



# City of Oceanside Sewer System Management Plan

Oceanside, CA

March 2026

Updated by:



**WATERWORKS**  
ENGINEERS



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## Abbreviations and Acronyms

Acronym	Meaning
BMP	Best management practice
CalOES	Office of Emergency Services, State of California
Caltrans	California Department of Transportation
CCTV	Closed-circuit television
CDFW	California Department of Fish and Wildlife
CIP	Capital Improvement Program
CWEA	California Water Environment Association
City	City of Oceanside
CIWQS	California Integrated Water Quality System
CMMS	Computerized Maintenance Management System
DCS	Drainage Conveyance System
DIP	Ductile iron pipe
EDU	Equivalent dwelling unit
FOG	Fats, oils, and grease
FSE	Food service establishment
GIS	Geographical Information System
Greenbook	Standard Specifications for Public Works Construction
I/I	Infiltration and inflow
LRO	Legally Responsible Official
MGD	Million gallons per day
MWD	Municipal Water District
NASSCO	National Association of Sewer Service Companies
No.	Number
O&M	Operation and maintenance
OERP	Overflow Emergency Response Plan
PACP	Pipeline Assessment & Certification Program
PSL	Private Sewer Lateral
PUD	Public Utility District
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SERP	Spill Emergency Response Plan
SLRWRF	San Luis Rey Water Reclamation Facility
SOP	Standard Operating Procedures
SSMP	Sewer System Management Plan
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
VCP	Vitrified Clay Pipe
WDR	Waste Discharge Requirement

Acronym	Meaning
WWTP	Wastewater Treatment Plant

# 1 Goals and Introduction

Group Responsible for SSMP Element: **Compliance**

## 1.1 Regulatory Context

On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted Order Number (No.) 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

On February 14, 2007, the San Diego Regional Water Quality Control Board (RWQCB) adopted Order No. R9-2007-0005, WDR for Sewage Collection Agencies in the San Diego Region. This order prohibits the discharge of sewage from a sanitary sewer system at any point upstream of a sewage treatment plant and requires additional monitoring and reporting requirements beyond those included in SWRCB Order No. 2006-003-DWQ. Order No. R9-2007-0005.

On August 6, 2013, the SWRCB amended Order No. 2006-003-DWQ by adopting Order No. WQ 2013-0058-EXEC, which modifies the monitoring and reporting requirements in the original order. Order No. WQ 2013-0058-EXEC.

On December 6, 2022 the SWRCB adopted the revised waste discharge requirement order No. 2022-0103-DWQ (General Order or WDR) that superseded the previous requirements. This General Order regulates sanitary sewer systems designed to convey sewage. The General Order defines a sanitary sewer system as including, but is not limited to, pipes, valves, pump stations, manholes, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks. In addition, a sanitary sewer system includes:

- a) Laterals owned and/or operated by the Enrollee;
- b) Satellite sewer systems; and/or
- c) Temporary conveyance and storage facilities, including but not limited to temporary piping, vaults, construction trenches, wet wells, impoundments, tanks and diversion structures.

An Enrollee under the WDR is a public, private, or other non-governmental entity that has obtained approval for regulatory coverage under the revised General Order, including:

- a) A state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:
  - a. greater than one mile in length (each individual sanitary sewer system);
  - b. one mile or less in length where the State Water Board or a Regional Water Board requires regulatory coverage under the revised general order; or
- b) A federal agency, private company, or other non-governmental entity that owns and/or operates a sanitary sewer system of any size where the State Water Board or a Regional Water Board requires regulatory coverage under the revised general

order in response to a history of spills, proximity to surface water, or other factors supporting regulatory coverage.

The City of Oceanside (City) has more than one mile of sewer pipe and therefore, is subject to this Order. The City applied for coverage under the original WDR in 2006 for one collection system and was assigned a Wastewater Discharger Identification Number of **9SSO10674** in the California Integrated Water Quality System (CIWQS). The revised general order requires an enrollee to:

- a) Comply with federal and state prohibitions of discharge of sewage to waters of the State, including federal waters of the United States;
- b) Comply with specifications, and notification, monitoring, reporting and recordkeeping requirements in this General Order that implement the federal Clean Water Act, the California Water Code (Water Code), water quality control plans (including Regional Water Board Basin Plans) and policies;
- c) Proactively operate and maintain resilient sanitary sewer systems to prevent spills;
- d) Eliminate discharges of sewage to waters of the State through effective implementation of a Sewer System Management Plan (SSMP);
- e) Monitor, track, and analyze spills for ongoing system-specific performance improvements; and
- f) Report noncompliance with the General Order per reporting requirements.

A Spill is any overflow, release, discharge, or diversion of wastewater from a sewer system. Spills include:

- a) Any discharge from a sanitary sewer system that has the potential to discharge to surface waters of the State is prohibited unless it is promptly cleaned up and reported
- b) Any discharge from a sanitary sewer system, discharged directly or indirectly through a drainage conveyance system or other route, to waters of the State is prohibited; and
- c) Any discharge from a sanitary sewer system that creates a nuisance or condition of pollution as defined in Water Code section 13050(m) is prohibited.

Pursuant to the General Order the City is required to develop and maintain a Sewer System Management Plan (SSMP), which is documented herein. The purpose of this SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the City's sewer system. The overall objective of the City's SSMP program implementation is to reduce and prevent spills and to contain and mitigate spills that do occur.

This SSMP is organized by 11 elements, as mandated by the General Order:

1. Sewer System Management Plan Goal and Introduction
2. Organization
3. Legal Authority
4. Operation and Maintenance (O&M) Program

5. Design and Performance Provisions
6. Spill Emergency Response Plan (SERP)
7. Sewer Pipe Blockage Control Program
8. System Evaluation, Capacity Assurance, and Capital Improvements
9. Monitoring, Measurement, and Program Modifications
10. Internal Audits
11. Communication Program

Each SSMP element has specific criteria to meet compliance with the general order. These requirements shall be presented at the beginning of each element in this document. Below are the requirements for the Goal and Introduction Section:

**Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:**

**Goal and Introduction:** The goal of the Sewer System Management Plan (Plan) is to provide a plan and schedule to: (1) properly manage, operate, and maintain all parts of the Enrollee's sanitary sewer system(s), (2) reduce and prevent Spills, and (3) contain and mitigate Spills that do occur. The Plan must include a narrative Introduction section that discusses the following items:

**Regulatory Context:**

The Plan Introduction section must provide a general description of the local sewer system management program and discuss Plan implementation and updates.

**Sewer System Management Plan Update Schedule:**

The Plan Introduction section must include a schedule for the Enrollee to update the Plan, including the schedule for conducting internal audits. The schedule must include milestones for incorporation of activities addressing prevention of sewer Spills.

**Sewer System Asset Overview**

The Plan Introduction section must provide a description of the Enrollee-owned assets and service area, including but not limited to:

- Location, including county(ies);
- Service area boundary;
- Population and community served;
- System size, including total length in miles, length of gravity mainlines, length of pressurized (force) mains, and number of pump stations and siphons;
- Structures diverting stormwater to the sewer system;
- Data management systems;
- Sewer system ownership and operation responsibilities between Enrollee and private entities for upper and lower sewer laterals;
- Estimated number or percent of residential, commercial, and industrial service connections; and
- Unique service boundary conditions and challenge(s)

## 1.2 SSMP Update and Audit Schedules

The City intends to meet the minimum frequency requirements for SSMP updates and audits as required by the revised general order. The SSMP was updated in 2026 to reflect the new regulatory requirements of the revised general order and will be updated, at a minimum, every six years thereafter.

The three-year internal audit was conducted in 2025 as well. The following audit is scheduled with a due date within six months after the end of the 3-year audit period which began in May 2024.

The Environmental Compliance group has issued new internal procedures to identify, list, and track all deadlines as it pertains to the SSMP (e.g., audits, updates, annual reports, etc.).

SSMP updates will be presented to the City council in a public meeting for approval. The City has incorporated milestones for the activities addressing prevention of sewer spills and completing areas of the SSMP that are deficient, as discussed in its most recent Audit and as further defined herein under various SSMP elements. In addition, the City intends to annually review the effectiveness of its SSMP and incorporate changes as needed during the preparation of the annual report (formerly collection system questionnaire) and the annual review and assessment of the Spill Emergency Response Plan (SERP). Changes are logged in **Attachment A1**.

### 1.3 System Overview

The City’s sewer service areas encompass approximately 42 square miles, which roughly coincides with the City boundary. The City’s sewer service area spans varied terrains of hills and valleys, with elevations ranging from sea level to over 700 feet, and serves a population of approximately 176,000 residents. The collection system’s flow is comprised of approximately 75% residential, 15% commercial, 2% industrial, and 8% contribution from other satellite agencies.

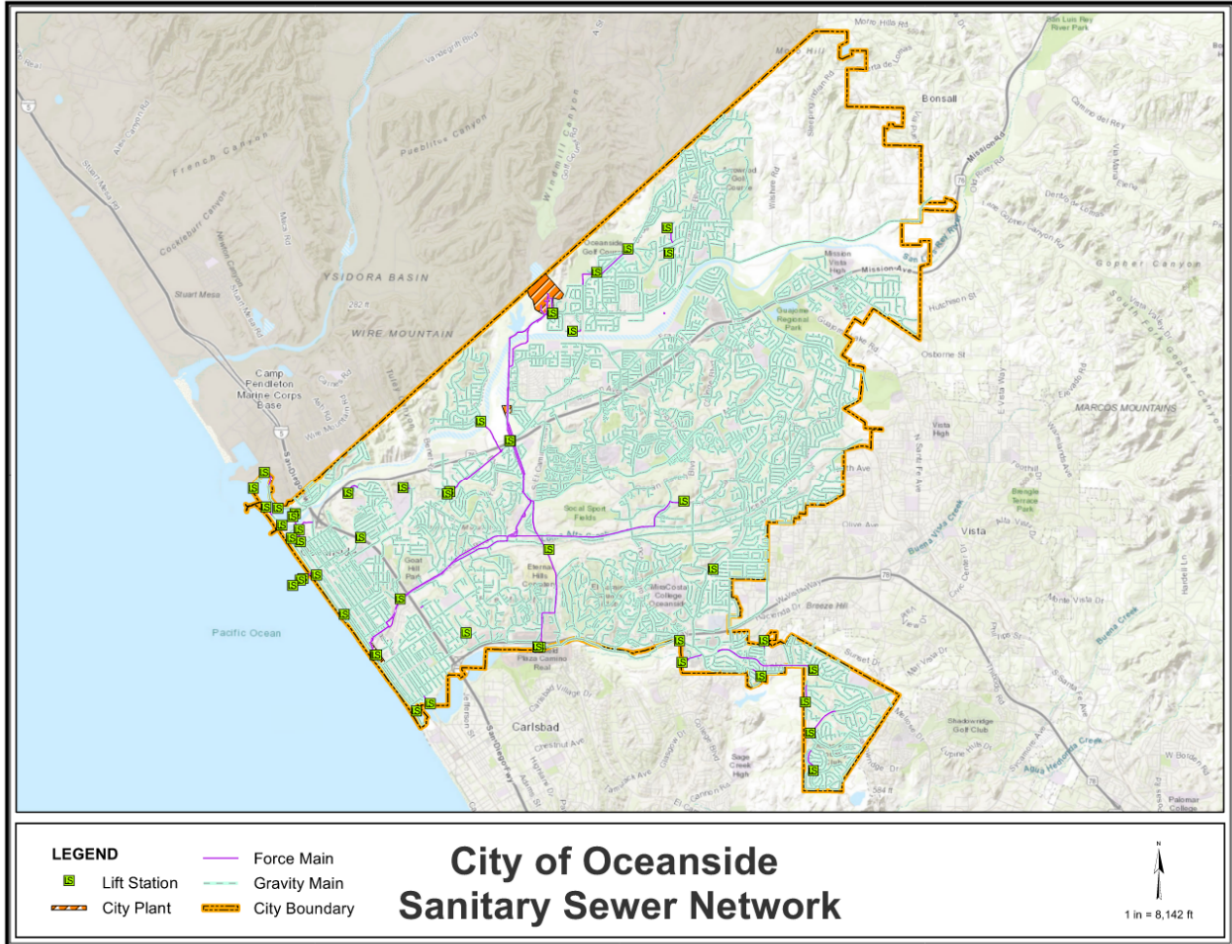
The City’s wastewater collection system is maintained by the Water Utilities Department. The system includes approximately 475 miles of gravity sewer pipelines. These pipelines range from 4 inches to 42 inches in diameter and are constructed from materials such as cast iron, ductile iron pipe (DIP), steel, polyvinyl chloride (PVC), and vitrified clay pipe. The system also contains 38 miles of force mains ranging from 3 inches to 42 inches in diameter and various materials. In addition, the City also owns and operates 32 active sewer lift stations and is currently constructing three new stations that will become operational in the near future.

The City’s sanitary sewer network is illustrated on **Figure 1-1** and key assets are summarized below on **Table 1-1**.

**Table 1-1 City Sanitary Sewer System Overview**

System Overview	
Gravity Sewer Mains (mi)	487
Force-mains (mi)	38
Manholes (#)	12,561
Service Connections (#)	45,000
Pump Stations (#)	32
Siphons (#)	2

**Figure 1-1. Sanitary Sewer Network**



Wastewater from portions of the City of Vista and all flows from the Rainbow Municipal Water District (RMWD) enter the City’s collection system by gravity. The City meters the flow from RMWD as part of the agreement. The Vista agreement is based on an assumed flow rate for a set number of equivalent dwelling units (EDUs).

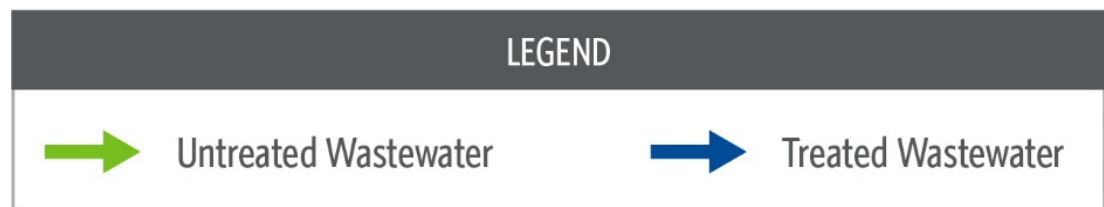
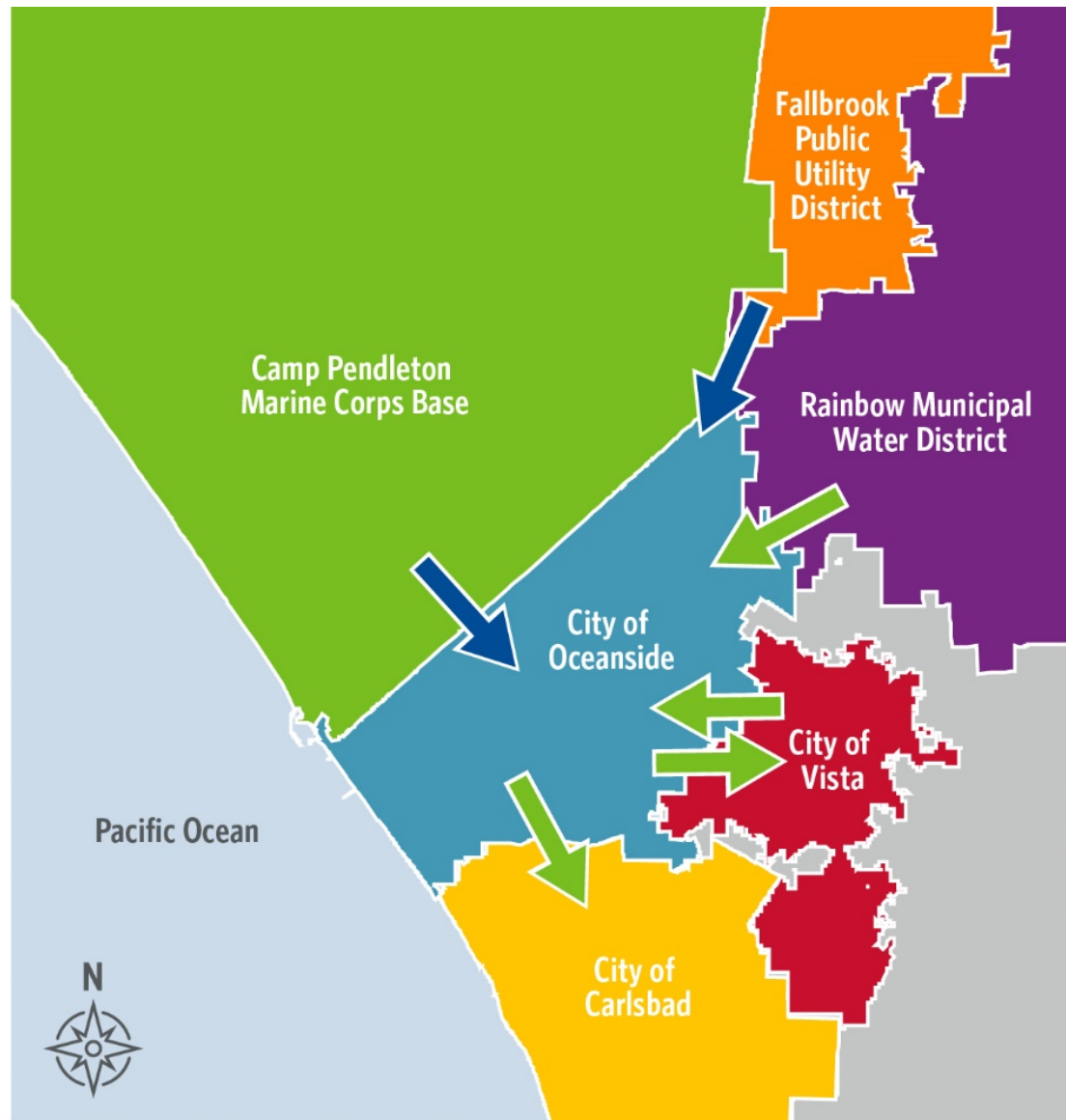
The City operates two wastewater treatment plants (WWTPs): the La Salina WWTP and the San Luis Rey Water Reclamation Facility (SLRWRF). Treated effluent from both plants is discharged to the Pacific Ocean through the City’s Ocean Outfall. Flows from La Salina are conveyed via the La Salina Land Outfall, while flows from SLRWRF are conveyed via the SLRWRF Land Outfall.

The City is in the process of decommissioning the La Salina WWTP as part of its larger strategic initiatives including Pure Water Oceanside which will increase the City’s recycled water supply and planned conversion to drinking water via indirect potable reuse. The decommissioning process will involve the construction of new lift stations to convey all flow to the SLRWRF. It is the City’s intention to decommission La Salina WWTP by 2030.

The Ocean Outfall also receives treated wastewater and brine from the Fallbrook Public Utility District (FPUD) and Camp Pendleton. A small portion of the City’s wastewater is diverted through the Encina Bypass to the Vista Carlsbad interceptor, where it is treated

and disposed of at the Encina Water Pollution Control Facility. **Figure 1-2** below illustrates each of these neighboring and/or tributary systems and the direction of conveyed flows.

**Figure 1-2 Neighboring Agencies and Tributary Collection Systems**

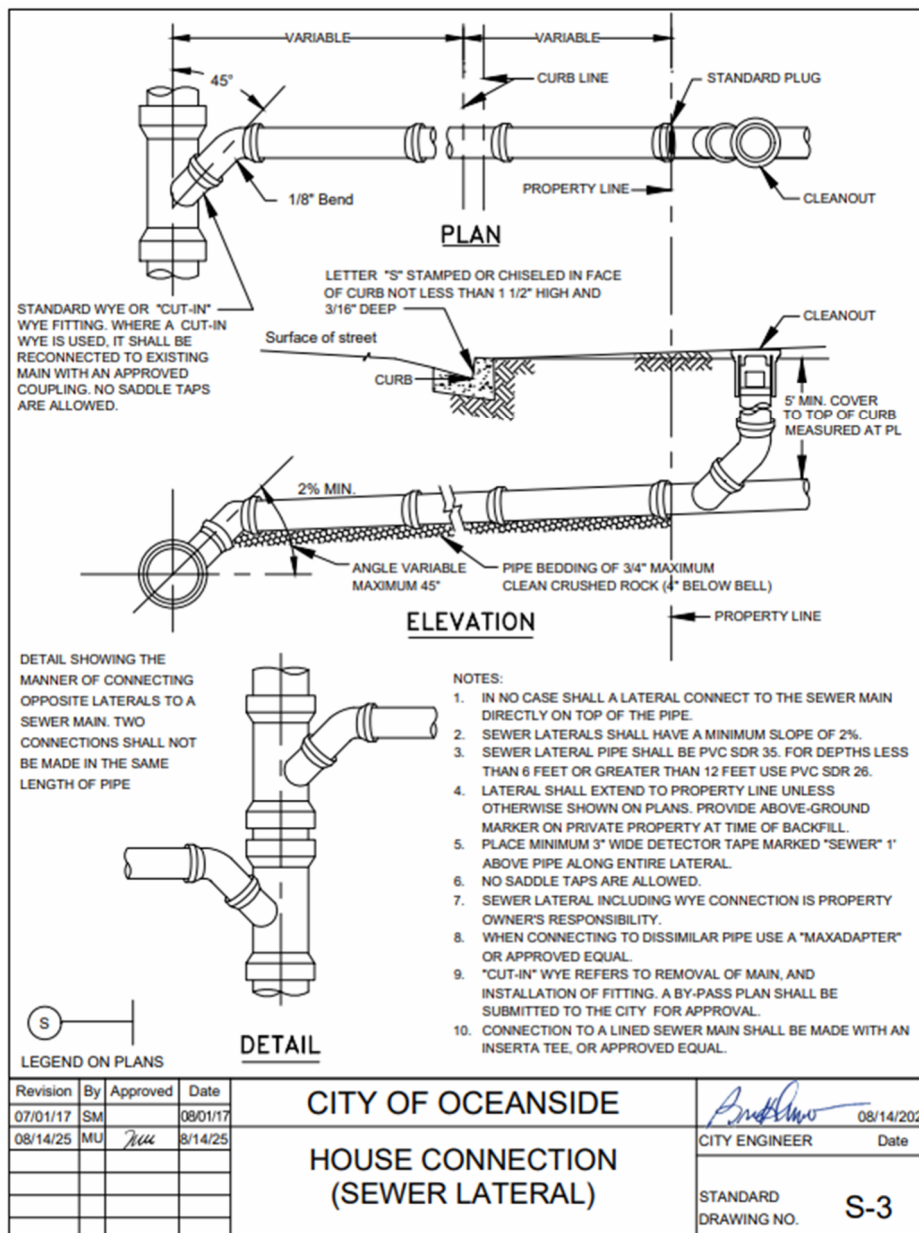


The City employs data management systems to efficiently track, systematically organize, and document all sanitary sewer assets within its service area. Each asset is assigned a unique identification number that supports mapping and reliable recordkeeping. These

system activities are described in detail in Section 4, Operations and Maintenance, of this SSMP.

Property owners are responsible for maintaining both the upper and lower portions of their private sewer lateral. This includes the segment from the building to the property line (upper lateral) and from the property line to the public sewer main (lower lateral), even if part of it lies within the public right-of-way. The City, meanwhile, is responsible for the public sewer mains and ensures compliance with design and construction standards. More information on City’s legal authority can be found in Section 3 of this SSMP. **Figure 1-3** below, the City’s standard detail for service lateral construction, includes a note delineating the property owner’s sewer lateral responsibilities versus City’s responsibilities.

**Figure 1-3: Property Owner Versus City Sewer Lateral Responsibility**



The City's stormwater drainage infrastructure is maintained by the Public Works Department. The Water Utilities Department maintains a working relationship with the Public Works Department in order to facilitate Spill response activities as further described in Section 6 of this SSMP.

## 2 Organization

Group Responsible for SSMP Element: **Compliance**

### Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:

#### 2. Organization

The Plan must identify organizational staffing responsible and integral for implementing the local Sewer System Management Plan through an organization chart or similar narrative documentation that includes:

- The name of the Legally Responsible Official as required in section 5.1 (Designation of a Legally Responsible Official) of this General Order;
- The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific Sewer System Management Plan elements;
- Organizational lines of authority; and
- Chain of communication for reporting Spills from receipt of complaint or other information, including the person responsible for reporting Spills to the State and Regional Water Boards and other agencies, as applicable. (For example, county health officer, county environmental health agency, and State Office of Emergency Services.)

### Order WQ 2022-0103-DWQ Section 5:

#### 5.1. Designation of a Legally Responsible Official

The Enrollee shall designate a Legally Responsible Official that has authority to ensure the enrolled sanitary sewer system(s) complies with this Order, and is authorized to serve as a duly authorized representative. The Legally Responsible Official must have responsibility over management of the Enrollee's entire sanitary sewer system, and must be authorized to make managerial decisions that govern the operation of the sanitary sewer system, including having the explicit or implicit duty of making major capital improvement recommendations to ensure long-term environmental compliance. The Legally Responsible Official must have or have direct authority over individuals

that:

- Possess a recognized degree or certificate related to operations and maintenance of sanitary sewer systems, and/or
- Have professional training and experience related to the management of sanitary sewer systems, demonstrated through extensive knowledge, training and experience.

## 2.1 Positions Responsible for Implementing Sewer System Management Plan Program

The Water Utilities Department is responsible for providing water and wastewater service in the City. Within the Water Utilities Department, several groups are involved with implementation of the SSMP Program, including Sewer Collections (Collections), Compliance, Facilities Maintenance, Capital Projects, Geographic Information System (GIS), Engineering, Inspection, Supervisory Control and Data Acquisition (SCADA), Laboratory, and Water Field Maintenance.

**Attachment B1** provides the complete SSMP Program organization chart showing the lines of authority for staff responsible for implementing specific elements or measures of the SSMP Program.

The City’s LROs are listed in the contact directory included as an appendix in the Spill Emergency Response Plan (**Attachment F1**) and further described in Section 8 of this SSMP.

**Table 2-1** below lists the City staff responsible for implementing SSMP elements or measures. The City assigns multiple staff to portions of the SSMP to ensure that compliance is met regardless of staff vacancies. In addition, the process of taking input from several groups within the department fosters collaboration and increases the effectiveness of the SSMP.

The Compliance group has issued new internal procedures to identify, list, and track all deadlines as it pertains to the SSMP (e.g., audits, updates, annual reports, etc.) in coordination with the LROs which will help alleviate gaps in the City’s SSMP administrative process.

**Table 2-1. Water Utilities Department Groups Responsible for Implementation of SSMP**

SSMP Element	Department Group Responsible for SSMP	Typical Job Titles
SSMP Goals and Introduction	Compliance	Water Utilities Division Manager Compliance Officer
Organization	Compliance	Water Utilities Division Manager Compliance Officer
Legal Authorities	Compliance Sewer Collections	Utility Supervisor Senior Utility Worker Compliance Officer
O&M Program – Mapping	GIS	Water Engineering Manager GIS Supervisor
O&M Program – Preventive and Corrective Maintenance, training and equipment inventory	Sewer Collections SCADA Facilities Maintenance	Water Utilities Division Manager Utility Supervisor Senior Utility Worker
Design and Performance Provisions	Capital Projects / Engineering Inspection	Water Engineering Manager Senior Civil Engineer Lead Water Utilities Inspector
SERP	Sewer Collections SCADA Compliance Laboratory	Water Utilities Division Manager Utility Supervisor Senior Utility Worker Compliance Officer
Sewer Pipe Blockage Control Program	Compliance Inspection	Water Utilities Division Manager Compliance Officer




**Table 2-1. Water Utilities Department Groups Responsible for Implementation of SSMP**

SSMP Element	Department Group Responsible for SSMP	Typical Job Titles
System Evaluation, Capacity Assurance, and Capital Improvements	Capital Projects / Engineering	Water Utilities Director Water Engineering Manager Senior Civil Engineer
Measurement, Monitoring and Program Modifications	Compliance Sewer Collections	Water Utilities Division Manager Compliance Officer Utility Supervisor
Internal Audits	Compliance Sewer Collections	Water Utilities Division Manager Compliance Officer Utility Supervisor
Communication Program	Compliance	Water Utilities Division Manager Compliance Officer

## 2.2 Chain of Communication for Reporting Spills

The chain of communication from receipt of a complaint, or other information indicating a potential spill, to notification, reporting, and certification of the spill event by the City’s compliance staff and LROs is outlined in the City’s Spill Emergency Response Plan. Refer to section 6 of this SSMP for detailed spill response and reporting procedures.

