is made or declared to be an infraction, where no specific penalty is provided therefor, the violation thereof shall be punished upon conviction by a fine not exceeding five hundred dollars.

Any offense which would otherwise be an infraction is a misdemeanor if a defendant has previously been convicted thereof three times or more, and such prior convictions are admitted by the defendant or alleged in the accusatory pleading. For this purpose, a bail forfeiture shall be deemed to be a conviction of the offense charged.

This subsection shall not apply to any violations of any of the provisions of Chapter 20.

Every day any violation of this Code or any other ordinance of the city or any such order, rule or regulation continues to occur shall constitute a separate offense, except as otherwise specifically provided.

For state law as to authority of city to impose fines not exceeding five hundred dollars and Imprisonment for terms not exceeding six months, or both, for violation of ordinances, see Gov. C., § 36901. As to provision declaring violations of ordinances to be misdemeanors, see Gov. C., § 36900.

For charter provision as to penalty for violation of ordinances, see Char. § 111.

For provisions declaring signs and billboards in violation of Code a nuisance, see § 3-21 of this Code. For provisions declaring violation of provisions pertaining to keeping of livestock, see § 7-31. For penalty for violating house numbering provision, see § 9-30. For penalties for violation of the Fire Code, see § 13-17. For penalty for violation of provisions pertaining to going-out-of-business sales, see § 15-14.

- Sec. 1-01.09 Notice of violation.

Whenever in this Code, or in any other ordinance of the city, or in any order, rule, or regulation issued by any duly authorized agent of the city, such ordinance, order, rule or regulation requires advance written notice of the ordinance, order, rule, or regulation to be

posted, signed, marked, or otherwise given, the service of written notice on the violator shall constitute adequate notice for any like violation occurring subsequent to service of the written notice. (Ord. No. 2586(NCS), § 1, 2-7-2017)

- Sec. 1-01.10 Issuance of citations for violation of Code or ordinances; written promise to appear.

  If any person is arrested for a violation of any provision of this Code or other ordinance and such person is not immediately taken before a magistrate as prescribed in the Penal Code of the state, the arresting officer shall prepare in duplicate a written notice to appear in court, containing the name and address of such person, the offense charged, and the time and place when and where such person shall appear in court.

  Any person willfully violating his written promise to appear in court is guilty of a misdemeanor, regardless of the disposition of the charge upon which he was originally arrested. (Ord. No. 2586(NCS), § 1, 2-7-2017)

- Sec. 1-01.11. Civil action enforcement.

  (a) In addition to the penalties provided for in this chapter, any violation of this code or city ordinance may be redressed by civil action. Any condition existing in violation of this code or a city ordinance or any order, rule or regulation issued or promulgated by any duly authorized officer or agent of the city, is deemed to be a public nuisance.

  (b) The city attorney may bring civil suit or other action to enforce any ordinance or section of this Code, to enjoin or prevent any violation of any ordinance, or to abate any public nuisance as defined or declared by this Code.

  (c) This remedy by civil action to enforce any ordinance this Code is in addition to any other remedies available under ordinance, city code, or statute and does not replace or support any other remedy but is cumulative thereto. (Ord. No. 2586(NCS), § 1, 2-7-2017)

City Municipal Code

CHAPTER 36. INDUSTRIAL WASTE, WASTEWATER COLLECTION AND DISCHARGE.
Article II. Sanitary Sewers.

Division 1. Special Sewers.

Sec. 36-4. Designation of special sewer.

Sec. 36-5. Permit required to connect.

Sec. 36-20.3. Service charge for collection system cleanup.

Sec. 36-20.4. Prohibition on storm drainage, ground water and unpolluted water.

Division 5. Sewer Collector System Fees.

Sec. 36-20.5. Service charge--Inside city limits.

Sec. 36-20.6. Exemptions.

Sec. 36-20.7. Collection of fees.

Sec. 36-20.8. Use of fees.

Sec. 36-20.9. Validity.

Monterey One Water ORDINANCE NO. 2008-01

- Articles 6 and 7 provide for enforcement and abatement authority for the Agency to enforce all provisions of Ordinance 2008-1, and to abate any public nuisance, violation of the ordinance, damage to the regional facility, and allows the Agency to correct violations and recover the costs from the user.

The City of Salinas Code expressly requires that all dischargers to the municipal sanitary sewer system (community sewer) must comply with all Monterey One Water (Agency) requirements. Monterey One Water established ORDINANCE NO. 2008-01, an ordinance establishing regulation for the interception, treatment and disposal of sewage and wastewater; providing for and requiring charges and fees therefore: and fixing penalties for the violation of said regulations.

Ordinance 2008-01, is the legal authority which sets uniform requirements for discharges into the wastewater collection and treatment system of the Agency and all tributary collection systems and enables the Agency to comply with the administrative provisions of the Clean Water Grant Regulations, and specifically incorporates and enforces National Categorical Pretreatment Standards as defined in 40 CFR 403 "*General Pretreatment Regulations for Existing and New Sources of Pollution*." This Ordinance also enables the Agency to comply with the water quality requirements set by the Regional Water Quality Control Board of the State of California and all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and any other discharge criteria which are required or authorized by state or federal law, and to derive the maximum public benefit by regulating the quality and quantity of wastewater discharged into the Agency sewer system. This Ordinance provides a means for determining wastewater volumes, constituents and characteristics, and setting of charges and fees, and the issuance of permits to certain users. Revenues derived from the application of this Ordinance shall be used to defray the Agency's cost of operating and maintaining adequate wastewater collection and treatment systems, enforcing Categorical

Pretreatment Standards, implementation of source control and waste minimization programs and to provide improvements and depreciation. This Ordinance also enables the Agency to comply with water quality requirements set by the Regional Water Quality Control Board of the State of California and all applicable effluent limitations, national standards of performance, toxic and pretreatment effluent standards, and other discharge criteria required or authorized by state or federal law.

Sewer System Management Plan
Section IV – Operations and Maintenance Program

A. Introduction

This section of the Sewer System Management Plan (SSMP) is intended to provide an overview of the City's sewer system operations and maintenance program.

B. Regulatory Requirements for the Operations and Maintenance

The requirements for the Operations and Maintenance Program section of the SSMP are:

GWDR Requirement (Operations and Maintenance):

The GWDR requirements for the Operations and Maintenance Program are:

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

Operations and Maintenance Program

Collection System Maps (Item a)

The WDR calls for maintaining an up-to-date map of the collection system showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and storm water conveyance facilities. The City's maintains field maps that are an up-to-date representation of the sanitary sewer collection system. The maps are hard copies depictions of the collection system. The collections system is also represented in a digitized form and has been developed as part of a GIS mapping system for subsequent printing.

The City currently has several sources of mapping for the sanitary sewer collection system. The following maps are maintained by the City's Public Works Department, under the direction of the City Engineer:

The 2011 Sanitary Sewer Master Plan. This document provides a comprehensive Sanitary Sewer Master plan update for the City of Salinas, based on the City's 2002 General Plan, development planning, and preliminary planning information from the housing element update in 2011. The master plan includes development of a city wide sanitary sewer system model (10-inch and greater diameter) for existing and projected future development, development of wastewater flow projections, use of the model to identify and analyze required improvements, and development of capital improvement program recommendations based on the analysis results.

System-wide wall maps showing the sanitary sewer and storm sewer collections system including line sizes and manhole locations (paper maps, not electronic). These wall maps are displayed in the City's Wastewater Division Office at the Maintenance Services Division Corporation Yard. These maps are also reproduced in binders for field use in the sewer maintenance trucks and response vehicles. Field maps are up-to-date and include 100% of the sanitary sewer collection system. Storm sewer maps are included in the field maps for recovery response for sewer overflows that reach the local storm system.

The wall maps are marked up periodically to reflect new sewers and changes in existing sewers. Complete system maps are available from as-built plans not yet incorporated into the current wall maps. The maps are being updated in the GIS system. In 2015 the City completed GIS mapping of the storm water and sanitary sewer system and the system maps are available for access on the Wastewater Managers computer. The City has also purchased and is currently using computers for field documentation of maintenance activities to the storm and sanitary sewer systems.

The 2011 Sanitary Sewer Master Plan, identified system needs and assisted in determining future revenue requirements to further accomplish the requirements of this WDR.

The City has also completed a full assessment of storm system catch basins and outfall pipes. These structures have been digitized and overlaid onto aerial maps of the City for field use that provides local landmarks and structures for accurate identification of system facilities. Some storm water pipeline segments in new development areas are not yet depicted on field maps. However, this information is available through as-built plans at the Public Works Department. The City's Engineering Division of Public Works maintains copies of all sewer plans upon completion of construction and acceptance by the City. Subdivision improvement plans are filed by subdivision number.

Routine and Scheduled Maintenance (Item b)

Staffing, Equipment and Funding

The City's Maintenance Services, under the direction of the Public Works Director, is responsible for operation and maintenance of the City's sanitary sewer collection system. The City's Wastewater Manager is the lead person to plan and implement these responsibilities.

Current City staffing for operation and maintenance of the sanitary sewer system includes 7.75 full time equivalent (FTE) employees. The employees may also perform other functions for the storm sewer and industrial waste systems. The position allocations and duties for the sanitary sewer system are as follows:

- Wastewater Manager (0.5 FTE) - Provide oversight of Division activities and manage budget.
- Wastewater Crew Supervisor (0.5 FTE) – Supervise work crew and maintenance activities.
- Public Service Maintenance Worker IV (0.5 FTE) – Lead worker, journey level position.
- Pump Mechanic (0.5 FTE) – Sanitary sewer lift station pump mechanic.
- Public Service Maintenance Worker III (1.75 FTEs) – Equipment operator.
- Public Service Maintenance Worker II (3.75 FTEs) – Journey level maintenance worker.

The City has adequate facilities and equipment to maintain the sanitary sewer collection system. The Maintenance Services Department operates from the City's Corporation Yard on Work Street at John Street, and the City's TP1 Site off Hitchcock Road (site of the former City wastewater treatment plant). Maintenance equipment is stored at both locations.

Major equipment owned by the City that can be utilized for sewer system operation and maintenance includes:

- Sanitary Sewer Program – 6 pickup trucks, 3 sewer Vac-Con trucks, 1 Pump Mechanic lift truck, 1 CCTV van, 5 portable (towable), generators and 2 six-inch pump with suction and layout discharge hose. Two additional combination CCTV/Jetter 800 HPRTV Trucks were approved by Council and have been purchased during 2019
- Storm Drain Sewer – 1 vac-all (10 cu. yd. capacity vacuum truck)
- Industrial Waste – 1 tractor, 1 spray rig, 2 pickup trucks, 1 small boat and trailer to access aeration motors on the influent treatment pond.
- Street Sweeping – 1 pickup, 4 sweepers

The City maintains 5 portable towable diesel powered generators to provide emergency power to sanitary sewer lift stations not equipped with permanent on-site backup electrical generators. This gives effective coverage of all sanitary lift stations and reduces the potential for overflows during power outages.

The City keeps an inventory of key replacement parts for the sewer lift stations, so breakdowns and malfunctions can be repaired quickly to avoid potential overflow situations. A spare motor controller, air compressor, alarm dialer, air lines and misc. minor parts are kept in inventory for repairs to lift

stations. A lift station maintenance truck with an overhead lift boom and power winch is used to carry a full complement of tools and minor repair parts. Backup pump motors are kept for emergency backup of the highest flow stations. Spare manhole risers and covers are kept in inventory for repairs in the streets. Emergency contact numbers for local parts vendors and contractors are kept for emergency response to pipeline and other system repairs

The City owns the necessary equipment to respond to most overflow situations. This equipment includes vacuum trucks, hydro/vac flushers, pumps, temporary bypass hoses, and portable generators. The City also maintains files, and business contact numbers of many contractors and businesses that can be called in response to a major event.

The City keeps key materials on-site at the City Yard to respond quickly to overflows. Sandbags and sandbagging material, absorbents, absorbent booms and pads are kept for containment and cleanup. Pipeline plugs for pipe sizes of 6 inches to 36 inches are kept on site for containment and repairs. Two 6-inch pump and flexible hosing are kept in inventory for local bypass operations or pumping of overflows back into the sanitary sewer.

Through the Sewer Fund the City has provided funding for sanitary sewer system operation, maintenance and improvement projects. To provide a higher level of funding to more quickly implement sewer system improvements, the City also increased the sanitary sewer surcharge beginning with the June 1998 Monterey One Water billings and issued municipal bonds that were dedicated for this purpose.

Funding sources for ongoing sewer system operation, maintenance and improvements include:

- Sewer system operation and maintenance would continue to be funded from sanitary sewer surcharge revenues.
- Capacity projects needed solely for future development would be funded by developer fees.
- Capacity projects to correct existing deficiencies and improvements to rehabilitate/replace existing sewers may be funded by several sources such as: another increase in sewer surcharge, another municipal bond issue, federal/state loans or grants (e.g., economic stimulus funds and other programs), and assessment districts. The City will determine the appropriate mix of funding sources, as part of updating its sewer rates and fees subsequent to the Master Plan.

Preventive Operation & Maintenance Activities

Prioritization of Activities

The main goal of the Sewer Management Plan that is required by the WDR is to prevent overflows and to provide a plan and schedule for measures to be implemented to prevent overflows. Activities proposed by the City in the Sewer Management Plan will be prioritized based on their usefulness and effectiveness in meeting this goal. The City will focus its efforts on those activities that are most effective in preventing overflows.

Objectives to be considered in prioritizing activities will include:

Prevent any discharges from reaching surface waters. Surface waters that may be affected by discharges from the City include: Santa Rita Creek, Gabilan Creek and tributaries, Natividad Creek and tributaries, Markley Swamp, Reclamation Ditch 1665, and the Salinas River.

Prevent discharges from reaching the storm drain system and completely contain and clean any discharges that do reach the storm drain system before such discharges reach surface waters.

Prevent dry weather overflows from public sewers.

Prevent wet weather overflows from public sewers.

Prevent overflows from private laterals.

The City's drinking water supply is solely from groundwater wells maintained by the California Water Service Company and Alco Water Service. This supply is not impacted by potential overflows.

The City maintains sanitary sewer overflow records in accordance with SWRCB requirements. This information includes but is not limited to location, date, time, quantity of spill and cleanup activities. Sanitary Sewer Overflows are reported to CIWQS the States online reporting system. As this comprehensive information is collected over time, it can assist in illustrating trends in overflows, such as problem locations, frequency, and volume. The information collected to date has been useful in formulating the City's "High Priority" program that is discussed in the next section.

O & M Activities

The elements of the City's sewer system O&M program include: Proactive, preventive, and corrective maintenance of gravity sewers; CCTV inspection; Rehabilitation and replacement of sewers that are in poor condition; and routine inspection and preventive maintenance for the pump stations.

The City's maintenance program addresses the following elements to various degrees, although in an informal manner:

- Preventive maintenance – identifying and fixing system weaknesses which, if left unaddressed, could lead to overflows;
- Corrective maintenance – fixing system components that are functioning but not at 100% capacity/efficiency, e.g., partially blocked lines;
- Emergency maintenance – reactive maintenance, overflows, equipment breakdowns.

As part of the Sewer System Management Plan implementation, the City has developed a more formalized Operation and Maintenance Plan for the sanitary sewer collection system. The maintenance plan addresses the following components identified in the WDR:

- The City implements a system for scheduling regular maintenance and cleaning of collection system, rotating through the City over time.
- The City implements a system for identifying known problem areas and scheduling more frequent cleaning at these locations. Priority has been given to identifying and servicing areas requiring increased maintenance over routine maintenance activities. This has resulted in an increased hotspot maintenance list. The City has incorporated more efficient cleaning methods that are anticipated to free more time for routine work.
- The City implements a tracking system for recording maintenance activities. The City currently uses Q-Alert System which are electronically completed in response to requests for service by residents or other departments. Routine maintenance is conducted as described below according to schedules established by the Wastewater Manager and Wastewater Crew

Supervisor and documented on maintenance forms developed by the Department. Examples of current maintenance record forms are included in the exhibits with this Chapter.

- Procedures for coordinating with contractors responsible for sewer system collection system cleaning and maintenance. The City does not typically contract cleaning and maintenance of the collection system. Contracting is done only for the purpose of supplementing the ongoing maintenance effort when required or in response for specialized equipment not in the City's inventory. Contract work is accomplished with ongoing oversight from City staff.

Current City maintenance activities are summarized below. Current maintenance procedures may be subject to change as more effective measures may be identified while developing and implementing the sanitary sewer management plan.

City staff currently conducts regular maintenance of the City's 11 sewer pump stations. SSMP Appendices, Appendix A lists the sewer pump stations. As indicated in Appendix A, 7 stations have backup generator power. In addition, the City maintains 5 portable (towable) diesel powered generators to provide emergency power to those stations not equipped with permanent on-site electrical generators. This gives effective coverage of all sanitary lift stations and reduces the potential for overflows during power outages. Priority is given to lift stations with the highest flow potential reserving towable generators for lower flow stations that present less of a threat for overflow during the loss of power to the station. To insure redundancy in the system lift stations, retain towable generator hookups in the unlikely event of a permanent generator failure.

The 4 highest flow sewer lift stations are inspected daily. All other sewer lift stations are inspected two to three times weekly depending on work schedule. The City has a pump maintenance mechanic log book to log maintenance activity at the sewer pump stations and also keeps records on a surface pro laptop for use in the field. Routine maintenance includes but is not limited to: inspection of electrical panels, pump and level controls, air compressors, wet well and dry well conditions and pump motor operation. Site visits for maintenance activities are logged on the example worksheet provided below. This worksheet also includes maintenance visits performed at storm water lift stations and on miscellaneous small pumps throughout the City. In the absence of the pump mechanic other maintenance personnel are cross trained to address any lift station problems. Appendix B provides an example of the pump maintenance inspection record and maintenance checklist.

City staff conducts an extensive program of sewer cleaning and inspection that has generally focused on known problem locations, which are discussed further below. The Departments goal is to service high priority problem areas approximately 3 days of each week, while general collection system maintenance is to be conducted 2 days weekly. Throughout the year, priority is given to areas requiring increased maintenance. Other maintenance may include response to problems, citizen complaints, or construction projects. A field worksheet is kept by maintenance staff to record completed maintenance activities. During 2014-2019, City staff cleaned approximately 3,431,817 LF (the equivalent of 650 miles) of sanitary sewer pipe that includes some routine and the repetitive nature of the high priority list of locations requiring more frequent maintenance.

SSMP Appendices, Appendix A, Operations and Maintenance, provides examples of the Sanitary Sewer Overflow Report Form, High Priority Pipeline Maintenance List, City's daily sewer maintenance log, sewer manhole inspection checklist, and an example monthly summary report of Wastewater Division activities updated for 2019.

The City's Wastewater Supervisor maintains "high priority" lists of problem areas needing additional maintenance and cleaning. This list, developed over a long period of time, identifies problem locations for blockages that may potentially lead to overflows. Lists are based on the required frequency of maintenance to avoid blockages. Currently, a quarterly high priority maintenance list is maintained and based on SSO data the list is adequate to minimize sanitary sewer overflows. The locations on the list are grouped by area – East Salinas, West Salinas, North Salinas and South Salinas. The list shown is the current list but is for example purposes only and is a dynamic list that is revised as needed. The lists show the specific locations to be serviced, and the length of pipe. SSMP Appendices, Appendix A contains the quarterly "High Priority" Maintenance List. The high priority list is updated regularly as the need for additional maintenance is identified through SSO's or discovery during maintenance activities.

City maintenance staff (2-person crew) currently conducts manhole checks one or two days per week in problem areas. The purpose is to open manholes in High Priority areas to identify and clean slow running pipes or blockages before overflows can occur. The majority of the problem locations are in the east side of the City, primarily in smaller 6-inch pipes. This has proven to be effective activity in identifying potential system issues allowing for early resolution of identified problems.

The City's Wastewater Division staff, which includes Sanitary Sewer, Storm Sewer, Street Sweeping and Industrial Waste Facility personnel, participate in plan reviews for new construction and improvement projects to ensure compliance with the City's sanitary sewer requirements. The City's Public Works Department staff also review plans for compliance with all City requirements for proper design of new sewers and connections and prohibitions on inflow sources, as well as inspect construction projects to ensure that plan provisions are implemented.

As part of the SSMP, the City has formalized a maintenance plan through its hotspot program that will address overflows, accommodate the needs of the City, and rotate through the City over time. The City's goal is to provide 2 days of routine maintenance each week, and 3 days of high priority maintenance. Staff has generally deferred to hotspot and higher maintenance areas with available resources to more effectively address the programs goal to reduce or eliminate overflows. Staff is working with new cleaning methods that may reduce the overall time needed to address higher maintenance areas and may allow the development of a more prudent routine program.

For routine maintenance, City crews will rotate through the City by area with field maps and use the web based geo-cortex sanitary sewer application using surface pro laptops to show areas covered. Routine maintenance will include hydro-flushing sewer lines in the area, and pressure wash manholes if needed. During all maintenance wash water is kept within sanitary sewer system and conveyed to the wastewater treatment plant. Pipelines and manholes are vacuumed out if necessary to prevent overflows that might reach storm drain system. All areas are prioritized for frequency of maintenance, e.g., some areas historically have few problems while others require more frequent maintenance.

As discussed earlier in this section under Collection System Map, the City's sewer system mapping and maintenance tracking is a collaborative effort by the City's Engineering and Transportation Division, Information Systems, GIS, and Environmental and Maintenance Services Division of Public Works. A GIS database/tracking system has been established to track maintenance of the sanitary sewer system. Contract services may be used for major field work needed to complete the project. Existing municipal maintenance and overflow information will be incorporated into the database/tracking system. The database will include completed maintenance work and a record of problem areas to facilitate maintenance planning and oversight. The City evaluated appropriate actions

to address infiltration/inflow from manholes and manhole covers that are in flow lines or low areas. This condition affects a small number of locations as most manholes are near the center of streets as rainwater drains away from the covers and is not considered to offer infiltration of significant concern. Applicable locations and actions will be assessed during routine maintenance activities and steps taken to seal or reduce the potential for infiltration/inflow to the sewer system at affected locations. To date, the City has placed manhole lids with watertight lids in low areas of water retention such as the Carr Lake storm water detention area to reduce infiltration/inflow. The City also routinely replaces broken lids and raises manhole lids to grade.

Rehabilitation and Replacement Plan (Item C)

The City has made an extensive effort over the past years to identify and correct collection system deficiencies that may result in system overflow and downstream pump station failure. The City has been conducting field investigations of the sewer collection system in order to identify rehabilitation needs.

In 2012 the City issued a Sewer Bond that provided $5,917,580 to fund the City's effort to repair and/or rehabilitate (interior pipe lining) old sanitary sewer pipes and manholes that are deteriorated, damaged, and/or fractured/broken. Capital Improvement Program (CIP) Project No. 9126 was developed for the rehabilitation of sanitary sewer pipelines and manholes at various locations within the older parts of the City. CIP 9126 – Phase 1 repaired/rehabilitated and/or replaced existing underground sanitary sewer pipelines and manholes along Pajaro Street (between East Romie Lane and East Market Street); and the following streets: Hawthorn Street, East Acacia Street, Oak Street, Pine Street, Willow Street, Chestnut Street, Maple Street, Harvest Street, Winham Street, East San Luis Street, East Gabilan Street, and Melody Lane, including rehabilitation of manholes, and removal and replacement of old manhole frames and covers at various locations throughout the City.

Phase 2 - Sanitary Sewer Pipeline and Manhole Repair/Rehabilitation project (CIP No. 9126) was also funded with the 2012 Sewer Bond. The repair and/or rehabilitation were performed on the sanitary sewer lines and manholes along the following streets:

Table A

Item No.	Street Name	Limits
1	Alisal Street	Capitol Street to Front Street
2	E. San Luis Street	Harmony Lane to east end
3	Gabilan Street	Lincoln Avenue to Lodge Lane
4	Central Avenue	Salinas Street to Lincoln Avenue
5	Lincoln Avenue	Central Avenue to Clay Street
6	Harmony Lane	(entire length)
7	Monterey Street	John Street to E. Gabilan Street
8	Lodge Lane	E. Market Street to E. San Luis Street
9	Greenfield Alley	(entire length)
10	Soledad Street	E. San Luis Street to about 440 feet south
11	Gonzales Alley	(entire length)
12	California Street	E. San Luis Street to about 450 feet south
13	California Alley	E. San Luis Street to north end
14	Front Street	E. Alisal Street to Summer Street

These streets were selected because these locations have maintenance problems, and located in the oldest part of the City.

Since 2014, the City has implemented over $6 million of sewer system rehabilitation and improvement projects, as shown in the following table.

Sanitary Sewer System Rehabilitation/Improvement Projects Implemented since 2014						
City Project No.	**Street Location**	**Type of Project**	**Diameter (inches)**	**Length (feet)**	**Estimated Cost**	**Status as of September 2019**
Pipe Projects						
Completed						
9126 - 1	(See above narrative)	Repair and/or rehabilitation of sanitary sewer pipes and manholes	varies	28,000	$3,520,558	Completed
9126 - 2	(See above Table A)	Repair and/or rehabilitation of sanitary sewer pipes and manholes	varies	20,000	$2,282,888	Completed
Total for Pipe Projects				***48,000***	***$5,803,446***	
Pump Station Projects						
	Lake Street Pump Station Repairs	Pump station repairs and upgrades	NA	NA	$600,000	Completed
Total for Pump Station Projects					***$600,000***	

Sanitary Sewer Master Plan Update

The 2011 Sanitary Sewer Master Plan is the most recent Master Plan update addressing the City's sanitary sewer system and included all sanitary sewer trunk lines and sewers 10-inches and greater in diameter and City-owned sewer pump stations that are fed by the master plan pipe system. The master plan investigated deficiencies and identified necessary improvements for the sanitary sewer system. The master plan findings, in conjunction with the field data on the existing system conditions, were used by the City to formulate and prioritize capital improvements projects to correct existing deficiencies and provide service for future growth.

The Sanitary Sewer Master plan update was based on the City's 2002 General Plan, development planning, and preliminary planning information available at the time of the update.

The master plan includes development of a city wide sanitary sewer system model (10-inch and greater diameter) for existing and projected future development, development of wastewater flow projections, use of the model to identify and analyze required improvements, and development of capital improvement program recommendations based on the analysis results. The Sanitary Sewer Master Plan is available upon request.

It is anticipated that system operation and maintenance would continue to be funded from sanitary sewer surcharge revenues. Currently (2019), there is a Capital Improvement Plan to update the 2011 Sanitary Sewer Master Plan.

Scheduled Inspection and Condition Assessment

The City's goal is to inspect the condition of its gravity sewers of 18 inches and smaller on a 7-year cycle. Beginning in 2014 the City updated its CCTV truck to a CD and Hard Drive based system to replace the older VHS tape system. During 2019 City staff recommended upgrading CCTV van and P.O.S.M software with P.O.S.M Pro Winlogger 2 and rackmount computer to enable wireless downloading of video to a centralized share folder for engineering staff and collection staff viewing. This project is anticipated to be completed in 2019. During 2019 staff purchased and incorporated the Cleanview camera system onto one of the existing Hydro Jetting Vac-con trucks to inspect while servicing sanitary sewer lines. This system has enabled the division to inspect and collect video data while performing routine sewer maintenance. Also during 2019 City staff secured funding and council approved the purchase of two Model 800-HPRTV ECO Jetter/Camera Unit. This Jetter/Camera unit will enable collections staff to service sanitary sewer lines and capture video at the same time. CCTV pipeline inspections are conducted by contract for major pipeline project and by maintenance staff for the purpose of inspection and maintenance. The information gathered during the maintenance assessment may also be used to select individual gravity sewers for repair/rehabilitation/replacement. This information will be prioritized and submitted for repair/rehabilitation or replacement. Decisions on actions to be taken will be a joint effort of the Environmental & Maintenance Services Division and the Engineering Division of Public Works.

Visual assessments are conducted during routine maintenance activities as maintenance crews look for debris, sand, mud, rock or pieces of pipe that might indicate a pipeline problem. CCTV inspections are scheduled if a compromised condition appears to exist.

The City plans projects for rehabilitation and replacement of its sanitary sewer system. The funds that support the Capital Improvement Program come from the City's Sewer Fund. The Sewer Fund is an enterprise fund and provides funds for Capital Improvements and Operations and Maintenance. Current CIP projects and budgets are summarized in the SSMP Appendices, Appendix A.

Training (Item D)

The City uses a combination of in-house classes; on the job training; and conferences, seminars, and other training opportunities to train its wastewater collection system staff.

Long-term senior experienced City staff provide in-house training regarding sewer collection system operations, maintenance and monitoring. Training is accomplished by a combination of initial orientation, monthly "tailgate" training sessions, and on-the-job training.

New sewer maintenance employees receive a first day orientation and safety training. The monthly tailgate training sessions and individual instruction include discussion of the following items at various times:

1. **Sanitary sewer regulatory requirements,**

- Sanitary System Management Plan
- WDR Permit Requirement Training

2. **Maintenance and operation procedures,**

- Standard Operating Procedures

- Emergency Response Plans for Lift Stations
- Hydro Jetting Training
- Vacuuming Combination Unit Training
- Underground Utility Locating Training
- Closed Circuit Televising Training
- By Pass Pumping Training
- Plugging Sewers Training

3. **Reporting and monitoring requirements,**

- Data Submitter and Legally Responsible Official Training
- State Database CIWIQS Training
- SSO Documentation Training
- Water Quality Monitoring Training
- Overflow Emergency Response Plan Training
- Spill and Flow Estimation
- Certified CCTV Inspection Training
- Sewer Overflow and Backup Response Training

4. **Safety issues, including sewer gases and exposure to sewage.**

- Confined space entry.
- Lockout Tagout Training
- Atmospheric Air Monitoring Equipment Training
- First Responder Awareness Training
- Hazmat General Response Training

The Wastewater Manager or Wastewater Supervisor conducts the initial orientation, tailgate training sessions, and individual instruction.

New employees receive on-the-job training as part of a team supervised by an experienced senior staff person. Training continues while proficiency performing each job task is determined, prior to conducting unsupervised field operations. The new employee's role on the team is as a helper to the more experienced senior staff persons, with review by the Crew Supervisor and Wastewater Manager. Annual training is being implemented and topics may include but are not limited to:

- Operations and Maintenance of Sanitary Sewer Systems (video)
- Lockout Tag out
- Operation of Wastewater Lift Stations
- Lift Station Emergency Generator Hookup
- Confined Space Training
- CPR/First Aid Training
- Pesticide Use and Safety including Hazardous Material spills and cleanup
- NPDES / BMP Training (BMP Packets/Video)

- Haz Mat Training – First Responder – Hazmat Containment Procedures
- Annual Environmental Compliance Workshop - a joint venture of the Monterey County Environmental Health Department and the City of Salinas.

The Wastewater Crew Supervisor keeps a training log for each maintenance employee, and also documents training in annual performance reviews.

Outreach to Sewer Service Contractors

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

The City participates in the Southern Monterey Bay Dischargers Group a regional outreach program to provide information on proper fats oils and grease disposal. The Dischargers Group is a consortium of wastewater collection system owners and wastewater treatment jurisdictions located in northern Monterey County. Collection system owners are responsible for maintaining their sewer lines and preventing overflows to protect the public health and the environment. Public education is a component of each agency's Sanitary Sewer Overflow Prevention program. The public education component includes an assortment of print, theater, internet and radio ads focused on the proper disposal of fats, oils and grease. The Dischargers Group maintains a website, www.Clogbuster.org that provides information on the proper disposal of fats, oils and grease, reporting of spills. The Clogbusters website provides a list of plumbing contractors that have participated in Spill Prevention Partnering Workshops funded by the City of Pacific Grove and/or the Monterey Bay National Marine Sanctuary. The workshops provided best management practices for plumbers to prevent sewage main line backups and ways to work cooperatively with local public works departments and sewage collection system jurisdictions.

Participating members in the Southern Monterey Bay Discharges Group and Clog Busters participants are listed below.

City of Salinas
(831) 758-7233 | Fax: (831)758-7940
200 Lincoln Ave, Salinas, CA 93901

California American Water Company
1-888-237-1333
PO Box 951, 50 Ragsdale Dr. Ste 100, Monterey, CA 93942

Carmel Area Wastewater District
(831) 624-1248 | FAX (831) 624-0811
PO Box 221428, Carmel, CA 93922

Castroville Community Service District
(831) 633-2560 | FAX (831) 633-3103
PO Box 1065, 11499 Geil St, Castroville, CA 95012

City of Monterey
(831) 646-3920 | Fax: (831) 646-3467
City Hall, Monterey, CA 93940

City of Pacific Grove
(831) 648-3100 | Fax: (831) 375-9863
Pacific Grove City Hall, 300 Forest Ave, Pacific Grove, CA 93950

County of Monterey Public Works Department
(831) 755-4800 Fax: (831) 4958
168 W Alisal St, 2nd Floor, Salinas, CA 93901

Marina Coast Water District
(831) 384-6131 | FAX (831) 384-2479
11 Reservation Rd, Marina, CA 93933

Monterey One Water
Salinas (831) 422-1001 | Monterey (831) 372-3367 | FAX (831) 372-6178
5 Harris Ct, Bldg D, Monterey, CA 93940-5756

Contingency Equipment and Replacement Inventories (Item E)

The City maintains 5 portable towable diesel powered generators to provide emergency power to sanitary sewer lift stations not equipped with permanent on-site electrical generators. This gives effective coverage of all sanitary lift stations and reduces the potential for overflows during power outages.

The City keeps an inventory of key replacement parts for the sewer lift stations, so breakdowns and malfunctions can be repaired quickly to avoid potential overflow situations. A spare motor controller, air compressor, alarm dialer, air lines and misc. minor parts are kept in inventory for repairs to lift stations. A lift station maintenance truck with an overhead lift boom and power winch is used to carry a full complement of tools and minor repair parts. A backup 30 horsepower pump motor is kept for emergency backup of the highest flow station at Lake Street. Additional motors are stored for backup to multiple lift stations. Spare manhole risers and covers are kept in inventory for repairs in the streets. Emergency contact numbers for local parts vendors and contractors are available for emergency response to pipeline and other system repairs

The City owns the necessary equipment to respond to most overflow situations. This equipment includes hydro/vac flushers, pumps, temporary bypass hoses, and portable generators. The City also maintains contact information, with contractors and businesses that can be called in response to a major event.

The City keeps key materials on-site at the City Yard to respond quickly to overflows. Sandbags and sandbagging material, absorbents, absorbent booms and pads are kept for containment and cleanup. Pipeline plugs for pipe sizes of 6 inches to 24 inches are kept on site for containment and repairs. A 6-inch pump and flexible hosing are kept in inventory for local bypass operations or pumping of overflows back into the sanitary sewer.

Standard Operating Procedure for Sewer Cleaning

Purpose

The purpose of this Standard Operating Procedure is to ensure that sewer cleaning is performed in a manner that will produce a high quality work product. Quality is important because it ensures, to the extent possible, that the sanitary sewers will not experience problems prior to their next scheduled cleaning.

Goal

The goal of cleaning a gravity sewer is to restore the flow area to 100% of the original flow area of the pipe.

Required Equipment and Tools

1. Personal protective equipment (steel toe boots, gloves, eye/face protection, hearing protection)
2. Calibrated gas detector
3. Proper safety cones/barricades/flagging/signs or other traffic control devices
4. Confined space equipment – tripod, harness, and ventilation blower
5. Sanitary sewer system map book
6. Combo (jetter/vacuum) truck
7. Cleaning nozzles, chain flail and (root saw by contracted services if required)
8. Debris traps in the sizes that will be encountered during the day or vacuum tubes for debris removal
10. Manhole hook or pickaxe
11. Measuring wheel (available through the Wastewater Crew Supervisor)
12. Disinfectant hand cleaner

Required Forms

COLA inspection form for commercial vehicle

Hotspot or routine cleaning documentation form

Procedures for Sewer Cleaning Crew

Cleaning of gravity sewers

1. Plan the work so that it starts in the upstream portion of the area and moves downstream.
2. Wherever possible, plan to clean sewers from the downstream manhole.
3. Inspect the sewer cleaning nozzles for wear. Replace nozzles that are excessively worn.
4. Routinely inspect service hose and couplings for damage or wear.

At the Jobsite

1. Wear proper personnel protective equipment (PPE).
2. Fill the water tank at a California Water Company system hydrant at or near the jobsite.
3. Determine and confirm location of upstream and downstream manholes (use system maps)
4. When using the vacuum boom look for any overhead utilities that may come into contact during the cleaning operation.
5. When setting up the Hydro/Vac truck in the street ensure that all warning lights, flashers and the traffic directional arrow board is active on the service truck.
6. Set up proper traffic control by placing traffic signs, flags, cones, and other traffic control devices as required.
7. Operate the cleaning unit inside the traffic control area so that the hose reel is positioned over the manhole.
8. Open the manhole and allow manhole to vent before proceeding with the cleaning operation.
9. Install the appropriate sewer cleaning nozzle consistent with the maintenance goal. (Routine flushing, grease or root removal)

Cleaning Operation

1. Insert a debris trap or use vacuum tube if debris is verified during the cleaning process.
2. Lower the hose, with a guide or roller to protect the hose, into the manhole and direct it into the sewer to be cleaned.
3. Open the water valve and increase pump pressure to allow the hose to proceed up the sewer. The hose speed may be determined by the operator dependent on determined pipe cleaning conditions or cleaning method desired.
4. Set pump pressure to provide adequate pressure for the sewer cleaning operation.
5. As a general guideline, allow the hose to proceed 25% of the length of the sewer (or 50 feet minimum) and pull the hose back.
6. Observe the nature and the quantity of debris pulled back to the manhole.
7. If there is little or no debris, allow the hose to proceed to the upstream manhole.
8. If there is moderate to heavy debris, clean the remaining portion of the sewer in steps not to exceed 50% of the length of the sewer (or 50 feet minimum).
9. Open the upstream manhole or verify measured hose length and the length of pipe segment and verify that the nozzle is at or past the manhole.
10. The sewer has been adequately cleaned when:

    Successive passes with a cleaning nozzle do not produce any additional debris, and the sewer nozzle in use easily passes through the pipeline without obstruction.

11. If nature and quantity of debris removed during the cleaning operations indicates a condition problem, report information to the Wastewater Crew Supervisor for follow-up.
12. Remove the debris (if present) from the manhole using the vacuum unit.

13. Rewind the hose on the reel.
14. Remove the vacuum unit or debris trap.
15. Clean surfaces or manhole interior if needed and close the manhole. Ensure that the manhole is properly seated.
16. Enter the results on the cleaning record.
17. Move the cleaning unit, break down and stow the traffic controls.
18. Proceed to the next cleaning jobsite.

At the End of the Day

1. Inspect the equipment and tools for problems.
2. Report any problems with equipment, tools, or sewers that were cleaned during the day to the Supervisor.
3. Submit daily work reports to the Supervisor at end of shift.

Sewer System Management Plan
Section V - Design and Performance Provisions

A. Introduction

The City's design and construction standards are used by the City staff and are communicated to consulting engineers and/or developers at the start of a design process or proposed development.

B. Regulatory Requirements for the Design and Performance Provisions Section

The regulatory requirements for the Design and Performance Provisions section are:

GWDR Requirement (Design and Performance Provisions):

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

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

Design Criteria (Item a)

The City's design criteria for new and rehabilitated sewers are specified in the ***City of Salinas*** **Standard Specifications, Design Standards and Standard Plans**, 2008 Edition. An electronic copy of the City of Salinas Standard Specifications, Design Standards and Standard Plans, 2008 Edition. Is available on the

City of Salinas web site at: https://www.cityofsalinas.org/our-city-services/public-works/development-engineering

Procedures and Standards (Item b)

The City's construction standards are specified in the City of Salinas Standard Specifications, Design Standards and Standard Plans, 2008 Edition (Standard Specifications). Inspection and testing procedures are included in the Standard Specifications. Specific standards for testing pipeline installations new and rehabilitated are embedded in Section 71 Sewers of the Standard Specifications.

Sewer System Management Plan
Section VI - Sanitary Sewer Overflow Response Plan

A. Introduction

The City of Salinas, Wastewater Division of the Environmental & Maintenance Services Division of Public Works is responsible for the operation and maintenance of the sanitary sewer system. The City of Salinas collection system is mostly gravity fed with 11 Sanitary Sewer lift stations. Monterey One Water maintains a single lift station in south Salinas. This station pumps an average of twelve million gallons per day (MGD) of untreated sewage to the Monterey One Water Treatment Plant in Marina, Ca.

1. Purpose

The Sewer Collection System Overflow Response Plan is designed to ensure that every report of a confirmed sanitary sewer overflow (SSO) is immediately dispatched to the appropriate crews. This plan provides a procedure that, when enacted in response to the sewer overflow/spill, reduces or eliminates public health hazards, prevents unnecessary property damage, and minimizes the inconvenience of service interruptions. This plan provides procedures for City staff to follow in responding to, cleaning up, and reporting SSOs.

2. Safety

Whenever qualified City personnel respond to a report of an overflow/spill, they may encounter an emergency situation that requires immediate action. The most critical aspect of resolving an incident of this nature is to safely and competently perform the actions necessary to return the system or facility to normal operations as soon as possible.

The most important item to remember during this type of incident is that safe operations always take precedence over expediency or shortcuts.

Upon arrival at an SSO, the Wastewater Duty Person will conduct a hazard assessment to determine potential safety hazards. There is always a possibility that a sewage overflow may contain unknown hazardous waste or chemicals. If a hazardous waste is suspected the responding field crew will immediately request the Fire Department's Hazardous Materials Response Team.

The Wastewater Supervisor should be notified as soon as possible. Personnel shall stay clear of any hazards and secure the area from the public.

Depending on the nature or cause of the SSO, personnel may be required to remove a mainline blockage with a hydro-flusher, repair a damaged section of pipeline, or wash/clean a City street. At this point, it is essential that all standard safety procedures and/or duties are followed as deemed appropriate.

Typical responses may require personnel to implement the following types of safety procedures:

a) Standard personal protective equipment;

b) Lock-out/tag-out of equipment for repairs;

c) Confined space entry procedures;

d) Traffic control;

e) Adequate communication via handheld radio or cellular telephone.

B. Regulatory Requirements

GWDR Requirement

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

a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;

b) A program to ensure appropriate response to all overflows;

c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the Monitoring and Reporting Program (MRP). All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board Waste Discharge Requirements or National Pollutant Discharge Elimination System (NPDES) permit requirements. The Sewer System Management Plan should identify the officials who will receive immediate notification;

d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;

e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and

f) A program to ensure that all reasonable steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to Waters of the United States and minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

C. Sanitary Sewer Overflow Response

City of Salinas Overflow Emergency Response Plan

The City of Salinas has an emergency response plan for the sewer system that was updated July 15, 2019 that addresses all the WDR requirements. The complete Overflow Emergency Response Plan is in Appendix D of this document. A copy of the OERP is also available on the City of Salinas website at https://www.cityofsalinas.org/sites/default/files/salinas_oerp_7-15-19.pdf

Sewer System Management Plan
Section VII - FOG Control Program

A. Introduction

This section of the SSMP presents the results of an evaluation of the extent and nature of SSOs related to Fats, Oils, and Grease (FOG), the need for a FOG Control Program, and outlines the elements of the City's FOG Control Program.

B. Regulatory Requirements for FOG Control Section

The requirements for the FOG Control section of the SSMP are:

GWDR Requirement

The collection system agency shall evaluate its service area to determine whether a FOG control program is needed. If the collection system agency determines that a FOG program is not needed, the collection system agency must provide justification for why it is not needed. If FOG is found to be a problem, the collection system agency must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. The FOG source control program 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 grease removal devices, maintenance requirements, best management practices (BMP) requirements, record keeping and reporting requirements;
e) Authority to inspect grease producing facilities, enforcement authorities, and determination of whether the collection system agency has sufficient staff to inspect and enforce the FOG ordinance;
f) An identification of sewer system sections subject to FOG blockages and the 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 sewer system, for each sewer system section identified in (f) above.

Background on City Grease Program

The City of Salinas currently has approximately 274.25 miles of sanitary sewer pipelines. The service area includes a variety of residential, commercial and industrial facilities. Primary focus of an effective grease program will include commercial food service/preparation facilities.

Commercial facilities may include but are not limited to restaurants, sandwich shops, delicatessens, bakeries, cafeterias, markets, caterers, retirement and nursing homes. Establishments that are identified as not participating in the preparation of food on premises or processing food in a manner so as to contribute grease to the sewer system will not be included in the source control program. The food service grease source control inspection list is derived from business license inventory. The inventory currently identifies approximately 431 food service facilities. All were inspected in FY2011-2012 inspected to determine inclusion into the grease trap source control inspection program. Many of the facilities listed are involved in retail sales of food products and not food preparation. The City is working from this list to identify problem locations and the need for appropriate grease pretreatment equipment. The Monterey One Water assists the City with pump out requirements when a problem is identified. The City determines the need and sizing of grease traps and interceptors based on the latest version of the Uniform Plumbing Code. During 2019 staff contracted Monterey One Water to assist with FOG inspections of commercial food facilities based on 303d priority, maintenance issues and past problems. It is anticipated that approximately 170 inspections will be completed during 2019-2020 physical year.

Public Education Outreach (Item a)

The City is participating in the Southern Monterey Bay Dischargers Group partnering with Monterey One Water and other local agencies on a fats, oils and grease program (FOG) and continued participation in an effective public outreach program. The City of Salinas has joined for the 10 year with the Group to develop a regional public education program for users of the system for the purpose of reducing grease problems in the collection system.

The education campaign typically includes newspaper ads (three in English, one in Spanish), radio ads on two local stations and theaters ads in a major Salinas movie outlet. The Southern Monterey Bay Discharges Group directed resources to a multi-agency web site which was completely updated in 2018 for fats, oils and grease information at www.clogbusters.com. The regional program will be modified yearly as conditions warrant.

The City of Salinas continued the cooperative educational outreach by funding a significant portion of the regional program in each of the subsequent program years. The educational program will continue in FY 18-19 and FY 19-20. The total cost of the regional education program is shared between the members by population. The City of Salinas continues to participate by funding approximately 52% of costs for the regional grease source control education program. The City's participation is critical to the regional effort as the program is prohibitively expensive for the other participants to finance the program independently.

Current public education efforts provided by Monterey One Water outreach coordinator for the Southern Monterey Bay Dischargers Group are included in the SSMP Appendices, Appendix C section of this document.

FOG Disposal (Item b)

The WDR requires that the City investigate alternative disposal methods for grease and fats.

The table below shows grease haulers currently located in the Monterey/Salinas area that accept grease and fat for disposal, recycling or rendering. These haulers currently provide disposal capacity for grease and fats generated within the sewer system service area.

Monterey One Water Located in Marina, California, is the Regional Disposal Site for fats, oils, and grease pumped from grease interceptors. Monterey One Water recycles the material for energy use to power their co-generation power plant Contact information on these haulers and their services are included in the table listed below. Sequential Recycling Center is a disposal location for restaurant fats oils and grease. The facility is open from 8 am to 5 pm Monday through Friday. The following companies are listed as Grease Haulers for Monterey County at the CalFog website, www.calfog.org/Hauler.html

Grease Haulers in Monterey County ****Sites that except FOG for disposal, recycling or rendering***	
All Valley Environmental, Inc.	(559) 498-8378
Ameriguard Maintenance Services	(800) 347-7876 x 14
Bay Pumping	(831) 422-6436
Greenline/Tom's Septic Tank Service	(831) 422-2298
One More Time	(800) 624-5504
P.S.T.S (Peninsula Septic Tank Service)	(831) 659-2465
Pioneer Liquid Transport	(800) 804-7327
Sequential Recycling Center	(800) 447-3794
Trap Recyclers Inc.	(408) 892-3824
Trap Recyclers Inc.	(800) 994-7867
*Sequential Recycling Center Salinas	(831) 422-6436
*Monterey One Water	(831) 424-1108

Locally, grease from both residential areas and food preparation facilities have been found to be contributing factors to grease related blockages in the sanitary sewer system. System blockages are generally attributable to issues of grease, roots or an accumulation of system solids and debris.

Legal Authority (Item c)

See Element IV Legal Authority for specific Information.

The City's current source control program is run in cooperation with the Monterey One Water Source Control Program and relies heavily on Monterey One Water ordinances and requirements. The City's current Municipal Code expressly incorporates all Monterey One Water regulations, including those related to requirements for grease and fats, source control and pretreatment requirements. The City has historically delegated this authority and responsibility to Monterey One Water under the joint powers agreement, and it has been accomplished through the Monterey One Water Regional Pretreatment Program and Regional Oil and Grease Program.

Monterey One Water's authority for the Regional Grease Program is derived from Ordinance 2008-1. The City of Salinas City Code Chapter 36 expressly requires that all users within the City comply with all Monterey One Water regulations.

- Sec. 36-12.2. Compliance with discharge requirements of Monterey One Water. All dischargers into the sanitary sewer shall comply with all the discharge requirements of Monterey One Water. (Ord. No. 2102 (NCS).)

- Section 36-1 acknowledges that the City's sanitary sewer collection system is tributary to the Monterey One Water treatment facility. It states that Monterey One Water implements a pretreatment program for its member jurisdictions (including the City of Salinas).

- Section 36-11 requires that all private sewage disposal system conform with the city plumbing code currently in effect.

- Section 36-12 requires that a City permit be issued for all connection to or use of the public sanitary sewer system.

- Sections 36-12.1 and 36-12.2 state that final approval for a sanitary sewer permit is contingent upon compliance with the requirements of Monterey One Water and that all dischargers into the sanitary sewer must comply with all discharge requirements of Monterey One Water.

- Section 36-16 requires that design and construction of building sewers conform to the requirements of the city plumbing code and the City Design Standards and Standard Specifications currently in effect at the time of installation. (Elsewhere in the City Code, the California Plumbing Code is adopted by reference.)

Requirements to install grease removal devices (Item D)

The City's current Municipal Code expressly incorporates all Monterey One Water regulations, including those related to requirements for grease and fats, source control and pretreatment requirements. The City has also adopted and incorporates the requirements of the California Uniform Plumbing Code. The City of Salinas City Code Chapter 36, Section 36-31 states:

- Section 36-31 requires that grease traps (grease, oil, wax and sand interceptors) be provided when, in the opinion of the director, they are necessary for the proper handling of liquid wastes, sand or other harmful ingredients. All interceptors must be of a type and capacity approved by the director and located so as to be readily and easily accessible for cleaning and inspection. Failure by the owner to clean and maintain the interceptors is sufficient cause for punitive action as provided in the chapter, or for disconnection from the industrial sewer.

The City's Permit Center coordinates with the Monterey One Water Source Control Division to review plans and include source control equipment or upgrades to equipment if needed any time a new business license is issued, an application for a building permit is received, or a change of ownership is filed. Monterey One Water follows through to confirm compliance.

Through its cooperation with the regional grease program, the City therefore requires that facilities follow the Monterey One Water requirements as noted below.

Grease interceptors shall be completely pumped (i.e., dry pumped removing the grease mat, liquids, sludge and wash down material from the interior walls).

Grease traps shall be completely pumped (i.e., dry pumped removing the grease mat, liquids, and solids from walls, screens, baffles and air relief chambers).

Any problems/damage with the interceptor/trap must be reported to the business manager/owner and the Monterey One Water Source Control Division (e.g., missing or broken baffles, screens, and pipes).

Discharge of wastes pumped from a grease interceptor/trap back into the sanitary sewer or the clean interceptor/trap is prohibited.

Bacteria products used in the maintenance of interceptors or traps must be pre-approved by the Monterey One Water. Such products are addressed in a 1995 interagency agreement on the use of grease trap and grease interceptor additives signed by Monterey One Water, the Cities of Santa Cruz and Watsonville, the Santa Cruz County Sanitation District, and the Carmel Area Wastewater District.