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# 3

## Legal Authority

Group Responsible for SSMP Element:

Compliance
Capital Projects / Engineering

**Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:**

**3. Legal Authority:**

The Plan must include copies or an electronic link to the Enrollee’s current sewer system use ordinances, service agreements and/or other legally binding procedures to demonstrate the Enrollee possesses the necessary legal authority to:

- Prevent illicit discharges into its sanitary sewer system from inflow and infiltration (I&I); unauthorized stormwater; chemical dumping; unauthorized debris; roots; fats, oils, and grease; and trash, including rags and other debris that may cause blockages;
- Collaborate with storm sewer agencies to coordinate emergency Spill responses, ensure access to storm sewer systems during Spill events, and prevent unintentional cross connections of sanitary sewer infrastructure to storm sewer infrastructure;
- Require that sewer system components and connections be properly designed and constructed; for portions of the service lateral owned and/or operated by the Enrollee;
- Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures; and
- Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

### 3.1 Source and Description of Legal Authorities

The legal authorities governing the City’s wastewater collection system are provided in the Oceanside City municipal code. The City Code includes ordinances pertaining to sewage connections, fees, rates, and restrictions and is available online.

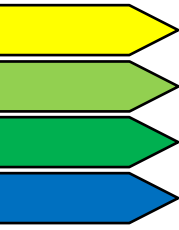
The City’s *Water, Sewer, and Recycled Water Design and Construction Manual* governs the design and performance provisions of the wastewater collection system and is discussed in more detail in Section 5 of this SSMP.

Relevant City Code and Design and Construction Manual references which give the City the legal authority necessary under the WDR are included in **Table 3-1** below.

**Table 3-1. City Code and Design and Construction Manual References**

WDR Legal Authority Requirement	Reference
Ability to prevent illicit discharges into the wastewater collection system	City Code, Article X. – Regulation of Discharge into City Sewer System, Section 29.129 to Section 29.154
Ensure access to stormwater systems during spill events and prevent unintentional cross connections of sanitary sewer systems to storm sewer infrastructure	City Code, Chapter 40- Urban Runoff and Discharge Control (illicit discharges & connections to MS4)
Ability to require that sewers and connections be properly designed and constructed	City Code, Section 6.8 (Article III. – Plumbing Code) City Code, Section 29.10 – Design and construction of house connections; City Code, Section 29.27 – Design and construction of sewer mains Water, Sewer, and Reclaimed Water Design and Construction Manual, Section 3 – Sewer Systems
Ensure access for maintenance, inspection, or repairs for portions of the service lateral owned or maintained by the public agency	Not applicable; The City does not own or maintain portions of service laterals City Code, Article II – Sewer Connections, Section 29.12 – Responsibility for installation, maintenance, replacement and permitting Water, Sewer, and Reclaimed Water Design and Construction Manual, Section 3.4 – Laterals
Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance <sup>1</sup>	City of Oceanside Engineering- Easement Dedication Requirements and City Code, Article II- Sewer Connections, Section 29.12- Responsibility for installation, maintenance, replacement, and permitting
Ability to limit the discharge of FOG and other debris that may cause blockages	City Code, Article IX. – Regulation of Commercial Kitchen Grease Disposal, Section 29.115 to Section 29.128
Ability to enforce any violation of the Enrollee’s sewer ordinances	City Code, Chapter 1 – General Provisions, Section 1.1 to Section 1.15 Section 29.127 – Violations Section 29.127 – Penalties for violation Section 29.150 – Administrative enforcement remedies Section 29.151 – Judicial enforcement remedies Section 29.152 – Supplemental enforcement action

<sup>1</sup>Easements or license agreements located in access-controlled right of ways by Others (Railroads and Caltrans) or environmentally sensitive areas require the City conduct advanced planning, coordination, and permitting to exercise its authority to operate, maintain, repair, rehabilitate or replace collection or conveyance system assets. In an emergency, however, the City can and will respond accordingly to obtain access and it does so in close coordination with the law enforcement, access-control entity (railroad or Caltrans) and/or permitting agencies (e.g., CDFW, USACE, RWQCB, etc.).



4

# Operation and Maintenance Program

Group Responsible for SSMP Element:	Preventive and Corrective Maintenance, training and equipment inventory	Mapping	GIS
			Sewer Collections
			SCADA
			Facilities Maintenance

**Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:**

**4 Operation and Maintenance Program**

The Plan must include the items listed below that are appropriate and applicable to the Enrollee’s system.

**4.1 Updated Map of Sanitary Sewer System**

An up-to-date map(s) of the sanitary sewer system, and procedures for maintaining and providing State and Regional Water Board staff access to the map(s). The map(s) must show gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities within the sewer system service area boundaries.

**4.2 Preventive Operation and Maintenance Activities**

A scheduling system and a data collection system for preventive operation and maintenance activities conducted by staff and contractors

The scheduling system must include:

- Inspection and maintenance activities;
- Higher-frequency inspections and maintenance of known problem areas, including areas with tree root problems;
- Regular visual and closed-circuit television (CCTV) inspections of manholes and sewer pipes.

The data collection system must document data from system inspection and maintenance activities, including system areas/components prone to root-intrusion potentially resulting in system backup and/or failure.

**4.3 Training**

In-house and external training provided on a regular basis for sanitary sewer system operations and maintenance staff and contractors. The training must cover:

- The requirements of this General Order;
- The Enrollee’s Spill Emergency Response Plan procedures and practice drills;
- Skilled estimation of Spill volume for field operators; and
- Electronic CIWQS reporting procedures for staff submitting data.

**4.4 Equipment Inventory**

An inventory of sewer system equipment, including the identification of critical replacement and spare parts.

## 4.1 Mapping

Mapping of the City’s utilities is available electronically on both desktop computers and field tablets and is available to staff in the field. Hardcopy maps are also maintained as a supplemental resource and are updated as needed to support field operations.

The City maintains several types of mapping systems for the City’s wastewater collection system and other utilities, which include the following:

- GIS databases

- CMMS Web Map
- Sewer atlas map book

#### 4.1.1 GIS Databases

The GIS electronic databases are maintained by the GIS Division and consist of the City's water, sewer, and storm drain facilities in ArcGIS software. Sewer facilities include gravity sewer lines, force mains, laterals, manholes, valves, and lift stations, with information such as pipeline size, material, length, direction of flow, manhole depth, and construction and rehabilitation records. **Figure 1-1** above illustrates the City's sanitary sewer network using GIS. Discrepancies are regularly reviewed and incorporated into the electronic mapping system to maintain data accuracy.

City office personnel, engineers, and planners utilize this database for a variety of purposes, including planning, engineering, and O&M:

- **Planning:** The GIS databases have information on existing sewer mains and piping network, which is used to evaluate the capacity of existing sewer mains and determine the size of proposed improvements.
- **Engineering:** GIS contains attribute data for key sewer main elements (i.e., gravity sewer mains, laterals, manholes, pump stations, force mains) that are essential to sewer improvement design.
- **O&M:** Sewer Collections field crews have electronic devices (i.e., iPad, mobile devices) with GIS mapping to locate and identify sewer system assets.

#### Reasons and Data Sources for Sewer System Mapping Changes

The typical reasons and data sources for sewer system mapping changes include:

- **Sewer Collections crews find discrepancies:** Sewer Collections field crews utilize the markup feature in the GIS geodatabase to document proposed changes for GIS data correction based on field verification.
- **GIS database analysis:** GIS staff perform GIS database queries to find discrepancies or missing data.
- **CCTV pipe survey analysis:** CCTV pipe survey can be performed to populate any missing sewer attribute data or update pipeline attributes with current pipeline condition assessments per the Pipeline Assessment Certification Program (PACP) coding system.
- **Capital improvements to sewer system:** When new construction or rehabilitation is completed, as-built record drawings are provided to GIS staff to update GIS databases. The as-builts are linked to GIS databases to streamline the search process. Engineers verify and correct the as-built record drawings prior to submittal of the as-builts to GIS for mapping updates.

Typically, updated information overrides outdated information in the mapping system to avoid data clutter. However, abandoned, repaired, and rehabilitated pipelines are indicated in the attribute table, such as the year and type of new liner.

## 4.1.2 Computerized Maintenance Management Software

The City employs a web-based, GIS integrated, CMMS for tracking customer service requests, pipe repair and rehabilitation, work orders, and preventative maintenance programs. Preventative maintenance tasks are generated on a weekly, quarterly, and annual frequency. Sewer Collections has access to the CMMS through computers and portable electronic devices (i.e., iPads, tablets). The CMMS is synced with GIS database and periodically updated when Sewer Collections field crews identify discrepancies and redline the correct locations to notify GIS staff. Engineers verify as-built drawings, and GIS staff use available public satellite imagery to support mapping validation, if applicable, prior to any GIS updates. All outstanding and completed redlines are logged.

## 4.1.3 Sewer Atlas Map Book

The atlas map book is developed from the GIS databases and includes a map sheet (1"=200' scale, 11"x17" paper) for each index area showing the location of gravity sewer lines, force mains, laterals, manholes, cleanouts, and lift stations in relation to City streets and property lines. Gravity sewer lines and force mains are labeled with size, material, year constructed, and direction of flow. Manholes are labeled with an identification number, and a table is provided with the identification number, stationing, and depth of each manhole. The map book sheets also show the location and stationing of service laterals.

The atlas map book is available in both electronic and hardcopy form. The electronic form is updated quarterly and available online to City employees and if requested through the Public Records Act, the public. Hardcopy forms are kept in the Sewer Collections Operation Center and in each of the Sewer Collections field vehicles. In the past, atlas map books were updated every 3 years. However, the City is moving toward paperless map databases to facilitate ease in access and maintenance and reduce cost. Therefore, the printed atlas map books are generally reserved as backup for when the O&M staff cannot access the electronic version in the field. The printed map books are updated when requested by Sewer Collections.

## 4.2 Preventative Operation and Maintenance Activities

The City's Sewer Collections Group performs routine cleaning, preventative maintenance and repair activities to ensure reliable operation of the wastewater collection system and to prevent spills.

Preventive maintenance activities performed by Sewer Collections include the following activities:

- Gravity sewer main cleaning and CCTV
- Sewer manhole inspection and cleaning
- Sewer lift station and forcemain maintenance and monitoring

- Easement maintenance
- Flow level monitoring

The City uses the CMMS to manage collection system maintenance activities and document work orders. Information regarding cleaning, CCTV inspection, repairs, lift station maintenance, and replacement of the sewer system is entered into the CMMS (or linked from the GIS database) and can be viewed by Sewer Collections and GIS personnel. Historical data from the CMMS aids Sewer Collections supervisory staff in setting and adjusting sewer cleaning schedules, determining timing and resources needed for future tasks, and setting budgets for preventative maintenance.

#### 4.2.1 Gravity Sewer Main Cleaning

Sewer Collections field crews perform hydroflushing and hydraulic rodding to remove debris and roots from the gravity sewer lines.

There are five primary cleaning strategies:

- **Routine Cleaning:** This type of cleaning is performed on gravity sewer mains 18 inches in diameter and smaller. The goal is to clean these mains every 2.5 years. There are some larger sewer mains greater than 18 inches in diameter cleaned as part of the routine cleaning program when practicable.
- **Downtown Cleaning:** This type of cleaning is performed on mains west of Interstate 5 and north of Loma Alta Creek. The City's goal is to clean 18 inches in diameter and smaller mains every year. The City prioritizes cleaning of downtown sewer assets for several reasons including: age, capacity, FOG, and environmental risk.
- **Targeted High Frequency Cleaning:** This type of cleaning is performed on sewer pipe segments with known FOG accumulation and root intrusion issues. Cleaning frequencies include 1-month, 3-month, 6-month, and 12-month cycles. Roots are typically addressed using hydraulic rodder equipment, and FOG is typically addressed using hydroflushing. The City reviews spill, maintenance records in the CMMS, complaint records, and staff input to optimize the cleaning frequency for targeted cleaning. Typically, one or two updates to cleaning frequencies are made per year.
- **Reactive cleaning:** This type of cleaning is performed as part of investigation and resolution of blockage/spills based on spill emergency response procedures outlined in section 6 of this SSMP. Blockage/Spill related mains are added to the targeted high frequency cleaning program if needed.
- **Large diameter gravity sewer main cleaning (greater than 18 inches in diameter):** City staff clean some 24-inch- and 27-inch-diameter mains when practicable. Other cleaning is performed on an as-needed basis.

#### 4.2.2 Gravity Sewer Main CCTV

CCTV inspection is performed by Sewer Collections and Contractors using the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification program (PACP) industry standard to identify defects such as cracks, fractures, broken pipe, joint offsets, grease deposits, roots, and infiltration. Data is stored in Phoenix

(CCTV Software) and is also referenced in Lucity (CMMS Software) and this data is readily accessible by Sewer Collections and Engineering/CIP staff. This condition assessment resource is responsive to the as-needed priorities identified by the Collections group. Priorities may include, but are not necessarily limited to:

- Televising sewer mains with no condition assessment data
- Investigating new deficiencies prompted by anecdotal reports triggered by cleaning efforts or spill response
- Providing support for repair, rehabilitation, and replacement projects;
- Providing support for new developments.

This effort often corresponds with locations such as Downtown, Harbor, in the vicinity of physical hazards (e.g., steep terrain), surface waters, environmentally sensitive areas, and assets that hold a high level of environmental consequence. When a severe defect (4/5 or 5/5) is encountered the result is highlighted, elevated, and brought to the attention of a supervisor for further assessment.

Sewer Collections uses a City-owned CCTV van and a two-person crew for inspection. The equipment can inspect 6-inch and larger sewer mains. The City uses contractors to perform additional CCTV inspection as needed. The City conducted an extensive condition assessment program by a 3rd party that led to the assessment of nearly all VCP collection system assets in 2015.

### 4.2.3 Manhole Inspection and Cleaning

Manholes are inspected during gravity sewer main cleaning by Collections crews. Manholes with additional cleaning needs are scheduled for cleaning based on these inspections. Manholes needing repair or replacement are identified using the Manhole Rehabilitation Form and are added to the CIP schedule or rehabilitated as part of annual preventative maintenance work.

## 4.2.4 Lift Station Maintenance

### Supervisory Control and Data Acquisition Monitoring

The City's SCADA system is used to monitor a variety of equipment and instruments at each lift station including, but not limited to, flow meters, level sensors and floats, pumps, pressure transducers, generators, odor scrubbers, intrusion switches, and flood switches. Alarms are generated by the SCADA system for alarm conditions such as pump failure, power failure, generator failure, intrusion, and station flood. Alarms are displayed at SCADA stations located at the SLRWRF, including the Sewer Collections Operation Center, and alarms call the Collections Duty phone repeatedly to notify Collections personnel. Collections Duty personnel investigate alarm conditions at the lift station.

### Lift Station Inspection and Maintenance

Nineteen of the lift stations are inspected by operations staff every weekday, and the remainder are checked every other day (MWF). Sewer Collections documents lift station maintenance activities in work orders using the CMMS. The City uses two teams to perform routine inspections, including an inland team and a coastal team. Routine inspection and maintenance include daily, monthly, and as-needed work, as follows:

- Daily inspections:
  - SCADA trending, pump cycling, and pump start/stops and total flow are reviewed
  - Inspections are documented on "log sheets" and typically include generators and generator usage, odor scrubbers, pump hour reads, total flow, electrical meter read to understand energy usage, water levels, and perimeter check. Major deficiencies are documented and reported to supervisors. The Lift Station Sheet is included in **Attachment D1**.
  - Based on the review of SCADA data and long sheets documentation, additional inspections may be performed such as checking pumps for clogging.
  - Pumps are rotated as lead, lag, and standby.
  - Odor Scrubbers and generators are checked (if applicable)
- Monthly work includes valve turning, eyewash station check, sump check, fire extinguisher check, or other activities identified during daily inspections.
- As-needed lift station maintenance includes activities such as scheduled or identified wet well cleaning and site maintenance such as painting or landscape maintenance.
- Pump mechanical issues identified by Collections are addressed by Collections or routed to the Facilities Maintenance group if beyond Collections abilities for repairs through CMMS work order.

Electrical work is performed by the SCADA division. Mechanical work such as fixing a broken pump or motor is performed by Facilities Maintenance. Site maintenance such as landscape work or painting is performed on an as-needed basis and may be performed by Sewer Collections or other groups or contractors.

## 4.2.5 Easement Maintenance

Sewer Collections maintains easements on a periodic basis and clears large vegetation that may impede vehicles. Easements are typically maintained prior to the rainy season to reduce the potential for rapid growth. Sewer Collections coordinates with the City Parks and Recreation and the City of Vista to complete easement maintenance work when needed.

Certain easements have access control measures enforced by non-City entities (i.e., railroads, Caltrans, etc.) or physical and environmental constraints (e.g., too environmentally sensitive, steep, rough, wet, and/or vegetated) for vehicles. In an emergency, the City uses its emergency authority to gain access as needed to respond to blockages/spills.

## 4.2.6 Flow Level Monitoring

The City has 31 manhole locations equipped with remote flow level monitoring systems with a web-based interface and alarm system. In addition, the City's 32 lift stations maintain flow level monitoring with SCADA integration. The monitors may also be used for flow trend analysis for spill analysis or new construction capacity impact analysis. The remote manhole monitoring systems are monitored and maintained by Collections through a maintenance contract. Monitors are installed at targeted locations, such as near waterways, in difficult to access locations, in low visibility areas, and upstream of lift stations as a tool to notify staff of a potential spill condition in high-risk areas.

## 4.3 Training

The City maintains a comprehensive training program for its sewer collection staff. New employees participate in an onboarding job rotation to gain hands-on experience in system operations and maintenance. Staff also attend specialized classes, certification programs such as those offered by the California Water Environment Association (CWEA), and industry conferences to stay current with best practices. In addition, the City promotes informal mentoring, pairing experienced personnel with newer employees to support skill development and operational consistency.

The City provides safety and other types of training programs on a regular basis for staff in sewer collection system operations, maintenance, and monitoring. The ongoing training addresses the skills necessary to perform proper operations and maintenance, provide timely and effective emergency response, and incorporate recognized safety practices. In addition, project specifications require contractor certifications or training to complete work.

### Onboarding and Training Rotations

The City's training program starts with onboarding of new staff and includes basic occupational and safety training provided by Human Resources. New staff, Utility Worker Trainees, are put on a rotation of job assignments, which are typically updated once per month for on-the-job training with crew leads to learn different skills including hydroflushing cleaning, rodding, CCTV inspection, easement maintenance, pump stations, and construction.

## Certification Requirements

After 6 months of on-the-job rotations, competent staff may be assigned to Duty calls for additional skills development. The City has a 12-month probationary period for new staff and positions, which includes the following requirements:

- The requirements for new staff, Utility Worker Trainees, include obtaining a Class B driver's license within 18 months and a CWEA Grade I certification.
- The requirements for a Utility Worker I include a CWEA Grade I certification, a Class B driver's license (tanker endorsement) and 1 year of experience.
- The requirements for a Utility Worker II include a CWEA Grade II certification, a Class B driver's license (tanker endorsement), and 2 years of experience.

The City supports CWEA grade certifications by reimbursing City staff that pass the certification test, as well as paying for the annual certification renewal and ongoing continuing education units.

## Safety Procedures

Safety procedures are available for chemical handling, confined space entry, traffic control and work site safety, and lockout/tagout safety for mechanical and electrical equipment. Collections staff attend regular biweekly safety meetings to discuss various safety items. The Safety Meeting Report Form included as **Attachment D2**, is used to document each meeting.

## On-Going Training

The City's training program also includes special classes or seminars, in-house training, conferences, training by equipment vendors, and annual performance reviews. The City sends staff to the Tri-State conference, local CWEA annual conference, and Water Environment Federation's Technical Exhibition and Conference for training when appropriate. In-house training includes training such as wastewater math, forklift operation, and confined space. Collections collaborates with the City Fire Department to cross-train on confined space rescue training once per year. The City built certified underground and aboveground confined space training facilities that are used by City staff and are a regional resource for other entities that require confined space training. Collections also performs separate refresher and hands-on confined space training.

Annual performance reviews may identify increased responsibilities and goals for improvement that include training and new certifications and licenses.

## 4.4 Vehicles, Equipment, and Parts Inventory

The City owns and maintains a variety of vehicles, equipment, and replacement parts used for operation, maintenance, and emergency response of the sewer collection system. Most vehicles and equipment are stored at the San Luis Rey Water Reclamation Facility (SLWRF) when not in use. The sewer collections group also maintains an inventory of major equipment and critical spare parts, which is regularly reviewed and updated to ensure availability for routine maintenance and emergency repairs. **Table 4-1** below summarizes the City's major vehicles and equipment.

**Table 4-1. Major Equipment**

<b>Equipment</b>	<b>Units</b>
Large Hydroflushing Vector-jet Truck	2
Small Hydroflushing Vector-jet Truck 4x4	1
CCTV Van (4 cameras/generator)	1
Confined Space Entry Vehicle	1
Crane Truck	1
Rodder Truck	1
Boom Truck	1
Pick-up Truck	6
Generators (plug ins for small lift stations)	2
Sewage Pump	4
Utility Trailer	2
Dump Truck	1

#### 4.4.1 Contingency Equipment and Spare Replacement Parts

To ensure reliability, the City maintains an inventory of contingency equipment and spare/replacement parts intended to minimize vehicle/equipment/facility downtime. Contingency equipment consists of portable pumps, generators, motors, and spare impellers to provide an effective response to emergency conditions.

Replacement parts for vehicles and appropriately maintained emergency response equipment and accessories allow field crews to effectively respond to incidents and efficiently perform routine maintenance.

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## 5

# Design and Performance Provisions

Group Responsible for SSMP Element:

Capital Projects / Engineering

Inspection

**Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:**
**5. Design and Performance Provisions:**

The Plan must include the following items as appropriate and applicable to the Enrollee's system:

**5.1 Updated Design Criteria and Construction Standards and Specifications**

Updated design criteria, and construction standards and specifications, for the construction, installation, repair, and rehabilitation of existing and proposed system infrastructure components, including but not limited to pipelines, pump stations, and other system appurtenances. If existing design criteria and construction standards are deficient to address the necessary component-specific hydraulic capacity as specified in section 8 (System Evaluation, Capacity Assurance and Capital Improvements) of this Attachment, the procedures must include component-specific evaluation of the design criteria.

**5.2 Procedures and Standards**

Procedures, and standards for the inspection and testing of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances.

## 5.1 Design Criteria and Construction Standards and Specifications

The City requires private residential connections and public sewer mains be designed and constructed according to standards contained in the City's *Water, Sewer and Recycled Water Design and Construction Manual*. All pipe and pipe fittings for private residential connections are required to conform to City of Oceanside Plumbing Code. The City's design approval process ensures developers, engineering firms, and contractors comply with these standards and specifications.

### 5.1.1 Water, Sewer, and Recycled Water Design and Construction Manual

All design and construction projects related to water, sewer, and recycled water are subject to all requirements as listed in the City's *Water, Sewer, and Recycled Water Design and Construction Manual*. The manual was adopted by resolution of the City Council on November 17, 2004 and is periodically updated by the Water Utilities Department. The manual was last updated in December 2010. The Standard Drawings referenced in the manual were updated in 2025. The City plans to update the Recycled Water section of the Manual in 2026.

The purpose of the manual is to establish the procedures and minimum design standards for all sewer-related design documents processed through the City. The standards presented in the manual govern the processing, design, construction, and testing of both public and private improvements for water, sewer, and recycled water facilities in the City. The manual can be accessed online on the City's website.

Section 1 of the manual includes a minimum standard of project conditions that must be met for both new and retrofit projects. This includes conditions for easements, new development, new sewer laterals, inspection manholes, oil and sand interceptors, and grease interceptors.

Section 3 of the manual includes design guidelines for sewer system construction including sewer mains, manholes, inspection manholes, and laterals. This section provides a list of authorized materials to be used in construction or repair of the City's sewer system. The manual also refers to the following standards:

1. SWRCB, Division of Drinking Water
2. American Water Works Association Standards
3. San Diego County Regional Standard Drawings
4. Standard Specifications for Public Works Construction (Greenbook), latest Edition

The manual appendix includes construction guidelines and requirements including those for preconstruction activities, trench bedding and backfill material, trench backfill testing, CCTV inspection of new sewer mains by contractors, final inspections, and as-built drawings. Current contract language for contractor repairs also requires CCTV inspection after completion. The Greenbook includes standards for gravity main rehabilitation construction.

The manual also includes general and sewer-specific notes that are required to be on all sewer improvement plans and Standard Drawings for sewer facilities including design criteria for separation of water and sewer mains and details for plastic pipe, sewer laterals, backwater valve assemblies, manholes, inspection manholes, and steel encasements.

The manual does not include specific design guidelines for the construction or rehabilitation of sewer lift stations. However, the Water Utilities Department provides lift station design criteria to engineers for lift station improvement projects as needed. The City evaluates redundancy in the form of emergency storage, bypass connections, and redundant pumps as part of significant lift station projects.

### 5.1.2 Plumbing Code

The City adopted the 2013 California Plumbing Code by reference in the Oceanside Municipal Code. All pipe and fittings for private sewer laterals must conform to the California Plumbing Code, in addition to the requirements set forth in the City's *Water, Sewer, and Recycled Water Design and Construction Manual*.

### 5.1.3 Design Approval Process

The City typically contracts engineering firms to design improvements for City sewer facilities, including gravity sewer lines, manholes, force mains, and lift stations. Prior to construction, the City's in-house engineering and operations staff review and approve the design plans and contract documents prepared by a licensed civil engineer for both City and private sewer improvements projects. City staff check the design plans and contract

documents to ensure conformance with the City's *Water, Sewer, and Recycled Water Design and Construction Manual* and the 2013 California Plumbing Code.

## 5.2 Inspection and Testing of New and Rehabilitated Sewer Infrastructure

New and rehabilitated sewer infrastructure require inspection and testing under specific procedures and standards.

### 5.2.1 Inspection and Testing Procedures and Standards

Testing for gravity sewers consists of a low-pressure air test to identify leakage, a mandrel test to identify deflection in flexible pipe, a CCTV inspection to identify grade variations or other construction defects, and an infiltration test to determine whether groundwater is present. Sewer main rehabilitation standards for construction and testing are included in the Greenbook. A vacuum test is used to identify leakage in manholes, and a hydrostatic pressure test is used to identify leakage in force mains. Testing for lift station improvements may include a pump capacity test, a hydrostatic test of piping, and power and control system tests.

### 5.2.2 Inspection and Testing Resources

City staff evaluates upcoming capital improvement projects to determine the project management and construction inspection workload requirements and assign project management and construction inspection duties to either in-house staff or to a third party, depending on the size of the project and the workload demands. Regardless of who performs project management and construction inspection duties, the resources assigned to perform these duties observe construction activities to ensure they are performed in conformance with plans, contract documents, and City standards.

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6

# Spill Emergency Response Plan

Group Responsible for SSMP Element:

Sewer Collections
SCADA
Compliance
Laboratory

**Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:**

**6 Spill Emergency Response Plan**

The Plan must include an up to date Spill Emergency Response Plan to ensure prompt detection and response to Spills to reduce Spill volumes and collect information for prevention of future Spills. The Spill Emergency Response Plan must include procedures to:

- Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a Spill in a timely manner;
- Notify other potentially affected entities (for example, health agencies, water suppliers, etc.) of Spills that potentially affect public health or reach waters of the State;
- Comply with the notification, monitoring and reporting requirements of this General Order, State law and regulations, and applicable Regional Water Board Orders;
- Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained;
- Address emergency system operations, traffic control and other necessary response activities;
- Contain a Spill and prevent/minimize discharge to waters of the State or any drainage conveyance system;
- Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State;
- Remove sewage from the drainage conveyance system;
- Clean the Spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters;
- Implement technologies, practices, equipment, and interagency coordination to expedite Spill containment and recovery;
- Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a Spill event;
- Conduct post-Spill assessments of Spill response activities;
- Document and report Spill events as required in this General Order; and
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.

The City has a Spill Emergency Response Plan (SERP) establishing procedures for responding to spills to minimize spill volume that enters Waters of the State and the adverse effects on water quality. The SERP includes protocols for notifying appropriate state and county regulatory agencies, as well as protocols for responding to a spill from receipt of call through clean-up and reporting. The latest version of the City’s SERP is included as **Attachment F1** of this SSMP.

The City requires all construction contractors performing work on the collection system to develop, submit and implement a Spill Prevention Plan in construction contracts. **Attachment F2** includes the City’s standard specification for bypass pumping that includes a description of the requirements of the spill prevention and emergency response plan.