SSMP Appendices, Appendix C section of this document contains a copy of an educational outreach document titled "Grease Interceptor/Grease Trap Maintenance Procedure for Food Preparation Facilities" that is posted and available on the Monterey One Water website. The City refers the appropriate businesses to the available information, in order to assist businesses with compliance.

Authority to Inspect and Program Staffing (Item E)

Also See Section III Legal Authority

The City's current Municipal Code expressly incorporates all Monterey One Water regulations, including those related to requirements for grease and fats, source control and pretreatment

requirements. The City has historically delegated this authority and responsibility to Monterey One Water under the joint powers agreement, and it has been accomplished through the Monterey One Water Regional Pretreatment Program and Regional Oil and Grease Program.

The City of Salinas does have in-house inspection staff for food service facilities which was incorporated into the City Storm Water Program. The Monterey County Department of Environmental Health is the designated authority as the City's Health Officer, to inspect for Health and Safety issues. Monterey One Water Source Control Inspectors have inspection authority for grease control equipment and wastewater related issues.

Both the City and Monterey One Water have inspection and enforcement authority regarding discharges to the sanitary sewer collection system. Authority to inspect is embedded in:

- Monterey One Water Ordinance No. 2008-01 - An Ordinance Establishing Regulations For The Interception, Treatment And Disposal Of Sewage And Wastewater; Providing For And Requiring Charges And Fees Therefore; And Fixing Penalties For The Violation Of Said Regulations
- Article 4 – discharge reports, wastewater discharge permits, notification, reporting requirements and administration.

§4.07 Inspection and Sampling – The Agency shall inspect the facilities of any user to ascertain whether the purpose of this Ordinance is being met and all requirements are being complied with. Persons or occupants of premises where wastewater is created or discharged shall allow the Agency's representative ready access at all reasonable times to all parts of the premises for the purposes of inspection or sampling or in the performance of any of their duties. The Agency shall have the right to set up on the user's property such devices as are necessary to conduct sampling or metering operations. Where a user has security measures in force which would require proper identification and clearance before entry into their premises, the user shall make necessary arrangements with their security guards, that upon presentation of suitable identification, personnel from the Agency will be permitted to enter without delay for the purpose of performing their specific responsibilities.

Identification and FOG Maintenance Program (Item F)

Locally, grease from both residential areas and food preparation facilities have been found to be contributing factors to grease related blockages in the sanitary sewer system. System blockages are generally attributable to issues of grease, roots or an accumulation of system solids and debris.

The City has a proactive maintenance program to meet the WDR requirement to identify sections of the sewer system subject to grease blockages and establish a cleaning maintenance schedule for these locations.

The Wastewater Division of the Maintenance Services Department performs daily maintenance activities to the system. The City has developed a proactive maintenance program with the goal of performing routine maintenance two days each week and priority locations three days each week. Deference, when required due to staffing shortage or availability of maintenance equipment, is given to servicing high priority locations over routine maintenance.

The “Sewer Maintenance High Priority List” in Appendix A, Section IV is the maintenance schedule that the City of Salinas Wastewater Division uses for ongoing maintenance of areas that have a history of blockages, buildup or overflows. The list is a dynamic document that may change as problems in some pipeline sections and other sections are identified for additional maintenance. The list consists of quarterly maintenance locations to prevent the potential for sanitary sewer overflows. The actual reason for being on the list varies depending on history of grease buildup, root intrusion, flat lines or unidentified causes. Each location/line segment has been placed on a schedule of quarterly cleaning based on overflow history or estimates of grease buildup or other system problems.

Other maintenance activities include routine maintenance to sewer lines, manhole inspections and system repairs when needed. The city also maintains a Pipeline Inspection Video Truck to assist with identifying system problems.

Source Control Measures (Item G)

The City’s source control efforts to reduce or eliminate FOG related problems in the pipeline sections identified in the ‘High Priority’ maintenance list are addressed through the following actions.

Cooperation with Monterey One Water Regional Pretreatment Program

The City’s current Municipal Code expressly incorporates all Monterey One Water regulations, including those related to requirements for grease and fats, source control and pretreatment requirements. The City has historically delegated this authority and responsibility to Monterey One Water under the joint powers agreement, and it has been accomplished through Monterey One Waters Regional Pretreatment Program and Regional Oil and Grease Program.

The Monterey One Water coordinates with the City permit center to address proper grease control equipment when a new business license is issued, an application for a building permit is received, or a change of ownership is filed. The Monterey One Water works with each business individually and the City’s Permit Center through the Uniform Plumbing Code to identify the proper sizing for grease control equipment. The City continues to work with the Monterey One Water in identifying potential source control problems by coordinating joint inspections when needed to take corrective actions regarding possible impacts to the sanitary sewer system.

Sewer System Maintenance Program

The Wastewater Division of the Maintenance Services Department continues to perform daily maintenance activities and has developed and maintained a long term “High Priority” program that identifies problem areas in the system that are subject to potential blockages from grease, roots or debris. This program is responsive to changing conditions and is updated as needed to address problems as they are identified. The list consists of quarterly maintenance locations as a preventative maintenance measure for sanitary sewer overflows. Other maintenance activities include routine maintenance to sewer lines, manhole inspections and system repairs when needed. The city also maintains a Pipeline Inspection Video Truck to assist with identifying system problems

Grease Source Control Program for Food Service Facilities

In 2019 the City secured contract language and a scope of work for a contractual agreement with the Monterey One Water to conduct the City's commercial FOG source control program inspections. By mutual agreement a final contract for services was approved in July 1, 2019 by the Salinas City Council. Sufficient funds were budgeted to secure the 3-year contract with the Monterey One Water. The City now performs joint inspections with the Monterey One Water on a case by case basis to address compliance with the grease ordinance when grease affecting system operations are identified.

Public Education Outreach

As noted in the Public Education Outreach section above, the City is participating in the Southern Monterey Bay Dischargers Group with the goal of partnering with the Monterey One Water and other local agencies on a fats, oils and grease program (FOG) and continued participation in an effective public outreach program. The City of Salinas has joined for a 10th year with the Group to develop a regional public education program for users of the system for the purpose of reducing grease problems in the collection system.

The education campaign typically includes newspaper ads (three in English, one in Spanish), radio ads on two local stations and theaters ads in a major Salinas movie outlet. The Southern Monterey Bay Discharges Group has directed resources to a multi-agency web site for fats, oils and grease information at (www.clogbusters.com). The regional program will be modified yearly as conditions warrant.

A few examples of typical advertisements used in the FOG Public Education Outreach program are included in the SSMP Appendices, Appendix C.

Sewer System Management Plan
Section VIII - System Evaluation and Capacity Assurance Plan

A. Introduction

This section of the SSMP formally states the System Evaluation and Capacity Assurance Plan. It is important to note that the information included in this Section regarding the 2011 Master Plan, is the preliminary findings of the City's consultant CDM who completed the 2011 Master Plan for the City, which completely updates the previous studies. The results identified in this section are currently in development and have not been presented to the City as a completed document. These results have not been yet been reviewed by City staff. The inclusion of these preliminary findings are intended to demonstrate the City's current efforts to update the City's Sanitary Sewer Master Plan and the findings that will be considered by City Staff.

B. Regulatory Requirements for System Evaluation and Capacity Assurance Section

The summarized requirements for the System Evaluation and Capacity Assurance section of the SSMP are:

GWDR Requirements

The SSO-WDR requirements for the System Evaluation and Capacity Assurance Plan include the following:

The Enrollee shall prepare and implement a capital improvement plan that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. 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 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 limiting capacity) and the major sources that contribute to the peak flows associated with overflow events.

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

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

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.

Previous City Efforts to Identify and Correct Deficiencies

The City has made an extensive effort over the past years to identify and correct collection system deficiencies that may result in system overflow and downstream pump station failure. The City has been conducting field investigations of the sewer collection system since the 1980's in order to identify rehabilitation needs. In the late 1980's and early 1990's, the City smoke tested the sewer collection system in East Salinas for evidence of infiltration/inflow; since this area had a higher incidence of older pipes and blockage problems.

In 1998, the City conducted video inspection for all 18-inch and larger pipes that had not been recently inspected, and compiled a database of inspection logs and videotapes. The City also hired a consultant to evaluate major concrete pipes and identify those prone to collapse.

In 1997-98, the City contracted for a comprehensive master plan study of the major components of the sewer collection system. The 1998 Sewer Master Plan Study updated the City's 1992 Sanitary Sewer Master Plan that had been an update of the 1972 Sewage and Drainage Survey. The 1998 Master Plan included all sanitary sewer trunk lines and sewers 10-inches and greater in diameter and City-owned sewer pump stations that are fed by the master plan pipe system. The master plan investigated deficiencies and identified necessary improvements for the sanitary sewer system. The master plan findings, in conjunction with the field data on the existing system conditions, were used by the City to formulate and prioritize capital improvements projects to correct existing deficiencies and provide for future growth.

Based on the 1998 Master Plan recommendations, the City has implemented significant sewer improvements that have both replaced poor condition sewers and increased capacity of those sewers. Since 1999, the City has implemented $30 million of sewer system improvement projects, as shown in the following table. Additionally, the City made approximately $6,000,000 in pipeline and manhole rehabilitation projects in 2015 as noted

Major Sewer System Improvement Projects Implemented since 1999						
City Project No.	**Street Location**	**Type of Project**	**Diameter (inches)**	**Length (feet)**	**Estimated Cost**	**Status as of April 2009**
Pipe Projects						
Completed						
9619	Kipling Sewer Trunk line	Replacement - Direct Bury	42	8,300	$4,131,000	Completed
9846	Davis Road Lateral "D"	Replacement - Direct Bury	48	975	$456,000	Completed
9846	Davis Trunk System	Replacement - Direct Bury	54	12,000	$6,019,000	Completed
9847	Blanco Sewer Trunk System	Pipe Liner	24, 30	4,125	$860,000	Completed
9852-A	Blanco Sewer Trunk – E. Blanco Road	Replacement– Direct Bury	33	8,400	$3,327,000	Completed
9852-C	W. Alisal Street Sewer	Pipe Liner	18, 24	8,400	$1,641,600	Completed
9852-D	W. Blanco-Iverson-Romie Lane Sewer System	Pipe Liner	18, 21	7,200	$1,339,000	Completed
9852-E	S. Sanborn Road Sewer System	Pipe Liner	18, 24, 33	4,200	$1,244,000	Completed
9850	W. Rossi Trunk System	Replacement– Direct Bury	42, 48	5,000	Combined with 9852-b	Completed
9852-B	Bridge Street Sewer System	Replacement- Direct Bury	36, 48	3,300	$7, 500,000	Completed
9125	Kern Street Sewer System	Replacement- Direct Bury	8	1,600	$646,000	Completed
Total for Pipe Projects				***69,100***	***$27,163,600***	
Pump Station Projects						
9363, 9891	Pump Station Improvements	Stations at Carpenter Hall, TP No. 2, Santa Rita	NA	NA	$1,221,000	Completed
9803	Pump Station Repair	Carpenter Hall Pump Station	NA	NA	$310,000	Completed
9117	Pump Station Backup Generators	Airport, Mill Lake, Las	NA	NA	$525,365	Completed

Major Sewer System Improvement Projects Implemented since 1999						
City Project No.	**Street Location**	**Type of Project**	**Diameter (inches)**	**Length (feet)**	**Estimated Cost**	**Status as of April 2009**
		Casitas Pump Stations				
	Pump Station Flow Meters	Airport, Mill Lake, Las Casitas Pump Stations	NA	NA	$28,000	Completed
	Manhole Rehabilitation	Romie to South Main sewer trunk line	NA	NA	$161,000	Completed
Total for Pump Station Projects					***$2,245,365***	
GRAND TOTAL FOR ALL PHASE 1 SEWER PROJECTS					**$29,408,965**	

The City completed an update of the 1998 Master Plan, as discussed below under "System Evaluation 2011 Master Plan". The 2011 Sewer System Master Plan will be the basis for implementation of the next phase of capacity improvements, as discussed below under "Capacity Enhancement Measures in 2011 Master Plan".

System Evaluation 2011 Master Plan (Item a)

The City has updated its Sanitary Sewer Master. The City hired the consulting firm of Camp, Dresser and McKee to update the City's Sewer Maser Plan in 2011. The Master Plan can be found at the following web link: http://www.cityofsalinas.org/sites/default/files/services/engineering/pdf/SalinasSanitarySewerMasterPlan.pdf which completely updates the previous studies. The 2011 Master Plan has included development of updated flow projections, an updated hydraulic model of the sanitary sewer system, establishing hydraulic criteria, capacity analyses of the gravity sewer system as well as pump stations and force mains, and recommendations for future capacity improvements based on the updated flows.

The 2011 Sewer Master Plan is the basis for the evaluation of the current capacity of the City's collection system and identification of those portions of the system that may experience or contribute to overflows caused by hydraulic deficiency. The 2011 Master Plan recommends improvements that are required to provide adequate hydraulic capacity in the modeled sewer system, as discussed below under "Capacity Enhancement Measures". The modeled sewer system includes the key sewers, which are all sewers 10-inch and greater in diameter, as well as some smaller sewers as needed to appropriately model some tributary areas.

In addition, the Master Plan includes information to be provided by the City on rehabilitation needs for pipes in poor condition, and smaller sewers that are not part of the model system. The City uses historic data regarding problem areas in order to identify smaller sewers that may experience blockages or overflows. Rehabilitation needs are discussed in Section IV of this document. The rehabilitation improvements are based on field inspection data, high priority locations identified by City staff, and master plan recommendations.

As the Sanitary Sewer Management Plan is implemented, recommendations will be developed as appropriate for future analyses and/or updates to the Master Plan, and/or expanding the modeled system to include additional key sewers, if found to be needed.

Hydraulic Model

For the 2011 Master Plan, an updated hydraulic model of the City's sanitary sewer system was developed and used for the sewer system analyses. The City's previous static sanitary sewer model was converted to Info Sewer, a semi-dynamic model with greater analysis capabilities. The converted model was updated using the City's GIS database, information provided by the City on recent improvements, and input from City staff. The model was also geo-referenced to the same State Plane coordinate system as the City's GIS.

The updated hydraulic model includes a skeletonized system with all the major trunk sewers, 10-inch diameter pipes and larger. Some smaller diameter lines were also included if needed to keep the topology of the main trunk system or to keep the tributary areas at a reasonable size.

The updated hydraulic model is in a modeling program integrated with the City's ARC-GIS system. The modeled facilities are in a GIS database that provides a map of the modeled system and facilities data for City staff.

Flow Projections

For the 2011 Master Plan, dry and wet unit flow factors and flow projections were developed, based on field meter data collected by the City. This information was used to generate model flows, representing existing and future conditions. The peak design flows utilized for the master plan analysis consisted of the higher of either the peak dry weather flow, or the peak wet weather flow calculated as the average dry weather base flow plus the peak RDII flow. For peak wet weather flow projections, a 10-year 6-hour design storm was used to estimate the RDII contribution.

The 2011 Master Plan addressed the following three main flow components: base flow (average dry weather flow), groundwater infiltration, and wet weather flow (rainfall-dependent inflow and infiltration, RDII). To estimate the dry weather flow portion, unit flow factors were developed based on City flow metering data. These unit flow factors were applied to contributing land use, in order to estimate existing and future dry weather flows.

To estimate the wet weather RDII peak flows, wet weather flow parameters were developed based on the City's flow metering data, and then applied to a design storm to determine the peak RDII unit flow rates. Various RDII peak unit flow rates were developed for various areas of the City based on the flow meter data. To determine the peak wet weather flows for the master plan analysis, the RDII peak flow was added to the average dry weather flow.

Rainfall and flow data was metered by the City at sixteen locations throughout the sanitary sewer collection system during 2007 and 2008, including both dry weather and wet weather periods. The City contracts for temporary flow monitoring during dry and wet weather periods to provide actual system data that is used for evaluating appropriate unit flow rates and calibrating the sewer system model. This monitoring information was utilized in developing the flow projections and calibrating the model for the 2011 Master Plan. The flow monitoring data and results are described in detail in the 2011 Master Plan technical memoranda and report.

The City does not currently conduct flow monitoring, other than for the master plan updates or special project applications. The 2011 Master Plan has recommended that the City consider installing

permanent flow meters at the downstream end of its system, in the major tributary lines that feed the Monterey One Water's Salinas Pump Station. The City's flow meters would provide an independent check of flow data collected by Monterey One Water at the pump station. Another option would be for the City to work jointly with Monterey One Water to ensure that the Monterey One Water flow monitoring accurately represents the flows reaching the pump station.

Capacity Analysis

For the 2011 Master Plan, the updated hydraulic model and flow projections for the sewer system were used to analyze existing and buildout conditions, to determine where the system did not meet the established capacity criteria and the need for system improvements. The collection system analysis included pipeline capacity evaluation, pumping capacity evaluation and force main capacity evaluation. Hydraulic criteria were established for the analysis as summarized below under "Design Criteria Established for 2011 Master Plan".

The results for the Dry Peak and Wet Peak (dry average plus 10-year storm RDII) model simulations were compared to the hydraulic criteria, and locations not meeting the criteria were identified as deficiency locations. The locations that did not meet the criteria were then subjected to a detailed analysis to determine the need for improvements. A hydraulic profile of each deficiency location was analyzed individually to determine the level of surcharge (if it comes within 5 feet from the manhole rim) and the occurrence of backflow conditions from downstream pipes.

Not all existing pipes not meeting the hydraulic criteria in the initial model runs (i.e. identified as system deficiencies) require improvement. The ultimate need for a system improvement is dictated by the level of surcharge, the possibilities of diverting flow upstream to a different existing pipe, and existing pipe characteristics such as slope and diameter, and whether it is impacted by backwater that will be eliminated by a downstream improvement.

Based on the results of the detailed capacity analyses, recommended improvements were developed to correct capacity deficiencies and provide adequate capacity for peak flows under both existing and buildout land use conditions. The recommended improvements from the 2011 Master Plan are summarized below under "Capacity Enhancement Measures".

Design Criteria Established for 2011 Master Plan (Item b)

Hydraulic criteria were established for the analyses of the Salinas sewer system conducted for the 2011 Master Plan. These hydraulic criteria considered the City of Salinas Standard Specifications, Design Standards, and Standard Plans (2008 edition), which are the required standards applicable to design of new development improvements in the City. The hydraulic model results were evaluated based on the established criteria to identify required capacity improvements.

The City prefers a conservative approach for determining required improvements and sizes of new facilities, due to uncertainties inherent in future planning. The marginal cost of upsizing a new pipe is generally small compared with the potential future cost if it is undersized. The criteria provide a conservative approach for analyzing pipe capacity with respect to the maximum allowable depth of flow.

Summary of Criteria for Hydraulic Analysis ***City of Salinas Sanitary Sewer System – 2011Master Plan***	
Element	***Recommended Value***
Manning's 'n' Factor (for gravity lines)	0.013 for all pipes
Minimum Pipe Size	8 inches
Maximum Allowable Flow Depth	Future pipes in new development areas: d/D = 0.75 under peak design flow conditions; for 10-year, 6-hour design storm. Existing pipes: d/D = 0.9 under peak design flow conditions. For evaluating and prioritizing whether existing pipes require improvement, surcharge will be allowed as long as the hydraulic gradeline (HGL) remains at least 5 feet below the rim elevation under peak design flow conditions. This criterion is only for evaluating whether existing pipes require replacement or relief. All new pipe improvements and replacement projects would be sized to convey the peak design flow without any surcharge.
Velocity Criteria for Gravity Lines	Minimum: 2.0 ft/sec at peak dry weather flow; 1.75 ft/sec at average dry weather flow Note: The minimum velocity criteria are used for designing new pipe improvements. These criteria are not used for evaluating whether existing pipes require replacement. The key criterion for evaluating existing pipes is whether capacity is adequate to convey the peak design flow.
	Maximum: 8.0 ft/s
Minimum Slopes for Gravity Lines	6-inch diameter: 1% 8-inch diameter: 0.4% 10-inch diameter: 0.26% 12-inch and larger diameter: 0.2% Note: The minimum slope criteria are used for designing new pipe improvements. These criteria are not used for evaluating whether existing pipes require replacement. The key criterion for evaluating existing pipes is whether capacity is adequate to convey the peak design flow.
Force Main Hydraulic Criteria	Maximum velocity: 6 ft/sec for new pipes, 8 ft/sec for existing pipes Minimum velocity : 3.5 ft/sec Hazen-Williams Headloss Coefficient: range of C=100 to120 depending on pipe size, material, and age.
Pump Station Capacity	Firm Capacity, with largest pump as a standby unit, for peak design flows (peak wet weather flows).

Capacity Enhancement Measures in 2011 Master Plan (Item C)

Table 1 shows the preliminary recommended CIP projects to provide the required capacity to convey buildout flows. The recommended capacity improvements include gravity sewers, force mains, and pump station upgrades.

Capital cost estimates for the recommended improvements are currently under development as part of the master plan. The preliminary recommendations will be finalized as part of finalization of the master plan report. The 2011 Master Plan report will provide detailed information that is considered to be incorporated into this plan.

The recommended improvements are grouped for implementation by timeframe: existing and buildout. Existing projects are needed to correct existing deficiencies. Buildout Projects are needed to provide capacity for future development.

Within each timeframe, the projects prioritized for implementation. Higher priority projects would be implemented before lower priority projects, unless there are other factors affecting the schedule such as coordination with other City projects, e.g., street improvements. The following criteria were used in prioritizing the recommended improvements. The recommended improvements may be delayed if other improvement needs are identified as having a higher priority.

Table 1 Summary of Preliminary Recommended Improvements – 2011 Sanitary Sewer Master Plan					
Location	*Location*	*Description*			*Time Frame*
Gravity Sewer Projects		*Replacement Diameter (in)*	*Parallel Diameter (in)*	*Length (ft)*	
L01	Replacement of existing 8-in and 10-in pipes, with a 12-in along E Bolivar St from 200-ft east of Santa Rita St to Van Buren Ave, then south along Van Buren Ave to Louise Ct, then east along Louise Ct to Louise St, then south along Louise St and Lenny St to Souza Way, then north along Souza Way to Hoover St, then east along Hoover St to 150 ft east of Souza Way	12	10	3,900	Existing
L04	Replacement of existing 12-in with an 18-in along W Alvin Dr from Cherokee Dr to Main St, then north along Main St to 500 ft south of Cherokee Dr	18	15	2,600	Existing
L05	Replacement of existing 18-in with a 21-in along Cherokee Dr from Tulane St to 70ft north of NCA Way	21	12	2,500	Existing
L08	Connect overflow from flow diversion at Main St and Laurel Dr , which will convey flows to proposed P06 (15-in)				Existing
L15	Replacement of existing 18-in, 24-in, and 27-in with two segments, one in 30-in and another in 36-in. The 36-in segment runs along Blanco Rd from 500 ft west of Blanco Cir, to Industrial St	30	24	3,200	Existing
		33	27	3,400	
L06	Replacement of existing 10-in with a 15-in along Tyler St from Hwy 101 to W Laurel Dr, then east along W Laurel Dr to Main St	15	12	5,200	Buildout
L14	Disconnect overflow from flow diversion at Sanborn Rd and E Alisal St, to direct all flow south (Sanborn Rd). Overflow currently directing flows west (E Alisal St).				Buildout
L17	Replacement of existing 15-in with an 18-in along E Alisal St from Eucalyptus Dr to 400 ft east of Tampa St	18	12	4,700	Buildout
L18	Replacement of existing 12-in, and 15-in with an 18-in along Vertin Ave from Terven Ave to Jean Ave, then east along Jean Ave to Carol Dr	18	15	2,000	Buildout
L20	Replacement of existing 10-in, 12-in, and 15-in with an 18-in force main along Industrial St from Airport Blvd to Harkins Rd, then west along Harkins Rd to Abbott St, then east along Abbott St 2,500 ft	18	15	4,200	Buildout
Force Main Projects		*Existing Diameter (in)*	*Replacement Diameter (in)*	*Length (ft)*	
FM01	Replacement of existing 14-in force main with a new 18-in at Lake Street Pump Station	14	18	120	Buildout
Pump Station Upgrade Projects (1)		*Existing Firm Capacity (gpm)*	*Total Required Firm Capacity (gpm)*	*Additional Capacity (gpm)*	
PS01	Upgrade of Airport Pump Station	550	800	250	Buildout
PS02	Upgrade of De La Torre Pump Station	200	300	100	Buildout
PS03	Upgrade of Lake Street Pump Station	5,600	7,000	1,400	Buildout
(1) The above pump station upgrade projects do not reflect the current planning information in the Engineer's Report (March 2009) for the Unikool project, which CDM recently received. The March 2009 version of the Engineer's Report proposes to convey all flows from the 257-acre future ag-industrial area westerly in Dayton Street to either the existing Harkins Rd Pump Station or a new pump station to serve the development. The master plan analysis is being updated to reflect this new information.					

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- Threat of overflow: the projects were ranked depending on the threat of overflow or how much freeboard remained. Freeboard is the amount of space between the water surface elevation and the ground surface.
- Flow scenario: higher priority for those projects that show capacity deficiency under peak dry weather; lower priority for projects with deficiency under average dry weather plus 10-year storm conditions.
- Impact on more than one problem area: Some projects will affect other recommended improvements because of their location; these projects are given a higher priority.

The prioritization of projects is intended to serve as a guideline for City staff in its CIP planning. City staff will review individual projects for implementation as part of the development of the City's 5-year CIPs. The specific priority for implementation of individual projects will depend on the City's needs and funding availability, as determined over time.

Schedule and Funding for Future Capacity Improvements (Item d)

The schedule for implementation of future capacity improvements will depend on the available funding. As part of its annual budgeting and CIP process, City staff will refine the implementation schedule for specific projects.

It is anticipated that the capacity improvements identified for the Existing Scenario in the 2011 Master Plan would be implemented over the next 5 to 10 years, or perhaps longer depending on available funding. The capacity improvements identified for the Buildout Scenario would be triggered by future development that requires additional capacity, and the timing would be driven by development needs. Rehabilitation/replacement needs are discussed in Section IV of this document.

The City has provided funding for sanitary sewer system operation, maintenance and improvement projects, even with its many other funding responsibilities for the health and safety needs of its citizens. In 1994, the City first applied a 15 percent sanitary sewer surcharge as a funding mechanism to assist in upgrading the sanitary sewer system. To provide a higher level of funding to more quickly implement sewer system improvements, the City also increased the sanitary sewer surcharge beginning with the June 1998 MRWPCA billings and issued municipal bonds that were dedicated for this purpose.

Funding sources for ongoing sewer system operation, maintenance and improvements include:

- It is anticipated that system operation and maintenance would continue to be funded from sanitary sewer surcharge revenues.
- Capacity projects needed solely for future development would be funded by developer fees.
- Capacity projects to correct existing deficiencies and improvements to rehabilitate/replace existing sewers may be funded by several sources such as: another increase in sewer surcharge, another municipal bond issue, federal/state loans or grants (e.g., economic stimulus funds and other programs), and assessment districts. The City will determine the appropriate mix of funding sources, as part of updating its sewer rates and fees subsequent to the Master Plan.

Sewer System Management Plan
Section IX - Measurement, and Program Modifications

A. Introduction

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

B. Regulatory Requirements for the Monitoring, Measurement, and Program Modifications Section

The requirements for the Monitoring, Measurement, and Program Modifications (MMPM) section of the SSMP are:

GWDR Requirement

The City shall:

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

Performance Measures

The indicators that the City will use to measure the performance of its wastewater collection system and the effectiveness of its SSMP are:

- Total number of SSOs;
- Number of SSOs by each cause (roots, grease debris, pipe failure, capacity, pump station failures, and other);
- Portion of sewage contained compared to total volume spilled;
- Volume of spilled sewage discharged to surface water; and
- Planned to actual performance for preventive maintenance.

The City's historical, or baseline, performance data will date to 2003 for the selected performance measures (see SSMP Appendices, Appendix D). The data that is available is shown in SSMP Appendices, Appendix D, Performance Measures. Current trends indicate that the ongoing Management Plan is successful in eliminating and reducing SSO's and impacts to the local environment. These trends will be reviewed annually to determine program success.

Performance Monitoring and Program Changes

The City will evaluate the performance of its wastewater collection system at least annually using the performance measures identified in Subsection C, Performance Measures, above and include in the program audit. The City will update the data and analysis in this section at the time of the evaluation. Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP

The City may use other performance measures in its evaluation. The City will prioritize its actions and initiate changes to this SSMP and the related programs based on the results of the evaluation.

Sewer System Management Plan
Section X - Program Audits

A. Introduction

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

B. Regulatory Requirements for the SSMP Program Audits Section

GWDR Requirement

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

Audits (Item a)

The City will audit its implementation and compliance with the provisions of this SSMP. Initial Audit will be on a two-year cycle. Following this 2019 plan update, Calendar Year 2021 will be the next year audited. The Audit Report will be completed by March 30 following the year that was the subject of the audit.

The audit will be conducted by a team consisting of City staff selected from the Maintenance Services Department and the Engineering and Transportation Department.

The scope of the audit will cover each of the major sections of the SSMP.

The results of the audit, including the identification of any deficiencies and the steps taken or planned to correct them, will be included in an Audit Report. The Audit Report will be completed by March 30, 2021.

SSMP Updates

The City will determine the need to update its SSMP based on the results of the audit and the performance of its wastewater collection system based on information from the Monitoring and Measuring Program Modifications Section of the SSMP. In the event that the City decides that an update is warranted, the process to complete the update will be identified. The City will complete the update within one year of completion of the audit if required.

Sewer System Management Plan
Section XI - Communication Program

A. Introduction

This section of the SSMP outlines the process involved in communicating with interested members of the public regarding the development, implementation, and performance of this plan.

B. Regulatory Requirements for the Communication Program Section

The requirements for the Communication Program section of the SSMP are:

GWDR Requirement

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

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

Communication during SSMP Development and Implementation (Item a)

The City of Salinas will continue to utilize it regularly scheduled council meetings as the venue to invite public involvement in input on the implementation and performance of its SSMP. Additionally, The City of Salinas hosts the most current adopted SSMP on its website for public access and review. https://www.cityofsalinas.org/sites/default/files/departments_files/public_works_files/water_solid_waste_energy/swds/public_review_sanitary_sewer_management_plan_update_2014_1.pdf

The City of Salinas will direct interested parties to the CIWQS public access website.

Communicating Sanitary Sewer System Performance (Item b & c)

The City will make information on the performance of its sanitary sewer system performance available for review. The performance information will include the performance indicators listed in Section IX of the SSMP; Monitoring, Measurement, and Program Modifications and will be compiled annually. Notice that the performance information is available for review will be posted on the agency's website. The notice is:

The most recent compilation of the City's sanitary sewer system performance information is available for review (City web site) and at 426 Work Street during normal business hours. Interested parties can contact Gary Gabriel at 831-758-7103 or garyg@ci.salinas.ca.us for additional information.

The City reports SSOs electronically to the California Integrated Water Quality System (CIWQS). The electronic SSO data, as well as information regarding regulatory actions, is available at:

http://www.waterboards.ca.gov/ciwqs/publicreports.html.

The City will direct interested parties to the CIWQS public access website.

E. Agreements with Satellite Collection Systems

The wastewater collection system of the unincorporated community of Boronda to the north west of Salinas is tributary to the Salinas sanitary sewer system. Communication with the Boronda area will be consistent with the communication efforts noted above.

SSMP
Appendices

Appendix A

Section IV - Operations and Maintenance Program

- Industrial Waste and Sanitary Sewer Lift Stations
- Sanitary Sewer Maintenance High Priority List
- Daily Sewer Maintenance Log
- Sewer Manhole Inspection List
- Monthly Summary Report
- Current CIP for Sanitary Sewer System Update
- GIS Mapping Field Application

Appendix B

Section VII - FOG Control Program

- Public Education Outreach Plan and Schedule
- Grease Interceptor/Grease Trap Maintenance Procedure for Food Preparation Facilities
- Typical advertisements for FOG Public Education Outreach Program

Appendix C

Section IX - Measurement, and Program Modifications

- Performance Measures

Appendix D

Section VI - Overflow Emergency Response Plan Update

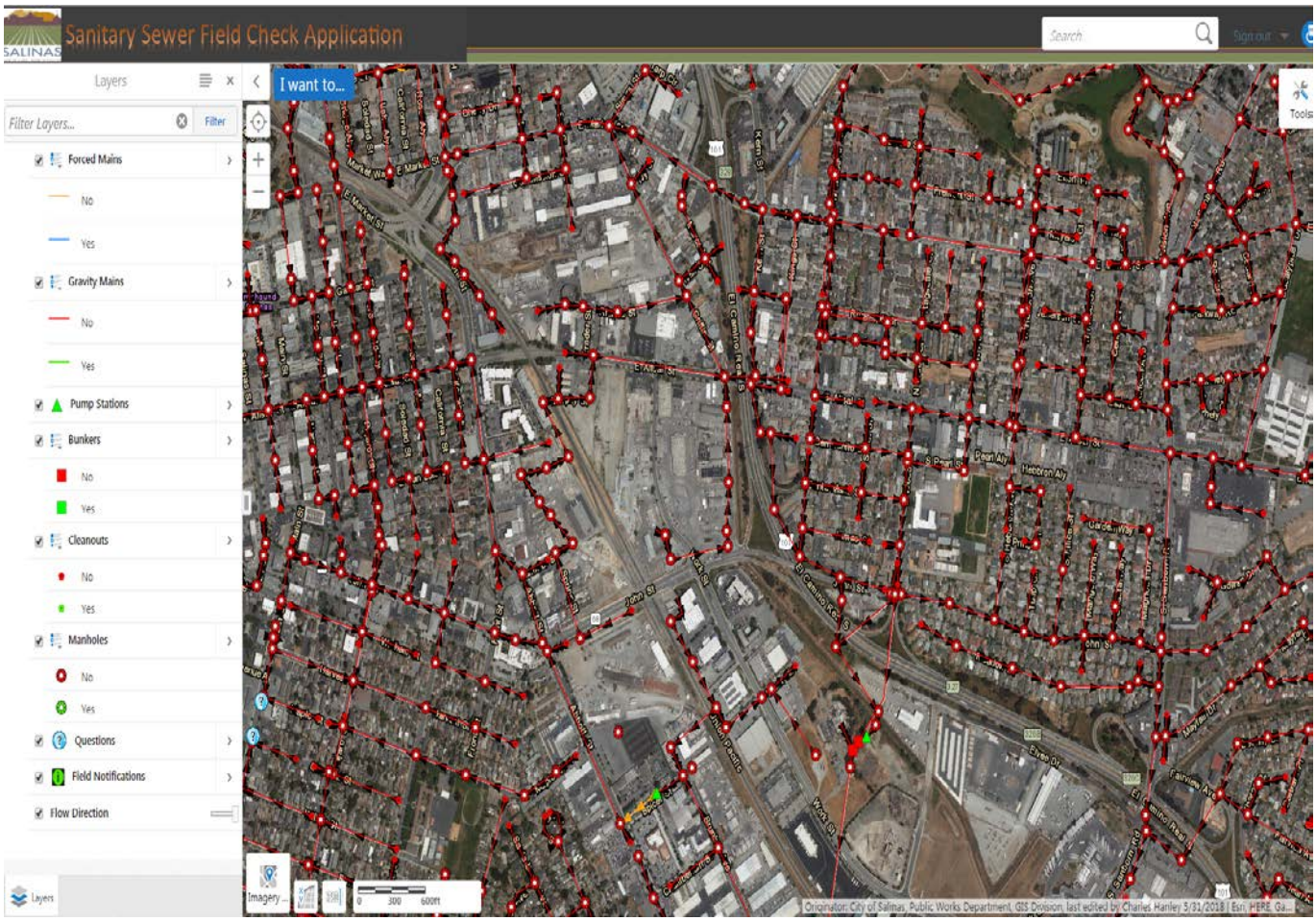
- Sanitary Sewer Overflow Report
- Customer Relations Guidelines
- Methods of Estimating Spill Volumes
- Overflow Emergency Response Plan

Appendix A

Section IV - Operations and Maintenance Program

1. GIS Mapping Field Application
2. Industrial Waste and Sanitary Sewer Lift Stations
3. Sewer Pump Maintenance Inspection Record
4. Sanitary Sewer Maintenance High Priority List
5. Daily Sanitary Sewer Maintenance Log
6. Sanitary Sewer Manhole Check List
7. Wastewater Division Activities Monthly Report
8. Current (FY 2019-20) Capital Improvement Projects Budget

GIS Mapping Field Application



SEWER LIFT STATIONS

LIFT STATION	STREET ADDRESS	PHONE	BACKUP POWER SOURCE	ALARM SWITCH	ALARM TYPE
Industrial Lift Station	150 Airport Blvd		70 kv Towable Generator	Air Bubbler	Sense-a-Phone & SCADA
Lake Street	146 E. Rossi Street	424-7144	Propane Powered Generator/Natural Gas Backup	Air Bubbler	Sense-a-Phone & SCADA
Carpenter Hall	516 N. Main Street	424-2172	Propane Powered Generator	Air Bubbler	Sense-a-Phone & SCADA
Mill Lake	81 Gardenia Drive	424-0333	Propane Powered Generator	Electronic Probe	Sense-a-Phone & SCADA
Spicer Street	59 Spicer Street	424-5986	70 kv Towable Generator	Air Bubbler	Sense-a-Phone & SCADA
De La Torre	1200 De La Torre	424-3507	70 kv Towable Generator	Air Bubbler	Sense-a-Phone & SCADA
Harkins Road	1200 Harkins Road	424-4517	70 kv Towable Generator	Air Bubbler	Sense-a-Phone& SCADA
Las Casitas	721 Las Casitas Drive	758-8507	Natural Gas Powered Generator	Air Bubbler	Sense-a-Phone & SCADA
Santa Rita	2021 Sucre Court	449-1151	Propane Powered Generator/Natural Gas Backup	Air Bubbler	Sense-a-Phone& SCADA
Treatment Plant II	650 Elvee Drive	754-0896	Propane Powered Generator/Natural Gas Backup	Air Bubbler	Sense-a-Phone & SCADA
Airport	730 La Guardia Street	422-1191	Propane Powered Generator	Electronic Probe	Sense-a-Phone & SCADA
Vista Nueva	Garner Ave	None	Assessment District agreement-Station	Electronic Probe	Sense-a-Phone& SCADA
1*Community Center	940 N. Main Street	N/A	Emergency Building Generator	Float Switch	Local Audible
2*City Hall	200 Lincoln Ave.	N/A	Emergency Building Generator	Float Switch	MK II Dialer
3*Police Department	222 Lincoln Ave.	N/A	Emergency Building Generator	Float Switch	Local Audible

Note: The City maintains 5 portable towable diesel powered generators. These are used to provide emergency power to sanitary sewer lift stations not equipped with permanent on-site electrical generators as listed above. This gives effective coverage of all sanitary lift stations and reduces the potential for overflows during power outages.

SEWER PUMP MAINTENANCE INSPECTION RECORD
CITY OF SALINAS

(Example) 2019

LIFT STATION_____ **MONTH/YEAR: _____**

SANITARY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
Lake St																																
Carpenter Hall																																
Santa Rita																																
Mill Lake																																
Airport																																
De La Torre																																
Spicer																																
Harkins Rd																																
TP2																																
Vista Nueva																																
Las Casitas																																
City Hall Lift Station																																

GRAND TOTAL:

CITY OF SALINAS

Wastewater Division

Sewer Maintenance High Priority List

Revised December 20, 2018

(Example)

Monthly:				
No	Street	From	To	Lin Ft Serviced
East Salinas Area				
1		**.**		
2	**Murphy St**	**M.H. @ E. Alisal & Murphy**	**Shoot to M.H. on Murphy & also shoot towards R.R. tracks**	
3	**E. Alisal St**	**M.H. @ 347 E. Alisal St**		
4	**E Alisal St**	**M.H. @ intersection of E. Alisal & Griffin**	**Shoot to Prader St**	
5	**E. Alisal St**	**Griffin St**	**Shoot to Rianda St**	
6	**E. Alisal St**	**Turn pocket @ E. Alisal & Kern**	**Shoot to Roosevelt & also to Madeira Ave**	
7	**E. Market St**	**King St**	**Shoot tot N. Madeira Ave.**	
8	**King St.**	**Intersection King & Roosevelt**	**Shoot to M.H. on E Market St**	
9	**E. Alisal St (M.H. @ fast Lane)**	**King St**	**Shoot towards Roosevelt**	
10	**N. Wood St**	**M.H. @ 24 N. Wood St**	**Shoot towards M.H. @ Pearl St & Shoot with flow to La Paz Park**	
11	**Roosevelt St**	**M.H. @ 530 Roosevelt St**	**Shoot towards building complex**	
12	**N. Madeira Ave.**	**From middle intersection N. Madeira and Roosevelt**	**Shoot towards M.H. @ 31 N. Madeira**	
13	**N. Madeira Ave**	**M.H. across 31 N. Madeira Ave @ sidewalk**	**Shoot towards building**	
14	**N. Madeira Ave & Roosevelt St**	**M.H. closest to curb**	**Shoot to M.H. on sidewalk at 31 N. Madeira & also shoot towards building complex**	

City of Salinas

Daily Sanitary Sewer Work Order (updated 2019) Example

		Sewer Cleaning Work Order					
City of Salinas							
Work Order Date			**Work Order #**				
Reason for Maintenance			**PM**_____	**Service Call**_____		**CCTV** _____	**High Priority**_____
UPS MH	**DWNS MH**	**Location**	**Diam. In**	**Length Ft.**	**Material**	**Problem**	**Equipment**
Cleaning Results							
Material	**Clear**	**Light**	**Medium**	**Heavy**	**Not Rated**		
Debris							
Grease							
Roots							
Other							
Remarks:							
Recommended Actions							
Cleaning Frequency:			**The Same**_____		**Increase**_____		**Decrease**_____
Repair Pipe		**No**_____		**Yes**_____		**Comment**_____	
Repair Manhole		**No**_____		**Yes**_____		**Comment**_____	
Root Control		**No**_____		**Yes**_____		**Comment**_____	
CCTV Insp.		**No**_____		**Yes**_____		**Comment**_____	
Completed By_____			**Date:**_____				
Supervisor Review_____			**Date:**_____				

Sewer Manhole Service Maintenance Checks
(Revised 2-20-18)

W. Salinas / S. Salinas Locations:

Please check all manholes within the following streets and look for any unusual flow patterns/non-flow patterns, evidence of grease, and any other type situations that would warrant an immediate service to that line.

Crews, *please indicate whether the sewer manhole location needed service (yes/no), provide the date checked, and initial.*

		Service Date	Initial Yes / No	Checked
1.	Station Place	_____	_____	_____
2.	Market at Capitol	_____	_____	_____
3.	On Capitol bet. Market and Central	_____	_____	_____
4.	W. Alisal bet. Lorimer and Capitol	_____	_____	_____
5.	Riker bet. Lang and Clay	_____	_____	_____
6.	Lincoln bet. San Luis and chestnut	_____	_____	_____
7.	Main bet. Chestnut and Harvest	_____	_____	_____
8.	Geil and Iverson	_____	_____	_____
9.	E. Acacia and Main	_____	_____	_____
10.	San Joaquin bet. Main and Pajaro	_____	_____	_____
11.	Stephanie at Main	_____	_____	_____
12.	Shelley Way	_____	_____	_____
13.	Las Cruces	_____	_____	_____
14.	Woodside and Baywood	_____	_____	_____
15.	On Palma bet. W. Alisal and Carmelita	_____	_____	_____

Wastewater Division

Environmental & Maintenance Services

Wastewater Collection Systems – NPDES – Industrial Waste – Street Sweeping – Hazardous Materials – Water Resources Planning

MONTHLY REPORT

Street Sweeping, Sewer Maintenance, and Misc.) **Example**

MONTH: July

STREET: SWEEPING: Monthly Totals

% Time - Street Sweeping	100 %
Curb Miles Swept	1,584 Miles Swept.
Abandoned Vehicle's Noted	0
High Density Locations Checked/Cleaned	10 Per Week
Service Requests	0
Water usage in U.S. gallons	50,400 Cal Water 6,000 Alco Water
Debris Removed (Cu. Yard)	519

SANITARY SEWERS:

Feet of Sewer Cleaned	60,325 Ln. Ft.
% Time - Sewer Cleaning	100%
Service Requests	1
Manhole Inspections	183
C.C.T.V Inspections Liner Feet	0 ft
SL Rat Manhole Inspections	197
U.S.A. - Underground Service Alert	187
Sites Located Marked	187

STORM SEWERS/ N.P.D.E.S:

Storm Lines Cleaned	0 Ln.Ft.
N.P.D.E.S Requests/ Responses	9
Service Requests	1
Catch Basins Checked / Cleaned	197/112
Outfall Inspections/ Cleaned	3/0
Storm Drain Buttons Installed	0

Storm Drain Stencils Installed 0

Waterway Inspections/Cleaned/Cubic Yards 3/0/0

SEWER PUMP MAINTENANCE:

Sanitary Sewer Pump Maintenance 127

Storm Sewer Pump Maintenance 16

Misc. Pump Maintenance 6

Industrial Sewer Pump Maintenance 7

HAZARDOUS WASTE SHIPPED 10 - 55 gallon barrels

TRASH CONTAINERS:

Repaired/ Replaced and/or Painted 0

SAFETY TAILGATE MEETINGS **Vac-Con Training (New Sewer Truck)**

WATER GAUAGE READINGS ON SEWER TRUCKS

Truck 691 3728

Truck 690 12567

Truck 689 7747

MONTHLY HIGHLIGHTS: July 2014

1. North Main Street Underpass Sanitary Sewer Service Weekly
2. Tailgate safety meeting **Vac-Con Training (New Sewer Truck)**
3. Service oil sand separators weekly ongoing
4. Monthly Alarm Testing of all lift stations for illicit discharge procedures
5. Storm Drain Cleaning
6. Manhole inspections with SL Rat
7. Rodeo Parade work
8. Rodeo Horse Parade
9. Expo Ditch Cleanup
10. Uncovered Manholes on Hagachi Ranch
11. Santa Rita Ditch Cleanup Excavator work
12. TP2 Mowing and Weed eating
13. Cleaned Scornberg Basin 7 Tires and trash

CIP Adopted Budget FY 18-19

(Proposed FY 18-19 thru FY 23-24) Subject to change

Sanitary Sewer

Fund / CIP - Project Name	PrevYrs.	18-19	19-20	20-21	21-22	22-23	23-24	Total Years
9010 - CCTV Inspections		100,000	250,000	250,000	250,000	250,000	250,000	1,350,000
9011 - LaGuardia Lift Station		125,000	400,000					525,000
9124 - Lift Stations Backup Generator	310,000		350,000					660,000
9221 - Sanitary Sewer Lines Evaluation	289,000	140,000						429,000
9283 - Sanitary Sewer Mgmt. System	859,200	75,000	75,000	75,000	75,000	75,000		1,234,200
9348 - WDR-Grease Traps Inspection	286,100		30,000	30,000	30,000	30,000		406,100
9725 - Sanitary Sewer Equipment		295,000	350,000					645,000
9742 - Sewer Pipe & Manhole Repairs	2,000,000	750,000	750,000					3,500,000
9743 - Repairs to Lift Stations	625,000	100,000	100,000	100,000	100,000	100,000		1,125,000
9853 - Priority 1 Sanitary Sewer Line	3,500,000							3,500,000
9962 - Sanitary Sewer GIS Mapping	150,000	50,000	50,000	50,000	50,000	50,000		400,000
Grand Total	**8,019,300**	**1,635,000**	**2,355,000**	**505,000**	**505,000**	**505,00**	**250,00**	**14,590,300**

Appendix B

Section VII - FOG Control Program

1. WDR Grease Public Outreach Partnership (FY 18-19)

2. Grease Interceptor/Grease Trap Maintenance Procedure for Food Preparation Facilities

3. Typical advertisements for FOG Public Education Outreach Program

Southern Monterey Bay Dischargers Grease Outreach Partnership

SHARED COSTS FOR FY 18/19 PUBLIC EDUCATION PROGRAM ON GREASE DISPOSAL PRACTICES PUBLIC EDUCATION PROGRAM BUDGET = $18,000			
ENTITY	**POPLUATON WITHIN AREA TO BE COVERED BY REGIONAL WDR PROGRAM**	**PERCENTAGE OF BUDGET TO BE PAID BY THIS ENTITY**	**CONTRIBUTION TOWARD FY 2014/2015 BUDGET**
City of Salinas	150,441	52.756%	$7544.12
Seaside County Sanitation District(1)	34,983	12.268%	$1754.34
Marina Coast Water District(2)	33,364	11.700%	$1673.11
City of Monterey	27,810	9.752%	$1394.55
City of Pacific Grove	15,041	5.275%	$ 754.34
Castroville Community Services District(3)	7,204	2.526%	$ 361.23
California American Water(4)	6,380	2.237%	$ 319.91
Pebble Beach Community Service District	4,509	1.581%	$ 226.10* (+$1,440.00)
Carmel Area Wastewater District	3,722	1.305%	$ 186.63* (+ $1,440.00)
County of Monterey	1710	0.599%	$ 85.67
TOTAL	285,164	100.00%	**$14,300.00** (+ $2,880)*

Notes:

(1) Combined 2010 Census population of Seaside, Sand City, and Del Rey Oaks.
(2) Combined 2010 Census population of City of Marina and Ord Community population provided by MCWD
(3) Combined 2010 Census population of Castroville and Moro Cojo area population reported by Castroville Community Service District. Revised to include Moss Landing 2010 Census population.
(4) Combined population of Oak Hills, Indian Springs, Las Palmas, Spreckels, Pasadera, White Oaks, Village Green, Carmel Valley Ranch provide by Cal-Am September 2011.

* PBCSD and CAWD contribution would increase if additional Carmel Pine Cone ads are run through June 1, 2016.

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Grease Interceptor/Grease Trap Maintenance Procedure for Food Preparation Facilities

The Monterey One Water implemented a Regional Grease Program in our service area in the early 1990s to reduce the amount of grease entering the sanitary sewer system from food serving establishments. Starting in 2000, each member entity was issued a Grease WDR by the Regional Water Quality Control Board that required each entity to develop and implement a comprehensive Grease Reduction Program. These Programs all incorporate the need for proper cleaning and maintenance of grease interceptors and grease traps located at these establishments.

In order to meet all Grease WDR Program requirements and keep these food serving establishments in full discharge compliance, the following procedures should be followed for servicing these grease removal units:

Grease Interceptors shall be completely pumped (i.e.- dry-pumped removing the grease mat, liquids, sludge, and wash down material from the interior walls).

Grease Traps shall be completely pumped (i.e.- dry-pumped removing the grease mat, liquids, and solids from walls, screens, baffles and air-relief chambers).

Report any problems/damage with the interceptor/trap to the business manager/owner and the Monterey One Water Source Control Division (i.e.- missing or broken baffles, screens, and pipes).

Monterey One Water prohibits the discharge of wastes pumped from a grease interceptor/trap back into the sanitary sewer or the clean interceptor/trap.

Bacteria products used in the maintenance of interceptors or traps must be pre-approved by Monterey One Water. Products having a content of enzymes, surfactants or solvents that is greater than 10% of the volume will not be approved for use. Only bacterial products that have a bacteria content of 90% or greater will be considered for approval.

Monterey One Water appreciates your cooperation in this matter. Please contact the Source Control Division at (831) 883-1118 or (831) 424-1108 if you have any questions concerning the above requirements.