The City conducts an annual review of the SERP and assesses the effectiveness of spill response for previous 12 months. The SERP, or other SSMP elements, are updated as needed and logged in **Attachment A1**.

## 6.1 Other Regulatory Requirements

### 6.1.1 Regional Water Quality Control Board (Order Number R9-2007-0005)

Order No. R9-2007-0005 of the San Diego RWQCB, "WDRs for Sewage Agencies in the San Diego Region," adopted on February 14, 2007, prohibits spills and supplements the requirements prescribed in SWRCB Order 2006-0003-DWQ for all federal and local sewage collection agencies in the San Diego Region.

#### **Reporting Requirements:**

- a. All Category 1 spills must be reported as soon as possible, but no later than 24 hours after the agency becomes aware of the spill. The agency must use the State Board Online Spill System for reporting these spills, but an additional notification to the Regional Board by telephone, fax, or e-mail is highly advisable. If the Online Spill System is not available, the agency is required to fax a report to the Regional Board and then enter all required information into the Online spill System as soon as practical.
- b. Order No. R9-2007-0005 requires sewage collection agencies to report private lateral sewage discharges greater than or equal to 1,000 gallons or to surface waters that they are aware of.

## 7 Sewer Pipe Blockage Control Program

Group Responsible for SSMP Element: **Compliance**

### Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:

#### 7 Sewer Pipe Blockage Control Program:

The Sewer System Management Plan must include procedures for the evaluation of the Enrollee's service area to determine whether a sewer pipe blockage control program is needed to control fats, oils, grease, rags and debris. If the Enrollee determines that a program is not needed, the Enrollee shall provide justification in its Plan for why a program is not needed.

The procedures must include, at minimum:

- An implementation plan and schedule for a public education and outreach program that promotes proper disposal of pipe-blocking substances;
- A plan and schedule for the disposal of pipe-blocking substances 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 substances generated within a sanitary sewer system service area;
- The legal authority to prohibit discharges to the system and identify measures to prevent Spills and blockages;
- Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, best management practices requirements, recordkeeping and reporting requirements;
- Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the fats, oils, and grease ordinance;
- An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning schedule for each section; and
- Implementation of source control measures for all sources of fats, oils, and grease reaching the sanitary sewer system for each section identified above.

The City adopted a FOG ordinance in 2007 and implemented a FOG control program to reduce grease-related blockages and sewer overflows. The City has over 400 food service establishments (FSE) with a grease control device (i.e., grease trap or grease interceptor) to alleviate grease discharged into the sanitary sewer system.

### 7.1 Public Outreach Program

The City has developed a public outreach program that includes educational materials posted to the City's website.

#### 7.1.1 Educational Outreach to Food Service Establishments

FOG inspection requirements are embedded in the City's Unified Environmental Inspection Program. Therefore, the City's Environmental Compliance Inspector visits FSEs and provides information on the City's Pollution Prevention and Pretreatment Program regarding FOG in the form of an informational poster that includes a QR code linking to the City's Food Service Environmental Compliance page, including an informational training video and handouts.

- Informational poster: The informational poster, included as **Attachment G1**, is displayed in the kitchen area, in both English and Spanish, to describe the grease control program, which includes the grease disposal and spill cleanup process.
- The City's FSE Compliance webpage has information included as **Attachment G2**, has the following information:
  - Ordinance No. 07-OR0021, which provides the authority and guidance for the FOG program;
  - How a grease control device works and the consequences of noncompliance;
  - Kitchen BMPs;
  - The requirements to prominently place the FOG poster in a food preparation area;
  - Benefits of controlling FOG;
  - Grease/Oil receptacle standards;
  - Permit terms and conditions;
  - Proper documentation of annual employee FOG training;
  - Proper documentation of grease control device maintenance and frequency of required cleaning or servicing at least every three months;
  - Proper documentation of exhaust hood maintenance and frequency of cleaning or servicing at least twice a year; and,
  - Proper documentation of jetting or other cleaning methods of private lateral, which is recommended at least once a year to prevent costly FOG system overflows.

All educational training videos are available on the City webpage. This provides an easy way for FSEs to train employees on FOG program requirements and the importance of FOG best management practices.

### 7.1.2 Targeted Residential Outreach

When a spill occurs in a residential area, a FOG pamphlet is mailed to all residences with connections to the City's collection system, upstream where the blockage occurred. A copy of the FOG pamphlet is included in **Attachment G3**.

## 7.2 Plan and Schedule for Disposal of Fats, Oils, and Grease

FSEs contract directly with licensed grease haulers to collect accumulated grease from their grease control devices. The City requires FSEs to clean grease control devices quarterly. Most grease haulers are either recycling yellow grease or disposing of grease at the Encina Water Pollution Control Facility in Carlsbad, while some grease haulers are disposing grease at other disposal sites in the region. The City does not regulate or issue permits to grease haulers for grease collection from FSEs grease control devices. Grease is not a hazardous waste and does not require a special permit to handle or haul

to a recovery or disposal facility. Disposal is documented through invoices when the grease is picked up at an FSE. The Environmental Compliance Inspector reviews FSE maintenance records to verify quarterly cleanings are performed on schedule.

FOG removed from lift station wet wells is transported to either the SLRWRF grit chamber or the Encina Water Pollution Control Facility in Carlsbad. The FOG disposed at these treatment locations is combined with the separated grease, scum, and grit, which is ultimately disposed of at landfills. Landfills require a waste profile and testing of materials prior to issuing an annual waste stream authorization number.

## 7.3 Sewer Pipe Blockage Control Program Legal Authorities

Chapter 29 of the City Code provides the City with FOG program legal authorities. The Oceanside City Code can be accessed online at.

### 7.3.1 Authority to Prohibit Fats, Oils, and Grease Discharges to the Sewer System

The City presently has several sections of the Municipal Code that limit or require control of FOG introduced to the collection system by industrial and commercial facilities, including restaurants and food processing facilities. Oceanside City Code, Chapter 29, Article VI, Section 29.45.1 (b) prohibits “solid or viscous substances which may cause obstruction of the flow in a sewer or other interference with the operation of the wastewater treatment facilities including, but not limited to, grease” and Section 29.45.3 (g) prohibits the discharge of grease and oil into the sewer system in excess of 100 milligrams per liter.

### 7.3.2 Authority to Require Measures to Prevent Fats, Oils, and Grease-Related Sanitary Sewer Overflows and Blockages

In January 2007, the City adopted Ordinance No. 07-OR0021-1, Regulation of Commercial Kitchen Grease Disposal. This ordinance added Article IX, Section 29.115 through 29.128 to Chapter 29 of Oceanside City Code. City Code Section 29.123 requires that all commercial kitchens have grease control devices.

### 7.3.3 Authority to Inspect and Enforce Fats, Oils, and Grease Program Requirements

City Code Section 29.5 provides the City with the right of inspection to enter upon premises at a reasonable hour to inspect or determine if Chapter 29 of the City Code is being violated. Chapter 29 includes requirements for installation of grease control devices, grease control device maintenance, and record keeping.

City Code Sections 29.128 outlines a set of progressive penalties for violation of the FOG ordinance, ranging from administrative penalties, misdemeanor penalties, and penalties for infractions. Violations may result in civil actions. Minor violations are issued a notice of violation without financial penalty.

## 7.4 Sewer Pipe Blockage Control Program Requirements

### 7.4.1 Requirements to Install Grease Control Devices

The City requires FSEs to install grease control devices, either a grease trap or an interceptor, if the establishment produces a significant amount of grease. Existing FSEs are issued a Conditional Commercial Kitchen Facility Wastewater Discharge Permit that is valid until:

- There is a change in ownership, lease, transfer, or assignment of the business or premise;
- There is a change in operations;
- The FSE undergoes remodeling that enlarges the seating capacity by 25 percent or greater; or
- The FSE remodels the facility, requiring a building or tenant improvement permit.

If any of these triggering events occur, the FSE will be required to install a properly sized grease control device. Facilities with appropriately sized grease control devices meeting the Uniform Plumbing Code are issued a Commercial Kitchen Facility Wastewater Discharge Permit, which is valid for 1 year.

New FSEs or establishments constructing tenant improvements are visited by a Building Department inspector, who will visually inspect the installation of grease interceptors to ensure installation and plumbing compliance with code. The City's Building Inspectors and the Water Utilities Department inform the Environmental Compliance Inspector when FSEs apply for new permits or when improvement plans are submitted for approval. New FSEs or FSEs going through tenant improvements are logged and tracked in a spreadsheet for subsequent code compliance inspection. The Environmental Compliance Inspector has access to applications for business licenses and is also notified of FSE owner transfers, as ownership transfer may trigger installation of grease interceptors or upsizing if they do not meet the current code.

### 7.4.2 Design Standards for Grease Control Devices

All commercial kitchen fixtures that may introduce grease into the public sewer system are required to be sized and plumbed to a grease control device in accordance with standard plumbing guidelines defined in the most recent adopted Uniform Plumbing Code. The grease control device is required to be designed and constructed in accordance with the *Water, Sewer, and Recycled Water Design and Construction Manual*. All commercial kitchens are required to be equipped with a grease control device as defined by City Code.

All commercial kitchens requiring a hydromechanical grease interceptor or gravity grease interceptor are required to size the device according to the most recent adopted California Plumbing Code. Grease traps are installed inside the restaurant and can have capacity ranging from 50 to as high as 250 gallons, while grease interceptors are installed outdoors with a minimum capacity of 750 gallons to as high as 1,200 or 1,500 gallons. The maximum size for a grease interceptor is 3,000 gallons.

Grease control devices must be located outside the building and as close to the kitchen as possible. Otherwise, prior approval by the Water Utilities Department is required to install grease control devices inside the building. Grease control devices may be located within the public right-of-way as determined by the City Engineer and require a right-of-way permit and an approved Encroachment Removal Agreement. The owner must assume responsibility for potential trip hazard or spillage in the sidewalk and construct manhole covers flush with the sidewalk to avoid a trip hazard.

### 7.4.3 Maintenance Requirements for Grease Control Devices

Each commercial kitchen with a grease control device is required to employ an appropriate service or procedures for periodic collection of accumulated grease from any grease control device. The collection schedule is set forth in the commercial kitchen grease disposal permit for the grease control device, which shall require at a minimum, collection of accumulated grease at least once every 3-month period. Commercial kitchens are not allowed to introduce grease into any sewer lateral, public sewer, storm drain, or public right-of-way. FSEs are required to supply documentation, such as invoices, to prove compliance with grease control device maintenance requirements. Business licenses are not issued or renewed if documentation is not provided.

### 7.4.4 Best Management Practice Requirements

City Code Section 29.124 requires all food preparation and FSEs to follow a set of minimum BMPs. All food preparation and FSEs and commercial kitchens are required to install, implement, and maintain at least the following minimum BMPs.

#### Drain Screens

New and existing FSEs deemed by the City to generate grease are required to install drain screens on all drainage pipes in food preparation areas.

#### Waste Cooking Oil

All waste cooking oil must be collected and stored properly in recycling barrels or drums. Recycling barrels or drums must be maintained appropriately to ensure they do not leak. Licensed haulers or an approved recycling facility must be used to dispose of or recycle waste cooking oil.

#### Food Waste

As defined in Chapter 13 of the City Code, all food waste and food soiled paper must be placed in clear plastic liners or directly within the food scraps collection container, not in the sinks of FSE establishments. In addition, food grinders are prohibited. Recyclables, as defined in Chapter 13 of the City Code, must be placed in recycling collection containers. All other materials and residual waste that are defined as nonhazardous industrial waste must be placed in the landfill container.

#### Employee Training

Every FSE with a connection to the City's collection system is required to retain records of logs for training of all kitchen personnel regarding handling and disposal of FOG and

understanding of organics food recycling requirements annually. This entails the food preparation staff to watch a short training video on the City website and sign a log as confirmation of completing the training. Employees of an FSE must be trained at the beginning of their term of employment, and twice each calendar year thereafter, on the following subjects:

- How to "dry wipe" pots, pans, dishware, and work areas before washing, to remove grease
- How to properly dispose of food waste, food soiled paper, and other organic solids within clear plastic liners or directly into the food scraps collection container to avoid leaking and odors
- The location and use of absorption products to clean under fryer baskets and other locations where waste cooking oil grease may be spilled or dripped
- How to properly dispose of grease or oils from cooking equipment into a waste cooking oil grease barrel or drum without spilling

Training must be documented, and FSEs must retain records indicating the date and time of the training, each employee's attendance, and each employee's understanding of the practices. Training records must be available for review at any reasonable time by the authorized inspector. Training logs and maintenance records of each FSE are stored in the City's database.

The City is in the process of implementing a pretreatment and FOG management software that will support the City with tracking FSE background information and associated FOG program inspection data. As part of the implementation, the City is updating records associated with food service establishments which will verify the actual number of food service establishments in the City and streamline FOG inspections.

#### Kitchen Exhaust Filters

Kitchen exhaust filters must be cleaned as frequently as necessary to be maintained in good operating condition (at least once a month is recommended).

### 7.4.5 Record Keeping and Reporting Requirements

Each FSE with a grease control device is required to keep records of cleaning, maintenance, and grease removal. All such records must be retained on site by the permitted facility for a minimum of 3 years. A separate maintenance log must be maintained for each grease control device and posted in the immediate vicinity of each device. Maintenance logs will include the following information: grease control device location and volume; maintenance dates; volume removed (gallons); disposal methods; and name of person performing maintenance; and, if the person is not employed by the FSE, the name, address, and phone number of the person or company performing the maintenance activities.

## 7.5 Sewer Pipe Blockage Control Program Resources

The City has assigned program inspection and enforcement duties to an Environmental Compliance Inspector who verifies compliance with FOG ordinance requirements. An example of the inspection form used to document inspections is included in **Attachment G4**. The City currently utilizes the CMMS to track restaurant names, owners, contact information, interceptor size, recycling methods, etc.

The City also uses Green Oceanside to assist with program public outreach and FSE inspections to provide data regarding potential program violations.

## 7.6 Sewer System Maintenance Program for Fats, Oils, and Grease

The Sewer Collections Division has identified sections of the sewer system subject to blockages and established a cleaning maintenance schedule for each section. When a grease-related spill occurs, the Environmental Compliance Inspector will perform an inspection of all FSEs upstream of the blockage, including the review of maintenance records for grease control devices. Identification of pipe segments prone to blockage and the cause of the blockages is based on blockage history, CCTV inspection data, FOG investigations, and FOG source control inspections of FSEs.

Pipes prone to blockages can be addressed through more frequent cleaning, targeted outreach of upstream dischargers, and additional regulation on FOG discharges. Areas known to be a problem have been put into monthly, quarterly, or semiannual cleaning frequencies. This program is described in detail in Chapter 4, Operations and Maintenance Program.

## 7.7 Preventive and Source Control Measures

The City uses a combination of preventive and source control measures to address FOG discharges to the sewer system, including the following:

- **FSE inspections:** This involves source control inspections of FSEs to determine compliance with FOG ordinance requirements. For FSEs with no grease control devices (grandfathered before the 2007 ordinance), the Environmental Compliance Inspector educates the Owner and kitchen personnel on BMPs and recommends installation of a grease interceptor, if applicable.
- **High Frequency Cleaning Program:** This involves scheduled recurrent cleaning of known grease problem areas on frequencies of less than 12 months.
- **Scheduled Routine Main Cleaning Program:** This involves scheduled main cleaning frequencies between 1 and 6 months.
- **Sewer Mains and Manholes Inspection Program:** This involves the visual and/or televised inspection of mains and manholes between scheduled routine cleaning dates.
- **Sewer main replacement:** This involves the repair, replacement, or rehabilitation of impacted sewers to improve sewer flow velocities.

# 8 System Evaluation, Capacity Assurance, and Capital Improvements

Group Responsible for SSMP Element:

Capital Projects / Engineering

## Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:

### 8 System Evaluation, Capacity Assurance, and Capital Improvements:

The Plan must include procedures and activities for:

- Routine evaluation and assessment of system conditions;
- Capacity assessment and design criteria;
- Prioritization of corrective actions; and
- A capital improvement plan

#### 8.1 System Evaluation and Condition Assessment:

The Plan must include procedures to:

- Evaluate the sanitary sewer system assets utilizing the best practices and technologies available;
- Identify and justify the amount (percentage) of its system for its condition to be assessed each year;
- Prioritize the condition assessment of system areas that:
  - o Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies;
  - o Are located in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas;
  - o Are within the vicinity of a receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List;
- Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection methods;
- Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State;
- Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and
- Identify system assets vulnerable to direct and indirect impacts of climate change, including but not limited to: sea level rise; flooding and/or erosion due to increased storm volumes, frequency, and/or intensity; wildfires; and increased power disruptions.

#### 8.2 Capacity Assessment and Design Criteria

The Plan must include procedures to identify system components that are experiencing or contributing to Spills caused by hydraulic deficiency and/or limited capacity, including procedures to identify the appropriate hydraulic capacity of key system elements for:

- Dry-weather peak flow conditions that cause or contributes to Spill events;
- The appropriate design storm(s) or wet weather events that causes or contributes to Spill events;
- The capacity of key system components; and
- Identify the major sources that contribute to the peak flows associated with sewer Spills.

The capacity assessment must consider:

- Data from existing system condition assessments, system inspections, system audits, Spill history, and other available information;
- Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;

- Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change;
- Increases of erosive forces in canyons and streams near underground and above-ground system components due to larger and/or higher-intensity storm events;
- Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events; and
- Necessary redundancy in pumping and storage capacities.

### **8.3 Prioritization of Corrective Action**

The findings of the condition assessments and capacity assessments must be used to prioritize corrective actions. Prioritization must consider the severity of the consequences of potential Spills.

### **8.4 Capital Improvement Plan**

The capital improvement plan must include the following items:

- Project schedules including completion dates for all portions of the capital improvement program;
- Internal and external project funding sources for each project; and
- Joint coordination between operation and maintenance staff, and engineering staff/consultants during planning, design, and construction of capital improvement projects; and Interagency coordination with other impacted utility agencies

This chapter describes the City's System Evaluation and Capacity Assurance, and Capital Improvements Plan. Important changes are anticipated in the near term as the City adopts the 2024 General Plan and initiates the Sewer Master Plan and Asset Management Plan, completes the planned decommissioning of La Salina WWTP, and produces an updated Capital Improvement Program (CIP).

## **8.1 System Evaluation and Condition Assessment**

The City collects condition assessment and performance data for its sewer collection and conveyance system assets and conducts evaluations for each asset as previously introduced in Section 4 and further explained below.

### **8.1.1 Sewer Mains**

Sewer Collections assessment work typically nets 25 miles of data (~10% of system) on a yearly basis. The City has successfully utilized this approach because it has historically supplemented its in-house condition assessment program by subcontracting CCTV work to 3<sup>rd</sup> parties. From 2015 through 2018, for instance, over 222 miles of gravity sewer mains were televised using high-resolution 360° CCTV inspection technology and was NASSCO PACP coded. This effort focused entirely on the City's oldest VCP pipelines, including critical areas such as the Harbor and Downtown.

The City has committed to reassessing the utility of its existing 2015-2018 VCP condition assessment database and by 2030 will consider subcontracting a 3<sup>rd</sup> party condition assessment resource for routine and programmatic condition assessment of sewer gravity mains that will supplement Sewer Collections efforts. This condition assessment effort will be prioritized and applied to assets identified by the City's upcoming new programmatic Asset Management Plan (further discussed herein).

### 8.1.2 Sewer Force mains

Sewer Collections monitors the performance of sewer force mains by monitoring pump health and performance data and visualizes exposed force mains on an as-needed and intermittent basis.

Due to unique site conditions, design features, bypassing and access constraints and high costs, Engineering/CIP has selectively applied internal condition assessments of sewer force mains, with an emphasis on larger, older, ferrous force mains. Additional force main condition assessments will be considered and will be prioritized and applied to assets identified by the City's upcoming Asset Management Plan.

### 8.1.3 Sewer Manholes

Sewer Collections conducts downhole visual inspections of manholes concurrently with the routine cleaning and CCTV condition assessment of sewer gravity mains. When a severe defect (e.g., large infiltration, heavy roots growing into channel, displaced manhole joints, deep spalling, concrete loss, etc.) is encountered the result is highlighted, elevated, and brought to the attention of a supervisor for further assessment.

### 8.1.4 Sewer Lift Stations

Sewer Collections and Facilities Maintenance conducts routine visual inspections of sewer lift stations when they are accessed for daily operation & maintenance (varies by site) which may consist of but is not necessarily limited to visualizing electrical, instrumentation, controls, and major exposed piping, valves, pumps, and the wet-well. All lift stations sites have SCADA-based monitoring and alarms for major electrical, instrumentation and controls systems and wet well levels. When visual defects are identified, results are highlighted, elevated, and brought to the attention of a supervisor for further assessment.

Engineering/CIP has selectively applied intermittent comprehensive (e.g., structural, mechanical, electrical, instrumentation, controls systems) condition assessments to lift station assets.

### 8.1.5 Inflow & Infiltration Investigations

Sewer Collections on an as-needed basis can and will investigate major localized sources of inflow and infiltration that may be indicative of a major defect or are suspected to occur due to illegal cross connections. Dye testing; micro-basin monitoring; and/or additional CCTV investigations are all potential tools that may be utilized depending on the problem. Sewer basin specific inflow and infiltration performance will be assessed as part of the City's upcoming Sewer Master Plan.

### 8.1.6 Flow Level Monitoring

As described in Section 4, an important and supplemental resource to CCTV condition assessment efforts is Sewer Collection's use of 31 remote flow level monitoring and 32 lift station flow level monitoring points which provides real time monitoring and alarm of system surcharging. This data provides critical anecdotal information that indirectly

informs capacity assessment and condition assessment work near waterways and environmentally sensitive areas.

## 8.2 Capacity Assessment and Design Criteria

The City's 2015 sewer master plan remains the most current planning document utilized for capacity assessment purposes however it is 10 years old and is due for an update as recommended by the City's 2024 General Plan. Consequently, Engineering/CIP will develop a new and comprehensive sewer master plan that is separate from but also compatible and coordinated with the Asset Management Plan (outlined in sections below).

### 8.2.1 Upcoming Sewer Master Plan

. The plan will include:

- Sewer model software
  - Previous model in InfoSWMM has been discontinued
  - New GIS-based 1-D modeling software to be selected
- Physical Network Development
  - All pipelines and manholes based on
  - All lift stations & forcemains based on record drawings
  - Connection points from partner agencies
  - Parcel-to-manhole hydraulic loading
- Dry Weather Flows
  - Existing dry weather flows will be calibrated based on sewer flow meter data which may be supplemented by potable water data
  - Projected long term dry weather flows based on population growth and development assumptions informed by 2024 General Plan including contributions from partner connected agencies
- Wet Weather Flows
  - Existing rain derived inflow and infiltration (RDII) performance will be calibrated and synthesized based on flow meter data
  - Design RDII will be projected based on appropriate San Diego regional informed design storm and hyetograph applied to calibrated synthetic unit hydrograph
  - NOAA Atlas 15 (anticipated to be released in 2026) point precipitation data will be used to inform the effects of climate change on increased RDII
  - Seasonal groundwater infiltration will be added as a baseflow

- System Capacity
  - Hydraulic capacity will be simulated across sewer collection and conveyance system assets for peak wet weather flows (e.g., dry weather flow + RDII + Groundwater Infiltration Baseflow)
  - Capacity criteria (e.g., 0.75 d/D, 0.9 d/D, etc.) will be developed that is coordinated with City Engineering Design Manual and best practice.
- Capacity results that exceed capacity criteria will trigger and be assigned conceptual corrective actions such as diversion or upsizing improvements
- High rates of inflow and infiltration across basins may be assigned recommended micro-basin monitoring, rehabilitation, and or other corrective actions.
- Sewer lift stations will be re-inventoried and assigned potential corrective actions which may include recommendations for additional condition assessments; monitoring; additional sources of redundancy (e.g., external generators, emergency storage, generator hookups, bypass points, etc.)
- Capacity results and corrective actions will then be plugged into the Asset Management Plan for further evaluation, prioritization, and conversion into a capital improvement project, assigned a schedule, funding source, and project manager.

## 8.3 Prioritization of Corrective Action

Currently the City operates a flexible, bifurcated approach to identifying, assigning, prioritizing, and implementing corrective actions.

First, Sewer Collections utilizes its yearly operating budget to identify, prioritize, and apply reactive repair and rehabilitation corrective actions for emergencies and urgent defects that vary and may include but are not necessarily limited to:

- Gravity mains: severe defects that are quick rated 4 or 5 based on the NASSCO PACP quick rating system; sinkholes and surface settlement; debris and blockages not removable via cleaning, etc.
- Sewer Manholes: collapse; voids and holes; large infiltration; heavy roots extending to flow line, etc.
- Forcemains: leaking or heavily corroded pipes, valves and fittings, etc.
- Lift Stations: non-functioning electrical instrumentation and controls equipment, leaking or heavily corroded pipes, valves, and fittings, etc.

Sewer Collections first attempts to utilize in-house resources and all Collections field staff are capable of repair work on various sewer assets and cross-trained on construction equipment. Then on-call general and specialty contractors are typically contracted for work that requires traffic control, equipment, and procedures that exceed Sewer Collections internal resources. This may also include specialty subcontractor work like CIPP lining and manhole coatings.

If the required response exceeds the Sewer Collections internal and on-call resources and capabilities, requires advanced planning and design support, and/or the defect is prioritized lower; then the Sewer Collections group will refer the project to the Engineering/CIP group.

Secondly, Engineering/CIP takes all of the data it has gathered and it assigns repair, rehabilitation, and replacement correction actions for collection and conveyance system assets on an as-needed-basis. The process considers:

- long term strategic objectives
- hydraulic capacity
- risk of failure (age, severity of defect, location, etc.)
- best judgment of the Engineering/CIP and Sewer Collections team.

These corrective actions are sorted, bundled, and prioritized into a project with a budgeted cost, project manager, and implementation schedule which is discussed more in Section 8.4.

The City's existing process documented herein will soon undergo major changes. Engineering/CIP will develop a new, comprehensive, and programmatic Asset Management Plan that will cover the City's sewer collection system and conveyance system assets.

### 8.3.1 Upcoming Asset Management Plan

The Asset Management Plan entails:

- The plan will be informed by GIS-based sewer collection and conveyance system assets and a Risk of Failure model based on likelihood and consequence of failure risk. Criteria may include but is not necessarily limited to available condition assessment data; performance data; anecdotal observations and information; hydraulic model sewer capacity; size; age; material; repair and maintenance history; spill history; exposure to hazards; proximity to environmentally sensitive areas and waterways.
- The plan will identify and prioritize future condition assessment of assets exposed to physical hazards, exacerbating effects of climate change, environmentally sensitive areas; and waterways. Existing climate-change and hazard related information that will help inform this assessment are:
  - 2019 Coastal Hazards Vulnerability Assessments
  - 2023 Multi-Jurisdictional Hazard Mitigation Plan adopted by City of Oceanside and developed by San Diego County
  - 2024 General Plan (anticipated to be adopted by 2026)
    - Hydrological hazards (floodplains, tsunamis, dam breach inundation area, sea level rise)
    - Fire hazards
    - Geologic & Seismic Hazards

- Climate Change, Adaptation, and Resiliency
      - 2025 Sand Nourishment and Retention Project (RE:BEACH). The City is conducting a comprehensive Sand Nourishment and Retention Project (“RE:BEACH”) in response to chronic beach erosion, shoreline vulnerability associated with climate change, and the need for more effective coastal management. The overarching purpose of the project is to enhance coastal resilience along the City’s shoreline by developing, testing, and refining scalable adaptation strategies that are technically feasible, financially sustainable, and environmentally and socially responsible. The project is designed to address chronic beach erosion, protect coastal infrastructure, and improve public access and recreational opportunities
- The plan will assign a corrective action to the deficiency, which may include but is not necessarily limited to repair; rehabilitation; replacement; upsize; retrofit; upgrade; stabilize, monitor & reassess, etc. The corrective action is then scored and ranked (prioritized) based on the Risk of Failure model.
- The highest priority corrective actions will then continuously inform the capital improvement plan which is further discussed below.