*Additional Information on Grease Traps can be found at the Monterey One Water Web Site:

http://montereyonewater.org/

WDR FOG Public Education Program FY18/19 Advertising and Communication Campaign

Advertising Campaign

Media Type	Budget Detail Summary	% of Total Budget by Media
TV KSBW 8 NBC Estrella TV Costa Central	63 ads (combo :30s and 15s): Winter holidays and Earth Day 200 ads (:30s): Winter holidays	**36%**
Print Monterey County Weekly Pine Cone	1 ad (1/3 pg): Eat+Drink Magazine 5 ads (1/6 pg): MC Weekly	**26%**
Radio I Heart Media La Preciosa 100.7 & 100.9	2 weeks (Total Traffic and Weather): 60 :5s spots, 60 :15s spots	**7%**
Digital KSBW Website and App Monterey County Weekly Website Monterey County Weekly e-Blast I Heart Media Social Media Amplification	1 month (165,000 Impressions) 3 weeks (web banner rotation) 1 e-Blast (top position) 105,000 Facebook Impressions 6,000	**29%**
Website Clogbusters.org	Complete site redesign	**1%**
Staff/Misc. Advertising Creative	Stock photography	**1%**
TOTAL COSTS	**$13,311.43**	**100%**
CAWD and PBCSD paid for an additional 4 ads in the Pine Cone during the month of December 2018		

What's new in FOG outreach for FY 2018-19?

+TV Advertising

The Clog Busters commercial was reformatted for widescreen viewing (a required change for compatibility with the television company's specs) and was slightly modified to create a: 30s holiday commercial and: 15s abbreviated commercial for year-round use. With the addition of the year-round commercial, advertising was spread over winter and spring, specifically around the winter holidays and Earth Day.

+ Print Advertising

All print and digital ads ran in full color with updated graphics.

130

+ Radio Advertising

Radio spots were added back into the advertising rotation to ensure a full media experience and expand audience reach. Spots ran in both English and Spanish.

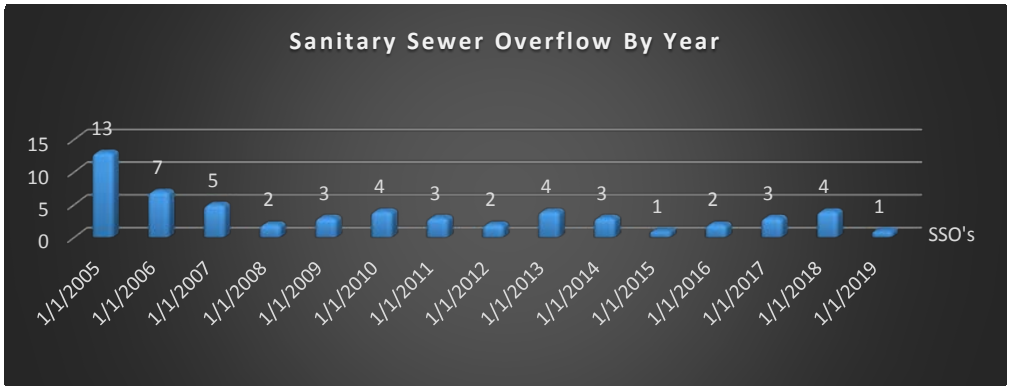
Appendix C

Section IX - Measurement, and Program Modifications

1. Performance Measures

Sewer System Performance Review 2014-2018

Sewer System Performance	2018	2017	2016	2015	2014
City Main SSO's Totals	4	3	2	1	3
Main SSO Causes					
Grease	25%	100%	50%	100%	0
Debris	50%	0	50%	0	0
Other/Vandalism	25%	0	0	0	100%
PLS Discharge Totals	17	11	13	10	2
Pipe Cleaning Linear Feet	490,813	409,853	576,880	963,025	991,246
Manhole Inspections	706	431	729	1395	3016
Lift Station Inspections	1573	1477	1476	1515	1373
CCTV Inspections Lin. Feet	10,920	16,685	2150	800	71937
Under Ground Service Marking Requests	4034	3412	2484	2220	1820



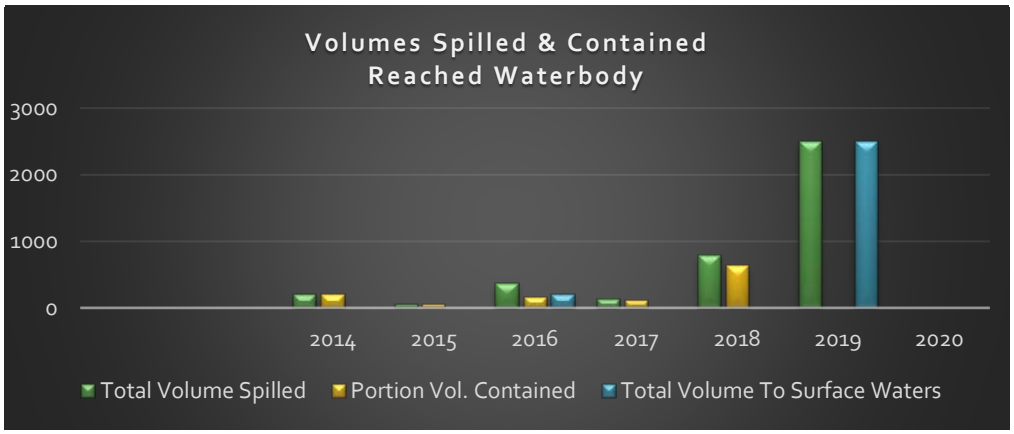


Table 6

Summary of Performance Measures

Gravity Sewer, Pump Station, and Force Main SSOs by Calendar Year	Gravity Sewer SSOs	Pump Station SSOs	Force Main SSOs	Recovery
2003	19	0	0	100%
2004	17	0	0	100%
2005	13	2	0	97%
2006	7	0	0	86%
2007	5	0	0	100%
2008	2	0	0	100%
2009	3	0	0	66%
2010	4	0	0	22%
2011	3	0	0	54%
2012	2	0	0	100%
2013	4	0	0	100%
2014	3	0	0	100%
2015	1	0	0	100%
2016	2	0	0	100%
2017	3	0	0	100%
2018	4	0	0	81%
2019	1	0	0	50%

Appendix D

Section VI - Overflow Emergency Response Plan

1. Sanitary Sewer Overflow Reporting Form
2. Customer Relations Guidelines
3. Methods of Estimating Spill Volumes
4. Overflow Emergency Response Plan

Sanitary Sewer Overflow Report (Side A)

Spill Category *(check one*):

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

Describe in detail the basis for choosing the spill category:

☐ **IMMEDIATE NOTIFICATION: If this is a Category 1 spill, contact CalOES within 2 hours at (800) 852-7550.**

A. SPILL LOCATION		
Spill Location Name:		
Latitude Coordinates*:	Longitude Coordinates:	
Street Name and Number:		
Nearest Cross Street:	City:	Zip Code:
County:	Spill Location Description:	

B. SPILL DESCRIPTION			
Spill Appearance Point (check one or more): ☐ Building/Structure ☐ Force Main ☐ Gravity Sewer ☐Pump Station ☐Other Sewer System Structure *(i.e. cleanout)* ☐ Manhole- Structure ID#: ☐ Other *(specify):*			
Did the spill reach a drainage channel and/or surface water? ☐ Yes (*Category 1)* ☐No			
If the spill reached a storm sewer, was it fully captured and returned to the Sanitary Sewer? ☐ Yes ☐No (*Category 1)*			
Was this spill from a private lateral? ☐ Yes ☐No If YES, name of responsible party:			
Discharged into: ☐Ocean/ocean beach ☐Waters of the state other than ocean ☐Drainage channel ☐Combined storm drain ☐Separate storm drain ☐Paved surface ☐Unpaved surface ☐Building/structure ☐Street/curb/gutter ☐Other: Provide name(s) of affected drainage channels, beach, etc.:			
Total Estimated spill volume *(in gallons – 1,000gal or more = Category 1)*:			gallons
Est. volume that reached a separate storm drain that flows to a surface water body:	gal	Recovered:	gal
Est. volume that reached a drainage channel that flows to a surface water body:	gal	Recovered:	gal
Est. volume discharged directly to a surface water body:	gal	Recovered:	gal
Est. volume discharged to land:	gal	Recovered:	gal

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

Calculation Methods: ☐Eyeball ☐Photo Comparison ☐Upstream Connections ☐Area/Volume ☐Lower Lateral ☐Other (describe):
NOTE: Attach all Spill Volume Estimation documentation including calculations and summary.

C. SPILL OCCURRING TIME	
Estimated spill start date:	Estimated spill start time:

Customer Relations Guidelines

It is important for employees to communicate effectively with City of Salinas customers, especially in an SSO situation. How we communicate – on the phone, in writing, or in person – is how we are perceived. Good communication with the homeowner results in greater confidence in staff's ability to address the problem satisfactorily and potentially reduces the time needed to resolve the claim.

As a representative of the City, staff will occasionally have to deal with an irate homeowner. A sewer backup is a stressful event and even a reasonable homeowner can become irate should he/she perceive staff as being indifferent, uncaring, unresponsive, or incompetent.

Although sometimes difficult, effective management of a sewage backup situation is critical. If it is not managed well, the situation can end up in a costly, prolonged process with the homeowner. The City wants the homeowner to feel assured that we are responsive and the homeowner's best interest is a top priority.

A Few Communication Tips

Give the homeowner ample time to explain the situation or to vent. Show interest in what the homeowner has to say, no matter how many times you have heard it before, or how well you understand the situation.

As soon as possible, let the homeowner know you will determine the cause of the sewer backup and correct it if possible.

Acknowledge the homeowner's concerns. For example, if the homeowner seems angry or worried about property damage, explain that a PROFESSIONAL CLEANUP CREW can restore the area. The owner/occupant has a right to file a claim for any reasonable repairs or losses resulting from the incident.

It is important to inform the owner/tenant that the City does not automatically assume responsibility for property damage or cleanup. The City's liability will be determined from the follow-up investigation.

Express regret for any inconveniences caused by the incident, but do not admit fault.

As much as possible, keep the homeowner informed on what is being done and will be done to correct the problem.

Keep focused on the incident. Do not get involved with too much unnecessary small talk with the homeowner.

Don't find fault or lay blame on anyone.

Before you leave, make sure the homeowner has the name and contact information of the Wastewater Supervisor to call if he/she requires more detailed information.

The Wastewater Supervisor will follow up with a telephone call if requested to ensure everything is being handled as it should be.

Methods for Estimating Spill Volume

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

Method 1: Eyeball Estimate

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

Method 2: Measured Volume

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

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

Step 2 Measure or pace off the dimensions.

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

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

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

Rectangle: Area = length (feet) x width (feet)

Circle: Area = diameter (feet) x diameter (feet) x 0.785

Triangle: Area = base (feet) x height (feet) x 0.5

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

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

Method 3: Duration and Flow Rate

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

Duration

The duration is the elapsed time from the time the spill started to the time that the flow was restored.
Start time: The start time is sometimes difficult to establish. Here are a few approaches:
Local residents can be used to establish start time. Inquire as to their observations. Spills that occur in rights-of-way are usually observed and reported promptly. Spills that occur out of the public view can go on longer. Sometimes observations like odors or sounds (e.g. water running in a normally dry creek bed) can be used to estimate the start time.
Conditions at the spill site change over time. Initially there will be limited deposits of toilet paper and other sewage solids. After a few days to a week, the sewage solids form a light-colored residue. From

a few weeks to a month, the sewage solids turn dark. The quantity of toilet paper and other materials of sewage origin increase over time. These observations can be used to estimate the start time in the absence of other information. Taking photographs to document the observations can be helpful if questions arise later in the process.

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

Flow Rate

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

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

For example: 22 upstream connections x 9 gallons per hour per connection

= 198 gallons per hour ÷ 60 minutes per hour

= 3.3 gallons per minute

Spill Volume

Once duration and flow rate have been estimated, the volume of the spill is the product of the duration in hours or days and the flow rate in gallons per hour or gallons per day.

For example:

Spill Start Time = 11:00

Spill End Time = 14:00

Spill Duration = 3 hours

3.3 gallons per minute x 3 hours x 60 minutes per hour = 594 gallons. Calculating the volume of larger spills, where it is difficult or impossible to measure the area and depth, requires a different approach. In this method, separate estimates are made of the duration of the spill and the flow rate.

Overflow Emergency Response Plan

City of Salinas

Overflow Emergency Response Plan

Effective Date: 8/19/19

Revised Date: 7/15/19

Approved by: Gary Gabriel

Signature:

Date: 8/19/19

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

Table of Contents

Sanitary Sewer Overflow Emergency Response Plan (OERP)

Sanitary Sewer Overflow Emergency Response Plan

1. Purpose

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

2. Policy

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

3. Definitions as Used in This OERP

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

FROG – Fats, Roots, Oils, and Grease: Refers to fats, oils, and grease typically associated with food preparation and cooking activities that can cause blockages in the sanitary sewer system.

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

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

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

MAJOR SPILL: A spill of whatever size that, based on a reasonable assessment of the spill size, location, and potential impacts, is deemed to pose an imminent and substantial endangerment to public health or the environment.

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

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

a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.

b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.

c. Occurs during, or as a result of, the treatment or disposal of wastes.

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

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

SANITARY SEWER OVERFLOW (SSO) - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:

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

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

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

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

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

SSO Categories:

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

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

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

SANITARY SEWER SYSTEM: Any publicly-owned system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary

piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

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

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

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

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

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

GWDR Requirement

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

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

The Sewer System Management Plan and critical supporting documents are available to the public at www.cityofsalinas.org under Environmental Maintenance.

5. Goals

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

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

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

6. SSO Detection and Notification

ref. SWRCB Order No. 2006-0003-DWQ D.13vi(a)

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

The City operates 11 wastewater lift stations. In the event of any pump failure, the high-level sensor activates the SCADA alarm system and the City is contacted. To prevent overflow, wastewater from the wet well can either be pumped into a vacuum truck for disposal to a nearby sanitary sewer manhole, or bypassed around the station into the sanitary sewer system.

6.1 PUBLIC OBSERVATION

Public observation is the most common way that the City is notified of blockages and spills. Contact numbers and information for reporting sewer spills and backups are in the phone book and on the City's website: http://www.cityofsalinas.org. The City's telephone number for reporting sewer problems is (831) 758-7233 during business hours. After hours callers are instructed to call 911.

Normal Work Hours

A report of sewer spill or backup during normal work hours goes to the Office Technician. They will complete the Receiving a Sanitary Sewer Service Call Report. The Office Technician will call the Wastewater Crew Supervisor or Foreman and relay the information. An available Wastewater Crew will respond.

After Hours

After hours callers are instructed to call 911. Monterey Dispatch will contact the On Call Employee.

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

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

If the Wastewater Supervisor or the Wastewater Manager determines that the overflow/backup is not in the service area they provide the customer with the contact information for the responsible agency, and then notify that agency.

If the overflow/backup is in the City's service area, a collections crew is dispatched and instructed to complete the Sanitary Sewer Overflow/Backup Response Workbook.

The responding Wastewater Crew will complete the electronic Q-Alert report (i.e. Service Request) and document findings and response actions, as appropriate.

If the service call was not an SSO, the Q-Alert will be completed and forwarded to the Wastewater Crew Supervisor. The Wastewater Crew Supervisor will review for completeness and accuracy and ensure the Q-Alert is entered into the City system.

If the service request was an SSO, the SSO response forms will also be completed by the Crew and reviewed by the Wastewater Crew Supervisor. An SSO Incident File will be created and the hardcopy SSO forms and other supporting documentation will be placed in the SSO Incident File and filed at the Wastewater Division. If the SSO impacted storm water systems, the SSO Report and supporting documentation will also be filed in the Illicit Discharge Database.

After Hours, the On Call Employee will create and complete the Q-Alert and the Wastewater Crew Supervisor will review the next business day and ensure the service call is entered into the City system.

Regardless of when the service request was made, business hours or after hours, all service request Q-Alerts are also printed and filed in the City files at the Wastewater Division.

6.2 CITY STAFF OBSERVATION

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

6.3 CONTRACTOR OBSERVATION

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

1. Immediately notify the City.
2. Protect storm drains.
3. Protect the public.
4. Provide Information to the City Wastewater Crew such as start time, appearance point, suspected cause, weather conditions, etc.
5. Direct ALL media and public relations requests as directed in the City's Communications Plan.

6.4 NO OBSERVATION

If there are no witnesses or no call was received for an SSO, City staff will contact nearby residents or business owners in the vicinity of the SSO, in an attempt to obtain information that brackets a given start time that the SSO began. This information will be collected and placed with records for the specific SSO.

7. SSO Response Procedures

ref. SWRCB Order No. 2006-0003-DWQ D.13vi(b)

7.1 Sewer Overflow/Backup Response Summary

The City will respond to SSOs as soon as feasible following notification of an overflow/backup or unauthorized discharge.

If it is not possible that the overflow/backup is due to a failure in the City-owned/maintained sewer lines the Wastewater Crew performs the following:

- Follows the instructions in the Sanitary Sewer Overflow/Backup Response Workbook.
- If the customer is not home the Wastewater Crew completes the Door Hanger and leaves it on the customer's door.
- If the customer is home the Wastewater Crew:
    - Explains that the blockage is in the customer's lateral and the City does not have legal authority to maintain or perform work on privately owned laterals.
    - Recommends to the customer that they hire a contractor to clear their line.
    - Gives the customer the Sewer Spill Reference Guide pamphlet.

If it is possible that the overflow/backup is due to a failure in the City-owned/maintained sewer lines the Wastewater Crew:

- Follows the instructions in the Sanitary Sewer Overflow/Backup Workbook.
- Notifies the Wastewater Crew Supervisor of the incident.
- Relieves blockage and cleans impacted areas.
- Forwards the completed Sanitary Sewer Overflow Workbook to the Wastewater Crew Supervisor.

The Wastewater Manager or Wastewater Crew Supervisor performs required regulatory reporting in accordance with the Sanitary Sewer Overflow/Backup Workbook's Regulatory Reporting section.

If the overflow has impacted private property, the Wastewater Crew:

- Follows the instructions in the Sanitary Sewer Overflow/Backup Workbook.
- Provides the customer with forms and information as indicated in the Sanitary Sewer Overflow/Backup Workbook.
- Forwards the completed Sanitary Sewer Overflow/Backup Workbook to the Wastewater Crew Supervisor.

The Wastewater Crew Supervisor notifies the City Clerk and the City Attorney of incident.

The City Clerk:

- Reviews incident reports, claim form and other incident information
- Communicates with claimant as appropriate.
- Adjusts and administers the claim to closure.

7.2 First Responder Priorities

The first responder's priorities are:

- To follow safe work practices.
- To respond promptly with the appropriate and necessary equipment.
- To contain the spill wherever feasible.
- To restore the flow as soon as practicable.
- To minimize public access to and/or contact with the spilled sewage.
- To promptly notify the Wastewater Crew Supervisor in event of major SSO.
- To return the spilled sewage to the sewer system.
- To restore the area to its original condition (or as close as possible).

7.3 Safety

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

7.4 Initial Response

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

The first responder will:

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

7.5 Initiate Spill Containment Measures

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

- Determine the immediate destination of the overflowing sewage.
- Plug storm drains using air plugs, sandbags, and/or plastic mats to contain the spill, whenever appropriate. If spilled sewage has made contact with the storm drainage system, attempt to contain the spilled sewage by plugging downstream storm drainage facilities.
- Contain/direct the spilled sewage using dike/dam or sandbags.
- Pump around the blockage/pipe failure.

For procedures refer to the Sanitary Sewer Overflow/Backup Response Workbook.

7.6 Restore Flow

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

7.7 Equipment

This section provides a list of specialized equipment that is required to support this Overflow Emergency Response Plan.

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

Standard operating procedures for equipment that may be necessary in the event of a sanitary sewer overflow or backup can be found in the Wastewater Division and on equipment as available and appropriate.

8. Recovery and Cleanup

ref. SWRCB Order No. 2006-0003-DWQ D.13vi(e)

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

8.1 Estimate the Flow and Volume of Spilled Sewage

To estimate the flow rate, crew members will use the SSCSC Manhole Overflow Gauge if the same style of manhole cover is observed overflowing. A variety of approaches exist for estimating the volume of a sanitary sewer spill. Crew members should use the method most appropriate to the sewer overflow in question and reference the Sanitary Sewer Overflow/Backup Response Workbook which provides three (3) methods:

- Eyeball Estimation Method
- Duration and Flow Rate Calculation Method
- Area/Volume Method

In addition, wherever and whenever possible, document the estimate using photos and/or video of the SSO site before and during the recovery operation.

8.2 Recovery of Spilled Sewage

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

8.3 Clean-up and Disinfection

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

Private Property
City crews are responsible for the cleanup when the property damage is minor in nature and is outside of private building dwellings, such as in front, side and backyards, easements, etc. In all other cases, affected property owners can call a water damage restoration contractor to complete the cleanup and restoration. If the overflow into property is the definite cause of City system failure, the property owner can call out a water damage restoration contractor to complete the cleanup and restoration. In both cases, property owners may pick up City claim forms from the City Clerk or from the City's website www.cityofsalinas.org.

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

Landscaped and Unimproved Natural Vegetation
Collect all signs of sewage solids and sewage-related material either by protected hand or with the use of rakes and brooms. Wash down the affected area with clean water until the water runs

clear. The flushing volume will be approximately three times the estimated volume of the spill. Either contain or vacuum up the wash water so that none is released. Allow the area to dry. Repeat the process if additional cleaning is required.

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

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

8.4 Public Notification

Signs will be posted and barricades put in place to keep vehicles and pedestrians away from contact with spilled sewage. County Environmental Health instructions and directions regarding placement and language of public warnings will be followed. Additionally, the Wastewater Crew Supervisor will use their best judgment regarding supplemental sign placement in order to protect the public and local environment. Signs will not be removed until directed by County Environmental Health, the Wastewater Crew Supervisor or the Wastewater Manager.

Creeks, streams and beaches that have been contaminated as a result of an SSO will be posted at visible access locations until the risk of contamination has subsided to acceptable background bacteria levels. The area and warning signs, once posted, will be checked every day to ensure that they are still in place. Photographs of sign placement will be taken.

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

When contact with the local media is deemed necessary, it will be done so pursuant to the City's Communications Plan.

9. Water Quality

ref. SWRCB Order No. 2006-0003-DWQ D.13vi(f)

9.1 Waters of the State

The following waters of the state are in the City of Salinas's service area:

- Salinas River
- Gabilan Creek
- Natividad Creek
- Santa Rita Creek
- Alisal Creek
- Reclamation Ditch 1665

9.2 Water Quality Sampling and Testing

Water quality sampling and testing will be performed for Category 1 SSOs whenever there is a major spill to determine the extent and impact of the SSO. The water quality sampling procedures must be implemented within 48 hours and include the following:

- The first responders will collect samples as soon as possible after the discovery and mitigation of the SSO event.
- The water quality samples will be collected from upstream of the spill, from the spill area, and downstream of the spill in flowing water (e.g. creeks). The water quality samples will be collected near the point of entry of the spilled sewage.
- The samples shall then be brought to the Monterey County Health Department Consolidated Environmental Laboratory for analysis.

9.3 Water Quality Monitoring Plan

The City Water Quality Monitoring Plan will be implemented immediately upon discovery of any Category 1 SSO whenever there is a major spill in order to assess impacts from SSOs to surface waters. The SSO Water Quality Monitoring Program will:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, legal right to access, etc.)
3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.
5. Within 48 hours of the City becoming aware of the SSO, require water quality sampling for fecal coliform, E. Coli, biochemical oxygen demand (BOD), and ammonia.
6. Observe proper chain of custody procedures.
7. If the City's current standard operating procedures (SOP's) cannot fully mitigate an SSO and if it is determined that the SSO may pose an imminent and substantial endangerment to public health or the environment, the City shall consult a qualified biologist, health care specialist or equivalent professional to assist.

9.4 SSO Technical Report

The City will submit an SSO Technical Report to the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any major SSO spilled to surface waters. The Wastewater Manager will supervise the preparation of this report and will certify this report. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

<u>Causes and Circumstances of the SSO:</u>

- Complete and detailed explanation of how and when the SSO was discovered.
- Diagram showing the SSO failure point, appearance point(s), and final destination(s).
- Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.

- Detailed description of the cause(s) of the SSO.
- Copies of original field crew records used to document the SSO.
- Historical maintenance records for the failure location.

City's Response to SSO:

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

Water Quality Monitoring:

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

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

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

- City staff will offer a City claim form irrespective of fault whenever it is possible that the sanitary sewer backup may have resulted from an apparent blockage in the City-owned sewer lines or whenever a City customer requests a claim form. The claim may later be rejected following subsequent investigations.
- It is the responsibility of the Wastewater Crew to gather information regarding the incident and notify the Wastewater Crew Supervisor or the Wastewater Manager.
- It is the responsibility of the City Attorney or their designee to review all claims and to oversee the adjustment and administration of the claim to closure.

11. Notification, Reporting, Monitoring and Recordkeeping Requirements

ref. SWRCB Order No. 2006-0003-DWQ D.13vi(c)

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

- Documentation of response steps and/or remedial actions
- Photographic evidence to document the extent of the SSO, field crew response operations, and site conditions after field crew SSO response operations have been completed. The date, time, location, and direction of photographs taken will be documented.
- Documentation of how any estimations of the volume of discharged and/or recovered volumes were calculated including all assumptions made.
- Regulator required notifications are outlined in Section 11.1 on the following page.

11.1 Regulator Required Notifications

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION	Within two hours of becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water, the City will notify the California Office of Emergency Services (CalOES) and obtain a notification control number.	Call Cal OES at: **(800) 852-7550**
REPORTING	• Category 1 SSO: The City will submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. • Category 2 SSO: The City will submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. • Category 3 SSO: The City will submit certified report within 30 calendar days of the end of month in which SSO the occurred. • SSO Technical Report: The City will submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. • "No Spill" Certification: The City will certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. • Collection System Questionnaire: The City will update and certify every 12 months	Enter data into the CIWQS Online SSO Database[1] (http://ciwqs.waterboards.ca.gov/) certified by the Legally Responsible Official(s)[2]. All information required by CIWQS will be captured in the Sanitary Sewer Overflow Report. Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the State SSO Program Manager must be contacted to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days.
WATER QUALITY MONITORING	The City will conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.	Water quality results will be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
RECORD KEEPING	The City will maintain the following records: • SSO event records. • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. • Collection system telemetry records if relied upon to document and/or estimate SSO Volume.	Self-maintained records shall be available during inspections or upon request. Self-maintained records shall be maintained consistent with and pursuant to the City's Records Retention Schedule.

[1] In the event that the CIWQS online SSO database is not available, the Wastewater Manager will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office at (510) 622-2460 in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS online SSO database when the database becomes available. A copy of all documents that certify the submittal in fulfillment of this section shall be retained in the SSO file.

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

For reporting purposes, if one SSO event of whatever category results in multiple appearance points in a sewer system, a single SSO report is required in CIWQS that includes the GPS coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the flow condition that cause the SSO, and descriptions of the locations of all other discharge points associated with the single SSO event.

11.2 Complaint Records

The City maintains records of all complaints received whether or not they result in sanitary sewer overflows. These complaint records include:

- Date, time, and method of notification
- Date and time the complainant or informant first noticed the SSO or occurrence related to the call
- Narrative description describing the complaint
- A statement from the complainant or informant, if they know, of whether or not the potential SSO may have reached waters of the state
- Name, address, and contact telephone number of the complainant or informant reporting the potential SSO (if not reported anonymously)
- Follow-up return contact information for each complaint received (if not reported anonymously)
- Final resolution of the complaint with the original complainant
- Work service request information used to document all feasible and remedial actions taken

All complaint records will be maintained consistent with and pursuant to the City's Records Retention Schedule whether or not they result in an SSO. SSO records are kept under the direction and control of the Wastewater Manager.

12. Post SSO Event Debriefing

ref. SWRCB Order No. 2006-0003-DWQ D.13vi(d)

Every SSO event is an opportunity to evaluate the City response and reporting procedures. Each overflow event is unique, with its own elements and challenges including volume, cause, location, terrain, climate, and other parameters.

As soon as possible after Category 1 and Category 2 SSO events all of the participants, from the person who received the call to the last person to leave the site, will meet to review the procedures used and to discuss what worked and where improvements could be made in preventing or responding to and mitigating future SSO events. The results of the debriefing will be documented and tracked to ensure the action items are completed as scheduled.

13. Failure Analysis Investigation

ref. SWRCB Order No. 2006-0003-DWQ D.13vi(d)

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

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

- Reviewing and completing the Sanitary Sewer Overflow Report and any other documents related to the incident
- Reviewing the incident timeline and other documentation regarding the incident
- Reviewing communications with the reporting party and witness
- Reviewing volume estimate, volume recovered estimate, volume estimation assumptions and associated drawings
- Reviewing available photographs
- Interviewing staff that responded to the spill
- Reviewing past maintenance records
- Reviewing past CCTV records,
- Conducting a CCTV inspection to determine the condition of all line segments immediately following the SSO and reviewing the video and logs,
- Reviewing any Fats, Oils, Roots and Grease (FROG) related information or results
- Post SSO debrief records
- Interviews with the public at the SSO location

The product of the failure analysis investigation will be the determination of the root cause and the identification and scheduling of the corrective actions. The Collection System Failure Analysis Form (in Sanitary Sewer Overflow/Backup Response Workbook) will be used to document the investigation.

14. SSO Response Training

ref. SWRCB Order No. 2006-0003-DWQ D.13vi(d)

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

14.1 Initial and Annual Refresher Training

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

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

- The City's Overflow Emergency Response Plan and Sanitary Sewer Management Plan
- Sanitary Sewer Overflow Volume Estimation Techniques
- Researching and documenting Sanitary Sewer Overflow Start Times
- Impacted Surface Waters: Response Procedures
- State Water Resources Control Board Employee Knowledge Expectations
- Employee Core Competency Evaluations on Sanitary Sewer Operations
- Water Quality Sampling Plan

The City will verify that annual safety training requirements are current for each employee, and that employees are competent in the performance of all core competencies. This will be verified through electronic testing, interviews and observations. The City will address, through additional training/instruction, any identified gaps in required core competencies.

Through SWRCB Employee Knowledge Expectations training the employee will be able to answer the following:

1. Please briefly describe your name and job title.

2. Please describe for us approximately when you started in this field and how long you have worked for your agency.
3. Please expand on your current position duties and role in responding in the field to any SSO complaints.
4. Please describe your SOPs used to respond/mitigate SSOs when they occur.
5. Describe any training your agency provides or sends you to for conducting spill volume estimates.
6. We are interested in learning more about how your historical SSO response activities have worked in the field. We understand from discussions with management earlier that you use the OERP from the SSMP. Please elaborate on how you implement and utilize the procedures in the plan.
7. Historically, before any recent changes, can you please walk us through how you would typically receive and respond to any SSO complaints in the field?
8. Can you tell us who is responsible for estimating SSO volumes discharged? If it is you, please describe how you go about estimating the SSO volume that you record on the work order/service request forms?
9. What other information do you collect or record other than what is written on the work order form?
10. Describe if and when you ever talk with people that call in SSOs (either onsite or via telephone) to further check out when the SSO might have occurred based on what they or others know? If you do this, can you tell us where this information is recorded?
11. We understand you may be instructed to take pictures of some sewer spills/backups into structures. Other than these SSOs, when else would you typically take any pictures of an SSO?
12. Please walk us through anything else you'd like to add to help us better understand how your field crews respond and mitigate SSO complaints.

14.2 SSO Response Drills

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

14.3 SSO Training Record Keeping

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

14.4 Contractors Working On City Sewer Facilities

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

All service contractors will be provided, and required to observe contractor procedures.

15. Authority

- Health & Safety Code Sections 5410-5416
- CA Water Code Section 13271
- Fish & Wildlife Code Sections 5650-5656
- State Water Resources Control Board Order No. 2006-0003-DWQ
- State Water Resources Control Board Order No. WQ 2013-0058-EXEC effective September 9, 2013

17. Appendices

- Appendix A: Receiving A Sanitary Sewer Service Call Report
- Appendix B: Water Quality Monitoring Plan
- Appendix C: Testing for Total Coliforms and E. Coli
- Appendix D: Chain of Custody
- Appendix E: Private Lateral Sewage Discharge Information (Pamphlet)
- Appendix F: Door Hanger
- Appendix G: Sanitary Sewer Overflow/Backup Response Workbook

APPENDIX A:
Receiving A Sanitary Sewer Service Call Report

City of Salinas

Receiving a Sanitary Sewer Service Call Report

Dispatch staff receiving the report: _____

Date of Report: _____ **Time of Report** _____

- ☐ **What is the residents/person's name?** _____
- ☐ **What is the residents/person's phone number?** _____
- ☐ **What is the residents/person's address?** _____
- ☐ **What is the address or location of the incident?** _____
- ☐ **Please describe the problem:**

_____
_____
_____
_____

- ☐ **What time did the caller first notice incident?** _____
- ☐ **Is liquid currently flowing?** ☐ **Yes or** ☐ **No If No what time did it stop:** _____
- ☐ **If the problem is sewer odor only, please specify where the smell is coming from:**

_____

- ☐ **Clearly communicate that if the blockage is in the sewer main in the street it will be promptly cleared, but that City staff is not allowed to work on blockage in property owner/resident's private lateral line.**
- ☐ **Show concern and empathy for the resident/person's, but do not admit or deny liability.**
- ☐ **Instruct the resident/person's to stay away from affected area, including family members and pets.**

If overflow is in private property or inside home:

- ☐ **Instruct the resident/person's to place towels, rags, blankets, etc. between areas that have been affected and the areas that have not been affected.**
- ☐ **Instruct the resident/person's to turn off all plumbing appliances (Laundry, shower, sinks, etc.)**
- ☐ **Instruct the resident/person's to not move any contaminated items (Let the professionals do this) they can move any uncontaminated items/property away from the overflow area.**
- ☐ **If possible, ask the resident/person's to take photographs of the damage.**

- ☐ **Dispatch crew to incident. Keep copy of report at dispatch, provide one to crew responding.**
- ☐ **Crew responding:** _____

APPENDIX B:
Water Quality Monitoring Plan

SSMP
ELEMENT 6 – Overflow Emergency Response Plan
APPENDIX 6.7

Water Quality Monitoring Program

Revision Date: July 19, 2018 By: Gary Gabriel

WATER QUALITY MONITORING PROGRAM

INTRODUCTION

This Water Quality Monitoring Program provides City of Salinas response activities and standard operating procedures to be utilized in the OERP, in the event a sanitary sewer overflow (SSO) exceeds 50,000 gallons or any discharge to a waterbody. This program is reviewed periodically and may be updated as necessary.

State Water Resources Control Board Order No. WQ 2013-0058-EXEC, **Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems** (Effective September 9, 2013), requires the following:

SSO WDR Section D. Water Quality Monitoring Requirements

To comply with subsection D.7 (v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).
3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.
5. Within 48 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
    i. Ammonia
    ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

Additionally, for spills greater than 50,000 gallons, an SSO Technical Report is required and must be submitted within 45 calendar days from the SSO end date. The SSO Technical Report requirements are described in Element VI of the OERP.

SAFETY

Be aware of safety issues and do not subject personnel to unsafe conditions in order to comply with this Water Quality Monitoring Plan. Sampling will not be conducted if there are any concerns regarding field crew safety. These concerns may include heavy rain events, which compromise access points through flooding and swift currents. Thunderstorms will also be avoided when lightning is occurring. Employ the buddy system as required to maximize employee safety when sample collection is required.

ESTIMATION OF SPILL TRAVEL TIME

The following methods are recommended to estimate spill travel time and direction:

- Method 1: **Use a velocity probe** (such as a Global Water FP211-S Flow Probe)**.** To determine the rate of flow in the surface water or

- Method 2: **Visual ft. /sec measurement**. This may be done by observing or dropping floatable debris in the surface water and timing how long it takes to travel over a measured distance (e.g., 100 feet). Include sections in the surface water where there are bends, bottlenecks, or other characteristics that may slow down the flow. If the first measurement is uncertain, this estimate may be performed three to five times, and the values averaged to determine an estimated travel time.

Either method will provide a means to estimate the distance traveled and identify where the SSO may be headed within the waterway.

WATER QUALITY SAMPLING PROCEDURES

- In the event an SSO reaches a surface water or (flowing) drainage channel tributary, take samples for spills less than 50,000 gallons as appropriate and within 48 hours for spills greater than 50,000 gallons. The purpose of water quality sampling is to determine the nature and extent of the impact of the SSO.
- When sampling an SSO, take a minimum of three separate sample sets as conditions allow. Water quality sampling should not be given precedence over stopping the spill or protection of public health. One sample shall be located 100 feet upstream of the point where sewage entered the waterway. The second sample shall be taken at the discharge location. A third sample shall be taken 100 feet downstream of the point where sewage is entering the waterway.
- Sample for Total Coliform, E. coli, enterococcus, and Ammonia as a minimum. Conduct additional sampling for pH if practical.
- Additional follow-up samples are recommended to confirm the extent that the impact reverts back to baseline levels. Follow-up samples may be used to determine if posting of warning signs should be discontinued (if signs were posted).
- Collaboration with the Monterey County Health Department should continue until closure is obtained.
- Do not forget to take into account Spill Travel Time.

WATER QUALITY SAMPLING EQUIPMENT

The following list describes equipment that should be stocked and readily available for each water quality sampling event.

- Personnel protective equipment including latex/nitrile gloves and eye protection
- 3 – 120 mL sterile plastic containers (containing a tablet of sodium thiosulfate preservative) for Bacteria sample collection.
- 3 – 120 mL sterile plastic containers for Bacteria sample collection.
- 3 – 250 mL Poly containers preserved with H2SO4 for Ammonia analysis.
- 3 – 250 mL Poly containers
- 1 – Sample Collection Container
- Quart plastic bags
- 1 Gallon plastic bags
- sterile funnels
- Cooler with ice packs
- Chain of Custody forms

Ensure that there are adequate quantities of sample containers-kits if there are more than three sample locations.

SAMPLE COLLECTION PROCEDURE

I. Bacteria Sample Collection – Dip sample bottle into water

☐ 1. One 120-mL sterile plastic sample bottle (containing a tablet of sodium thiosulfate preservative) must be filled at a point upstream of where the spill entered the receiving water, and one 120-mL bottle must be filled at a point downstream of where the spill entered the receiving water. Total coliform, *E. coli* and enterococcus can be analyzed at the lab from one sample container.

☐ 2. Carefully open the sample bottle without touching the inside of the lid or bottle.

☐ 3. Facing upstream (or up gradient), **submerge** the sample container and fill it under water, if possible, without collecting surface or bottom debris, and without losing the preservative tablet. Pour off excess sample volume so that the container is filled to the 100-mL fill line. Secure the lid and dry the outside of bottle with a paper towel.

☐ 4. **Use a pencil to record on the bottle label (1) the sample ID*, (2) date and (3) time of sample collection, and (4) the sampler's name.**

*Sample ID = Manhole#–UP (upstream) or Manhole#-DWN (downstream) Example for upstream Sample ID: 431:06-UP
Example for downstream Sample ID: 431:06-DWN

☐ 5. Immediately place the filled & labeled sample container inside the quart bag. Then place the quart bag in the gallon bag with cold instant ice packs (Two ice packs per sample bottle). *Do not put the instant ice packs inside the quart bag with the sample.*

☐ 6. Repeat Steps 1 through 5 for each bacteria sample location. Proceed to Section III (after collecting ammonia samples if necessary).

II. Ammonia Sample Collection – Do NOT Dip Sample Bottle into Water

Use Secondary Container

☐ 1. One 250-mLplastic ammonia sample bottle (containing 50% sulfuric acid as preservative) must be filled at a point upstream of where the spill entered the receiving water, and one 250-mL ammonia bottle must be filled at a point downstream of where the spill entered the receiving water. **Sampling personnel must wear gloves and safety glasses while collecting samples for ammonia because of potential contact with sulfuric acid, which is highly corrosive.**

☐ 2. Remove the lid from a clean / empty / unused 250-mL plastic secondary container.

☐ 3. Facing upstream (or up gradient), **submerge** the secondary container and fill it under water, if possible, without collecting surface or bottom debris.

☐ 4. Carefully open the ammonia sample bottle containing sulfuric acid.

☐ 5. Slowly transfer sample from the secondary container into the 250-mL ammonia sample bottle preserved with sulfuric acid. Secure the lid so that acidified sample does not leak out of the bottle, and dry the outside of bottle with a paper towel.

☐ 6. **Use a pencil to record on the bottle label (1) the sample ID*, (2) date and (3) time of sample collection, and (4) the sampler's name.**

*Sample ID = Manhole#–UP (upstream) or Manhole#-DWN (downstream) Example for upstream Sample ID: 431:06-UP
Example for downstream Sample ID: 431:06-DWN

☐ 7. Immediately place the filled & labeled sample container inside a quart bag and insert the quart bag into a gallon bag with two cold instant ice packs.

☐ 8. Repeat Steps 1 through 7 for each ammonia sample location.

III. Chain-of-Custody & Sample Delivery

☐ 1. Complete the Monterey County Health Lab Chain-of-Custody (COC) form for all samples that will be delivered to the County Health lab at the same time; include the Sample IDs, Date & Time of Sample Collection and Sampler's Name & Signature. Note the approximate upstream and downstream distance in the "Notes" field on the COC. ***The COC is a legal document and must be complete.***
Sample of Monterey County Health COC on page 8

☐ 2. Deliver bacteria samples and Ammonia samples to the Monterey County Consolidated Chemistry Laboratory at 1270 Natividad Road Room 118 Salinas Ca, 93906. Hours of operation are Mon – Fri 8am to 5pm.*
Have the Lab Analyst sign the COC form & make a copy.

☐ 3. Bring the signed COC forms (or photocopies) to the City Yard at 426 Work St.

SAMPLING COLLECTION BEST PRACTICE

- Collect all grab samples approximately 3' - 6" below the surface (or if shallower, as close as possible to this depth) to avoid sampling debris or scum from the surface.
- Collect the sample in a safe manner in the middle of the flow, against the direction of water flow.
- Photo-document the spill locations.
- Leave approximately one inch of head space in individual sample bottles. Do not overfill.
- Once the lid is opened for the individual sample bottle, do not touch the inside surface of the bottle or lid.
- For the sample bottles that contain a preservative, take care to keep the preservation material in the container.
- Immediately place all sample bottles on ice.

SAMPLING TIME CONSTRAINTS

Bacteria samples have a 6-hour (preserved and cooled) regulatory holding time. Samples will not be analyzed if the holding time has been exceeded. The County Lab needs about 30 minutes to set up the tests.

Ammonia samples have a 28-day regulatory holding time. Samples must be maintained at $\leq$ 6^{o}C (on ice or refrigerated) from the time of collection until receipt by the analytical laboratory.

AFTER HOUR RESPONSES

After Hours SSO responses are handled by trained personnel from the Waste Water Division. Staff are trained and follow the procedures within this Water Quality Monitoring Plan for sampling during an SSO event.

On-Call Assignments

- Emergency contacts and schedule for use in the event of lift station alarms, sanitary sewer overflows or sewer related problems, illicit discharges and storm water problems.
- On-call assignments run for two weeks: Tuesday 3:30 p.m. to Tuesday 7:00 a.m.
- In the event that the on-call person is unavailable, contact the appropriate supervisor on the list.
- The on-call schedule is updated quarterly and distributed to police, fire, and county communications for all emergencies.

Sample Contact List & Schedule Sheet

From	To	Name	Primary Contact	On-Call Cell #
6/5/18	6/19/18	Salvador Vargas	320-3833 / 759-2604	970-7634
6/19/18	7/3/18	Ray Lerma	596-0830	970-7634
7/3/18	7/17/18	Robert Reyna	970-7621	970-7634

7/17/18	7/31/18	Manny Mata	776-1902	970-7634
7/31/18	8/14/18	Salvador Vargas	320-3833 / 759-2604	970-7634
8/14/18	8/28/18	Ray Lerma	596-0830	970-7634

In the event that no one on the contact list can be reached:	Home	City Cell	Personal Cell
Gary Gabriel, Wastewater Manager/Sewers/Industrial List Stations	N/A	970-7629	809-6137
David Lewellen, Crew Supervisor Environmental Compliance/Street Sweeping	N/A	970-7645	801-5003
Ray Lerma, Crew Supervisor/Sewers/NPDES Storm Drains	N/A	970-8287	596-0830
Lucas Aledo, Crew Supervisor/Signs/Street Lights/ Traffic Signals	N/A	970-7623	809-2317
Joe Albertoni, Street Maintenance Manager	758- 6862	970-7619	N/A

Chain of Custody Form Monterey County Consolidated Chemistry Laboratory

ENVIRONMENTAL ANALYSIS REQUEST FORM
MONTEREY COUNTY CONSOLIDATED CHEMISTRY LABORATORY
1270 NATIVIDAD ROAD, SALINAS, CALIFORNIA 93906 Phone (831) 755-4516

Shaded areas for laboratory use only

Chain of Custody:

Collected by (Print & sign):	Received by:	Date & Time:
Relinquished by:	Received for Laboratory:	Date & Time:

Client Name:	Report Attention:		ANALYSES REQUESTED
Address:	Copy to:		
City, State, Zip:	Phone:	Fax:	

Laboratory Number	Sample ID or System #	Sample Site or Description	Collection Date & Time	Matrix[1]	No. of Containers	Coliform	MMO-MUG Quanti-Tray (Low-D)	Nitrate					

[1] **D**=Drinking Water (Specify as routine, repeat or replacement) **W**=Wastewater (Specify as grab or composite) **I**=Irrigation (Specify as municipal, well, reservoir, reclaimed, blue valve, canal, other).

[ ] Payment received with delivery	Amount:	Sample comments (irregularities/preservation, billing information if different than reporting):
Check:	Initials:	
Receipt #: _____	Date: _____	

Monterey County Testing for Coliforms and E. coli

Monterey County Health Department
Consolidated Environmental Laboratory
1270 Natividad Rd., Rm. 118
Salinas, CA 93906
(831) 755-4516

TESTING FOR TOTAL COLIFORMS AND *E. COLI*

PURPOSE: Outbreaks of enteric (intestinal) and opportunistic diseases caused by waterborne microorganisms still occur even in the most advanced nations with superior sanitation practices and sophisticated treatment and testing programs. Waterborne diseases include dysentery, hepatitis, cholera, cryptosporidiosis, and giardiasis. These diseases are spread by water contaminated with fecal material from humans and other warm-blooded animals.

It is not feasible to routinely test drinking water for every possible disease-causing microorganism. Instead, water quality standards are based on the concept of "indicator" organisms. According to this concept, drinking water is tested for organisms that are not necessarily the cause of disease, but are associated with contaminated water and indicate the potential for disease transmission. The most commonly used indicator organisms for drinking water are total **coliforms** and ***E. coli***.

The **total coliform** group is the broadest indicator classification and includes bacteria found in soil and vegetation as well as the intestinal tract of warm-blooded animals; ***E. coli*** is a specific type of coliform bacteria, which originates from the intestinal tract of warm-blooded animals.

SAMPLE COLLECTION: Water samples taken for coliform bacteria testing must be collected and handled carefully in order to insure that the sample taken truly represents the bacteriological quality of water in the system. The following procedures will help you in this regard:

1. Sterile containers provided by your laboratory must be used. Do not touch or otherwise contaminate the inside of the container, the inside of the cap, or the threads of the container. The container contains a chemical to neutralize chlorine; do not rinse the container.

2. Select a faucet that is used frequently. Do not take a sample from a faucet that is leaking around the handle. Do not take a sample from a dirty faucet or one that is equipped with an aerator and/or screen. Also, do not take a sample from a swing type faucet. Never take a sample from a hose or other device that is attached to the faucet - - - remove them first.

3. When you have found a suitable faucet, open it just enough to produce a flow which can be collected without splashing. Let it run for two or three minutes. Carefully fill the container up to the 100ml mark. Immediately replace the cap (tightly), and label the sample with well identification, description of sample point, date and time of collection, and name of sample collector.

4. Complete the laboratory form including mailing address, name of sample collector, well number, description of sample point, date and time of collection, and test ordered (i.e."Coliform").

CARE OF SAMPLE

SAMPLES MUST BE SUBMITTED DIRECTLY TO THE LABORATORY WITHIN 24 HOURS OF COLLECTION. Alternatively, the sample can be submitted on the same day of collection to one of the following health department offices:

Monterey Co. Environmental Health
1200 Aguajito Rd.
Monterey, CA
831-647-7654

Monterey - Drop off by 9:00 a.m.

Monterey Co. Environmental Health
620 Broadway St.
King City, CA
831-386-6899

King City – Drop off by 9:00 a.m.

SAMPLES WHICH CANNOT BE DELIVERED TO THE LABORATORY WITHIN ONE HOUR AFTER COLLECTION SHOULD BE REFRIGERATED (e.g. iced cooler).
Health department offices can provide for cold storage/transport from point of receipt.

FEE FOR TESTING

The fee for coliform testing is $25. If you do not have an account with our laboratory, you must pay in advance for this testing. Clients who have an account will be billed at the end of the month for which results are reported.

INTERPRETATION OF RESULTS

Coliforms other than the fecal group are ubiquitous and careful maintenance of the water system and collection of samples is necessary to avoid contamination. State and federal drinking water standards allow **total coliforms** to be present in up to 5% of samples tested by large water systems each month; however, small drinking water systems which test fewer than 20 samples per month should have no **total coliform** positive samples/month. ***E. coli*** should never be found in drinking water; if ***E. coli*** is present, it represents an urgent health threat and the water should be considered non-potable until properly treated.

Note to small water systems permitted by Monterey County: If total coliforms are detected in a routine sample, four additional samples should be immediately collected for testing; one from the source water (well or storage tank), one from the original site where total coliforms were detected, and two samples from the distribution system (including one upstream and one downstream). If E. coli is detected in a routine sample, immediately contact Monterey County Environmental Health (755-4507).

APPENDIX C:
Testing for Total Coliforms and E. Coli

Monterey County Health Department
Consolidated Environmental Laboratory
1270 Natividad Rd., Rm. 118
Salinas, CA 93906
(831) 755-4516

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APPENDIX D:
Chain of Custody

ENVIRONMENTAL ANALYSIS REQUEST FORM

MONTEREY COUNTY CONSOLIDATED CHEMISTRY LABORATORY
1270 NATIVIDAD ROAD, SALINAS, CALIFORNIA 93906 Phone (831) 755-4516

Shaded areas for laboratory use only

Chain of Custody:

Collected by (Print & sign):	Received by:	Date & Time:
Relinquished by:	Received for Laboratory:	Date & Time:

Client Name:	Report Attention:	
Address:	Copy to:	
City, State, Zip:	Phone:	Fax:

Laboratory Number	Sample ID or System #	Sample Site or Description	Collection Date & Time	Matrix[1]	No. of Containers	Coliform MMO…. Quanti…… Low-D……	Nitrate					

ANALYSES REQUESTED

[1] **D**=Drinking Water (Specify as routine, repeat or replacement) **W**=Wastewater (Specify as grab or composite) **I**=Irrigation (Specify as **m**unicipal, **w**ell, **res**ervoir, **rec**laimed, **b**lue valve, **c**anal, **o**ther).

[ ] Payment received with delivery Amount: _____

Check: _____ Initials: _____

Receipt #: _____ Date: _____

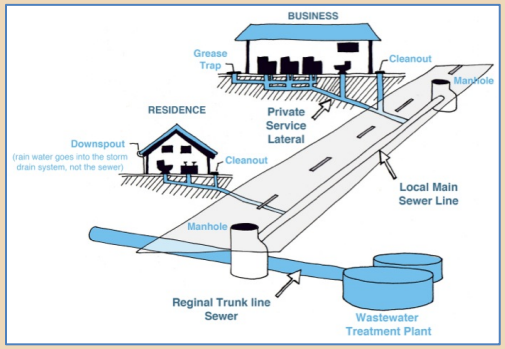
Sample comments (irregularities/preservation, billing information if different than reporting):

LAB60 (Rev 04/08)

APPENDIX E:
Private Lateral Sewage Discharge Information

How a Sewer System Works

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



Is my home required to have a backflow prevention device?

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

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

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

City of Salinas
(831) 758-7233; Call 911 for emergencies

Discharge of untreated or partially treated sewage is prohibited by law. If you would like more information on this prohibition, please contact any of the following:

County Environmental Health
(831) 755-4508

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

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

Regional Water Quality Control Board:
(805) 849-3689
Requires the prevention, mitigation, response to, and reporting of sewage spills.