## 8.4 Capital Improvement Plan

Improvement projects for the sewer and conveyance system assets are part of the City’s overarching Water Utilities Capital Improvement Plan (CIP). First, prioritized corrective actions are bundled into distinct improvement projects alongside strategic standalone capital improvement projects. Typical improvement implementation schedules are listed below:

- Reactive and urgent repair and rehabilitation projects managed under Sewer Collections operating budget (< 3 months)
- Programmatic yearly point repair project (< 1 year) managed by Engineering/CIP
- Systematic sewer collection and conveyance system rehabilitation, replacement, and upsizing projects (1-3 years) managed by Engineering/CIP
- Major CIPs (new lift stations, large diversion pipelines, etc.; 3-7 years) managed by Engineering/CIP

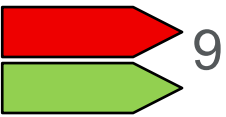
The CIP operates on a rolling five-year schedule, reviewed and adopted annually by the City Council, and supported by a ten-year financial forecast.

Funding sources include sewer user-fee revenue, depreciation reserves, EPA Region 9 grants, and congressional earmarks. Project budgets and schedules are coordinated with the City’s biennial Cost-of-Service to ensure long-term rate sustainability.

CIP project coordination is a joint effort between Sewer Collections who provide field input and constructability review and Engineering/CIP, which manages design and construction. Inter-agency coordination occurs with Vista, Carlsbad, Fallbrook PUD, Rainbow MWD, and Camp Pendleton for shared infrastructure and emergency planning.

Representative capacity replacement projects include the Mission Siphon improvements, Loma Alta Pipeline rehabilitation (Phases 2 and 3), Marlado Forcemain Upgrade, Oceanside Boulevard Lift Station Replacement, Lorretta Forcemain Redundancy, and Buena Vista Flood Protection upgrades.

These combined efforts ensure that Oceanside's Wastewater collection system continues to meet regulatory requirements, accommodate future growth, and maintain reliable service under evolving climate and environmental conditions.



# 9 Monitoring, Measurement, and Program Modifications

Group Responsible for SSMP Element:

Compliance
Sewer Collections

**Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:**

**9 Monitoring, Measurement, and Program Modifications:**

The Plan must include an Adaptive Management section that addresses Plan-implementation effectiveness and the steps for necessary Plan improvement, including:

- Maintaining relevant information, including audit findings, to establish and prioritize appropriate Plan activities;
- Monitoring the implementation and measuring the effectiveness of each Plan Element;
- Assessing the success of the preventive operation and maintenance activities;
- Updating Plan procedures and activities, as appropriate, based on results of monitoring and performance evaluations; and
- Identifying and illustrating Spill trends, including Spill frequency, locations and estimated volumes.

## 9.1 SSMP Information Maintenance

The City maintains relevant SSMP information across various sources including the GIS and CMMS databases that are used to measure program effectiveness.

## 9.2 Measuring Program Effectiveness and Monitoring Program Implementation

The City measures and monitors SSMP Program effectiveness and implementation on a monthly and annual basis. **Table 9-1** below summarizes the key performance indicators the City uses to track SSMP Program effectiveness and implementation.

**Table 9-1. Summary of Sewer System Management Plan Elements and Associated Performance Indicators Used to Track Program Effectiveness and Implementation**

SSMP Element	Performance Indicators
Organization	<ul style="list-style-type: none"> <li>• Vacant Positions</li> </ul>
Legal Authority	<ul style="list-style-type: none"> <li>• Private Sewer Lateral Notice of Violations</li> </ul>
Operations and Maintenance Program	<ul style="list-style-type: none"> <li>• Total length of pipe that underwent CCTV</li> <li>• Total length of pipe cleaned</li> <li>• Total length of pipe repaired or replaced</li> </ul>

**Table 9-1. Summary of Sewer System Management Plan Elements and Associated Performance Indicators Used to Track Program Effectiveness and Implementation**

SSMP Element	Performance Indicators
Spill Emergency Response Plan	<ul style="list-style-type: none"> <li>• Number of service calls</li> <li>• Total number of spills</li> <li>• Cause of Spill (e.g., roots, grease, debris, pipe failure, pump station failure, capacity, other)</li> <li>• Number of repeat spills at a given location</li> <li>• Number of lateral spills</li> <li>• Number of main line spills</li> <li>• Total amount recovered</li> <li>• Total amount estimated to reach Waters of the State</li> <li>• Percent reaching Waters of the State</li> <li>• Volume of spills that was contained in relation to total volume of spills</li> <li>• Volume distribution of spills (e.g., number of spills less than 100 gallons, 100 to 999 gallons, 1,000 to 9,999 gallons, greater than 10,000 gallons)</li> <li>• Average response time from call to arrival</li> <li>• Average response time from arrival to spill stoppage and cleanup</li> <li>• Tracking of Annual Review of SERP</li> </ul>
Sewer Pipe Blockage Control	<ul style="list-style-type: none"> <li>• Number of blockages/spills due to FOG</li> <li>• FOG Program Inspection Reports and Violation Notices</li> </ul>
System Evaluation, Capacity Assurance, and Capital Improvements	<ul style="list-style-type: none"> <li>• Relationship of capacity related spills to storm event return frequency</li> </ul>
Monitoring, Measurement, & Program Modifications	<ul style="list-style-type: none"> <li>• Monthly and annual reporting</li> <li>• Conduct annual review of California Integrated Water Quality System data</li> </ul>
Internal Audits	<ul style="list-style-type: none"> <li>• Date of completion of last audit</li> <li>• Corrective action tracking</li> </ul>
Communication Program	<ul style="list-style-type: none"> <li>• Number of Sewer related public information distributed</li> <li>• Number of Sewer related public education activities</li> </ul>

### 9.2.1 Monthly Report to Utility Commission

Monthly reports are submitted to the Utility Commission, an advisory entity to the City Council of appointed citizens. Department Heads, Managers, and Analysts typically attend the bimonthly Utility Commission meetings. The monthly report consists of the following:

- Collection system performance metrics:
  - Blockages in city mains

- Total volume spilled
- Total volume recovered
- Net spillage volume
- total volume to public water ways
- Amount of damages
- Preventative maintenance production metrics:
  - Total footage cleaned
  - Total footage inspected/CCTV
  - Total cleaned/impacted
  - Over/under goal
  - Percentage to goal

### 9.2.2 Annual Report to San Diego Regional Water Quality Control Board

The City also submits an annual report to the San Diego RWQCB that includes the following key performance indicators:

- Number of spills
- Volume of spill recovered
- Number of warning upgrades (prenotification or alert technology, alarms, smart covers, etc.)
- Miles of sewer line cleaned
- Linear feet of CCTV
- Linear feet of sewer rehabilitation
- Fiscal impact on sewer repairs or rehabilitation

## 9.3 Sewer System Management Plan Program Updates

The City monitors and measures the effectiveness of the SSMP program to diagnose the root causes of issues impacting SSMP program effectiveness. This includes on-going data analysis and standing meetings such as the annual review of the SERP and individual post spill assessments.

The City is continually reviewing spill events and spill performance to identify both site-specific corrective actions to address the cause of a specific spill event, as well as trends in spills leading to identification and implementation of targeted or programmatic spill reduction strategies. Based on this review, the City determines whether the spill event is likely to be a one-time event, a potentially recurring event at that specific site, or an indicator of a trend that requires a programmatic solution.

In addition, The City assesses spill trends and patterns, including frequency, location, and volume estimates as part of its internal audit process. The City maintains its previous

internal audits and reassesses the recommendations made to improve the effectiveness of the SSMP.

Program modifications occur at any time during the year if performance issues are identified. Program modifications are also evaluated during the annual SERP assessment and triennial SSMP program audit process. The City maintains a log of SSMP changes included in **Attachment A1**.

# 10 Internal Audits

Group Responsible for SSMP Element:

Compliance

Sewer Collections

## Order WQ 2022-0103-DWQ:

### Attachment D SSMP – Required Elements:

#### 10 Internal Audits:

The Plan shall include internal audit procedures, appropriate to the size and performance of the system, for the Enrollee to comply with section 5.4 (Sewer System Management Plan Audits) of this General Order.

#### 5. Specifications:

##### 5.4 Sewer System Management Plan Audits:

The internal audit shall be appropriately scaled to the size of the system(s) and the number of Spills. The Enrollee's sewer system operators must be involved in completing the audit. At minimum, the audit must:

- Evaluate the implementation and effectiveness of the Enrollee's Sewer System Management Plan in preventing Spills;
- Evaluate the Enrollee's compliance with this General Order;
- Identify Sewer System Management Plan deficiencies in addressing ongoing Spills and discharges to waters of the State; and
- Identify necessary modifications to the Sewer System Management Plan to correct deficiencies.

The Enrollee shall submit a complete audit report that includes:

- Audit findings and recommended corrective actions;
- A statement that sewer system operators' input on the audit findings has been considered; and
- A proposed schedule for the Enrollee to address the identified deficiencies.

## 10.1 Sewer System Management Plan Internal Audit Process

The City plans to perform an SSMP Program audit once every 3 years. The program audit reviews performance trends and the overall SSMP Program implementation and develops a set of audit findings and proposed corrective actions. The previous audit, input gathered throughout the term, and an assessment of current SSMP performance, are used to construct the initial draft of a new audit. This initial set of audit findings and proposed corrective actions are provided to SSMP Program implementation stakeholders for their review, comments, and additions. Stakeholders include staff from Sewer Collections, Engineering / Capital Projects, GIS, Regulatory Compliance, and Laboratory.

Each SSMP element is evaluated for compliance with SSMP requirements, as well as effectiveness. Any deficiencies are identified, along with recommendations for correction. Audit reports and related materials are stored on the City's server. The City's most recent SSMP Program Audit Report from 2025 is included as **Attachment J1**.

## 10.2 Audit Implementation and Tracking of Results

Once SSMP Program audit findings and corrective actions are finalized, City staff responsible for the various elements of the SSMP Program implementation review the audit findings to determine an appropriate course of action. Any deficiencies in meeting the schedule are identified, and mitigation measures are developed and implemented to ensure corrective actions are addressed.

## 10.3 Sewer System Management Plan Update Process

If no major changes occur, the SSMP is updated 6 years (at a minimum) from the previous SSMP update, approval, and recertification. The results of the prior SSMP Program audit reports are factored into the SSMP update process.

# 11 Communication Program

Group Responsible for SSMP Element: **Compliance**

## Order WQ 2022-0103-DWQ Attachment D SSMP – Required Elements:

### 11 Communication Program:

The Plan must include procedures for the Enrollee to communicate with:

- The public for:
  - o Spills and discharges resulting in closures of public areas, or that enter a source of drinking water, and
  - o The development, implementation, and update of its Plan, including opportunities for public input to Plan implementation and updates.
- Owners/operators of systems that connect into the Enrollee’s system, including satellite systems, for:
  - o System operation, maintenance, and capital improvement-related activities.

## 11.1 Communications with Public

### 11.1.1 Spills and Discharges

In the event of a spill that results in closure of public areas or has the potential to impact a source of drinking water, the City follows notification procedures outlined in its SERP. These procedures include immediate notification of the County of San Diego DEHQ, the RWQCB, and other applicable agencies. The City posts public warnings and coordinates environmental sampling to determine when areas are safe for reopening. Notifications may be distributed via the City’s website, social media, or other public channels as appropriate.

### 11.1.2 SSMP Implementation and Updates

The City utilizes multiple modes of communication to engage with the public on the development, implementation, and performance of its SSMP. These methods include the City’s annual operating budget, Utilities Commission review and approval, City Council meetings, the Green Oceanside campaign, and social media platforms. Each provides an opportunity for public participation and feedback, which the City incorporates into the future SSMP updates. The operating budget, known as the “Budget Book”, is updated annually and available online. It summarizes key accomplishments related to SSMP program implementation and performance. The Utilities Commission, made up of residents appointed by the City Council, serves as an advisory body that reviews the SSMP, utility budgets, capital improvement plans, and proposed policies. Its meetings are open to the public, and residents can provide written or verbal comments. After the Commission’s approval, the SSMP is reviewed and adopted by the City Council at a public meeting. This provides another opportunity for public input. The meetings are also broadcast live on local television and online.

Beyond formal review processes, the City promotes public engagement through the Green Oceanside campaign. This program encourages environmental stewardship and offers events focused on energy and water conservation, pollution prevention, and zero waste. Working with residents, schools, and local organizations, Green Oceanside helps

the community learn practical ways to protect natural resources and reduce sewer overflows. The City also uses social media-such as Twitter, Facebook, Instagram, YouTube, and LinkedIn- to share updates, promote programs, and encourage community involvement in maintaining a reliable and sustainable sewer system.

## 11.2 Communications with Tributary or Satellite Systems

The City sewer system is tributary to several neighboring sewer systems. Rainbow MWD and the City of Vista convey untreated wastewater into the City sewer system. The City sewer system conveys untreated wastewater to the Vista-Carlsbad Interceptor through the Encina Bypass. The wastewater flow is conveyed to Encina Water Pollution Control Facility for treatment and disposal. The City has an existing agreement with the City of Vista for transfer of flows between the two collection systems.

In addition, Fallbrook PUD and Camp Pendleton Marine Corps Base convey treated wastewater and brine flows into the City service area to the City's Ocean Outfall. The City has open lines of communications and working relationships with all neighboring and tributary systems.

The City is also partnering with San Elijo Joint Powers Authority and other North County wastewater agencies to perform public outreach regarding the proper disposal of wipes, which are known to cause clogging issues in the City's lift station pumps leading to increased risk of sewer overflows.

## 12 Attachments

The following letter IDs are assigned to each SSMP element:

A – Goals and Introduction

B – Organization

C – Legal Authorities

D – Operation and Maintenance Program

E – Design and Performance Provision

F – Spill Emergency Response Plan

G – Sewer Pipe Blockage Control Program

H – System Evaluation, Capacity Assurance, and Capital Improvements

I – Monitoring, Measurement, and Program Modifications

J – Internal Audits

K – Communication Plan

**Table 12-1. List of Attachments**

ID	Title
A1	SSMP Change Log
B1	Water Utilities Organization Chart
D1	Lift Station Data Sheet
D2	Safety Meeting Report Form
F1	Spill Emergency Response Plan
F2	Temporary Bypass Pumping Specification
G1	Informational Poster with FOG Best Management Practices
G2	FOG Binder
G3	FOG Pamphlet
G4	FOG Inspection Form
J1	2025 Internal Audit



## SSMP Element Changes

SSMP Element		Changes
<b>1. Goals and Introduction</b>	(a) SSMP Goals	Updated to meet requirements of revised General Order
	(b) Regulatory Context	
	(c) Update Schedule	
	(d) Sewer System Asset Overview	
<b>2. Organization</b>	(a) Identify Legally Responsible Official (LRO)	Updated to meet requirements of revised General Order
	(b) Titles, telephone numbers, and email addresses for all positions responsible for implementing SSMP elements	
	(c) SSMP responsibility and organization chart	
	(d) Chain of communication for reporting spills	
<b>3. Legal Authority</b>	(a) Prevent illicit discharges	Updated to meet requirements of revised General Order
	(b) Stormwater Collaboration for spill response and system separation	
	(c) Properly designed and constructed sewers	
	(d) Ensure access to laterals owned/maintained	
	(e) Enforce any violation of ordinances	
	(f) Obtain easement accessibility agreements	
<b>4. Operation and Maintenance Program</b>	(a) Updated Map of Sanitary Sewer System	Updated to meet requirements of revised General Order
	(b) Preventive O&M activities	
	(d) Training	
	(e) Equipment Inventory	
<b>5. Design and Performance Provisions</b>	(a) Updated Design Criteria and Construction Standards and Specifications	Updated to meet requirements of revised General Order
	(b) Procedures and Standards	
<b>6. Spill Emergency Response Plan ("SERP")</b>	(a) Notification Procedures	Updated to meet requirements of revised General Order
	(b) Compliance with Notification, Monitoring, and Reporting Requirements	
	(c) Spill Response Staff and Contractors Implementation and Training	
	(d) Emergency Response Procedures	
	(e) Spill Containment/Minimization, Removal, and Cleaning	

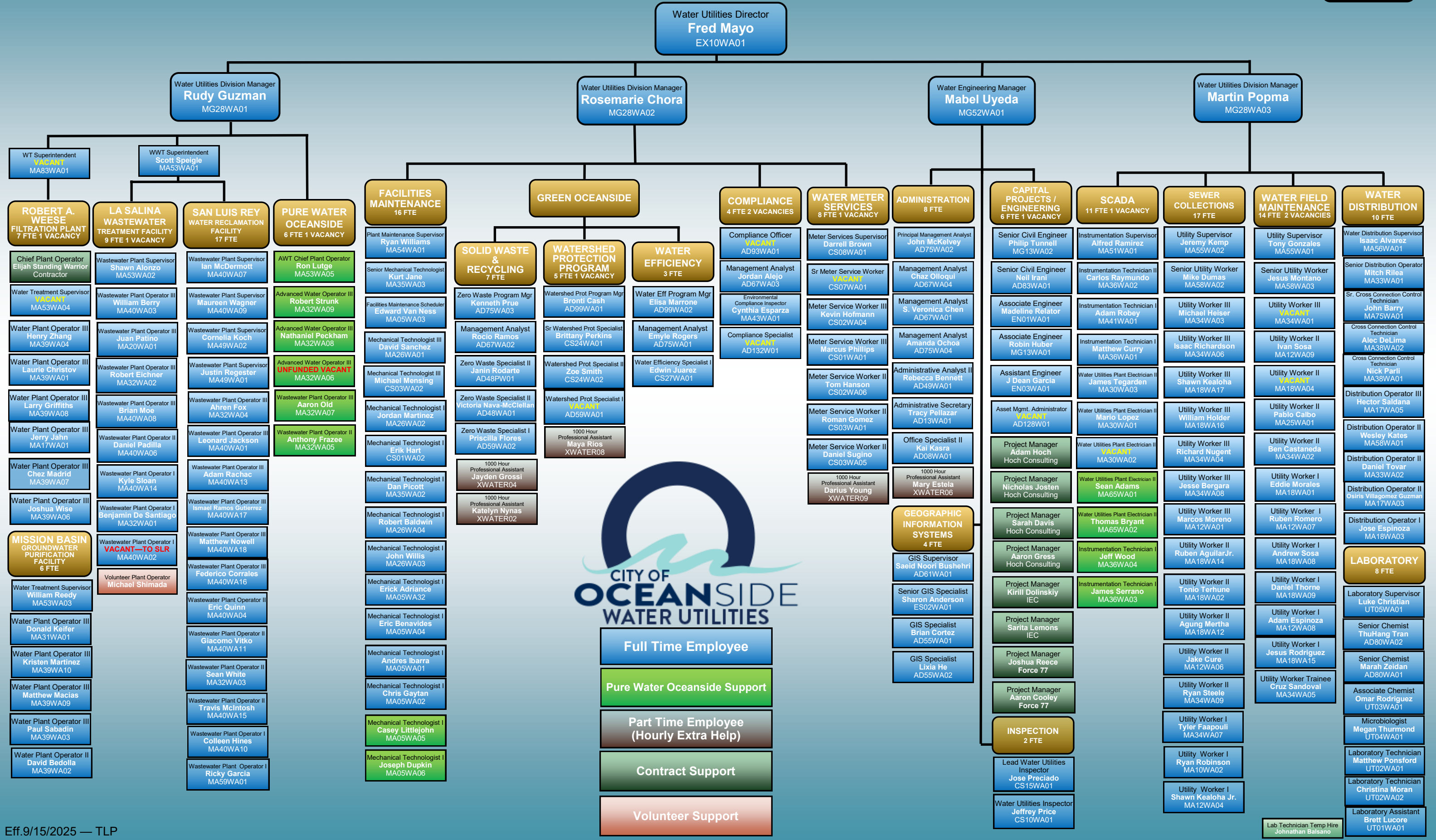
SSMP Element		Changes
	(f) Implementation and Coordination/Collaboration of Spill Containment	
	(g) Post-spill Assessments	
	(h) Spill Event Documentation and Reporting	
	(i) Annual Review and Assessment of SERP Effectiveness	
<b>7. Sewer Pipe Blockage (SPB) Control Program</b>	(a) Public Education and Outreach Plan	Updated to meet requirements of revised General Order
	(b) SPB Disposal Plan and Schedule	
	(c) Legal authority	
	(d) FOG Removal Device Requirements	
	(e) Authority to inspect and enforce FOG ordinance	
	(f) FOG Characterization Assessment and Hot Spot Cleaning Schedule	
	(g) FOG Control Program Measures	
<b>8. System Evaluation, Capacity Assurance, and Capital Improvements</b>	(a) System Evaluation and Condition Assessment	Updated to meet requirements of revised General Order
	(b) Design Criteria	
	(c) Capacity Assessment	
	(d) Capital Improvement Plan	
<b>9. Monitoring, Measurement and Program Modifications</b>	(a) Maintain relevant information, including Audit findings, to establish and prioritize SSMP activities	Updated to meet requirements of revised General Order
	(b) Monitoring the implementation and measuring the effectiveness of SSMP elements	
	(c) Assess success of preventative operation and maintenance program	
	(d) Update SSMP procedures and activities as appropriate, based on results of monitoring and performance evaluations	
	(e) Identify and illustrate spill trends, including spill frequency, locations and estimated volumes	
<b>10. Internal Audits</b>	(a) Conduct triennial audits	Updated to meet requirements of revised General Order
	(b) Evaluate the implementation and effectiveness of the SSMP in preventing spills.	
	(c) Evaluate compliance with Revised General Order	

<b>SSMP Element</b>		<b>Changes</b>
	(d) Identify SSMP deficiencies in addressing ongoing spills and recommend corrective modifications to the SSMP with a proposed schedule	
	(e) State the operator’s input on Audit findings has been considered	
<b>11. Communication Program</b>	(a) Procedures for communication with public for spills resulting in closures of public areas, or that enter a source of drinking water	Updated to meet requirements of revised General Order
	(b) Communicate with public on the development, implementation, and updating of the SSMP, including opportunities for public input	
	(c) Communicate with Owners/operators of tributary/satellite systems for operation, maintenance, and capital improvement-related activities	

# CITY OF OCEANSIDE WATER UTILITIES DEPARTMENT

## ORGANIZATIONAL CHART FY 24/25

174 FTE  
12 VACANCIES  
162 Current Staff



MONTH \_\_\_\_\_

**CITY OF OCEANSIDE  
WATER UTILITIES DEPARTMENT - WASTEWATER COLLECTIONS**

STATION \_\_\_\_\_

DATE	TIME	ELECTRIC	KWH	W/W LEVEL	AUTO	PORT	GEN HRS	CK'ED BY	COMMENTS
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EYE WASH	VALVES	ODOR SCRUBBER GREASING	1ST	2ND
FIRE EXT.	SUMP			

# SAFETY MEETING REPORT

SEWER COLLECTIONS

CAL / OSHA - SECTION 3203: EVERY EMPLOYER SHALL INAUGURATE AND MAINTAIN  
A TRAINING PROGRAM, INSTRUCTING EMPLOYEES IN GENERAL  
SAFE WORK PRACTICES...

\*RETAIN ORIGINAL COPY AND FORWARD DUPLICATE TO THE SAFETY OFFICE...

DATE OF MEETING: \_\_\_\_\_ TIME: \_\_\_\_\_

NAME / TITLE OF CONDUCTOR: \_\_\_\_\_

EMPLOYEE	PRESENT	ABSENT	EMPLOYEE	PRESENT	ABSENT
AGUNG MERTHA	_____	_____	TONIO TERHUNE	_____	_____
MARCOS MORENO	_____	_____	DANNY CAVATINO	_____	_____
JEREMY KEMP	_____	_____	MIKE HEISER	_____	_____
RUBEN AGUILAR	_____	_____	SCOTT ROGERS	_____	_____
JAKE CURE	_____	_____	SHAWN KEALOHA	_____	_____
RAY ZARATE	_____	_____	DAVID SANCHEZ	_____	_____
MIKE DUMAS	_____	_____	RUBEN RAMOS	_____	_____
ISAAC RICHARDSON	_____	_____	WILL HOLDER	_____	_____
RICHARD NUGENT	_____	_____			

SAFETY INFORMATION RECEIVED AND DISCUSSED:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

JOB INJURIES AND ACCIDENTS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TOPIC OR ITEMS BROUGHT UP AND DISCUSSED AT MEETING:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DATE AND TIME OF NEXT SAFETY MEETING:  
\_\_\_\_\_

SIGNED: \_\_\_\_\_ SIGNED: \_\_\_\_\_  
SUPERVISOR DEPARTMENT HEAD



# Spill Emergency Response Plan

2026 Sewer System Management Plan Update

Oceanside, CA  
March 2026





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# 1 Introduction

The City's Spill Emergency Response Plan (SERP) establishes procedures for an effective response to spills in accordance with the California State Water Resource Control Board (SWRCB) adopted Statewide General Waste Discharge Requirements (WDR) Order WQ 2022-0103-DWQ. The SERP provides a framework for City staff to follow in responding to spills, notifying the pertinent entities, conducting post spill assessments, and meeting reporting requirements.

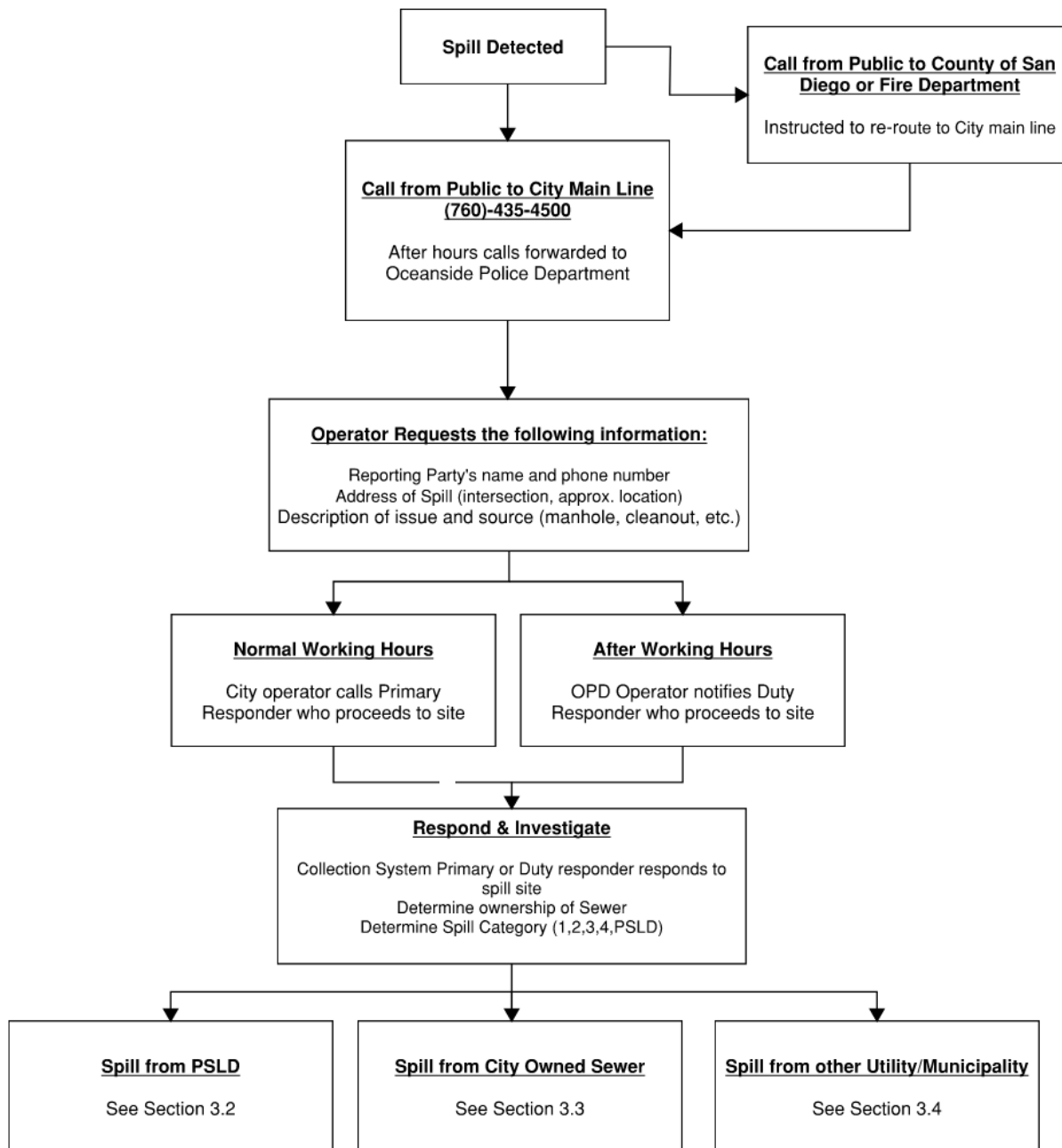
The City's goals with respect to responding to spills are to:

- Work safely;
- Minimize public contact with the spilled wastewater;
- Respond quickly to minimize the volume of the spill;
- Eliminate the cause of the spill;
- Contain the spilled wastewater to the extent feasible;
- Prevent sewage system spills from entering the storm drain system or receiving waters to the maximum extent practicable;
- Mitigate the impact of the spill; and
- Meet the regulatory reporting requirements

# 2 Spill Detection, Investigation, and Assessment

The City uses the procedural flow chart shown in **Figure 2-1** below as a guideline for the methods and processes to receive calls notifying the City of potential blockages or spills and the City's subsequent investigation and assessment to determine the type of spill and regulatory responsibility.