California Governor's Office of Emergency Services (CalOES): (800) 852-7550

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

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

Sewer Spill Reference Guide

SALINAS

Your Responsibilities as a Private Property Owner

Provided to you by:

City of Salinas
426 Work Street
Salinas, CA 93901

(831) 758-7103

How do sewage spills happen?

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

CAUTION!

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

Call for assistance: (831) 758-7103

Common causes of sewage spills

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

Prevent most sewage backups with a Backflow Prevention Device

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

Protect the environment!

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

What to look for:

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

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

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

- Water comes up in floor drains, showers or toilets.
- Toilets, showers or floor drains below ground level drain very slowly.

What to do if there is a spill:

Immediately notify the City. Our crews locate the blockage and determine if it is in the public sewer; if it is the crew removes the blockage and arranges for cleanup.
If the backup is in your private internal plumbing or in the private service laterals, you are required to immediately:

- Control and minimize the spill by shutting off or not using the water
- Keep sewage out of the storm drain system using sandbags, dirt and/or plastic sheeting
- Call a plumbing professional to clear blockages and make repairs as needed. Look in the yellow pages under "Plumbing Drain & Sewer Cleaning" or "Sewer Contractors."
- Always notify your sewer/public works department or public sewer district of sewage spills.

Spill cleanup inside the home:

For large clean ups, a professional cleaning firm should be contacted to clean up impacted areas. If you hire a contractor, it is recommended to get estimates from more than one company. Sometimes, homeowner's insurance will pay for the necessary cleaning due to sewer backups. Not all policies have this coverage, so check with your agent.

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

Other Tips:

- Keep children and pets out of the affected area until cleanup has been completed.
- Turn off heating/air conditioning systems
- Wear rubber boots, rubber gloves, and goggles during cleanup of the affected area.
- Discard items that cannot be washed and disinfected (such as: mattresses, rugs, cosmetics, baby toys, etc.)
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops, appliances, sinks and other plumbing fixtures) with hot water and laundry or dish detergent.
- Help the drying process with fans, air conditioning units, and dehumidifiers.
- After completing cleanup, wash your hands with soap and water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a Laundromat until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate attention if you become injured or ill.

Spill cleanup outside the home:

- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard surfaces areas such as asphalt or concrete, it is safe to use a 2% bleach solution, or ½ cup of bleach to 5 gallons of water, but don't allow it to reach a storm drain as the bleach can harm the environment.
- After cleanup, wash hands with soap and water. Use water that has been boiled for 1 minute (allow to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a Laundromat until your onsite wastewater system has been professionally inspected and serviced.
- Seek immediate attention if you become injured/ill.

APPENDIX F:
Door Hanger

City of Salinas

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

We discovered a blockage in:

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

If you require assistance to clear your portion of the lateral you can search for “Sewer Contractors” or “Plumbing Drains & Sewer Cleaning”. If you plan to hire a contractor, we recommend getting estimates from more than one company.

City representative notes: _____

_____

_____

City representative:

_____

For questions or comments, please call

City of Salinas
(831) 758-7233

City of Salinas

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

We discovered a blockage in:

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

If you require assistance to clear your portion of the lateral you can search for “Sewer Contractors” or “Plumbing Drains & Sewer Cleaning”. If you plan to hire a contractor, we recommend getting estimates from more than one company.

City representative notes: _____

_____

_____

City representative:

_____

For questions or comments, please call

City of Salinas
(831) 758-7233

APPENDIX G:
Sanitary Sewer Overflow/Backup Response Workbook

INSERT
Sanitary Sewer Overflow/Backup Response Workbook

Sanitary Sewer Overflow/Backup Response Workbook

- ❑ If this is a Category 1 SSO (any volume), **immediately contact CALOES** at (800) 852-7550 within 2 hours.
- ❑ **Refer to the Regulatory Reporting Guide** for additional reporting requirements.
- ❑ **If there is a backup into a residence or business:** Wastewater Manager at (831) 758-7103 or Public Works Director (831) 758-7390.
- ❑ **For Water Sample Analysis:** Monterey County Health Dept Consolidated Environmental Lab (831) 755-4516.
- ❑ **For Restoration/Remediation**: SERVPRO Monterey (831) 275-1901
  California Premiere Restoration (831) 275-2103
- ❑ **For any media inquiries/requests:**
  Public Information Officer (831) 612-9200

Don't forget to take photos!

Wastewater Crew:	
❑ Follow the instructions on the Overflow/Backup Response Flowchart and complete forms in this workbook as indicated. ❑ Complete the chain of custody record (to the right) and deliver this workbook to the Wastewater Manager.	Print Name: _____ Initial: _____ Date: _____ Time: _____

Wastewater Manager:	
❑ Review the SSO Event Checklist and the forms in this booklet. Contact the Collections Crew for additional information if necessary. ❑ Complete the Collection System Failure Analysis Form. ❑ Enter data into CIWQS. ❑ Complete the Chain of Custody record (right) and file this booklet	Print Name: _____ Initial: _____ Date: _____ Time: _____

City of Salinas Overflow Emergency Response Plan

SSO Event Checklist

Date of SSO: _____ SSO Location/Name: _____

CIWQS Event ID #: _____ Category? ☐ 1 ☐ 2 ☐3 OES#: _____

Property Damage? ☐ Yes ☐ No Service Request #: _____

- ☐ Effort made to contain and return a portion/all to the sanitary sewer
- ☐ Pictures/video taken of overflow
- ☐ Pictures taken of affected/unaffected area
- ☐ If property damage, start that process
- ☐ Pictures taken of containment efforts
- ☐ If Cat 1 > 1000 gals:
  OES Control #_____
- ☐ Impacted waters identified?
- ☐ No impacted waters?
- ☐ SSO Report Form Complete (includes fields for all required fields in CIWQS, and a sketch of SSO)
- ☐ Volume Estimation Worksheet(s) done
- ☐ Start Time Determination Form done
- ☐ Initial review of forms is complete (ensure consistency with dates, times, volumes, and other data)
- ☐ Review of photos and videos (label/date)
- ☐ Start Folder for all documentation for this SSO event. Put everything in it (SR, Field Reports, Worksheets/Forms, follow-up work orders, notes, pics, drawings, etc. CIWQS print outs and emails)
- ☐ Failure Analysis
  - TV to determine cause
  - Review Asset History
- ☐ Determine next steps to prevent recurrence
- ☐ Document findings and next steps on SSO Report
- ☐ Submit Draft in CIWQS w/in 3 business days (for Categories 1 and 2 only)
- ☐ Print CIWQS Draft hard copy and email
- ☐ Review CIWQS, SSO Report, Worksheets, CMMS, and any other documentation to ensure data is consistent (e.g. dates, times, volumes, cause, follow-up action, etc.
- ☐ Attach photos, forms etc. to CIWQS
- ☐ Submit Ready to Certify in CIWQS (with sufficient time for LRO review)
- ☐ Print CIWQS Ready to Certify and email
- ☐ Hand folder to LRO
- ☐ LRO review folder and CIWQS verify accurate and consistent data
- ☐ Certify in CIWQS (within 15 calendar days for Categories 1 & 2, 30 days after the month for Category 3)
- ☐ Print Certified CIWQS and email
- ☐ Any changes? Change in CIWQS and hard copies and explain changes, print our current version
- ☐ Move completed folder to SSO Binder
- ☐ For 50, 000 gallons or larger
- ☐ Follow Water Quality Monitoring and Sampling procedures
- ☐ Map of where samples were taken
- ☐ Sampling results
- ☐ Write Technical Report
- ☐ Attach to CIWQS
- ☐ Add to SSO Folder/Binder
- ☐ If any changes are made to SSMP
- ☐ Update SSMP and link on CIWQS to SSMP
- ☐ Add change to SSMP Change Log
- ☐ If change is substantive, re-certify SSMP

INSERT TAB:
Regulatory Reporting

Deadline	Category 1 SSO	Category 2 SSO	Category 3 SSO
2 hours after awareness of SSO	Notify CalOES.	-	-
As soon as possible	• Notify Monterey County Water Resources Agency • Notify Monterey County Health Department		
As soon as possible	If SSO impacts private property that may be a failure of the sewer main and/or if a claim for damages may be submitted against the city, notify the City Clerk.		
48 Hours after awareness of SSO	If 50,000 gal or more were not recovered, begin water quality sampling.	-	-
3 Business Days after awareness of SSO	Submit Draft Spill Report in the CIWQS database.	Submit Draft Spill Report in the CIWQS database.	-
15 Days after response conclusion	Certify Spill Report in CIWQS. Update as needed until 120 days after SSO end date.	Certify Spill Report in the CIWQS database. Update as needed until 120 days after SSO end time.	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in CIWQS. Update as needed until 120 days after SSO end date.
45 days after SSO end date	If 50,000 gal or more were not recovered, submit SSO Technical Report in CIWQS.	-	-

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

Category	Definition
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).
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.
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.

Authorized Personnel:

All Wastewater Crews are authorized to perform CalOES notifications. The following Legally Responsible Officials (LROs) are authorized to electronically sign and certify SSO reports in CIWQS.

- Wastewater Manager (831) 758-7103
- Wastewater Supervisor (831) 758-7150

Contact	Telephone/Email
CAL OES	**(800) 852-7550**
City Clerk	**(831) 758-7381**
Monterey County Water Resources Agency (contact Brett if available)	**(831) 755-4803 or (831) 755-4860 After hours: (831) 756-1166**
Monterey County Health Department	**(831) 755-4500**
Regional Water Quality Control Board	**Phone: (805) 549-3147 Fax: (805) 543-0397**
State Water Resources Control Board Armando Martinez	**(916) 341-5586 Armando.Martinez@waterboards.ca.gov**

NOTIFICATIONS	
CAL OES (800) 852-7550	
Notification Date/Time:	
Name of Who You Spoke To:	
OES Control Number:	
Monterey County Water Resources Agency	
Notification Date/Time:	
Name of Who You Spoke To: Left Message: ☐	
Monterey County Health Department	
Notification Date/Time:	
Name of Who You Spoke To: Left Message: ☐	
City Clerk	
Notification Date/Time:	
Name of Who You Spoke To: Left Message: ☐	

INSERT TAB:
Flowchart

Overflow/Backup Response Flowchart

Start Here

Does the SSO/backup appear to be due to a problem in the **City-owned/maintained** sewer line?

NO

This is a Private Lateral Sewage Discharge (PLSD)

1. Notify the property owner that the blockage is in their lateral and that the City does not have legal authority to maintain or perform work on privately-owned laterals.
2. Give customer the "Your Responsibilities as a Private Property Owner" pages.
3. Recommend to customer they hire a contractor to clear their line.
4. If customer is not home:
   - Complete Door Hanger and leave on customer's door.
   - Leave a message on the customer's voicemail.
5. If the property owner is unable or unwilling to address the cause of the overflow, immediately contact your supervisor and discuss whether Code Enforcement, the County Department of Environmental Health or Regional Water Quality Control Board should be notified.
6. If you are directed to to break the stoppage and clean up the PLSD, Be sure to document City staff time and equipment used for potential billing purposes, and take pictures.

1. Document the service call according to City procedures.
2. STOP. Do not continue to PAGE 2

YES

1. Document arrival time.
2. Consider the need to call out additional staff, contractor or mutual aid assistance.
3. If it is possible that this is a Category 1 SSO, immediately make the 2-hour notification to CalOES.

BEGIN DIVERSION AND CONTAINMENT, AS NECESSARY

1. DIVERT AWAY FROM SENSITIVE AREAS:

a. Cover unplugged storm drains w/mats, or use dirt/other material to divert sewage away from sensitive areas (e.g., schools, playgrounds, intersections, etc.)

b. ENSURE PUBLIC CONTACT DOES NOT OCCUR. Use cones/barricades to isolate area.

2. CONTAIN SSO & RETURN TO SYSTEM, IF POSSIBLE:

a. Plug storm drain catch basins or use rubber mats to cover basin inlet and divert flow to catch basin

b. Build/excavate a berm to channel flow to downstream sanitary sewer manhole (*barricade manhole if left open)*

c. Use bypass pumps to pump around blockage until it can be removed

d. Divert to low area of ground where it can be collected later

3. PHOTOGRAPH HOW THE SSO WAS DIVERTED/CONTAINED, AS APPROPRIATE

ADDRESS CAUSE OF SSO/BACKUP ASAP

1. For pump station related SSO/Backups refer to that station's Emergency Response Plan.
2. For SSO/Backups not related to a pump station, relieve the stoppage. Note the distance from the manhole and catch/remove debris that could cause another stoppage. After flow has returned to normal, clean the pipe thoroughly.
3. Photograph staff activities while clearing the blockage, as appropriate.

Go to PAGE 2

Overflow/Backup Response Flowchart

Continue from PAGE 1

Has the SSO reached surface waters?

YES

1. Consider the need to sample surface waters the SSO may have reached:
   - If preliminary volume estimates of the SSO are 50,000 gallons or greater, begin collecting as soon as possible but no later than 48 hours after becoming aware of the SSO.
   - If people are fishing or swimming in the waters, collect samples regardless of the volume of the SSO.
2. Refer to and follow the sampling standard operating procedure (SOP).

NO

Is it feasible/practical to contain/recover any of the SSO from the surface waters?

NO

YES

Contain/recover/clean up as much of the SSO in the waters and shoreline as possible. Contact Collection System Supervisor to request outside assistance, as appropriate.

Were storm drains impacted?

YES

STORM DRAIN CLEANING SOP

1. Seal or berm the storm drain immediately downstream of point the SSO reached
2. Photograph impacted storm drain catch basins before cleaning
3. Vacuum any visible sewage – *Record the volume of sewage recovered*
4. Using dechlorinated water, flush impacted sections of storm drain with 3X amount of SSO, if possible – *Record volume of flush water*
5. Ensure all visible signs of sewage have been removed
6. Return flush water to sanitary sewer – *Record volume of flush water recovered*
7. Photograph storm drain catch basins after cleaning is completed

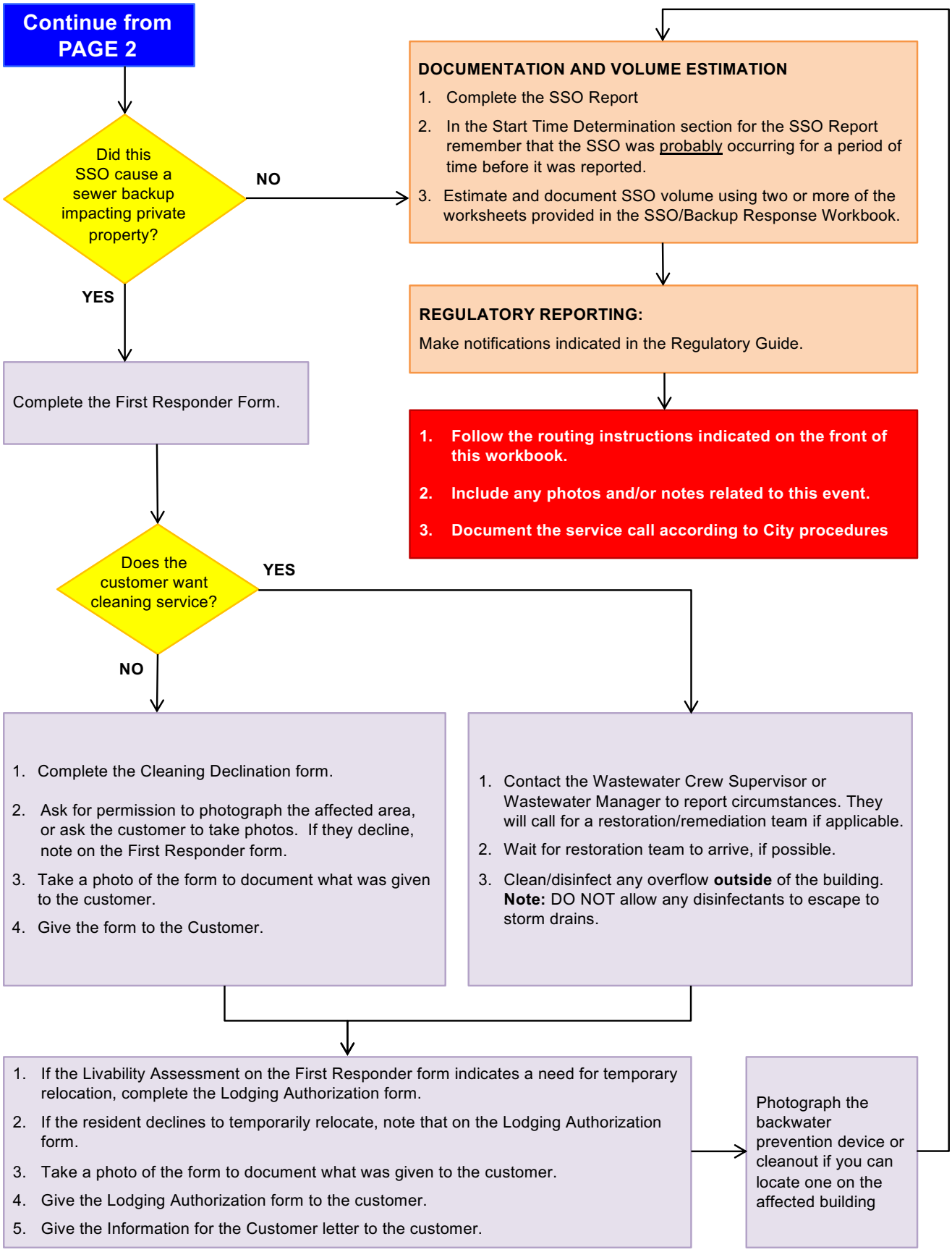
NO

IMPACTED AREA CLEANUP, AS NECESSARY

1. **Assign staff to begin cleanup.** If you might use the are measured volume method to estimate the volume, draw a sketch of the SSO footprint and capture dimensions before washing it down.
2. **Remove all signs of gross pollution** with a shovel, broom, and bucket. (toilet paper, solids, grease, etc.)
3. **Flush area w/dechlorinated water – Unless raining.** (*3X amount of SSO, if possible)*
   a. Setup berm/other means to contain all water so it can be returned to sewer
   b. Don't use disinfectants if they may enter storm drain system and not be fully recovered or if they may enter a water body
4. **Address saturated soil** with removal and/or in-place treatment, depending on the extent of the contamination, the location, and land use. Take measures to prevent accidental contact by the public. NOTE: addressing saturated soil may involve returning to the site one or more days after the SSO event.
5. **Photograph the area when cleanup operations are complete**

Go to PAGE 3

Overflow/Backup Response Flowchart



INSERT TAB:
SSO Report

Sanitary Sewer Overflow Field Report

PHYSICAL LOCATION DETAILS		
Spill location name		
Latitude of spill location		
Longitude of spill location		
County		
Regional Water Quality Control Board		
VOLUMES BY DESTINATION	**Volume Spilled (Gallons)**	**Volume Recovered (Gallons)**
2.a/2.b Estimated spill volume that reached a separate storm drain that flows to a surface body of water? (If not all recovered, this is a Category 1)		
2.c/2d Estimated spill volume that directly reached a drainage channel that flows to a surface water body? (Any volume spilled is a Category 1)		
2.e/2.f Estimated spill volume discharged directly to a surface water body? (Any volume spilled is a Category 1)		
2.g/2.h Estimated spill volume discharged to land? (Includes discharges directly to land, and discharges to a storm drain system or drainage channel that flows to a storm water infiltration/retention structure, field, or other non-surface water location. Also, includes backups to building structures).		
	Volume Spilled	**Volume Recovered**
Total Volume Spilled (Verify this matches the table in between 2.h and 3 in CIWQS)		

DATE/TIME DETERMINATIONS		
	DATE	**TIME**
Start of SSO (Use Start Time Determination/Notes Below)		
Agency Notified		
Collection System Operator Dispatched		
Collection System Operator Arrived		
End of SSO		
End of Spill Response		

Start Time Determination/Notes

Caller Interview: Where did you see sewage spill from?

☐ Manhole ☐ Inside Building ☐ Vent/Clean Out ☐ Catch Basin ☐ Wet Well/Lift Station

☐ Other: _____

Comments: _____

_____

Last Time Caller Observed **NO Spill** occurring: _____ AM / PM Date _____ /_____ /_____

Comments: _____

_____

If the volume of the SSO and rate of flow are known, divide volume by rate of flow to get duration of SSO event.

_____Gallons ÷ _____GPM = Minutes (SSO Duration).

Subtract the Duration from the SSO End Date/Time to establish the SSO Start Date/Time.

Other Efforts to Determine Start Time: _____

_____

Other Comments Regarding Spill Start Time: _____

_____

Estimated SSO Start Time: _____ AM / PM Date: _____ / _____ / _____

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

SSO FIELD REPORT
Spill location description:
Number of appearance points:
Spill appearance points: (Circle all that apply) Backflow Prevention Device Force Main Gravity Mainline Inside Building/Structure Lateral Clean Out (Private / Public) Lower Lateral (Private / Public) Manhole Pump Station Upper Lateral (Private / Public) Other Sewer System Structure
Spill appearance point explanation. (Enter information here if “Other” or multiple appearance points were selected):
Final spill destination: (Circle all that apply) Final spill destination. (Circle all that apply). Beach Building/Structure Combined Storm Drain Drainage Channel Other (Specify Below) Paved Surface Separate Storm Drain Street/Curb and Gutter Surface Water Unpaved Surface
Explanation of final spill destination. (Enter information if “Other” was selected.

SSO FIELD REPORT
Spill cause: (Circle One) Air Relief Valve (ARV)/Blow Off Valve (BOV) Failure Construction Diversion Failure CS Maintenance Caused Spill/Damage Damage by Others Not Related to CS Construction/Maintenance (Specify Below) Debris from Construction Debris from Lateral Debris-General Debris-Rags Debris Wipes/Non-Dispersible Flow Exceeded Capacity (Separate CS Only) Grease Deposition (FOG) Inappropriate Discharge to CS Natural Disaster Operator Error Other (Specify Below) Pipe Structural Problem/Failure Pipe Structural Problem/Failure – Installation Pump Station Failure – Controls Pump Station Failure – Mechanical Pump Station Failure – Power Rainfall Exceeded Design, I and I (Separate CS Only) Root Intrusion Siphon Failure Surcharged Pipe (Combined CS Only) Vandalism
Spill cause explanation: (Required if Spill Cause is “Other”)

SSO FIELD REPORT		
Where did failure occur? Air Relief Valve (ARV)/Blow Off Valve (BOV) Failure Force Main Gravity Mainline Lower Lateral (Public) Manhole Other (Specify Below) Pump Station Failure – Controls Pump Station Failure – Mechanical Pump Station Failure – Power Siphon Upper Lateral (Public)		
Explanation of where failure occurred: (Required if Where Failure Occurred is “Other”)		
Was spill associated with a storm event?	YES	NO
Diameter of sewer pipe at the point of blockage or failure:	inches	
Material of sewer pipe at the point of blockage or failure:		
Estimated age of sewer asset at the point of blockage or failure (if applicable):	years	
Spill Response Activities. (Circle all that apply) Cleaned-Up Mitigated Effects of Spill Contained All or Portion of Spill Other (Specify Below) Restored Flow Returned All Spoil to Sanitary Sewer System Property Owner Notified Other Enforcement Agency Notified		
Explanation of spill response activities: (Required if spill response activities is “Other”):		

SSO FIELD REPORT		
Spill corrective action taken: (Circle all that apply) Added Sewer to Preventive Maintenance Program Adjusted Schedule/Method of Preventive Maintenance Enforcement Action Against FOG Source Inspected Sewer Using CCTV to Determine Cause Other (Specify Below) Plan Rehabilitation or Replacement of Sewer Repaired Facilities or Replaced Defect		
Explanation of corrective action taken: (Required if spill corrective action is “Other”)		
Is there an ongoing investigation?	YES	NO
Health warnings posted?	YES	NO
Did spill result in beach closure?	YES	NO
Name of Impacted Beach(es): (Enter N/A if none)		
Name of impacted surface waters:		

SSO FIELD REPORT
Water quality samples analyzed for: (Circle all that apply) Dissolved Oxygen Other Chemical Indicators(s) – Specify Below Biological Indicator(s) – Specify Below No Water Quality Samples Taken Not Applicable to the Spill Other (Specify Below)
Explanation of water quality samples analyzed for: (Required if water quality samples analyzed for is "Other chemical indicator(s)", "Biological indicator(s)", or "Other")
Water quality sample results reported to: (Circle all that apply) County Health Agency Regional Water Quality Control Board Other (Specify below) No Water Quality Samples Taken Not Applicable to this Spill
Explanation of water quality sample results reported to: (Required if water quality sample results reported to is “Other”)
Method and explanation of volume estimation methods used: (Circle all that apply) Eyeball Estimate Measured Volume Duration and Flow Rate Other (Explain):

INSERT TAB:
Volume Estimation

Miscellaneous Computations & Examples

To convert inches to feet (NOTE: for the purposes of this worksheet, the unit of measurement will be in feet for formula examples)	Divide the inches by 12 or use the chart on the right. **Example 1:** 27" ÷ 12 = 2.25' **Example 2:** 1¾" = ?' 1" (0.08') + ¾" (0.06') = 0.14'
Volume of one cubic foot	7.48 gallons of liquid
Area: Two-dimensional measurement represented in square feet (SQ/FT or ft^2)	Square/rectangle: Area = Length x Width Circle: Area = π x r^2 (where π ≈ 3.14 and r = radius = ½ diameter) Triangle: Area = ½ (Base x Height)
Volume: Three-dimensional measurement represented in cubic feet (CU/FT or ft^3)	Rectangle/square footprint: Volume = Length x Width x Depth Circle footprint (cylinder): Volume = π x r^2 x Depth (where π ≈ 3.14 and r = radius = ½ diameter) Triangle footprint: Volume = ½ (Base x Height) x Depth
Depth: Wet Stain on Concrete or asphalt surface	If the depth is not measurable because it is only a wet stain, use the following estimated depths: Depth of a wet stain on concrete surface: 0.0026' (1/32") Depth of a wet stain on asphalt surface: 0.0013' (1/64") These were determined to be a reasonable depth to use on the respective surfaces through a process of trial and error. One gallon of water was poured onto both asphalt and concrete surfaces. Once the area was determined as accurately as possible, different depths were used to determine the volume of the wetted footprint until the formula produced a result that (closely) matched the one gallon spilled. This process was repeated several times.
Depth: Contained or "Ponded" sewage	Measure actual depth of standing sewage whenever possible. When depth varies, measure several representative sample points and determine the average. Use that number in your formula to determine volume.