**Figure 2-1. Spill Detection, Investigation, and Assessment Sequence**



The City has included contact information for reporting sewer spills on monthly water bills and on the City’s website. In addition, the City maintains a service request submission page on the website where residents can submit sewer related issues.

Oceanside residents can call the City Customer Care call center at 760-435-4500 or Oceanside Police Dispatch (OPD) at 760-435-4911 (or 4911) to report spills. Customer Care staff has been trained by sewer collections staff to provide immediate notification of spills and the difference between water leaks and spills. Service requests submitted online are documented in the City’s CMMS.

Sewer service calls are high priority events that demand a prompt response to the location of the problem. Upon notification of a potential sewer spill, a City responder is dispatched onsite with the goal to arrive within 30 minutes during normal working hours and 60 minutes during after-hours. During normal working hours the City responder is the designated Primary Responder, while during after-hours the City responder is the designated Duty Responder.

## 2.1 Working Hours Spill Detection

The typical process for working hours (6:30 AM to 4:00 PM Monday through Thursday and 6:30 AM to 3:00 PM on Friday) spill detection is presented in **Figure 2-2** and described below.

**Figure 2-2 – Spill Detection Chain of Communication (Working Hours)**



1. The centralized City Call Center receives a call reporting the spill. Information is logged into the City’s customer relation management (CRM) software and then Customer Care calls the Duty Phone.
2. The Duty Phone is carried by the assigned Collections Primary Responder or Customer Complaints staff who receive the spill information.
3. The Primary Responder investigates and notifies the Legally Responsible Officials (LROs) to begin regulatory notification and reporting process.

The Primary Responder and Duty Phone number is in a daily email sheet sent to Oceanside Customer Care and Water Utilities employees. City staff assigned to the Duty Phone are the Primary Responders and are responsible for investigating the call or report and initiating spill response procedures if necessary.

## 2.2 After Hours Spill Detection

The typical process for spill detection occurring during weekends, holidays and anytime outside of regular working hours is presented in **Figure 2-3** and described below.

**Figure 2-3 – Spill Detection Chain of Communication (After Hours)**



1. Emergency calls concerning possible sewer spills received by the City after hours are forwarded to or taken directly by Oceanside Police Dispatch. OPD documents information on the sewer spill emergency (time, location, and caller, address, phone number).

2. OPD calls the Duty Phone to notify the Duty responder of the spill.
3. The Duty responder investigates and notifies appropriate staff to begin notification and reporting process.

The Duty responder is designated in an emergency call list distributed weekly to Police Dispatch. The Duty responder is responsible for investigating the complaint or spill report and initiating spill response procedures if necessary.

## 2.3 Other Sources of Spill Detection

**Manhole Flow Level Sensor Alarms:** The City has 31 manhole locations equipped with flow level monitoring systems. The flow level monitoring systems provide a web-based interface for monitoring wastewater flow levels in manholes throughout the collection system. The monitoring systems alarm operators by phone of high wastewater levels and potential spills. Alarms go to the Utility Supervisor and the Senior Utility Worker. If deemed necessary, these staff will contact the Duty Person.

**Sewer Lift Station Alarms:** When Lift station SCADA alarms are triggered the SCADA system calls the Duty Person on the Duty Phone. The SCADA system asks for an acknowledgement code as part of this call. The SCADA system will keep calling and leave messages until acknowledged. SCADA system alarms for conditions such as pump failure, power failure, generator failure, intrusion, and station flood. Alarms are displayed at all SCADA stations located at the San Luis Rey Water Reclamation Facility (SLRWRF), including the Collections operation center.

## 3 Spill Response Procedures

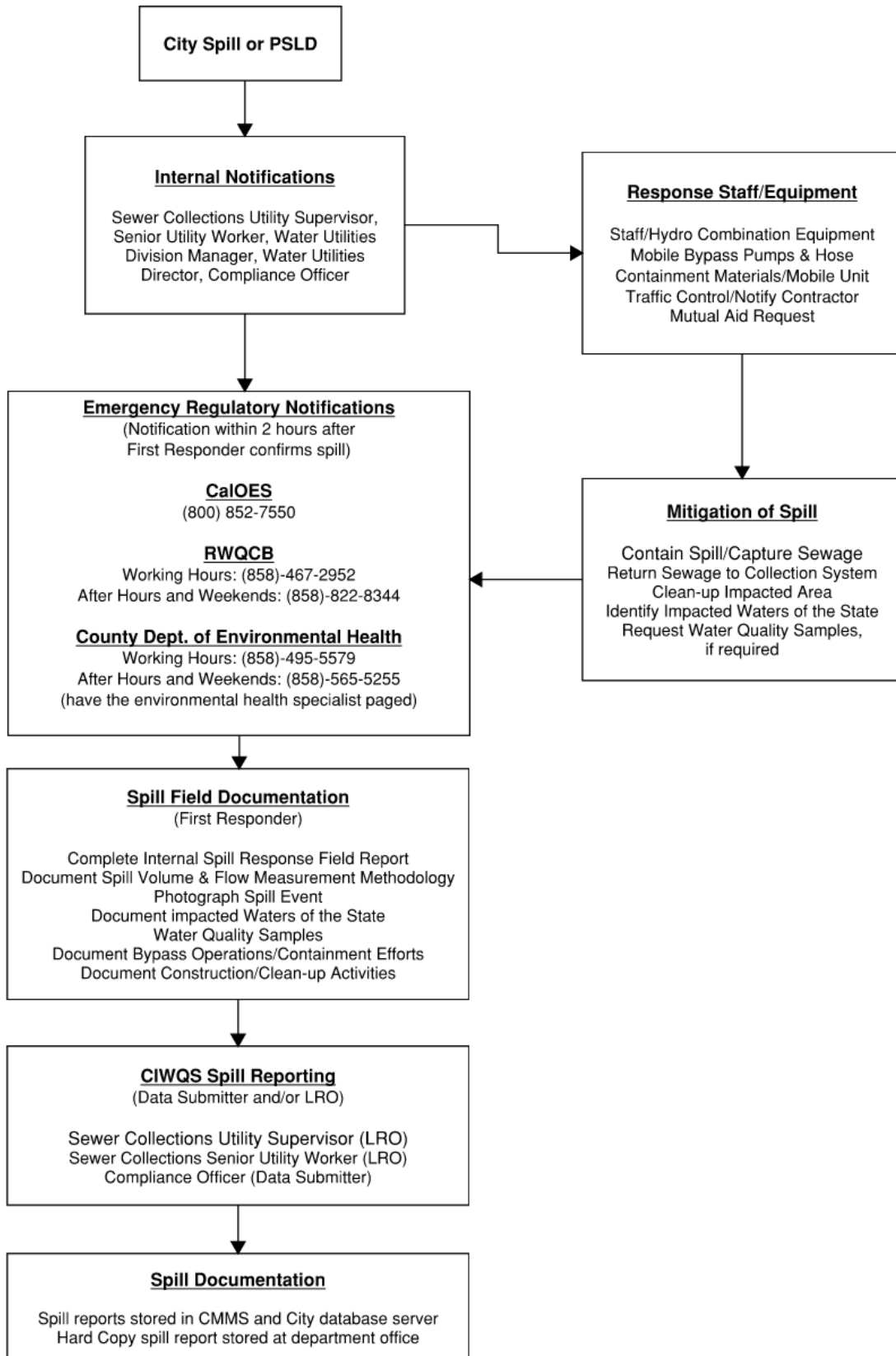
Once a potential spill has been investigated and assessed the City follows one of two procedural flow charts for spill response depending on the spill origin:

1. Spills originating from a private sewer lateral discharge (PSLD) or a City-owned Asset
2. Spills originating from other municipalities or utilities

All internal and external contact information for notification and coordination purposes is provided in the directory in **Appendix D**

Procedures for PSLD and City spills are summarized in **Figure 3-1** below and further described in the below sections.

Figure 3-1. Spill and PSLD Response Procedure



## 3.1 Regulatory Definitions

### **Waters of the State**

Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state as defined in Water Code section 13050(e), and are inclusive of waters of the United States.

### **Category 1 Spill**

A Category 1 spill is a spill of any volume of sewage from or caused by a sanitary sewer system regulated under this General Order that results in a discharge to:

- A surface water, including a surface water body that contains no flow or volume of water; or
- A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly.

Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water, unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility.

### **Category 2 Spill**

A Category 2 spill is a spill of 1,000 gallons or greater, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.

A spill of 1,000 gallons or greater that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system, is a Category 2 spill.

### **Category 3 Spill**

A Category 3 spill is a spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.

A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.

### Category 4 Spill

A Category 4 spill is a spill of less than 50 gallons, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.

A spill of less than 50 gallons that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.

## 3.2 Procedures for Spills Originating on Private Property

If the spill originates on private property and appears to be or is **less than** or equal to 1,000 gallons in total spill volume, and **is not** reaching public right-of-way, the drainage channel, and/or *Water of the State* and/or storm drain, and is fully recovered:

- Check the city main to determine responsibility (Open upstream manhole and downstream manhole and check flow). If it is determined to be caused by City sewer infrastructure, proceed to the City Asset Spill procedures section below.
- If it is determined that the private sewer lateral is the cause of the spill - contact the owner/resident to inform them of findings.
  - Request the owner/resident call a plumber.
  - Evaluate the situation and determine whether you can leave and come back to check the problem or must stay and set up recovery (if it might reach public right-of-way).
  - If the situation dictates, notify Code Enforcement and, in extreme cases when the water has to be shut off, notify the Collections Supervisor and upper management to authorize the shut down by the water duty person.
- Document call out and take photos if necessary. When possible, document extents of discharge and site after clean-up.
- Notify agencies or create internal report on a case-by-case basis. *Note: This reporting and communication is not required by the WDR. The City provides this notification to improve coordination and response.*

### 3.2.1 Supplemental Internal and Regional Board PSLD Requirements

If the spill is on private property and is **greater than** 1,000 gallons or **is** reaching public right-of-way, a drainage channel, and/or *Water of the State*, and/or storm drain, and is not fully recovered:

- Check the City main to determine responsibility (open upstream manhole and downstream manhole and compare flow volumes). If it is determined to be caused by City sewer infrastructure, proceed to the City Asset Spill procedures section below.
- If it is determined that the private sewer lateral is the cause of the spill - contact the owner/resident to inform them of your findings.



- Start a timeline of the incident with a minimum of the following information:
  - The time the spill call was received;
  - The time staff arrived at the spill site and their names;
  - What actions were taken to stop the spill with the times; and
  - The time the spill was stopped.
- Set up recovery/clean-up.
- Have the owner/resident call a plumber.
- Remain on scene until stoppage is resolved.
- Notify Collections supervisor.
- Report the spill within 2 hours of when you received the call to all agencies – RWQCB, DEHQ, CalOES. *Note: This reporting and communication is not required by the WDR. The City provides this notification to improve coordination and response.*
- If spill volume exceeds 1,000 gallons, notify the RWQCB within 24 hours in accordance with the requirements of the supplemental regional order No. R9-2007-0005.
- If situation dictates, notify Code Enforcement and, in extreme cases when the water has to be shut off, notify the Collections supervisor and upper management to authorize the shut down by the water duty person.
- Document call out and take photos if necessary. When possible, document extents of discharge and site after clean-up.
- Notify Risk Management for cost recovery (only if property damage occurs).

### 3.3 Procedures for Spills Resulting from City Owned Sewer Assets

If the spill originates from a City owned and maintained sewer system asset and/or facilities up to the headworks of both wastewater treatment plants:

- Overall goal: Contain the spill and eliminate it as quickly as possible.
- Immediately begin the following:
  - Document a timeline of the incident with the following minimum information:
    - Photographs during the timeline. For spills that reach receiving waters, include photographs of the area where the spill reached receiving waters.
    - SCADA screenshots documenting equipment failures and power outages, when applicable.
    - The time the spill call was received (spill typically begins from time call is received, additional data such as flow monitoring may be reviewed in some cases to determine spill start time).

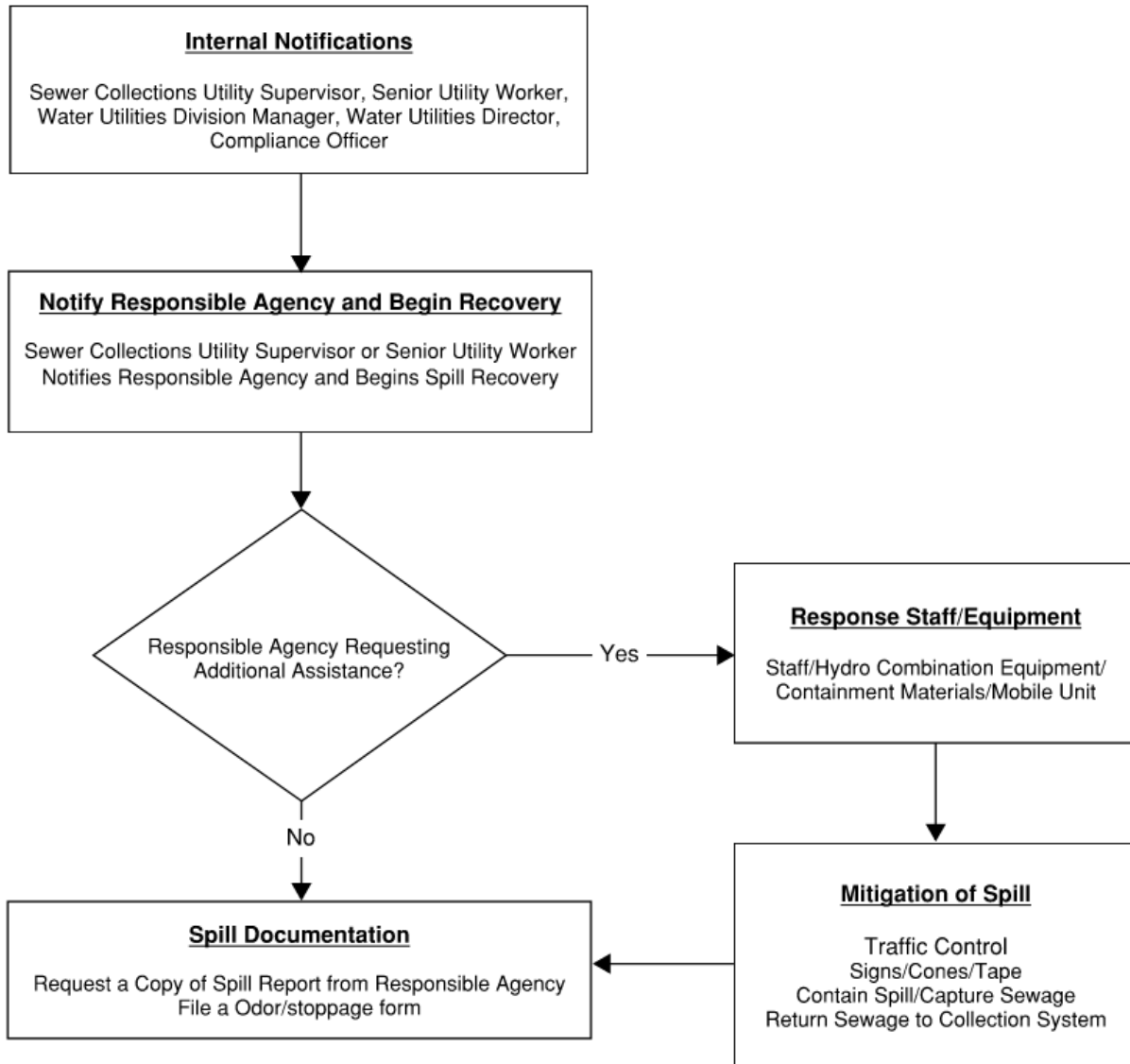
- The time staff arrived at the spill site.
- The time the spill was stopped.
- The time CalOES was notified.
- Identify additional detail for spills greater than or equal to 50,000 gallons to a *Water of the State* such as:
  - staff names that first arrived on site.
  - names of additional staff when they arrive and depart on site.
  - What actions were taken to stop the spill with the times.
- Determine where the problem is and how to stop it.
- Contain spill (if possible) and locate path of spill for recovery. See Containment/Mitigation and Recovery of Spills Section below.
- Remove blockage or address the source of the issue.
- Meet Spill Notification requirements for Revised General Order. See Tables in **Appendix E**.
- Report the spill within 2 hours of when you received the call to all agencies: County DEHQ and RWQCB Note: This reporting and communication is not required by the WDR. The City provides this notification to improve coordination and response.
- Notify one of the Legally Responsible Officials to begin CIWQS reporting process.
- Call Risk Management (only if property damage occurs).

### 3.4 Spills Originating from Other Utility/Municipality

Procedures for spills that have been determined to originate from another utility or municipality (i.e. for spills not caused by a city-owned sewer asset) are described below. These procedures are part of the City's coordination and collaboration with neighboring entities, including its satellite and tributary collection systems. These spills are not the City's responsibility under the WDR.

The procedures are summarized in **Figure 3-2** below.

**Figure 3-2. Other Utility or Municipality Caused Spill**



### 3.5 Lift Station Emergency Response Procedures

The following include procedures are for Lift Station Emergency Response which are in addition to procedures identified above.

The City maintains an Emergency Plan spreadsheet which includes the following information for reference during Lift Station Emergency Response:

- Generator information including maximum run time for lift stations with generators.
- Vactor assignments and pumping priorities for lift stations without generators.
- Emergency pump and hose locations, quantities and lengths.

- Pipeline plug locations, quantities, type and size.
- Station spill points in the event of lift station failure.

Larger pump stations have canisters stored at the lift station, also referred to as “Rain-for-Rent” canisters that include pump bypass plan information such as bypass connection pump size, pipe length, and pipe size.

Coordinate with SCADA division for electrical needs and Facilities Maintenance division for mechanical needs when appropriate.

## 3.6 Spills to Agua Hedionda Lagoon

If a spill enters the Agua Hedionda Lagoon, the City notifies water treatment staff at the Carlsbad Desalination Plant. See Contact Directory in **Appendix D** for contact information.

## 3.7 Containment/Mitigation and Recovery of Spills

The following includes a list of typical containment/mitigation and recovery procedures. Spill recovery and clean-up to environmentally sensitive areas will be coordinated with the LROs and as directed by agencies.

- Call for additional personnel or equipment if necessary.
- The City’s vector trucks are the primary equipment used to recover most spills and cleanup after the recovery.
- Contain the spill by employing any of the following or other site-specific methods:
  - Plug nearby catch basin outlets using plugs or cover catch basin inlets and storm drains using rubber mats.
  - Contain spill by letting sewage collect in a natural low area and recover sewage after relieving blockage.
  - Use sandbags or absorbent material around the spill to collect the sewage and prevent it from spreading.
  - Divert spill by building dikes or berms to redirect flow back to the sewer system.
  - Divert spill by pumping around an overflow and attempting to return it to the sewer system.
- Wash down the affected area with clean water. Contain and capture the wash down water.
- Conduct cleanup of impacted storm drain.
- If a spill is on private property and is caused by the agency’s sewer, provide instructions to call a plumber and for claims. City may support cleaning on a case-by-case basis.
- If necessary and when large volumes are released, use portable pumps and tanker trucks along with vector trucks to recover the spill.



- There are informal mutual aid agreements with the cities of Vista and Carlsbad to respond if requested to contain and recover spills.

## 3.8 Traffic and Crowd Control Procedures

The traffic and crowd control used for the spill situations can be summarized for most situations as follows:

- Contact mutual aid contract cities as needed.
- Inform local police and Sheriff's Department of any law enforcement-needed road closures and traffic control.
- Delegate the responsibilities to mutual aid team members to inform public of hazards also use signage to inform public of potential hazards to public health and safety.
- Block public access to hazard using barricades, cones, and caution tape.

## 3.9 Posting Warning Signs and Sampling

Posting of warning signs and sampling shall be at the direction of the County DEHQ.

### **Collections Staff is Responsible for:**

- Posting contaminated water signs at the spill site and the quarantine area as determined by County DEHQ and/or as necessary to reasonably warn the public. The City proactively places signs if a spill occurs and there is a possibility of wastewater entering recreational water of other waterways where the public may come in contact until direction from DEHQ is provided.
- Remove signs when directed by County DEHQ.
- Notify and coordinate with Laboratory staff when Collections will proactively collect samples where high likelihood of human contact, large spills to water bodies, or when County DEHQ has directed the City to collect water samples.
- Collect samples and return to Laboratory for testing.

### **Laboratory Staff is Responsible for:**

- Prepare sample bottles and equipment for sample collection and testing.
- Collect samples when directed by Collections management staff or LROs.
- Test samples and reporting.

General guidance for sample collection is below. Take water quality samples in the receiving waters as soon as is safely possible.

- Take samples upstream or away from the point where the discharge reaches the receiving waters to obtain a baseline.
- Take samples in the receiving water in order to evaluate the impact of the discharge including near the discharge and downstream.

- Receiving water samples may include more than one downstream location (e.g. lagoon and Pacific Ocean) depending on the flow.
- If there is a marine protected area (MPA) in the vicinity of the spill, samples should be collected to ensure assessment of any impacts.
- Take photographs and samples at the receiving water if the spill reaches a storm drain.
- Continue to sample daily for at least one week or until concentrations return to background. If concentrations have not returned to background, samples should be taken after one month and three months.
- Take additional samples as directed by the Collections management staff, LROs, or other agencies.

Accelerated or additional monitoring may be required by County DEHQ, California Department of Fish and Wildlife, other agencies, or by the City to determine the nature and impact of the discharge. Monitoring parameters may include: total fecal coliform bacteria, Enterococcus bacteria, total nitrogen, total dissolved solids, chloride, sulfate or other analyses as directed.

Conduct a biological assessment if directed by California Regional Water Quality Control Board or other agencies.

### 3.10 Water Quality Monitoring Plan

Water quality monitoring is required for category 1 spills greater than or equal to 50,000 gallons. Refer to the Water Quality Monitoring Plan in **Appendix A** for additional information. The plan establishes protocols for monitoring, sampling, and analyzing water quality to assess impacts from the spill.

City staff are to evaluate the safety of collecting samples prior to collection and may delay collection until it is safe. The City's laboratory is certified for testing and all contracted tests shall be performed by an accredited laboratory.

## 4 Post Response Activities

Conduct a post spill investigation to identify necessary corrective actions. Follow-up actions may include:

1. Clean and CCTV the pipe to evaluate the defect.
2. Adjust preventative maintenance schedule to increase maintenance frequency or type of preventative maintenance (e.g. higher frequency).
3. Schedule replace/rehabilitate/repair sewer pipe or sections of sewer pipe if determined to be an appropriate course of action.
4. If a spill is caused by lack of capacity during wet weather conditions, document the storm event and conduct analysis of the system to determine point source mitigation relief or upgrade needs.



5. Assess effectiveness of spill response and recommend new practices and/or new equipment needs for future spill response.
6. Conduct follow up meeting with staff involved to go over lessons learned and brainstorm improvements. Document meeting for annual review, update, and certification of SERP.

## 5 Sewer Spill Notification and Reporting Procedures

All wastewater spills must be reported promptly to the proper agencies as identified in this procedure and as necessary to comply with the requirements of the WDR. **Error! Reference source not found.** The City provides additional notification than is required by the WDR to improve communication and emergency response. This section documents City procedures.

### 5.1 Internal City Staff Notification

Notification of supervisors should be made within one hour from the time Collections staff become aware of a spill.

### 5.2 Agencies to Be Notified within 2 hours of Spill

- **County DEHQ**
- **RWQCB**
- **CalOES** - report the incident to the attendant and get a Control Number

WHEN NOTIFYING EACH AGENCY, RECORD THE DATE, TIME AND PERSON'S NAME THAT TAKES THE SPILL REPORT.

### 5.3 CIWQS Notification and Reporting

CIWQS Spill Notification, Monitoring, and Reporting Requirements are tabulated in **Appendix E** for reference, and additional information is provided below.

The preliminary data collection, City spill report form (included in **Appendix B**), and phone calls are made by any sewer personnel on scene. All CIWQS spill reporting is entered by the Legally Responsible Officials (LROs) or designated data submitters only.

Generally, the City collects the following information for reporting purposes:

- Date and time of the spill notification to each agency and name of the person receiving the report.
- Name and phone number of person making report.
- Time of City personnel's arrival at the spill.
- Name of responsible agency or private party.

- Date and time that the spill started. Spill begins from time of call.
- Date and time that the spill was stopped. In the event that the spill has not been abated, then state what is being done and give an estimated time of repair/correction.
- Estimate the volume discharged. Include how you arrived at the quantity.
  - Spill totals are calculated from spill start time to completion of flow exiting spill source and then multiplied by gallons per minute (gpm).
  - GPM is estimated by trained sewer personnel either by:
    - flow meters at lift stations;
    - SmartCover data;
    - SCADA or pump GPM;
    - amounts recovered by vector trucks; or
    - flow chart of gauged spilling manholes (Included in **Appendix C**).
- Estimated volume recovered. Include information on how the quantity was determined.
- Estimated volume reaching a drainage channel, and/or Water of the State, and/or storm drain, or not recovered.
- Location of spill using GPS coordinates and street location, lagoon, creek, north, south, yards, feet, etc.
- Asset type where the spill occurred, i.e., pump station, manhole, force main, sewer line.
- Cause of spill, i.e., equipment/power failure, vandalism, roots, etc.
- Final destination of the spill and other conditions if applicable, i.e., lagoon, creek, flood control channel, fully recovered, etc. Note whether the spill reached the drainage channel and/or Water of the State and/or storm drain.

## 6 Emergency Response Training

Safety Meetings conducted by Collections typically occur every 2 weeks and include discussion of spill response for recent spill events with crews. Meetings are documented and documentation is maintained. Discussions may include the following:

- During work and after-hours response;
- Private and City spills;
- Posting warning signs and sampling;
- Containment and recovery;
- Traffic and crowd control;
- Notification;



- Reporting;
- Operation and maintenance of equipment to prevent discharges;
- Applicable pollution control laws, rules, and regulations;
- General facility operations;
- Content of the SERP;
- Descriptions of known discharge events or failures, malfunctioning components, and recently implemented precautionary measures and best practices; and
- Sharing of recommendations concerning environmental, safety, and health issues encountered during facility operations.

Conference trainings or other external trainings that staff attend often include spill response and reporting requirements. Staff will bring back flyers and handouts from these trainings which are discussed at Safety Meetings.

The City conducts an annual review and assessment of the effectiveness of the SERP. This will include consolidation and analysis of post response activities which will be presented to field staff where input will be exchanged. Suggested improvements (if any) will be memorialized and documented in the SERP update and certified in the Annual Report.

## 7 Contractors

Contractors submit spill response plans to the City as part of capital projects or other projects which are reviewed by the City Staff. Project specifications include the training requirements for contractors.

## 8 Record Keeping

The City implements the following record keeping procedures:

- Maintain individual spill records for a minimum of 5 years from the date of the spill. This period may be extended when requested by a Regional Water Board Executive Officer;
- Make all records available for review upon SWRCB or RWQCB staff's request;
- Maintain and calibrate all monitoring instruments and devices used to fulfill the prescribed monitoring and reporting program to ensure their continued accuracy;
- Retain records of all spills, such as, but not limited to and when applicable:
  - Record of certified report, as submitted to the online spill database;
  - All original recordings for continuous instrumentation monitoring;
  - Service call records and complaint logs of calls received;
  - spill calls;

- Steps that have been taken and will be taken to prevent the spill from recurring and a schedule to implement those steps;
- Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to spills;
- A list and description of complaints from customers or others from the previous 5 years; and
- Documentation of performance and implementation measures for the previous 5 years.
- If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the City or its agent(s) as a result of any spill, records of monitoring information shall include:
  - The date, location, and time of sampling or measurements;
  - The individual(s) who performed the sampling or measurements;
  - The date(s) analyses were performed;
  - The individual(s) who performed the analyses;
  - The analytical technique or method used; and
  - The results of such analyses.



# Appendix A. Water Quality Monitoring Program Plan

# Water Quality Monitoring Program Plan

This appendix contains the plan used by the City of Oceanside as required by SWRCB Order No. WQ 2022-0103-DWQ to assess the impacts of Category 1 spills  $\geq$  50,000 gallons or more.

## **Table of Contents**

- Water Quality Monitoring Program Plan
- City Sampling Locations Overview Map Example (Attachment A)
- City Water Utilities Department Certification (Attachment B)

## Water Quality Monitoring Program Plan

To comply with the WDR the City of Oceanside follows a Water Quality Monitoring Program to provide standard operating procedures that assess the impacts from category 1 spills with volumes 50,000 gallons or greater. The City may perform water quality monitoring of smaller category 1 spills on a case-by-cases basis.

The City's Water Quality Monitoring Program includes:

1. Protocols for water quality monitoring.
2. Estimates for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).
3. Required water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Required monitoring instruments and devices used to implement the 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.

Additionally, for Category 1 spills of 50,000 gallons or more a spill technical report is required and must be submitted within 45 calendar days from the spill end date and include the following regarding water quality monitoring:

- description of all water quality sampling activities conducted
- list of pollutant and parameters monitored, sampled, and analyzed
- laboratory results, including laboratory reports
- detailed location map illustrating all water quality sampling points
- other regulatory agencies receiving sampling reports (if applicable)

### Safety

All City staff shall be aware and follow all safety precautions in order to comply with this Water Quality Monitoring Program. Therefore, all staff needs to consider where monitoring will not be possible which may include: Heavy rain / storm events where access points may be compromised, flooding around low areas, or fast-moving waters. City staff should evaluate and keep safety first when encountering these scenarios and are encouraged to exercise proper judgment to limit health risk.

### Guideline for Estimation of Spill Travel Time

Take visual ft/sec measurement from above, based on a floating debris, to estimate the number of feet the debris has traveled in seconds. (Note: If the first measurement is uncertain, this time estimate may be performed three to five times, and the values averaged to determine the estimate travel time. The velocity in the upper portion of the water body can then be calculated by dividing the measured distance by the average time.)

## **Water Quality Sampling**

In the event that that a spill reaches surface waters or flowing drainage channel tributary to a larger body of water, City staff should take samples as soon as directed by the County of San Diego Department of Environmental Health (DEH) or City Compliance Officer, and within **18** hours for spills  $\geq 50,000$  gallons or more. City staff may proactively begin taking samples prior to direction from DEH.

The purpose of water quality sampling is to determine the nature and extent of the impact of the spill.

The typical communication process is as follows

1. Collections will notify Compliance Officer of spill
2. Compliance Officer will then determine sampling and testing needed and notify City of Oceanside Water Utilities Laboratory (Laboratory) staff.
3. Water sampling typically includes the following unless directed otherwise by DEH or Regional State Water Quality Control Board:
  - Ammonia. The City Laboratory performs Ammonia testing.
  - Appropriate Bacterial indicator. The City Laboratory performs total fecal coliform and enterococcus.

When collecting water samples for examination, the Duty supervisor or Compliance Officer should ensure that samples are collected as stipulated in Water Quality Sampling Procedure below. Lab sample procedures and the locations should be recorded on an area map depicting each location of sampling (see attachment for example). The samples should typically be collected as follows:

- Take samples upstream or away from the point where the discharge reaches the receiving waters to obtain a baseline.
- Take samples in the receiving water in order to evaluate the impact of the discharge including near the discharge and downstream.
- Receiving water samples may include more than one downstream location (e.g. lagoon and Pacific Ocean) depending on the flow.
- If there is a marine protected area (MPA) in the vicinity of the spill, samples should be collected to ensure assessment of any impacts.
- Take photographs and samples at the receiving water if the spill reaches a storm drain.
- Continue to sample daily for at least one week. Samples should be taken after one month and three months.

Discharges to small water bodies may only require sampling at the discharge location. Receiving water samples may include more than one downstream location (e.g. lagoon and Pacific Ocean) depending on the flow.

In addition, DEH may impose additional testing requirements and locations of sampling depending on the test results and the receiving water conditions. Additional monitoring identified by DEH may include Bac-T which can be performed by the City Laboratory, phosphorous which is contracted out

for testing, or other tests. Conduct a biological assessment if directed by California Regional Water Quality Control Board or other agencies.

After collecting the samples, City staff should deliver the samples to the Laboratory for testing. This sampling and testing should continue until the results from the lab indicates that they are back to baseline levels. Collaboration with the DEH should continue until they determine that the sampling is no longer needed.

The City's Laboratory is ELAP certified (certificate # 1740) for these tests identified above.

### **Ocean Sampling**

Discuss with Compliance Officer whether Ocean sampling is needed. If needed, typically take three samples.

- One sample at the discharge location to the ocean.
- One sample north of discharge location approximately 1000 feet.
- One sample south of discharge location approximately 1000 feet.

### **Water Quality Sampling Equipment**

The following guideline describes the equipment and supplies to be stocked and readily available for any water quality sampling event:

- a. Sterile sample bottles (100/250 mls)
- b. Ice chest with ice/ blue ice
- c. Chain of custody forms
- d. Ball point pens and labeling tapes
- e. Sampling pole
- f. Syringes
- g. Gloves
- h. Other PPE (i.e. rubber boots, apron, mask, etc.)

Laboratory staff should ensure that there are adequate quantities of sample containers to accommodate locations.

### **Water Quality Sampling Procedure**

Call Laboratory Supervisor to notify them about the sampling event, how many samples are expected and the expected time of delivery.

1. Disposable un-powdered gloves are recommended for sample collection to protect you and to assure the integrity of the samples. Disposable gloves should be changed at each sampling location.
2. Determine the correct location for sample collection. Grab samples should be collected directly into the sterile sample bottles whenever possible, particularly for bacteria/coliform. Collect the sample directly into the container by submerging the container, top first, into the effluent. Make sure that sodium thiosulfate is not lost during sample collection. Sodium thiosulfate neutralizes chlorine residuals.

3. Label sample bottle with:
  - a. sampling site
  - b. date and time sampled
  - c. sampler first and last name
4. Keep the samples packed on ice for delivery to the laboratory.
5. Deliver all samples to the laboratory within 4 hrs.
6. Fill out Chain of Custody (COC) with the same information to match the sample bottles. Complete the COC as thoroughly as possible with you and your supervisor's names and phone numbers. Laboratory staff will be able to assist you with determining the analysis section on the COC. The original top COC page always stays with the sample. Be sure to relinquish the COC with your signature, printed name, date, and time.

### **Water Quality Analysis-Protocols**

Typical monitoring parameters may include: Ammonia, total fecal coliform bacteria, Enterococcus bacteria, or other analyses as required.

Laboratory:

- All samples will be sent to the Laboratory. The laboratory methods will be performed according to the laboratory's Standard Operation Procedures (SOPs).

Maintenance and Calibration of Monitoring Instruments and Devices:

- In order to be accredited and maintain their certification, the City Laboratory follows stringent quality assurance and quality control protocols that includes regular monitoring, calibration and maintenance of their equipment. The frequency of monitoring and calibration varies based on equipment type and method requirements. Records of the calibration receipts are kept on file and readily available up on request.

### **Reporting Requirements**

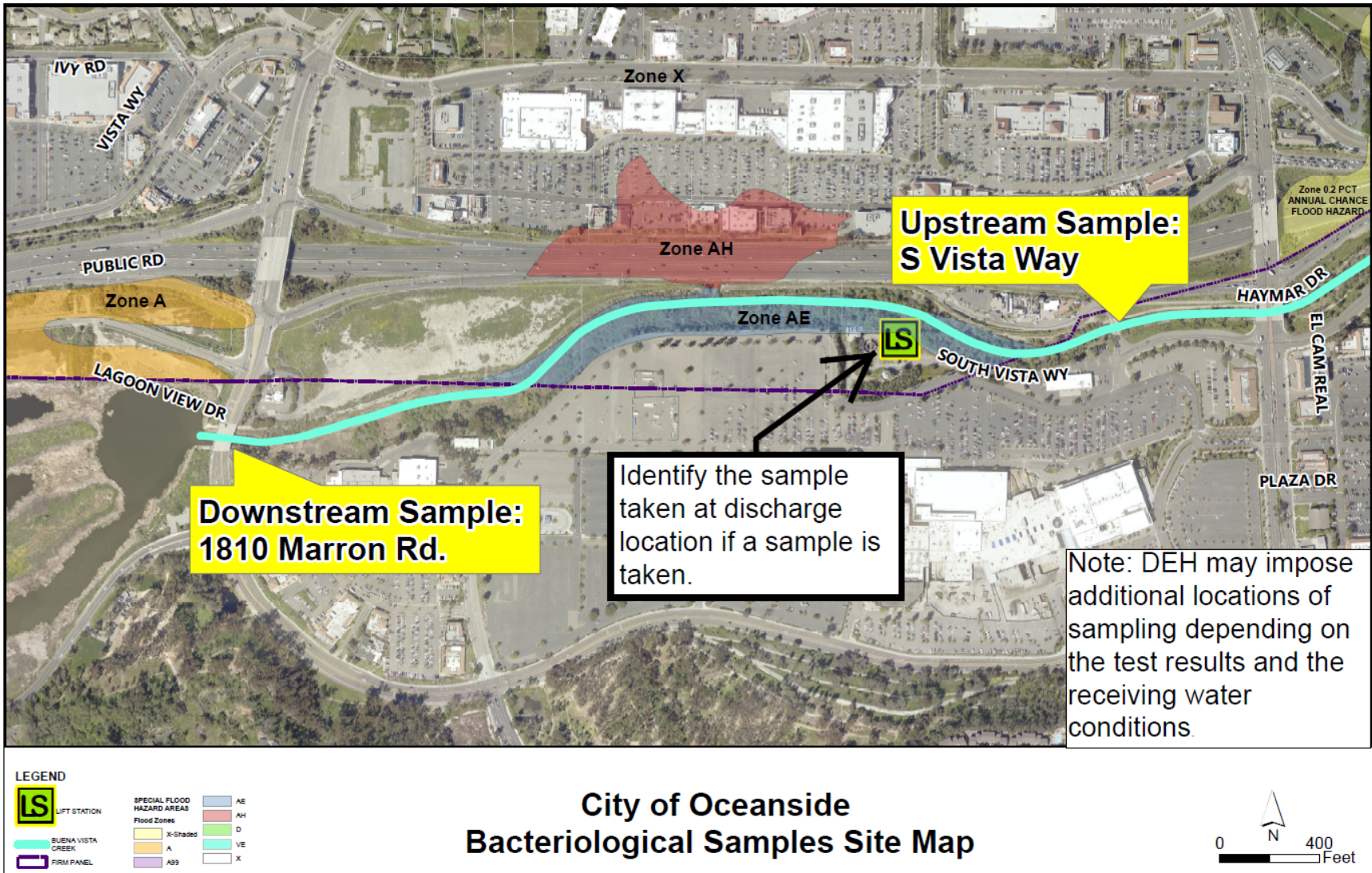
The LRO is responsible for submitting water quality monitoring information with the certified Category 1 spill report on CIWQS database within 15 calendar days of the spill end date.

The LRO is also responsible for submitting information related to the Technical Report in CIWQS database, which must be completed within 45 calendar days of the spill end date. The Spill Technical Report must include the following water quality monitoring information:

- description of all water quality sampling activities conducted
- list of pollutant and parameters monitored, sampled, and analyzed
- laboratory results, including laboratory reports
- detailed location map illustrating all water quality sampling points
- other regulatory agencies receiving sampling reports (if applicable)

### **References**

Attachment A. City Sampling Locations Overview Map Example



**Attachment B. City EMTS Lab Certification**

 <p>CALIFORNIA <b>Water Boards</b> <small>STATE WATER POLLUTION CONTROL BOARD REGIONAL WATER QUALITY CONTROL BOARDS</small></p>	<p>CALIFORNIA STATE</p>	
<p>ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM</p>		
<p><b>CERTIFICATE OF ENVIRONMENTAL ACCREDITATION</b></p>		
<p>Is hereby granted to</p>		
<p><b>City of Oceanside Water Utilities Department Laboratory</b></p>		
<p>3950 North River Road Oceanside, CA 92058</p>		
<p>Scope of the certificate is limited to the "Fields of Testing" which accompany this Certificate.</p>		
<p>Continued accredited status depends on successful completion of on-site inspection, proficiency testing studies, and payment of applicable fees.</p>		
<p>This Certificate is granted in accordance with provisions of Section 100825, et seq. of the Health and Safety Code.</p>		
<p>Certificate No.: 1740 Expiration Date: 4/30/2022 Effective Date: 5/1/2020</p>		
<p>Sacramento, California subject to forfeiture or revocation</p>	 _____ Christine Sotelo, Chief Environmental Laboratory Accreditation Program	



# Appendix B. Sanitary Sewer Spill Report Form

COLLECTIONS SECTION  
WATER UTILITIES DEPARTMENT  
CITY OF OCEANSIDE

**SANITARY SEWER OVERFLOW REPORT FORM (SSOR)**

1. THIS REPORT IS: PRELIMINARY  FINAL:  REVISED FINAL:
2. SANITARY SEWER OVERFLOW SEQUENTIAL TRACKING NUMBER: 2021 0 0 0  
(July 1, 2020 start with 001 and number sequentially until June 30, 2021)
3. REPORTED TO: \_\_\_\_\_ Proposition 65 Coordinator @ (858) 505-6640
4. DATE REPORTED: \_\_\_\_\_ (MONTH/DAY/YEAR) **After Hours, Weekend and Holidays:**  
TIME REPORTED: \_\_\_\_\_ County Communications @ (858) 565-5255  
*Request to have the Environmental Health Specialist paged.*
- 4a. REPORTED TO: \_\_\_\_\_ Cal EMA #800-852-7550 CONTROL # \_\_\_\_\_
- 4b. DATE REPORTED: \_\_\_\_\_ (MONTH/DATE/YEAR)  
TIME REPORTED: \_\_\_\_\_
- 4c. REPORTED TO: \_\_\_\_\_ RWQCB (619) 521-5899
- 4d. DATE REPORTED: \_\_\_\_\_ (MONTH/DATE/YEAR)  
TIME REPORTED: \_\_\_\_\_
5. REPORTED BY: \_\_\_\_\_ (PRINT NAME OF EMPLOYEE @ SCENE)
6. PHONE: (760) \_\_\_\_\_ OR CELL: (760) \_\_\_\_\_
7. REPORTING SEWER AGENCY: WATER UTILITIES DEPARTMENT, CITY OF OCEANSIDE
8. RESPONSIBLE SEWER AGENCY: \_\_\_\_\_
9. OVERFLOW START: \_\_\_\_\_ (MONTH/DAY/YEAR) @ \_\_\_\_\_ (TIME)
10. OVERFLOW END: \_\_\_\_\_ (MONTH/DAY/YEAR) @ \_\_\_\_\_ (TIME)
11. ESTIMATED OVERFLOW FLOW RATE: \_\_\_\_\_ (GALLONS PER MINUTE)
12. TOTAL OVERFLOW VOLUME: \_\_\_\_\_ (estimated GALLONS)
13. OVERFLOW VOLUME RECOVERED: \_\_\_\_\_ (estimated GALLONS)
14. OVERFLOW VOLUME RELEASED TO ENVIRONMENT: \_\_\_\_\_ (GALLONS)

**SANITARY SEWER OVERFLOW LOCATION AND DESCRIPTION:**

15. STREET: \_\_\_\_\_  
CITY: \_\_\_\_\_ ZIP CODE \_\_\_\_\_
16. SD

17. OVERFLOW STRUCTURE I.D.: \_\_\_\_\_

18. NUMBER OF OVERFLOWS WITHIN 1000 FT. OF THIS LOCATION IN PAST 12 MONTHS: \_\_\_\_\_

19. DATES OF OVERFLOWS WITHIN 1000 FT. OF THIS LOCATION IN PAST 12 MONTHS:  
\_\_\_\_\_

20. OVERFLOW CAUSE – SHORT DESCRIPTION:

- |        |                          |           |                          |               |                          |                      |                          |
|--------|--------------------------|-----------|--------------------------|---------------|--------------------------|----------------------|--------------------------|
| ROOTS  | <input type="checkbox"/> | GREASE    | <input type="checkbox"/> | LINE BREAK    | <input type="checkbox"/> | INFILTRATION         | <input type="checkbox"/> |
| ROCKS  | <input type="checkbox"/> | BLOCKAGE  | <input type="checkbox"/> | POWER FAILURE | <input type="checkbox"/> | PUMP STATION FAILURE | <input type="checkbox"/> |
| DEBRIS | <input type="checkbox"/> | VANDALISM | <input type="checkbox"/> | FLOOD DAMAGE  | <input type="checkbox"/> | MANHOLE FAILURE      | <input type="checkbox"/> |
| OTHER  | <input type="checkbox"/> | UNKNOWN   | <input type="checkbox"/> | CONSTRUCTION  | <input type="checkbox"/> | PRIVATE PROPERTY     | <input type="checkbox"/> |

21. DETAILED DESCRIPTION OF OVERFLOW CAUSE:

22. DESCRIPTION OF ALL PREVENTIVE AND CORRECTIVE MEASURES TAKEN OR PLANNED:

23. WAS THERE MEASURABLE PRECIPITATION DURING 72-HOUR PERIOD PRIOR TO OVERFLOW?  
YES  NO

**INITIAL AND SECONDARY RECEIVING WATERS:**

24. DID THE SANITARY SEWER OVERFLOW ENTER A STORM DRAIN? YES  NO

25. DID THE OVERFLOW REACH SURFACE WATERS OTHER THAN A STORM DRAIN? YES  NO

26. NAME OR DESCRIPTION OF INITIAL RECEIVING WATERS: \_\_\_\_\_

27. NAME OR DESCRIPTION OF SECONDARY RECEIVING WATERS: \_\_\_\_\_

28. IF THE SEWER OVERFLOW DIDN'T REACH SURFACE WATERS, DESCRIBE FINAL DESTINATION:

29. WAS PROPOSITION 65 COORDINATOR (DEH) NOTIFIED? YES  NO

30. WAS THE OFFICE OF EMERGENCY SERVICES (OES) NOTIFIED?  
YES  NO

**AFFECTED AREA POSTING:**

31. WERE SIGNS POSTED TO WARN OF CONTAMINATION? YES  NO  N/A

32. LOCATION OF POSTING (IF POSTED): \_\_\_\_\_

33. HOW MANY DAYS WERE THE WARNING SIGNS POSTED? \_\_\_\_\_

34. REMARKS:

Spilling M/H ID No. \_\_\_\_\_ SSO Event ID No. \_\_\_\_\_  
Upstream M/H ID No. \_\_\_\_\_ Certification No. \_\_\_\_\_  
Downstream M/H ID No. \_\_\_\_\_ GPS Coordinates \_\_\_\_\_

CERTIFICATION

I swear under penalty of perjury that the information submitted in this document is true and correct. I certify under penalty of perjury that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date



# Appendix C. Manhole Spill Gauge



# SSCSC MANHOLE OVERFLOW GAUGE

Overflow Simulation  
 Courtesy of  
 Eastern Municipal Water District



## PROVIDING QUALITY TRAINING FOR COLLECTION SYSTEM PERSONNEL SINCE 1991

Mission Statement: To continuously increase the level of professionalism of Collection Systems personnel involved in the operation, maintenance, design and construction of Wastewater Collection Systems, by providing education and training, taking an active role in promoting sanitation, and recognizing proficiency in our field.  
 SSCSC.ORG

DISCLAIMER: This overflow simulation may appear differently from those in other systems because of the manhole lid pick hole configuration. Manhole lids with single or multiple pick holes may appear differently during overflow conditions. However, the volume of exfiltration and the footprint of the wet area should appear relatively the same under similar slope conditions.



5 gpm

25 gpm

50 gpm

100 gpm

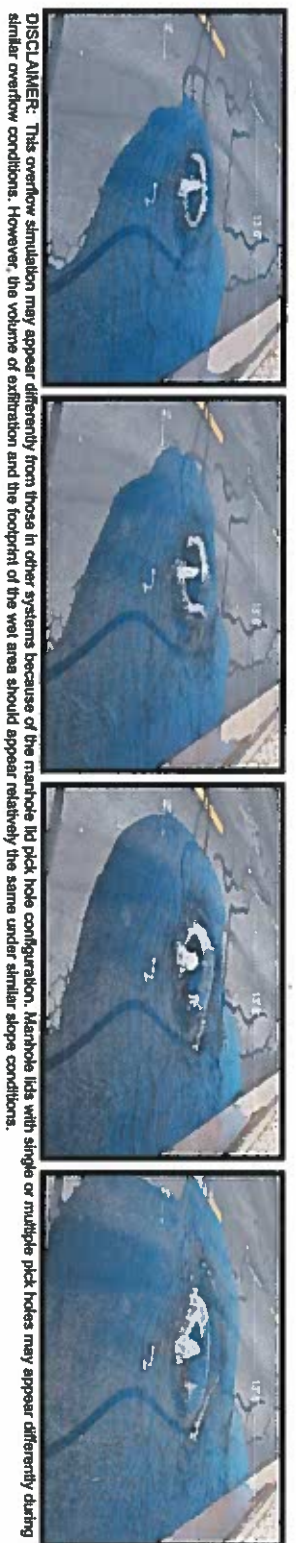
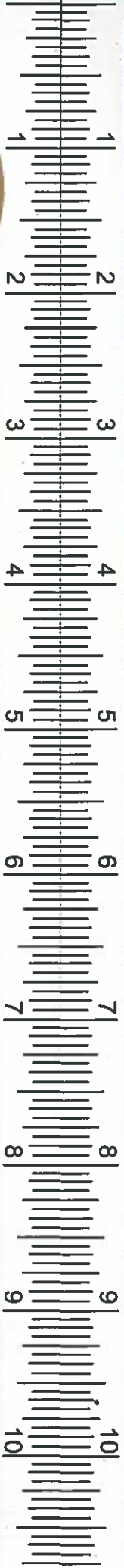


150 gpm

200 gpm

300 gpm

400 gpm



DISCLAIMER: This overflow simulation may appear differently from those in other systems because of the manhole lid pick hole configuration. Manhole lids with single or multiple pick holes may appear differently during similar overflow conditions. However, the volume of exfiltration and the footprint of the wet area should appear relatively the same under similar slope conditions.



# Appendix D. SERP Contact Directory

## SERP Contact Directory

### SERP Responsible Personnel Phone Directory

Responsible Party (Position)	Responsible Party (Name)	Phone Number	Email Address	Spill Role
Utility Supervisor	Jeremy Kemp	(760) 435-5842 (760) 535-0040	JKemp@oceansideca.org	Stand-in / backup LRO
Senior Utility Worker	Mike Dumas	(760) 435-5842 (760) 497-0137	MDumas@oceansideca.org	Stand-in / backup LRO
Compliance Officer	Jordan Alejo	760) 435-5823	JAlejo@oceansideca.org	Data Submitter, Reporting
Water Utility Division Manager	Martin Popma	(760) 435-5948 (760) 801-1297	MPopma@oceansideca.org	Collections Department Manager
Water Utilities Division Manager	Rosemarie Chora		RChora@oceansideca.org	Compliance Department Manager
Laboratory Supervisor	Luke Christian			Water Quality Sampling Analysis
City Customer Call Center	Various	(760) 435-4500	N/A	Spill Detection
Police Dispatch	Various	(760) 435-4911	N/A	Spill Detection

### State of California

Agency	Phone Number
California Office of Emergency Services (CalOES)	(800) 852-7550
San Diego Regional Water Quality Control Board	(858) 467-2952 Working hours (858) 822-8344 After Hours
Department of Fish and Wildlife South Coast Region (Region 5)	(858) 467-4201

### Regional Contacts

Department	Phone Number
City of Carlsbad Desalination Plant	(760) 795-3551 (760) 846-4668 (760) 277-1558 (702) 606-8742
County DEH	(858) 495-5579 Working hours (858) 565-5255 After hours

### Satellite/Tributary Entities

Entity	Phone Number
City of Vista	(760) 726-1340
Rainbow MWD	(760) 728-1178
Fallbrook PUD	(760) 728-1125
Camp Pendleton	(951) 375-2658

Updated: 3/5/2026



# Appendix E. SSMP Reporting Requirements

## Appendix E

### Spill Category 1: Spills to Surface Waters

Spill Requirement	Due	Method
Notification	<p><b>Within two (2) hours</b> of the Enrollee's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters:</p> <p>Notify the California Office of Emergency Services and obtain a notification control number.</p>	<p>California Office of Emergency Services at: (800) 852-7550</p> <p>(Section 1 of Attachment E1)</p>
Monitoring	<ul style="list-style-type: none"> <li>• Conduct spill-specific monitoring;</li> <li>• Conduct water quality sampling of the receiving water within <b>18 hours</b> of initial knowledge of spill of 50,000 gallons or greater to surface waters.</li> </ul>	<p>(Section 2 of Attachment E1)</p>
Reporting	<ul style="list-style-type: none"> <li>• Submit Draft Spill Report <b>within three (3) business days</b> of the Enrollee's knowledge of the spill;</li> <li>• Submit Certified Spill Report <b>within 15 calendar days</b> of the spill end date;</li> <li>• Submit Technical Report <b>within 45 calendar days</b> after the spill end date for a Category 1 spill in which <b>50,000 gallons or greater</b> discharged to surface waters; and</li> <li>• Submit Amended Spill Report <b>within 90 calendar days</b> after the spill end date.</li> </ul>	<p>(Section 3.1 of Attachment E1)</p>

## Appendix E

### Spill Category 2: Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	<p><b>Within two (2) hours</b> of the Enrollee's knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p>	<p>California Office of Emergency Services at: (800) 852-7550</p> <p>(Section 1 of Attachment E1)</p>
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> <li>• Submit Draft Spill Report <b>within three (3) business days</b> of the Enrollee's knowledge of the spill;</li> <li>• Submit Certified Spill Report <b>within 15 calendar days</b> of the spill end date; and</li> <li>• Submit Amended Spill Report <b>within 90 calendar days</b> after the spill end date.</li> </ul>	(Section 3.2 of Attachment E1)

### Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> <li>• Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within <b>30 calendar days</b> after the end of the month in which the spills occur; and</li> <li>• Submit Amended Spill Reports <b>within 90 calendar days</b> after the Certified Spill Report due date.</li> </ul>	(Section 3.3 and 3.5 of Attachment E1)

## Appendix E

### Spill Category 4: Spills Less Than 50 Gallons That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> <li>• If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred.</li> <li>• Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1<sup>st</sup> after the end of the calendar year in which the spills occur.</li> </ul>	(Section 3.4, 3.6, 3.7 and 4.4 of Attachment E1)

### Enrollee Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	<p><b>Within two (2) hours</b> of the Enrollee's knowledge of a spill of 1,000 gallons or greater, from an enrollee-owned and/or operated lateral, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p> <p>Not applicable to a spill of less than 1,000 gallons.</p>	<p>California Office of Emergency Services at: (800) 852-7550</p> <p>(Section 1 of Attachment E1)</p>
Monitoring	Conduct visual monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> <li>• Upload and certify a report, in an acceptable digital format, of all lateral spills (that do not discharge to a surface water) to the online CIWQS Sanitary Sewer System Database, by February 1<sup>st</sup> after the end of the calendar year in which the spills occur.</li> <li>• Report a lateral spill of any volume that discharges to a surface water as a Category 1 spill.</li> </ul>	(Sections 3.6, 3.7 and 4.4 of Attachment E1)

## SECTION 02960 – TEMPORARY SEWER BYPASS PUMPING

### PART 1 – GENERAL

#### 1.1 DESCRIPTION

- A. The CONTRACTOR shall provide a complete sewer bypassing system including, but not limited to, the following:
1. Developing a sewer bypassing plan
  2. Developing a spill prevention and emergency response plan
  3. Submitting and obtaining approval from the AGENCY for the sewer bypassing plan and the spill prevention and emergency response plan.
  4. Implementing the bypassing and spill prevention and emergency response plan.
  5. Providing bypassing in accordance with the approved plans throughout the duration of the Work.