Convert Inches to Feet

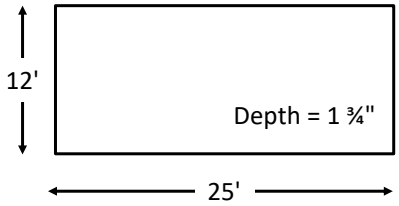
Inches	Feet
1/8"	0.01'
1/4"	0.02'
3/8"	0.03'
1/2"	0.04'
5/8"	0.05'
3/4"	0.06'
7/8"	0.07'
1"	0.08'
2"	0.17'
3"	0.25'
4"	0.33'
5"	0.42'
6"	0.50'
7"	0.58'
8"	0.67'
9"	0.75'
10"	0.83'
11"	0.92'
12"	1.00'

Miscellaneous Computations & Examples (continued)

Convert Inches to Feet	
Inches	**Feet**
1/8"	0.01'
1/4"	0.02'
3/8"	0.03'
1/2"	0.04'
5/8"	0.05'
3/4"	0.06'
7/8"	0.07'
1"	0.08'
2"	0.17'
3"	0.25'
4"	0.33'
5"	0.42'
6"	0.50'
7"	0.58'
8"	0.67'
9"	0.75'
10"	0.83'
11"	0.92'
12"	1.00'

Area/Volume of a Rectangle or Square

Formula: Length x Width x Depth = Volume in **cubic feet**



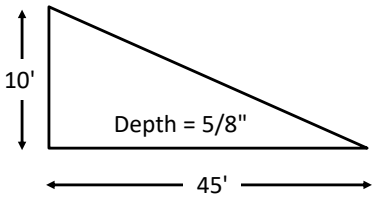
25'	X	12'	X	0.14'	=	**42 Cubic Feet**
Length		Width		Depth		Volume

Multiply the volume by 7.48 gallons to determine the volume in **gallons**:

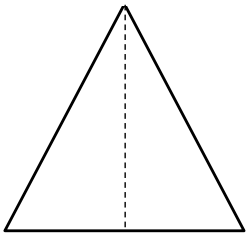
42 ft^3	X	7.48	=	**314.16 gallons**
Volume		gal/ft^3		Volume

Area/Volume of a Right Triangle

Formula: Base x Height x Depth = Volume in **cubic feet**



For isosceles triangles (two sides are equal lengths), break it down into two right triangles and compute area as you would for the right triangle.

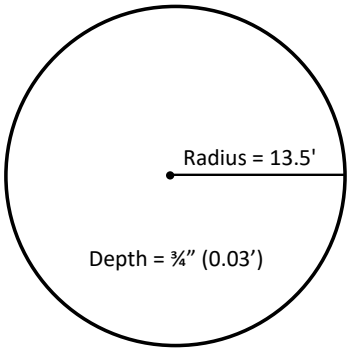


45'	X	10'	X	0.5	X	0.05'	x	7.48	=	84.15 gallons
Base		Height				Depth		gal/ft^3		Volume

Area/Volume of a Circle

Formula: π x r^2 x 0.785 x Depth = Volume in **cubic feet**

The diameter is a straight line passing from side to side through the center of a circle.



13.5'	X	13.5'	X	3.14	X	0.03'	x	7.48	=	128.42 gallons
Radius		Radius		π		Depth		gal/ft^3		Volume

Volume Estimation: Eyeball Estimation Method (for ≤100 gallons) D-2

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

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

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

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

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

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

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

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

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

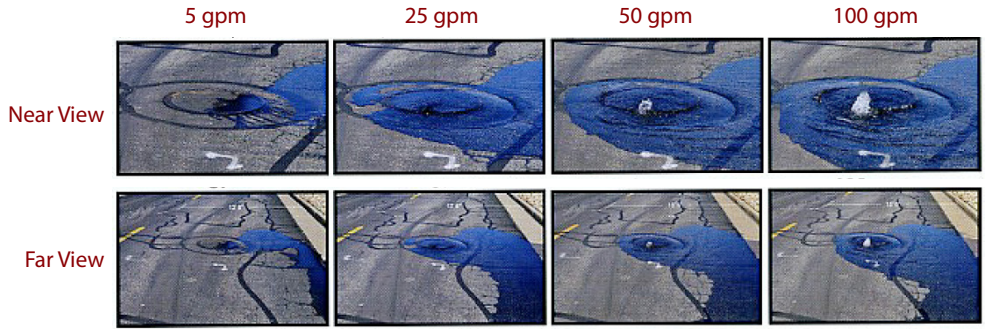
_____ gallons − _____ gallons = _____ gallons

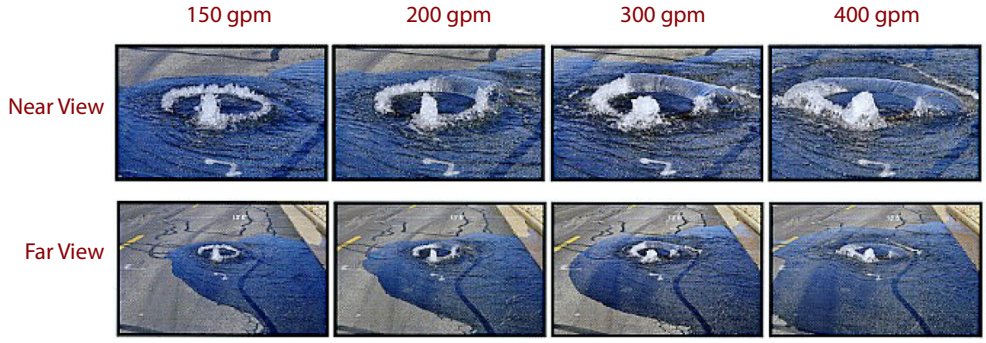
Estimated SSO Volume — Rainfall — **Total Estimated SSO Volume**

Volume Estimation: Duration and Flow Rate Comparison Method D-3

Compare the SSO to reference images below to estimate flow rate of the current overflow. **NOTE: If the manhole cover in your picture has vent holes or more than one pry hole, do not use these pictures for comparison.**

Describe which reference photo(s) were used and any additional factors that influenced applying the reference photo data to the actual SSO:





SSCSC Manhole Overflow Gauge: CWEA Southern Section Collections Systems Committee Overflow Simulation courtesy of Eastern Municipal Water District

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

Start Date and Time	1.
End Date and Time	2.
SSO Event Total Time Elapsed (subtract Line 1 from Line 2. Show in minutes.)	3.
Average Flow Rate GPM (Account for diurnal flow pattern)	4.
Total Volume Estimated Using Duration and Flow Method (Line 3 x Line 4)	5.

Volume Estimation: Area/Volume Method

SSO Date: _____ Location: _____

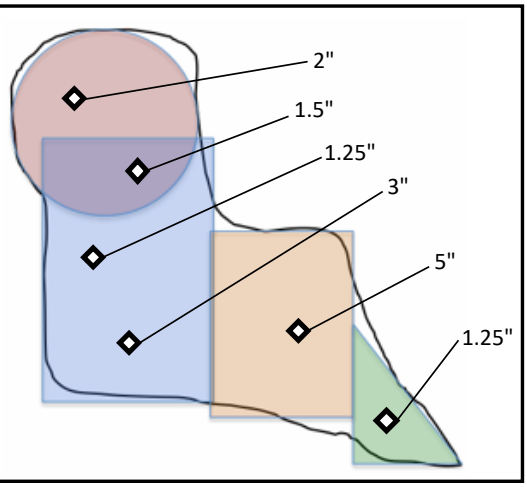
STEP 1: Describe spill area surface: ☐ Asphalt ☐ Concrete ☐ Dirt ☐ Landscape ☐ Inside Building

☐ Other: _____

STEP 2: Draw/sketch the outline (footprint) of the spill. Then break the footprint down into recognizable shapes. See example below.

1. Sketch the outline of the spill (black line)
2. Break the sketch down into recognizable shapes (circles, squares, etc.) as well as you can.
3. Determine the volume of each shape. (note: in this example, after the volume of the cirle is determined, multiply it by approximately 65% so that the overlap area won't be counted twice.
4. If the spill is of varying depths, take several measurements at different depths and find the average. If the spill affects a dry unimproved area such as a field or dirt parking lot, determine the aread of the wetted ground in the same manner as you would on a hard surface. Using a round-point shovel, dig down into the soil until you find dry soil. Do this in several locations within the wetted area and measure the depth of the wet soil. Average the measurement/thicknes of the wet soil and determine the average depth of the wet soil.

Example (right): 2" + 1.5" + 1.25" + 3" + 5" + 1.25" = 14.0"
14.0" ÷ 6 measurements = 2.33"
Average Depth = 2.33" (0.194')



STEP 3: Calculate the area of the footprint by completing the table below for each shape in Step 2.

If two shapes overlap, select one of the two shapes and estimate the percentage of that shape that does not overlap. Enter that percentage in the % Not Overlapping column. This will ensure that the overlap area is only counted once. Refer to the example on the previous page.

Rectangles	Length	X	Width	X	% Not Overlapping*	=	Area
	ft	X	ft	X	%	=	ft^2
	ft	X	ft	X	%	=	ft^2
	ft	X	ft	X	%	=	ft^2

Triangles	Base	X	Height	Multiplier	X	% Not Overlapping*	=	Area
	ft	X	ft	÷ 2	X	%	=	ft^2
	ft	X	ft	÷ 2	X	%	=	ft^2
	ft	X	ft	÷ 2	X	%	=	ft^2

Circles	π	X	Radius	X	Radius	X	% Not Overlapping*	=	Area
	3.14	X	ft	X	ft	X	%	=	ft^2
	3.14	X	ft	X	ft	X	%	=	ft^2
	3.14	X	ft	X	ft	X	%	=	ft^2

Total Spill Area (sum of all three tables above): _____ ft^2

STEP 4: Measure the depth of the spill.

If spill is of varying depths, take several measurements at different depths and find the average.

_____ inches ÷ _____ = _____ inches ÷ 12 = _____ feet

sum of measurements | # of measurements | average depth in inches | average depth in feet of ponded sewage

STEP 5: Calculate spill volume of ponded sewage in cubic feet by multiplying the Total Spill Area in Step 3 by the average depth calculated in Step 4.
Convert from cubic feet to gallons by multiplying by 7.48.

_____ ft^2 x _____ ft = _____ ft^3 x 7.48 gal = _____ gallons

spill area (Step 3) | average depth (Step 4) | spill volume in feet | **Total estimated volume**

Drawing Worksheet D-5

INSERT TAB:
Backup Forms

Backup Forms Checklist (Backup Only) E-1

Complete this form only if there is a backup into a residence or business and if the City has determined that the backup was caused by the City.

Instructions:

1. Take photo of each form before giving it to the customer for documentation.
2. Tear forms listed below out of this workbook and hand to customer. *Leave the First Responder Form in this workbook, do not give to Customer.*
3. Check each item that was provided to the customer.
4. Have customer sign below.

Forms/Documents:

☐ Form E-3: Declination of Cleaning Services

☐ Form E-4: Lodging Authorization

☐ Form E-5: Customer Information Letter & Claim Form

☐ Form E-6: Your Responsibilities as a Private Property Owner

Forms Provided to: _____
Customer Name

_____
Customer Signature

_____
Date

Check here if customer declines to sign: ☐

Forms Provided by: _____ _____
Employee Name Initial

First Responder Form (Backup Only)

Complete this form only if there is a backup into a residence or business.

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

PERSON COMPLETING THIS FORM: Name: _____ Title: _____	PHONE: DATE: TIME:
TIME STAFF ARRIVED ON-SITE:	

DOES THE CUSTOMER WANT THE CITY TO CALL FOR CLEANING SERVICE? ☐ Yes ☐ No
If no, give the customer the Cleaning Declination Form and have them sign here: _____
If customer called a cleaning contractor, provide name and contact number:

RESIDENT NAME: ☐ Owner ☐ Renter ADDRESS: PHONE:	IF RENT, PROPERTY MANAGER(S): OWNER: ADDRESS: PHONE:

# OF PEOPLE LIVING AT RESIDENCE:		
Approximate Age of Home:	# of Bathrooms:	# of Rooms Affected:

Numbers of Photographs or Videos Taken: ☐ Photographs ☐ Video ☐ Customer did not provide or allow photographs	Where are photos/video stored?

Is nearest upstream manhole visibly higher than the drain/fixture that overflowed? ☐ Yes ☐ No

Does property have a Property Line Cleanout or BPD? ☐ Cleanout ☐ BPD ☐ Neither ☐ Unknown

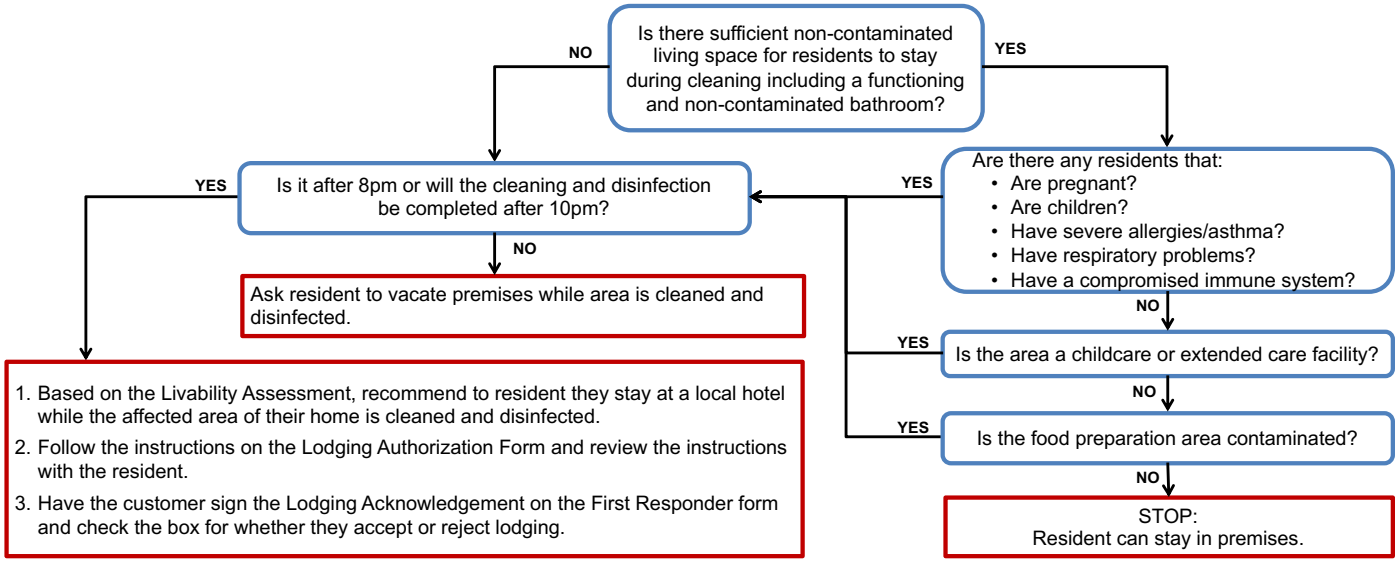
If yes, was the Property Line Cleanout/BPD operational at the time of the overflow? ☐ Yes ☐ No ☐ Unknown

Have there ever been any previous spills at this location? ☐ Yes ☐ No ☐ Unknown

Has the resident had any plumbing work done recently? ☐ Yes ☐ No ☐ Unknown
If YES, please describe:

GO TO Page 2

LIVABILITY ASESSMENT

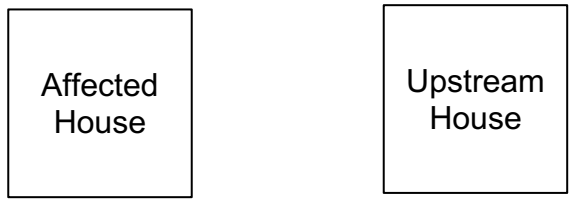


Temporary lodging was offered by the City and either (check one): ☐ Accepted ☐ Rejected

SANITARY SEWER LINE BLOCKAGE LOCATION

PLEASE CHECK THE BOXES THAT DESCRIBE YOUR OBSERVATIONS:	
Customer Cleanout Was: ☐ Non-Existent ☐ Full ☐ Empty	Agency Owned/Maintained Cleanout was: ☐ Non-Existent ☐ Full ☐ Empty

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



Recommended Follow-Up Action(s):

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

Declination of Cleaning Services (Backup Only) E-3

Customer Information		
NAME:	ADDRESS:	TELEPHONE:

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

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

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

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

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

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

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

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

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

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

Recommendations to customer to clean up the spill:

- Keep pets and children out of the affected area
- Turn off heating/air conditioning systems
- Wear rubber boots, rubber gloves, and goggles during cleanup of the affected area.
- Remove and discard items that cannot be washed and disinfected (such as: mattresses, rugs, cosmetics, baby toys, etc.)
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops, appliances, sinks and other plumbing fixtures) with hot water and laundry or dish detergent.
- Help the drying process with fans, air conditioning units, and dehumidifiers.
- After completing cleanup, wash your hands with soap and water. Use water that has been boiled for 1 minute (allow water to cool before washing your hands.) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash all clothes worn during the cleanup in hot water and detergent (wash separately from uncontaminated clothes).
- Wash clothes contaminated with flood or sewage water in hot water and detergent. Use a laundromat for washing large quantities of clothes and linens until your onsite wastewater system has been professionally inspected and services.
- Seek immediate attention if you become injured or ill.

Lodging Authorization (Backup Only) E-4

INSTRUCTIONS TO EMPLOYEE:

1. Complete this form if the Livability Assessment on the First Responder Form indicates a need for temporary relocation and the customer accepts the offer.
2. Notify the Wastewater Crew Supervisor or Wastewater Manager who will make arrangements via telephone and pay for the hotel with a credit card.
3. Complete the voucher as instructed by the Wastewater Crew Supervisor or Wastewater Manager.
4. Take a photo of the form for records and then give it to the customer.
5. Have the customer sign the First Responder Form to indicate if they accept or reject the offer of temporary relocation.

INSTRUCTIONS TO RESIDENT:

City of Salinas recommends that you temporarily relocate to a hotel within the City of Salinas* for your safety and convenience while your residence is being cleaned. Please note that this emergency authorization is granted under the following conditions:

1. This authorization provides for one (1) night's lodging at a hotel in the City of Salinas at a maximum rate of $250.00 per night.
2. The authorization is good for **room and tax ONLY**. Phone, food, mini-bar and other incidental charges will be your responsibility.
3. Additional nights and/or other allowances/incidentals may be discussed by contacting the Public Works Director at (831) 758-7390 or Wastewater Manager at (831) 758-7013.

*The hotel must be within the City of Salinas unless you are otherwise authorized due to extenuating circumstances such as full occupancy in Salinas hotels.

VOUCHER

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

Customer's Name: _____

Field Supervisor's Name: _____ Phone Number: _____

Customer Information Letter (Backup Only) English: E-5

Dear Property Owner:

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

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

To discuss this matter, contact the Wastewater Manager at (831) 758-7103. To submit a claim for damages, complete the Claim Form and contact the City Clerk at (831) 758-7381.

Sincerely,
The City of Salinas

What you need to do now:

- Minimize the impact of the loss by responding promptly to the situation.
- Do not attempt to clean the area yourself, let the cleaning and restoration company handle this.
- Keep people and pets away from the affected area(s) until cleanup has been completed.
- Turn off any appliances that use water.
- Turn off heating/air conditioning systems.
- Do not remove items from the area – the cleaning and restoration company will handle this.
- If you had recent plumbing work done, contact your plumber or contractor and inform them of this incident.

Customer Information Letter (Backup Only) Spanish: E-5

Estimado propietario:

Reconocemos que los incidentes de la red de alcantarillado pueden ser estresantes y requieren una respuesta inmediata, mientras que todos los hechos relacionados con la forma en que ocurrió el incidente aún son desconocidos. Tenga la seguridad de que haremos todo lo posible para evitar que este tipo de evento ocurra en primer lugar. Sin embargo, ocasionalmente las raíces de los árboles u otros residuos en las líneas de alcantarillado causan una copia de seguridad en los hogares inmediatamente antes del bloqueo. En este momento la Ciudad está investigando la causa de este incidente.

El contratista de limpieza proporcionado por la Ciudad ha sido seleccionado debido a su adhesión a los protocolos establecidos que están diseñados para asegurar a todas las partes servicios de limpieza exhaustivos, rentables y rápidos. También tiene derecho a seleccionar su propio contratista de limpieza, pero la Ciudad no garantiza el pago de los honorarios / gastos incurridos y se reserva el derecho de disputar los honorarios / gastos considerados no habituales y habituales.

Para discutir este asunto, comuníquese con el Administrador de Aguas Residuales al (831) 758-7103. Para presentar una reclamación por daños y perjuicios, complete el Formulario de Reclamación y comuníquese con el Secretario Municipal al (831) 758-7381.

Sinceramente,
La Ciudad de Salinas

Lo que necesitas haver ahora:

- Minimice el impacto de la pérdida respondiendo rápidamente a la situación.
- No intente limpiar el área usted mismo, deje que la empresa de limpieza y restauración se encargue de esto.
- Mantenga a las personas y las mascotas alejadas de las áreas afectadas hasta que se haya completado la limpieza.
- Apague cualquier aparato que use agua.
- Apague los sistemas de calefacción / aire acondicionado.
- No retire elementos del área: la empresa de limpieza y restauración se encargará de esto.
- Si ha realizado trabajos de plomería recientemente, comuníquese con su plomero o contratista e infórmele de este incidente.

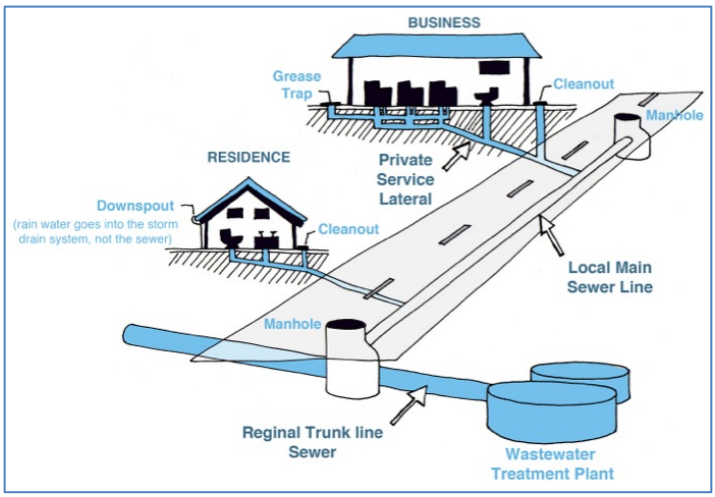
Your Responsibilities as a Private Property Owner (Backup Only) E-6: Page 1

How a Sewer System Works

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

How do sewage spills happen?

Sewage spills occur when the wastewater in underground pipes overflows through a manhole, cleanout, or broken pipe. Most spills are relatively small and can be stopped and cleaned up quickly, but left unattended they can cause health hazards, damage to homes and businesses, and threaten the environment, local waterways, and beaches. Common causes of sewage spills include grease build-up, tree roots, broken/cracked pipes, missing or broken cleanout caps, undersized sewers, and groundwater/rainwater entering the sewer system through pipe defects and illegal connections.



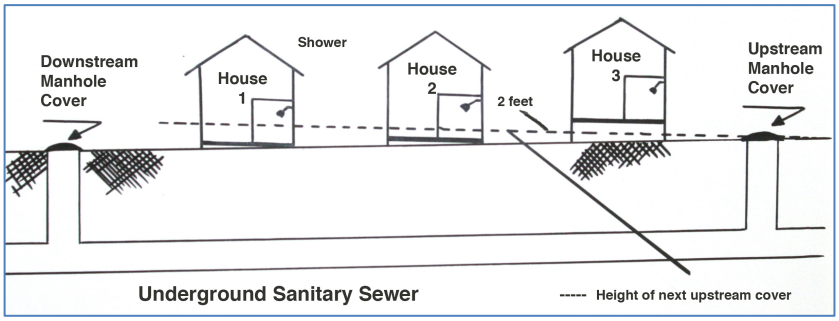
Prevent most sewage backups with a Backflow Prevention Device

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

Is my home required to have a backflow prevention device?

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

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



Your Responsibilities as a Private Property Owner (Backup Only) E-6: Page 2

Spill cleanup inside the home:

For large clean ups, a professional cleaning firm should be contacted to clean up impacted areas, If you hire a contractor, it is recommended to get estimates from more than one company. Sometimes, homeowner's insurance will pay for the necessary cleaning due to sewer backups. Not all policies have this coverage, so check with your agent.

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

Seek immediate attention if you become injured or ill during or after the cleanup process.

Other Tips:

- Keep children and pets out of the affected area.
- Turn off heating/air conditioning systems
- Wear rubber boots, rubber gloves, and goggles during cleanup.
- Discard items that cannot be washed and disinfected (such as: mattresses, rugs, cosmetics, toys, etc.)
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops, appliances, sinks and other plumbing fixtures) with hot water and laundry or dish detergent.
- Help the drying process with fans, air conditioning units, and dehumidifiers.
- After completing cleanup, wash your hands with soap and water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water & detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a Laundromat until your onsite wastewater system has been professionally inspected and serviced.

Spill cleanup outside the home:

- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard surfaces areas such as asphalt or concrete, it is safe to use a 2% bleach solution, or ½ cup of bleach to 5 gallons of water, but don't allow it to reach a storm drain as the bleach can harm the environment.
- After cleanup, wash hands with soap and water. Use water that has been boiled for 1 minute (allow to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a laundromat until your onsite wastewater system has been professionally inspected and serviced.

INSERT TAB:
Failure Analysis

OFFICE USE ONLY

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

Go to Side B

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