#### 1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. The Work of the following Sections applies to the Work of this Section. Work of other Sections of the Specification, not referenced below, shall also apply to the extent required for proper performance of this Work.
1. Section 01048 Special Construction Conditions and Procedures
  2. Section 01300, Record Drawings and Submittals
  3. Section 01570, Traffic Regulations
  4. Section 02750, Traffic Striping and Pavement Markings
  5. Section 15000, General Piping Systems and Appurtenances

#### 1.3 SUBMITTALS

- A. All submittals required by this Specification shall be provided to the AGENCY for approval within 10 days of receiving the Notice to Proceed. No construction activities related to bypassing shall begin prior to the approval of the required submittals by the AGENCY. Approval of the CONTRACTOR'S Bypassing and Spill Prevention and Emergency Response Plan in no way relieves the CONTRACTOR of his responsibility to maintain sewage service or provide sewer bypassing at all times during construction and to prevent any spills.
- B. Bypassing Plan
1. The CONTRACTOR shall design the bypass system to handle the flows of the system. Contractor shall assume the sewer lines are flowing half full at the slopes indicated on the Contract Drawings for the purposes of estimating the flow rate.
  2. The CONTRACTOR shall develop and submit to the AGENCY, for review and approval, a written Bypassing plan including sequence of work outlining how sewage flows will be maintained and bypassed during construction. The bypassing plan shall include, but not be limited to:
    - a. A primary and 100% redundant backup pumping system, each capable of handling the peak flow of the system, which shall be on

## SECTION 02960 – TEMPORARY SEWER BYPASS PUMPING

- site and available 24 hours a day.
    - b. A flow monitoring plan describing the method of monitoring and showing the location of upstream and downstream monitoring units for all of the construction locations.
    - c. Bypassing of service laterals as necessary to ensure the maximum amount of time a connection is out of service is 8 hours in accordance with the standard specifications.
  - 3. The bypassing plan shall be developed in conjunction with the traffic control plans in order to minimize the impact to the community. See the standard specifications.
- C. Spill Prevention and Emergency Response Plan
  - 1. The CONTRACTOR shall develop and submit to the AGENCY, for review and approval, a written Spill Prevention and Emergency Response Plan. The Spill Prevention and Emergency Response Plan shall be developed to prevent and respond to any construction related sewage spills. The plan shall include, but not be limited to:
    - a. Identification of all nearby waterways, channels, catch basins and entrances to underground storm drains
    - b. Furnishing of all the necessary materials, supplies, tools equipment, labor and other services to prevent sewage from coming into contact with these areas.
    - c. Arrangements for an emergency response unit comprised of emergency response equipment and trained personnel to be immediately dispatched to the Site in the event of sewage spill(s).
    - d. An emergency notification procedure, which includes an emergency response roster with telephone numbers and arrangements for backup personnel and equipment and an emergency notification roster of designated AGENCY representatives.
    - e. Direct phone numbers (no voicemail) for 3 CONTRACTOR representatives who shall be accessible and available at all times to respond immediately to any construction related emergency.

### 1.4 RESPONSIBILITIES OF CONTRACTOR

- A. The CONTRACTOR shall observe and comply with all Federal, State, and local laws, ordinances, codes, orders, and regulations which in any manner affect the conduct of the work, specifically as it relates to sewage and prevention of sewage spills. The CONTRACTOR shall be fully responsible for preventing sewage spills, containing any sewage spills, recovery and legal disposal of any spilled sewage, paying any and all fines, incurring and handling any penalties, claims, or liability arising from negligently causing or allowing a sewage spill, failure to prevent a sewage spill, or any violation of any law, ordinance, code, order, or regulation as a result of the spillage.

## SECTION 02960 – TEMPORARY SEWER BYPASS PUMPING

### PART 2 – MATERIALS

#### 2.1 GENERAL

- A. All equipment and tools used for sewer bypassing shall be designed to prevent any and all sewage leaks or spills.
- B. All equipment used as part of the bypassing system shall not cause a significant noise impact to the community in accordance with local noise ordinances. If noise complaints from residents occur due to the CONTRACTORS activities, the CONTRACTOR shall immediately replace the noise generating equipment or reduce the noise generated with mitigating devices to the satisfaction of the AGENCY.
- C. Sewage shall be conveyed/pumped in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches or be covered by backfill.
- D. Suction and discharge manholes shall be sealed to prevent odors.
- E. Access to driveways may not be blocked by the bypass pipe. Lay flat pipe, a raised platform above bypass pipe or a shallow trench may be used to provide access to residents.
- F. If bypass piping must cross any major arterial streets/roads, piping must be installed in a shallow trench. Lay flat piping or raised traffic platforms across these streets will not be allowed. Trench shall be backfilled or covered with recessed, secured trench plating.
- G. All shallow trenching shall be backfilled and paved in accordance with the standard specifications following demobilization of sewer bypass. All costs to install, maintain, backfill, and pave temporary shallow trenching shall be included in Contractor's bid item for sewer bypassing and no additional compensation shall be made therefor.
- H. If deemed necessary due to lack of preparedness on the Contractor's part, the AGENCY has the option to clean up the sewage spill caused by the Contractor. Clean up costs incurred by the AGENCY shall be recoverable in addition to the penalties from the Contractor's progress payments.

#### 2.2 PUMPING EQUIPMENT

- A. All pumps used for sewer bypassing shall be the submersible type and shall only be operated below ground in the sewer manhole or other sewer facility. The use of above ground pumps or pumps not specifically designed for submersible service are not allowed.
- B. The pumps shall be sized to fit in manholes or other confined areas necessary to successfully complete the sewer bypassing. The CONTRACTOR shall ensure all

## **SECTION 02960 – TEMPORARY SEWER BYPASS PUMPING**

equipment used for bypassing will operate under the conditions required and the CONTRACTOR will be responsible for all costs associated with changes to the bypassing system due to inappropriate equipment or non-conformance with the Contract Documents.

- C. Electric or fuel/generator driven pumps shall be used. The CONTRACTOR shall provide an emergency standby power generator, sized to operate the bypass system at a minimum, to be used to operate the submersible pumps IF electrical power is lost during the progress of the Work and a sewage spill will occur. The generator shall meet all requirements per the standard specifications.
- D. The pumps shall be specifically intended for use with raw sewage and shall be capable of passing a 3-inch diameter solid.
- E. Regardless of power used the total noise of any equipment used by the CONTRACTOR as part of the bypassing system shall be under 68 dba as measured standing thirty (30) feet from the equipment.

### **PART 3 – EXECUTION**

#### **3.1 GENERAL**

- A. The CONTRACTOR shall observe and comply with the AGENCY policy of “ZERO SPILLS”.
- A. The CONTRACTOR shall exercise care not to damage existing public and private improvements, interrupt existing services and/or facility operations which may cause a sewage spill. Any reasonably anticipated utility and/or improvement which is damaged by the CONTRACTOR shall be immediately repaired at the CONTRACTOR'S expense. In the event that the CONTRACTOR damages an existing utility or interrupts an existing service which causes a sewage spill, the CONTRACTOR shall immediately notify the AGENCY representatives. The CONTRACTOR shall request and obtain from the AGENCY an emergency roster of the designated AGENCY representatives with their respective telephone numbers, pager numbers, and cellular phone numbers. The CONTRACTOR shall take all measures necessary to prevent further damage or service interruption, and to control, contain and clean up the resultant impacts of the damage, service interruption and any resulting sewage spill(s).
- B. The CONTRACTOR shall continuously monitor the flow levels downstream and upstream of the construction location to detect any possible failure that may cause a sewage backup and spill. The CONTRACTOR shall include the means and methods of monitoring the flow in their Sewer Bypassing Plan.

#### **3.2 SEWAGE SPILLS**

- A. In case of sewage spill, the CONTRACTOR shall act immediately, within fifteen minutes – without instructions from the AGENCY – to control the spill and take all appropriate steps to contain it in accordance with their Spill Response Plan.

## **SECTION 02960 – TEMPORARY SEWER BYPASS PUMPING**

- B. The CONTRACTOR shall immediately notify the AGENCY representatives of the sewage spill(s) and all remedial actions taken.
- C. The CONTRACTOR shall, within 24 hours from the occurrence of the spill, submit to the AGENCY a draft written report describing the following information related to the spill: the location on a current Thomas Bros. guide map; the nature and volume; the date and time; the duration; the cause; the type of remedial and/or preventive actions taken; and the water body impacted and results of any necessary monitoring. The AGENCY will review the draft report, and if revisions are required, the CONTRACTOR shall make those revisions and submit the final report to the AGENCY within 24 hours of the receipt of comments. Requests for additional compensation for the handling of the spill shall be submitted to the Engineer as a construction claim. The CONTRACTOR shall assure the validity, accuracy, and correctness of the claim under penalty of perjury. The Engineer may institute further corrective actions, as deemed necessary, to fully comply with existing law, ordinance, code, order or regulation. The CONTRACTOR shall be responsible for all costs incurred for the corrective actions.
- D. It shall be the CONTRACTOR's responsibility to assure that all field forces, including Subcontractors, know and obey all safety and emergency procedures, including the Spill Response Plan, to be maintained and followed at the Site.

### **3.3 SEWER BYPASSING**

- A. The CONTRACTOR shall provide temporary means to maintain and handle the sewage flow in the existing system as required to complete the necessary construction.
- B. The CONTRACTOR shall size the bypass system to handle the peak flow of the system. The CONTRACTOR shall provide a redundant, identically sized, one-hundred percent (100%) backup bypass system. The CONTRACTOR shall utilize the backup system to mitigate any additional wet weather flows, perform the necessary maintenance and repairs on the primary bypass system, and exercise and ensure the operability of the backup system. Each pump, including the backup pumps, shall be a complete unit with its own suction and discharge piping. The CONTRACTOR shall operate the backup bypass system for a minimum of twenty-five percent (25%) of the time on a weekly basis. The backup bypass system shall be fully installed and operationally ready at all times.
- C. Prior to the full operation of the bypass system, the CONTRACTOR shall demonstrate, to the satisfaction of the AGENCY, that both the primary and backup bypass systems are fully functional and adequate, and shall certify the same, in writing, in a manner acceptable to the AGENCY.
- D. The CONTRACTOR shall provide all equipment necessary to minimize the noise generated by the bypassing operations. Noise levels from the complete bypassing system shall not exceed the levels allowable under the local jurisdictional codes and requirements.

## **SECTION 02960 – TEMPORARY SEWER BYPASS PUMPING**

- E. The CONTRACTOR shall continuously (while in use) monitor the operation of the bypass system and all impacted facilities. The CONTRACTOR shall submit, as part of their bypass plan, their system monitoring procedure and frequency. The CONTRACTOR shall maintain a log of the monitoring in a manner acceptable to the Engineer.
- F. The CONTRACTOR shall continuously monitor the flow levels downstream and upstream of the bypass to detect any possible failure that may cause a sewage backup and/or spill. The CONTRACTOR shall include the means and methods of monitoring the flow in their Bypassing Plan. The CONTRACTOR shall provide flow monitoring data to the AGENCY on a weekly basis in a format acceptable to the AGENCY.
- G. The CONTRACTOR shall routinely inspect and maintain the bypass system, including the backup system. The CONTRACTOR shall submit as part of their Bypassing Plan their maintenance procedures and frequency. The CONTRACTOR shall maintain a log of all pertinent inspection, maintenance and repair records in a manner acceptable to the Engineer.
- H. At the end of each day's work, the CONTRACTOR shall re-establish sewer flows in the gravity sewer system. Work undertaken each day shall only include work that can be completed during that working day.
- I. See the standard specifications for requirements of property owner notification due to bypassing operations.

**\*\*END OF SECTION\*\***

# **NO GREASE DOWN THE DRAIN!**

## **KEEP DRAINS FLOWING**

**WIPE FOOD AND GREASE  
OUT OF POTS BEFORE  
WASHING AND DISCARD  
WASTE INTO THE TRASH**



**COLLECT AND  
RECYCLE USED  
COOKING OIL**



**HAVE GREASE  
INTERCEPTORS AND TRAPS  
CLEANED ON A ROUTINE  
SCHEDULE**



**USE ABSORBENTS  
TO CLEAN UP  
GREASY SPILLS  
BEFORE MOPPING**



**WHEN KITCHEN DRAINS ARE FLOWING,  
BUSINESS KEEPS FLOWING TOO.**

# **¿NO TIRE GRASA AL DESAGÜE!**

## **MANTENGA LIBRE EL FLUJO A LA TUBERÍA DEL DESAGÜE**

**QUITE LOS RESTOS DE  
COMIDA Y GRASA Y TÍRELAS  
A LA BASURA ANTES DE  
LAVAR LAS OLLAS**



**JUNTEY RECICLE EL  
ACEITE DE COCINA**



**LIMPIE LAS COLADERAS E  
INTERCEPTORES DE GRASA  
CON REGULARIDAD**



**USE MATERIALES  
ABSORBENTES PARA  
RECOGER LA GRASA  
QUE SE HAYA CAIDO  
ANTES DE TRAPEAR  
EL PISO**



**SU EMPRESA SE MANTIENE A FLOTE CUANDO  
EL AGUA FLUYE EN EL DESAGÜE DE LA COCINA.**



# CITY OF OCEANSIDE

WATER UTILITIES DEPARTMENT

March 8, 2021

**Subject: Requirements of the City of Oceanside Ordinance No. 07-0R0021-1  
Regulation of Commercial Kitchen Grease Disposal**

Dear Food Service Establishment Owner:

On January 17, 2007, the City of Oceanside approved Ordinance No. 07-0R0021-1, which states that new FSE's (food service establishments), remodeling FSE's and FSE's with a transfer of ownership or successor owner shall, prior to commencing business or operations within the City, install a grease control device sized and designed in accordance with the requirements of the Uniform Plumbing Code. Grease control device installation and related construction shall be subject to the inspection by the City, or authorized agents of the City, prior to operation.

As indicated in Sections 29.115 - 29.128, Ordinance No. 07-0R0021-1 (available on the City of Oceanside's web site <http://www.ci.oceanside.ca.us/>. and a copy is also provided) requires applicable food establishments to install a properly sized grease control device upon (1) commencing food services, (2) or transfer of ownership or (3) when remodeling the FSE. Plans must be submitted to the City if any of the three conditions listed above occurs.

The Permit Terms and Conditions are included in the binder so that you are fully informed about the requirements of the ordinance. This information must also be disclosed to prospective owners should you decide to sell your FSE.

State Law (AB) 1333 makes the improper disposal of brown grease from grease traps or interceptors an offense. In addition, the bill prohibits reinserting any of the grease removed from a trap or interceptor back into the trap or interceptor (decanting). The bill also requires grease haulers to completely remove all grease, greasy liquids, water and solids from a trap or interceptor each time it is pumped.

If you have any questions or need further assistance, please contact me at (760) 435-5912 or by email: [lrigby@oceansideca.org](mailto:lrigby@oceansideca.org).

Sincerely,

Lori Rigby  
Compliance Officer



# CITY OF OCEANSIDE

## WATER UTILITIES DEPARTMENT

March 8, 2021

**Subject: HIGHLIGHTS OF THIS FATS, OILS AND GREASE (FOG) BINDER**

Dear Food Service Establishment Manager/Owner:

The following items have been discussed with you. These are the important highlights of the contents of the FOG binder that have been explained to you:

- Ordinance No. 07-OR0021, provides the authority and guidance for the FOG program, as contained in this binder;
- How a grease control device works and the consequences of noncompliance;
- Kitchen Best Management Practices (BMPs);
- The requirement to prominently place the FOG poster in a food preparation area;
- Benefits of controlling FOG;
- Grease/Oil receptacle standards;
- Permit terms and conditions;
- Proper documentation of annual employee FOG training using either a training DVD provided in the past and/or by going to this website and click in the video link: Note that the first half of the video is in English and the second half is in Spanish.
- Proper documentation of grease control device maintenance and frequency of required cleaning or servicing at least every three (3) months;
- Proper documentation of exhaust hood maintenance and frequency of cleaning or servicing at least twice a year; and
- Proper documentation of jetting or other cleaning methods of your private lateral, which is recommended at least once a year to prevent costly FOG system overflows.

For comments or questions please contact me as shown below:

Lori Rigby  
Compliance Officer  
[lrigby@oceansideca.org](mailto:lrigby@oceansideca.org)  
(760) 435-5912

**City of Oceanside  
Water Utilities Department  
Pollution Prevention and Pretreatment Program**

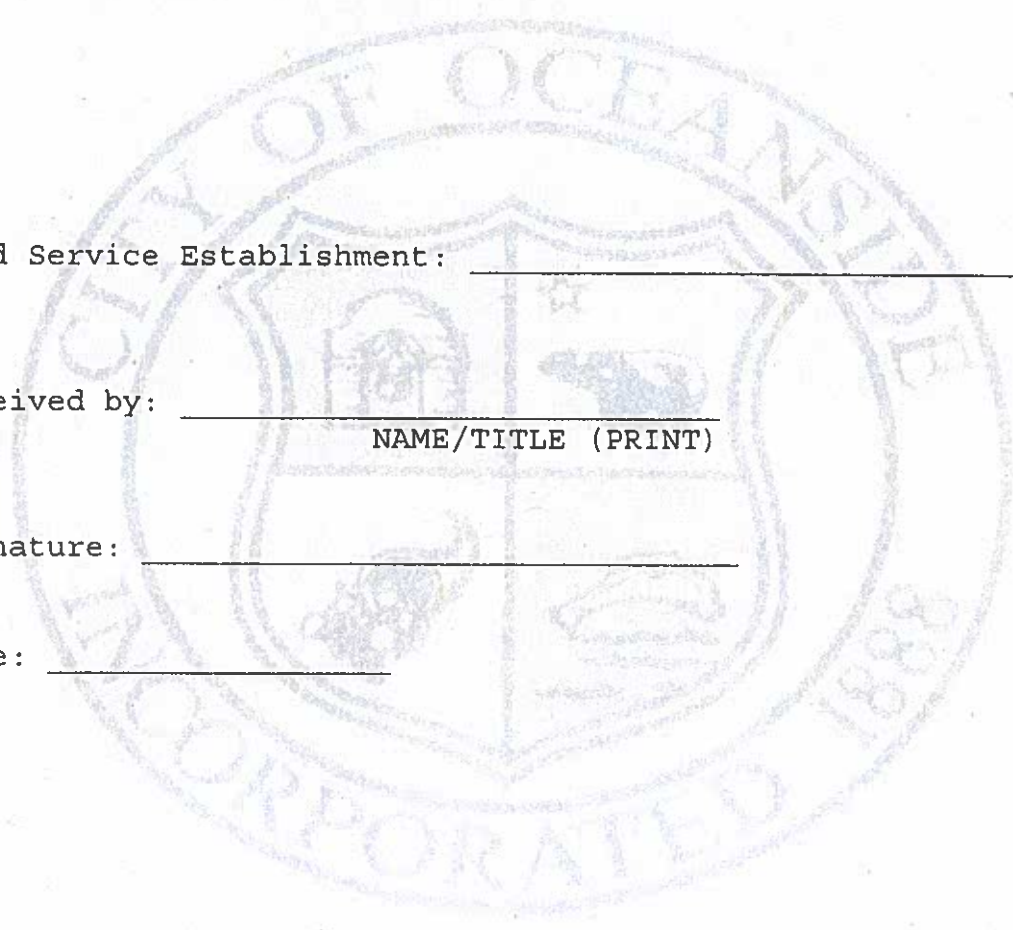
**RECEIPT OF FOG BINDER, DVD, POSTER AND FOG PERMIT  
FROM INDUSTRIAL WASTE INSPECTOR**

Food Service Establishment: \_\_\_\_\_

Received by: \_\_\_\_\_  
NAME/TITLE (PRINT)

Signature: \_\_\_\_\_

Date: \_\_\_\_\_





**City of Oceanside  
Water Utilities Department  
Pollution Prevention and Pretreatment Program**

March 8, 2021

**Subject: HIGHLIGHTS OF FATS, OILS AND GREASE (FOG) PROGRAM  
(City of Oceanside Ordinance No. 07-0R0021-1 Regulation of  
Commercial Kitchen Grease Disposal)**

Dear Food Service Establishment Owner/Manager:

The following are FOG related documentation requirements by the City, which must be available to a City inspector during normal business hours:

- \* Proper Documentation of Grease Control Device Maintenance and Frequency of Cleaning (every three (3) months)
- \* Proper Documentation of Employee Training Requirements (at least once a year)
- \* Proper Documentation of Exhaust Hood Maintenance and Frequency of Cleaning (at least twice a year)
- \* Documentation of Optional Jetting of Private Sewer Lateral (at least annually)

As allowed by the City Ordinance, monetary fines may be levied for failure to retain and provide the required documents for inspection. If you have any questions or need further assistance, please contact me at (760) 435-5912 or by email: [lrigby@oceansieca.org](mailto:lrigby@oceansieca.org).

Sincerely,

Lori Rigby  
Compliance Officer



# CITY OF OCEANSIDE

## WATER UTILITIES DEPARTMENT

March 8, 2021

### **AN EXCERPT OF ORDINANCE NO. 07 -OR0021-1 OF THE CITY OF OCEANSIDE AMENDING CHAPTER 29 OF THE OCEANSIDE CITY CODE BY ADDING ARTICLE IX, REGULATION OF COMMERCIAL KITCHEN GREASE DISPOSAL**

*The ordinance establishes regulations for the disposal of grease and other insoluble waste discharges from commercial kitchens within the City to provide for the protection and maximum public use of the City's sewer system.*

#### **Section 29.117. Commercial Kitchen Grease Disposal Permit Required**

Commercial Kitchens shall not discharge Wastewater into a public sewer without first obtaining a Commercial Kitchen Grease Disposal Permit.

#### **Section 29.118. Permit Application**

Persons seeking a Commercial Kitchen Grease Disposal Permit shall complete and file with the City of Oceanside Water Utilities Department an application on the form provided by the City. The applicant will be required to submit, in units and terms appropriate for evaluation, the following information:

- A. Name and address of applicant.
- B. Volume of Wastewater to be discharged.
- C. Time of daily food preparation operations.
- D. Description of food preparation, type, number of meals served, cleanup procedures, dining room capacity, number of employees and size of kitchen.
- E. Any other information required by the Director to evaluate the permit application.

The Director will evaluate the data submitted by the applicant and may require additional information. After evaluation, an on-site inspection of the Commercial Kitchen's Grease disposal system may be required prior to issuance of the permit.

#### **Section 29.119. Permit Fee**

Permits shall be issued at a fee to be determined in two years after this ordinance becomes effective.

#### **Section 29.120. Issuance and Modification of Permits**

A new permit will be required if the business changes ownership. The terms and conditions of the permit may be modified by the City during the life of the permit as set forth in Section 29.45 ("Regulations of discharge") for cause. The permittee shall be informed of any proposed changes to the permit at least thirty (30) days prior to the effective date of any change. Changes or new conditions in the permit shall include a reasonable time schedule for compliance.

#### **Section 29.121. Transfer of Permit**

Commercial Kitchen Grease Disposal Permits shall be issued only for specific use for a specific operation. A new permit shall be required for any sale, lease, transfer or assignment of the premises or business or any Change in Operations.



**City of Oceanside  
Water Utilities Department  
Pollution Prevention and Pretreatment Program**

March 8, 2021

**Subject: Fats/Oil/Grease Receptacle Standards**

The purpose of this document is to create a standard City policy regarding waste fats/oil/grease (FOG) receptacle requirements.

**Waste FOG Barrels Must:**

1. have secondary containment of equal or greater capacity
2. have a lockable lid system to reduce contaminants and/or unpermitted removal of FOG
3. have a proper covering system or device to prevent rainwater and other contaminants from being introduced onto and into the FOG barrel and the secondary containment

**Waste FOG Receptacles Must:**

1. be built of a heavy, puncture resistant steel
2. have a lockable lid system to reduce contaminants and/or unpermitted removal of waste FOG
3. have a proper covering system or device to prevent rainwater and other contaminants from being introduced onto and into the FOG container



# CITY OF OCEANSIDE

WATER UTILITIES DEPARTMENT  
POLLUTION PREVENTION AND PRETREATMENT PROGRAM

March 8, 2021

## Used Grease/Oil Barrel/Oil Receptacle Requirements:

1. Must be built of a heavy puncture resistant steel.
2. Must have a lockable lid system to ensure contents integrity and proper disposal.
3. The unit must be covered to prevent rainwater from entering the grease container device or accumulating in the secondary containment.

## Grease Management:

- Proper disposal of grease prevents sewer clogging and overflows, while also protecting human health by keeping raw sewage off our streets and out of our waterways!
- **Never** pour oil, grease, or oily liquids down a sink, storm drain, or into a dumpster!
- Keep outside grease containers closed at all times, preferably locked, and ensure that all spills or leaks are promptly cleaned using only some type of absorbent material such as rags.
- **Always** locate grease containers away from storm drains to prevent rain water contact and runoff around the grease container and into the storm drain.
- Minimize the amount of grease sent to the grease trap or interceptor.
- Scrape plates thoroughly before washing and make sure the drains have a screen to trap solids.
- Inspect grease traps and interceptors regularly and have them pumped every three (3) months.
- **Never** use solvents or emulsifiers as grease control devices additives. They cause the grease to separate and create blockages in downstream sewer lines.



**Examples of Used Grease/Oil Barrel/Oil Receptacles**

# Don't Forget the Grease!



Help Oceanside keep the **GREASE OUT** and the **WATER IN!**

Three simple steps can protect your home and our environment

## Fats, Oils and Grease...

### What's the problem?

Too often, grease is washed into the plumbing system, usually through the kitchen sink. Grease sticks to the insides of sewer pipes (both on your property and in the streets). Over time, the grease can build up and block the entire pipe.

Cooking grease in the form of lard, shortening, cooking oils can all build up on the inside of sewer pipes causing line blockages, or worse, Sewer System Overflows (SSO's) (the discharge of untreated wastewater into the environment). The EPA has determined that SSO's are the number one cause of pollution in our national waterways.

Commercial additives, including detergents, that claim to dissolve grease only pass grease down the line and cause problems in other



areas. The results can be sewage overflowing in your home or your neighbor's causing expensive

and unpleasant cleanups. This increases the potential risk to public health and the operation and maintenance costs for Oceanside.

**Sewer blockage is the problem!**

## What can you do?

The easiest way to solve the grease problem and help prevent overflows of raw sewage is to keep this material out of the sewer system in the first place.



**Never pour grease down sink drains or toilets.**

### Instead...

- 1) Pour or scrape grease from pots and pans into a can.



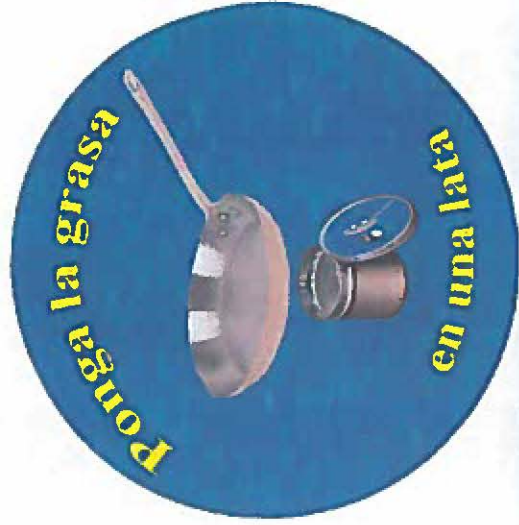
- 2) Cover and refrigerate.



- 3) When chilled, remove grease can and throw away in trash.

City of Oceanside

# ¡No se olvide de la grasa!



Ayúdenos a dejar la **GRASA FUERA** y el **AGUA DENTRO**

Tres pasos simples pueden proteger su hogar y nuestro medio ambiente

## Grasas y aceites...

### ¿cuál es el problema?

Muy a menudo las grasas se echan por las cañerías, generalmente por el fregadero de la cocina. La grasa se pega a las paredes de las cañerías (en las de su casa y en las de la calle) y con el tiempo puede acumularse y atascar la cañería completamente.

Las grasas que se usan para cocinar, tales como la manteca (grasa de cerdo), aceite vegetal y otros aceites de cocinar, pueden acumularse dentro de las tuberías del desagüe ocasionando obstrucciones o algo peor, desbordamientos del alcantarillado (SSO, siglas en inglés) (el vertido de aguas residuales en el medio ambiente sin haber pasado por tratamiento primero). La EPA ha determinado que los SSO son la causa número uno de la contaminación en nuestros ríos y arroyos nacionales.

Los aditivos comerciales, incluidos los detergentes que dicen disolver la grasa, solamente la ayudan a pasar por la tubería causando problemas en



otras áreas pudiendo resultar en el desbordamiento de aguas residuales en su casa o en la de su vecino, limpiezas

caras y desagradables, posibles riesgos a la salud pública y un aumento en los costes de operación y mantenimiento para *Oceanside* que traer por consiguiente cuentas más altas a los clientes.

## ¡La obstrucción de las alcantarillas es el problema!

## ¿Qué puede hacer usted?

La manera más fácil de solucionar el problema de la grasa y ayudar a evitar los desbordamientos de las aguas negras, es impedir que este material entre en el alcantarillado en primer lugar.



### Nunca

vierta la grasa por las tuberías.



## En Cambio...

- 1) Vacíe o raspe la grasa de las ollas y sartenes en una lata.



- 2) Cúbrela y refrigérela.



- 3) Cuando se haya enfriado, eche la lata a la basura.

City of Oceanside



# City of Oceanside Storm Water Inspection Form

Date/Time:

**Inspection/Work Order #**

Program: Pollution Prevention and Pretreatment Program

Facility Name:

Address

Reason: FOG Inspection

Contact Name:

Contact Phone #:

**Remarks**

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<u>Item</u>	<u>Result</u>	<u>Comments</u>
	(Compliant/Non-Complaint/NA)	

***BMP INSPECTION***

Operating under valid Waste Discharge permit (Permit must be valid/onsite at all times)	_____	
Grease Collection Maintenance Log current and accessible	_____	
Exhaust Hood Maintenance Log current and accessible	_____	
Employee Training Log current and accessible	_____	
Drain Screens Installed/Maintained	_____	
Food Waste Practices (Food Waste to be placed in plastic bags or trash, not in sink(s))	_____	
Dry Wiping Practices (Pots, Pans, Plates to be Dry Wiped of food debris before washing)	_____	
Emergency Spill Response Materials (Grease Absorbent Materials present/accessible in event of spill)	_____	
BMP Poster(s) in approved areas (Visible in all food preparation and dishwashing areas)	_____	

***INTERCEPTOR INSPECTION***

Interceptor accessible for inspection	_____	
Interceptor capacity meets acceptable standards	_____	
No excessive oil and grease in the sample box	_____	
Discharge (effluent) line unrestricted	_____	
Baffle tubes meet acceptable standards (Tubes are not plugged, submerged, damaged or missing)	_____	

***CORRECTIVE ACTIONS AND ADDITIONAL COMMENTS***

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Contact Signature:

Date:

Inspector Signature:

Date:

# CITY OF OCEANSIDE

## 2021-2024 Internal Audit and SSMP Update Plan

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Date: February 2026

Prepared by: Tim Lewis, P.E., Water Works Engineers  
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Prepared for: Water Utilities, City of Oceanside  
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## SECTION 1 AUDIT OBJECTIVES

This report summarizes the results of the Sewer System Management Plan (SSMP) internal audit for the City of Oceanside (City) conducted by the City's on-call civil engineer, Water Works Engineers (Water Works or WWE).

### 1.1 SSMP Background

The purpose of the SSMP is to provide a written framework and plan for properly managing, operating, and maintaining the City's sanitary sewer collection system, as official enrollee to the following governing California State Water Resources Control Board (State Board) regulations and supplemental San Diego Region (Regional Board) regulations:

- The State Board [Order No. 2022-0103-DWQ](#), or Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SSS WDR or Revised General Order) effective June 5<sup>th</sup>, 2023.
- The Regional Board [Order No. R9-2007-0005](#), or Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region (San Diego Region WDRs) effective February 14<sup>th</sup>, 2007.

SSMPs are intended to evolve over time as a "living document" that the City continuously maintains. The City completed its last 2021 SSMP.

### 1.2 Audit Background

The purpose of this SSMP Audit is to review SSMP compliance, implementation, and evaluate the effectiveness of the SSMP based on existing performance measures the City tracks and maintains for the last 3 years. The Audit identifies general items that are not in compliance or not in general conformance with the Revised General Order and recommends corrective actions and opportunities for improvement. This Audit is intended to be submitted through California Integrated Water Quality System Project (CIWQS) accompanied by a City submittal letter that must include a statement that **the City's sewer system operators' input on the audit findings has been considered; and also a proposed schedule for the City to address the identified deficiencies.**

This Audit is formatted and broken down in the following sections:

1. Section 3: Analyze the City's spill data during the Audit period and evaluate the spill trends
2. Section 4: Establish a standardized Audit procedure to be applied to each element of the SSMP
3. Section 5: Apply audit procedure to each element of the SSMP
  - a. Evaluate each element in its implementation and effectiveness at preventing spills and;
  - b. Provide recommendations to enhance the implementation and effectiveness, including spill specific recommendations based on spills that occurred during the Audit period
  - c. Evaluate each element's compliance with the Revised General Order and;
  - d. List corrective actions to comply with the recently Revised General Order and meet mandatory minimum requirements (*Note that some of the corrective actions would involve revisions to the SSMP for the upcoming Sewer Master Plan Update or the upcoming Asset Management Plan*). .
4. Section 6 Appendix: CIWQS reports of audit period spill data

### 1.2.1 Disclaimers

Water Works has modeled this audit on typical industry practice and State Board suggested audit guidelines. The basis for the audit is informed by review of or observations of the following information:

- State CIWQS data
- City provided State Board Sewer Collection System Pre-Inspection Questionnaire (version 4.0)
- City provided Recent SSMP and Audit
- City provided agreements with other collection systems and agencies

Water Works makes no certification nor representation or warranty as to the accuracy or completeness of the Audit findings presented herein. Compliance and general conformance are defined as the act of meeting State Board and Regional Board regulations. Implementation is defined as the City putting a plan into effect, as laid out in its SSMP, and Effectiveness is defined as the degree to which the desired result was achieved, as measured by performance indicators and performance results.

### 1.2.2 Meetings and Workshops

Water Works participated in multiple in-person and virtual workshop-style meetings with City staff that covered all departments that have input and involvement with the SSMP. Meeting topics were narrowed to match the focused department involved in the meeting, but overall every SSMP element was discussed and it was a comprehensive assessment with all departments conducting a final review.

- 8/27/25: Kickoff Meeting (all departments)
  - City Participants: Philip T, Mabel U, Martin P, Rosemarie C, Jeremy K, Mike D, Jordan A
- 9/9/25: Gap Assessment Workshop (Collections Focused)
  - City Participants: Mike D, Philip T, Cynthia E, Martin P, Mabel U.
- 9/11/25: Gap Assessment Workshop (Engineering/CIP Focused)
  - City Participants: Philip T, Jordan A, Mabel U, Saeid B, Sharon A, Rosemarie C
- 9/25/25: Audit Draft Results (All Departments)
  - City Participants: Jeremy K, Philip T, Mike D, Martin P, Jordan A, Cynthia E, Saeid B
- 10/8/25: SSMP Audit & Update Plan Follow Up with Collections
  - City Participants: Philip T, Jeremy K, Mike D
- 10/15/25: SSMP Audit & Update Plan Follow Up with Engineering/CIP
  - City Participants: Philip T, Mabel U
- 1/26/25: Final SSMP Audit & Update Plan & SSMP Review (Collections, Engineering/CIP, Compliance)
  - City Participants: Philip T, Mabel U, Jeremy K, Mike D, Martin P, Jordan A

## SECTION 2 CITY BACKGROUND AND SYSTEM INFORMATION

The City of Oceanside is located in north San Diego County and has a sewer service area that encompasses approximately 42 square miles, which roughly coincides with the City boundary. The elevations range from sea level to over 700 feet. The City has a current population of approximately 176,000.

Under the SSS WDR, the City is assigned the Waste Discharge Identification (WDID) number **9SSO10674**. The City’s sanitary sewer network consists of approximately:

- 460 miles of gravity sewer pipelines
- 38 miles of force mains
- 32 lift stations

The City does not own or maintain any portion of sewer laterals and cleanouts connected to the sewer mains.

A portion of City of Vista and the Buena Sanitation District wastewater flows and all of Rainbow Municipal Water District (MWD) wastewater flows are conveyed by gravity into the City’s collection system. Wastewater is treated at the City’s two wastewater treatment plants (WWTP): La Salina WWTP and the San Luis Rey Water Reclamation Facility (SLRWRF). Treated wastewater is discharged into the Pacific Ocean via the City’s Ocean Outfall. Treated wastewater from the La Salina WWTP is conveyed to the Ocean Outfall via the La Salina WWTP Land Outfall. Treated wastewater from the SLRWRF is conveyed to the Ocean Outfall via the SLRWRF Land Outfall. The Fallbrook Public Utility District (PUD) and Camp Pendleton also discharges treated wastewater and brine through the Ocean Outfall. A small portion of the City’s wastewater is conveyed to the Vista Carlsbad Interceptor through the Encina Bypass. This wastewater flow is conveyed to Encina Water Pollution Control Facility for treatment and disposal.

The City committed to a major strategic initiative to source 50% of its water supply via local sources by 2030. It is actively working on various recycled water, disinfected tertiary recycled water, and indirect potable reuse projects to meet this goal and has retained significant State and Federal grant and low-interest loan commitments. To achieve this goal, the City has diverted wastewater flow away from La Salina WWTP to new or upgraded treatment facilities at SLRWRF via major new lift station and forcemain projects. It is the City’s intention to decommission La Salina WWTP by 2030, which will decrease the City’s risk and financial liability associated with operating a major asset that is past it’s useful life and located near the coast.

## SECTION 3 Sewer Spill Performance

### 3.1 Audit Period Spill Data

Spill reports submitted to the CIWQS for this Audit period (1/2021-12/2024) are summarized in **Table 1** below.

**Table 1—Key Spill Data from Audit Period**

Spill Data 1/2021 – 12/2024	
Total Number of Spills Reported	12
Total Number of Category 1 Spills	6
Total Number of Category 2 Spills	3
Total Number of Category 3 Spills	3
The Reported Total Volume of Spills (gallons)	66,527
The Reported Total Volume of Spills That Reached Waters of the State (gallons)	21,142

The Percent Volume of Spills Recovered	16%
The Average Spill Response Time [hh:mm]	0:19
The Average Spill Duration Time [hh:mm]	1:36

In **Table 2**, below, the number and volume of spills are organized by attributable cause. The Structural/mechanical pump station spills (2 out of 12) resulted in the majority of the total volume spilled during the audit period (66%).

**Table 2 – Spill Cause and Statistics from Audit Period**

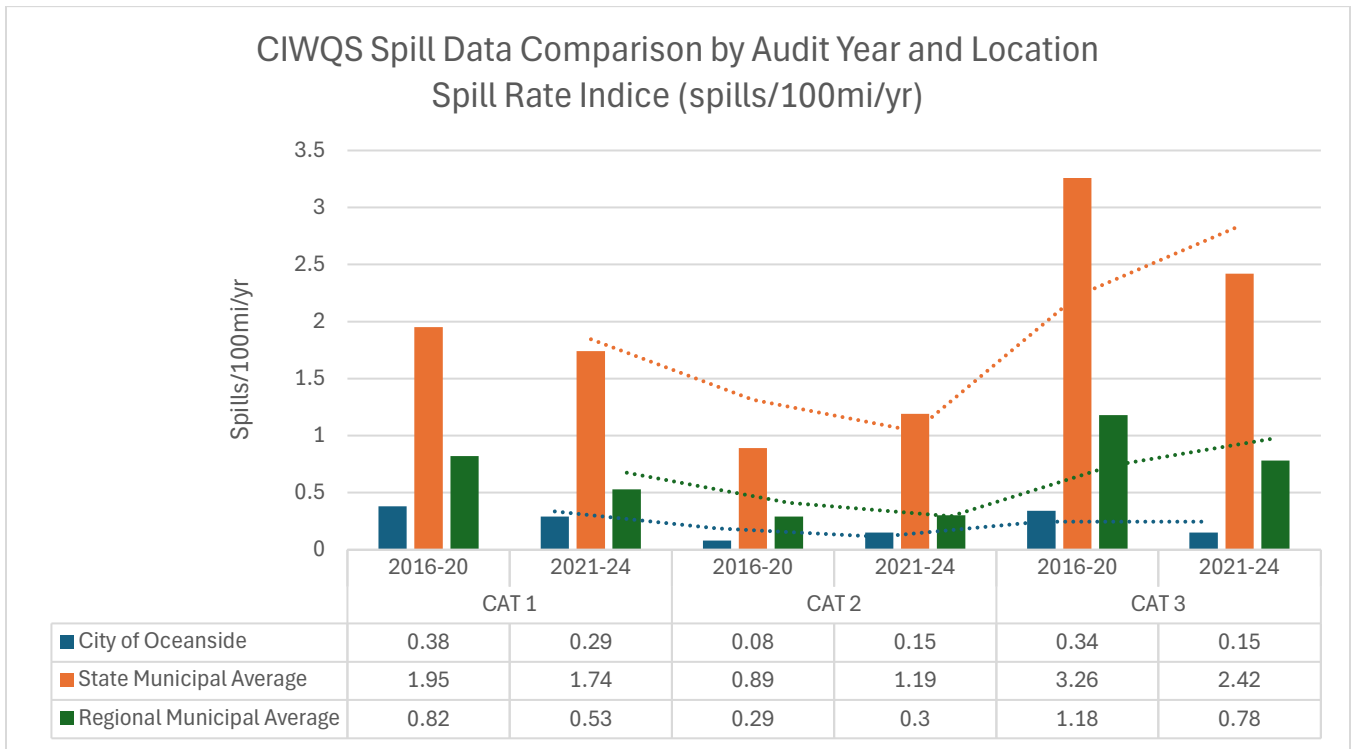
Spill Cause	Count	Total Volume (gal)	Percentage Count	Percentage Volume
Contractor	2	603	17%	1%
Construction	1	6,120	8%	9%
Capacity	1	5,125	8%	8%
Roots	2	505	17%	1%
Debris-Rags	2	9,150	17%	14%
Debris	1	600	8%	1%
Structural/mechanical – Pump Station	2	43,920	17%	66%
FOG	1	504	8%	1%
<b>Total</b>	<b>12</b>	<b>66,527</b>	<b>100%</b>	<b>100%</b>

The CIWQS collection system operational report for the period of 2016 to 2020 (previous audit), and 2021 to 2024 (this audit) are listed in Table 3 below and is also visualized in Figure 1 and Figure 2 (following page).

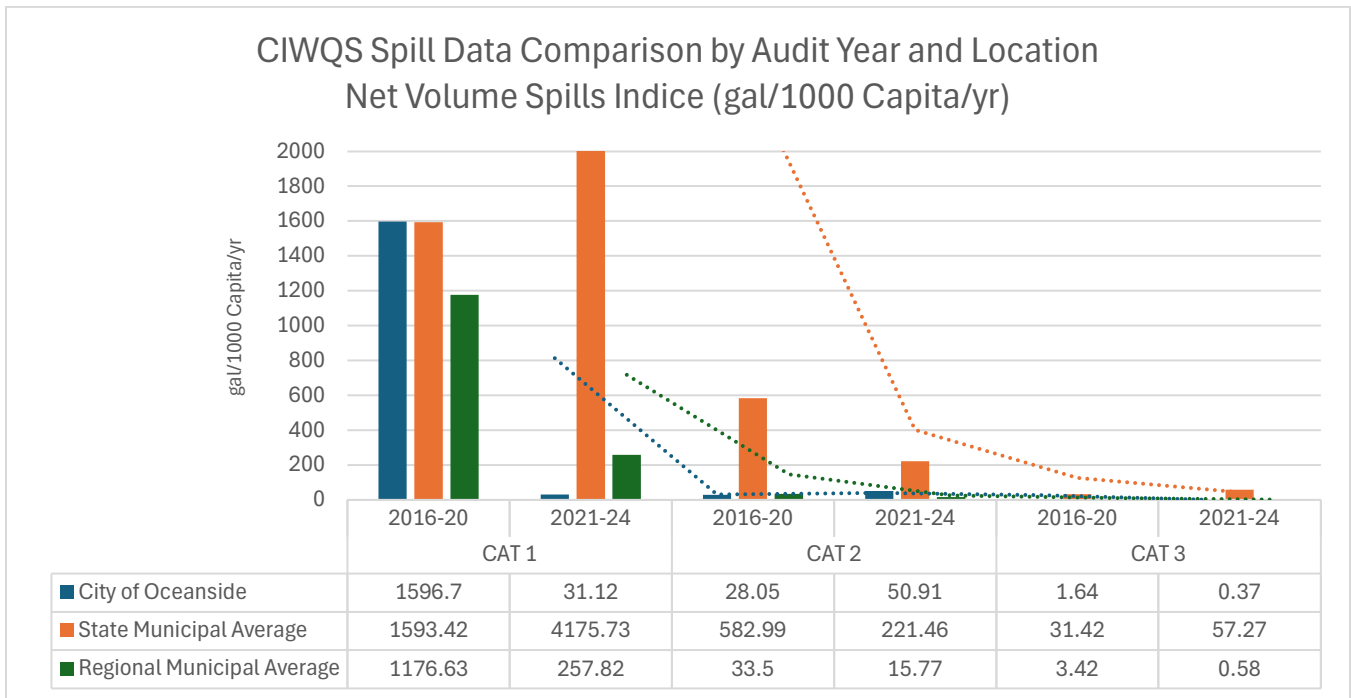
When compared to past performance from 2016 through 2020, the City has substantially improved upon its spill performance in number of spills, spill rate, and net volume of spills during the 2021 to 2024 audit period. In addition, the results indicate that the City’s spill rate and net volume of spills is well below the State and Regional municipal averages.

**Table 3 – CIWQS Spill Data Comparison By Audit Year and Location**

Spill Classification		CAT 1		CAT 2		CAT 3	
Audit Period (years)		2016-20	2021-24	2016-20	2021-24	2016-20	2021-24
Spill Rate Indice (spills/100mi/yr)	City of Oceanside	0.38	0.29	0.08	0.15	0.34	0.15
	State Municipal Average	1.95	1.74	0.89	1.19	3.26	2.42
	Regional Municipal Average	0.82	0.53	0.29	0.3	1.18	0.78
Net Volume Spills Indice (gal/1000 Capita/yr)	City of Oceanside	1596.7	31.12	28.05	50.91	1.64	0.37
	State Municipal Average	1593.42	4175.73	582.99	221.46	31.42	57.27
	Regional Municipal Average	1176.63	257.82	33.5	15.77	3.42	0.58
No of Spills		10	6	2	3	8	3



**Figure 1: CIWQS Spill Data Comparison by Spill Rate Indices**



**Figure 2: CIWQS Spill Data Comparison by Net Volume Spills Indices**

### 3.2 Category 1 Analysis

Two of the Category 1 spills the City reported during the Audit period were attributed to the contractor not following procedures contractually required during work on the City's collection system. The City promptly responded to the emergency, mitigated the spill, and fixed the cause. These spills were not a result of the condition of the City's sanitary sewer system, its operation and maintenance procedures, inspection procedures, nor its construction design standards.

Two spills were caused by debris and grease deposition and a repeat Category 2 spill occurred at the same location within 2 weeks. One spill resulted from a pump station mechanical failure, and the last Category 1 was caused by a combination of FOG and a construction diversion failure.

### 3.3 Category 2 Analysis

The first Category 2 spill was caused by a force main failure at one of the City's lift stations. The second occurred when a storm event caused a siphon's capacity to be exceeded. The final Category 2 spill was at a repeat location caused by debris in a manhole.

### 3.4 Category 3 Analysis

All three Category 3 spills were a result of roots at manholes and other debris in the gravity main causing blockages.

## SECTION 4 AUDIT PROCEDURE

The primary objectives of this SSMP Audit are the evaluation of the effectiveness of implementing the existing SSMP and the City's compliance and general conformance with the new updated SSMP requirements identified in the Revised General Order. The subsections of Section 5 are organized by the required SSMP elements. Each subsection contains a table which lists the Revised General Order Attachment D requirements and the corrective actions.

### 4.1 Review of Existing SSMP Effectiveness

In general, it is Water Works's opinion that the spill performance data results in Section 3 indicate that ***the City's overall SSMP program has been effective at reducing spills; especially when compared to past performance, and State and regional municipal averages.*** However, each SSMP element/program's implementation will be reviewed in more detail, including how effective the element has been for the City. Where deficiencies in effectiveness are identified, recommendations will be made to enhance the overall effectiveness of SSMP element sections. This may include spill-specific recommendations based on the spill analysis in Section 3. Recommendations have been made in **BOLD** text within.

### 4.2 Review of Updated SSMP Corrective Action

Each SSMP element/program's will be evaluated for compliance or general conformance with the Revised General Order, and corrective actions are identified and applied where required pursuant to the Revised General Order.

To reduce the size of this Audit document, Section 5 will not repeat the information and programs presented in each section of the SSMP nor the expanded requirements of the Revised General Order. The reader is encouraged to refer to the City’s [2021 SSMP](#) and the [Revised General Order](#) to obtain supplementary information referenced herein.

### 4.3 Following Up On Regional Board Correspondence

The City had previously committed to corrective actions to deficiencies or areas of concern that have been identified in correspondence with the Regional Board in this audit period (i.e., in response to inspections, order conditions, reports, etc.). Water Works followed up with the City on the status of corrective actions. Water Works’ comments have been added herein to the specific and applicable SSMP element section.

### 4.4 Missed Deadlines for SSMP, SERP, and Internal Audit Issuance

The City did not meet the required deadlines for the issuance of the revised SSMP (5/2/2025), revised SERP (11/5/2023), and 2021-2024 Internal Audit (11/2/2025). This is primarily attributed to an unplanned vacancy in the Environmental Compliance Officer LRO which created a gap in the City’s standard SSMP administrative process that contributed to the delay of issuing the audit, updated SERP, and updated SSMP.

## SECTION 5 AUDIT OF SSMP ELEMENTS

### 5.1 Goals and Introduction

#### 5.1.1 Effectiveness of Existing SSMP Element and Any Recommendations

- The City’s goals and operational objectives have been effective in guiding the City’s program.
- Specific operational objectives listed in the SSMP Goal and Introductions are not required pursuant to the Revised General Order and **it is recommended that the section be eliminated and typical operational practices be listed in the specific and relevant SSMP element sections instead.**

#### 5.1.2 Corrective Actions

**Table 4 – Review of SSS WDR Attachment D.1 – Goals and Introduction**

SSMP Element Subsection	Compliance or General Conformance (Yes or No)	Corrective Action
SSMP Goals	Yes	None
Regulatory Context	No	The Plan Introduction section must provide a general description of the local sewer system management program and discuss Plan implementation and updates.
SSMP Update Schedule	No	The Plan Introduction section must include a schedule for the Enrollee to update the Plan, including the schedule for conducting internal audits. The schedule must include milestones for incorporation of activities addressing prevention of sewer spills.
Sewer System	No	Provide a description of City-owned assets and service area including: <ul style="list-style-type: none"> <li>• Location, including counties</li> </ul>

Asset Overview	<ul style="list-style-type: none"> <li>• Service area boundary</li> <li>• Population and community served</li> <li>• System size, including total length in miles, length of gravity mainlines, length of force mains, and number of pump stations and siphons</li> <li>• Structures diverting stormwater to the sewer system</li> <li>• Data management systems</li> <li>• Sewer system ownership and operation responsibilities between the City and private entities for upper and lower sewer laterals</li> <li>• Estimated number or percentage of residential, commercial, and industrial service connections</li> <li>• Unique service boundary conditions and challenges</li> </ul>
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## 5.2 Organization

### 5.2.1 Effectiveness of Existing SSMP Element and Any Recommendations

#### Legally Responsible Officials (LROs)

- The City lists multiple representatives in the SSMP that should be updated against the active list on CIWQS. Currently Jeremy Kemp and Mike Dumas are listed as active LROs. The new Environmental Compliance Officer Jordan Alejo is listed as a Data Submitter.
- **It is recommended that the City continuously review the LRO and data submitter list and update it as necessary on CIWQS. It is understood that the Environmental Compliance Officer is responsible for the general administrative execution of the SSMP elements and meeting deadlines, while the Collections LRO is responsible for all spill related reporting. In addition, it is recommended that a line of succession, line of communication, and clear administrative procedures and deadlines be defined so that there are backups and redundancies in place in case of unplanned vacancies.**

#### LRO & SSMP Organization Chart

- The SSMP Organization Chart provides definitions, responsibilities, and workflows of City positions as they pertain to the SSMP requirements and does not display non-City entities. The City is responsible for receiving and managing sewer flows starting at the connection point of satellite/tributary systems such as Rainbow Municipal Water District, the City of Vista, and the Buena Sanitation District.
  - **It is recommended that the City consider showing the daytime and off-hours emergency contact information for Rainbow Municipal Water District, the City of Vista, and Buena Sanitation District (satellite/tributary systems) in the SSMP.**
  - **It is recommended that in the upcoming sewer master plan update the historical flow meter data from Rainbow MWD, City of Vista, and Buena Sanitation District be reviewed and assessed against the agreement(s) in place and that peak wet weather flows during storm events have not exceeded permissible flowrates.**
- The City filled the vacant Environmental Compliance Officer LRO in November 2025. An unplanned vacancy in the Environmental Compliance Officer LRO created a gap in the City’s standard SSMP administrative process that contributed to the delay of issuing the audit, updated SERP, and updated

SSMP. In the meantime, the Environmental Compliance department has issued new internal procedures to identify, list, and track all deadlines as it pertains to the SSMP (e.g., audits, updates, annual reports, etc.) in coordination with the LROs.

### 5.2.2 Corrective Actions

**Table 5 – Review of SSS WDR Attachment D.2 - Organization**

SSMP Element Subsection	Compliance or General Conformance (Yes or No)	Corrective Action
Identify Legally Responsible Official (LRO)	Yes	Update as necessary.
Titles, telephone numbers, and email addresses for all positions responsible for implementing specific SSMP elements	No	Fill in missing telephone numbers
SSMP responsibility and organization chart	Yes	None
Chain of communication for reporting spills	Yes	None

## 5.3 Legal Authority

### 5.3.1 Effectiveness of Existing SSMP Element and Any Recommendations

#### Prevent Illicit Discharges

- City Code Chapter 29, Article X Sections 29.129-29.154. Section 29.131 lists prohibited discharges. No recommendations.

#### Design and Construction Standards

- City Code Sections 29.10 (house connections) and 29.7 (sewer main) require compliance with the City’s water, sewer, and reclaimed water design and construction manual. Also supported by Plumbing Code Section 6.8 Article III. No recommendations.

#### Authority for Sewer Access

- The City does not own/maintain private laterals. City Code Section 29.12 assigns responsibility for installation, maintenance, and replacement to property owners. The design and construction manual section 3.4 and standard drawings S-3 reinforce this. Easements or license agreements located in access-controlled right of ways by Others (Railroads and Caltrans) or environmentally sensitive areas require the City conduct advanced planning, coordination, and permitting to exercise its authority to operate, maintain, repair, rehabilitate or replace collection or conveyance system assets. In an emergency, however, the City can and will respond accordingly to obtain access and it does so in close coordination with the law enforcement, access-control entity (railroad or Caltrans) and/or permitting agencies (e.g., CDFW, USACE, RWQCB, etc.).

#### FOG Control

- City Code article IX Sections 29.115-29.128 establishes FOG regulations, including requirements for grease interceptors and prohibitions on discharges. No recommendations.

### Violation Enforcement Authority

- City Code Section 29.127 (Penalties), Section 29.150 (Administrative remedies), Section 29.151 (Judicial remedies), and Section 29.152 (Supplemental enforcement action). Also supported by General Provisions, Chapter 1, Sections 1.1–1.15. No recommendations.

### 5.3.2 Corrective Actions

Table 6 – Review of SSS WDR Attachment D.3 – Legal Authority

SSMP Element Subsection	Compliance Or General Conformance (Yes or No)	Corrective Action
Prevent illicit discharges	Yes	None
Spill response collaboration with storm water agencies	Yes	None
Properly designed and constructed sewers system components	Yes	None
Ensure access to laterals owned/maintained by City	Yes	None
Enforce violations of City sewer regulations in Municipal Code	Yes	None
Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance	Yes	None

## 5.4 Operation and Maintenance Program

### 5.4.1 Effectiveness of Existing SSMP Element and Any Recommendations

#### Sanitary Sewer System Maps

- The City maintains a GIS based sewer system map with gravity mains, forcemains, manholes, and lift stations which is continuously updated with new assets (based on record drawings) or when discrepancies are found that require revisions. CCTV and CMMS data are not currently linked to GIS mapping.
- **Although not a formal Revised General Order requirement, it is recommended that the City consider linking available CCTV data, repair or rehabilitation status, record drawings, etc., in the attributes of the GIS assets by 2030 in coordination with the City’s upcoming new programmatic Asset Management Plan and new CMMS software (implemented by 2030).**

#### Preventive Operations & Maintenance Activities

- The City preventative operations and maintenance program is primarily conducted by the Collections department, except where augmented by the Engineering/CIP department (for larger condition assessment efforts) and the Compliance department (FOG inspections and violations). It consists of:
- Programmatic & routine gravity sewer main cleaning (flushing and rodding). This program has been effective.
  - Sewer Pipe Blockage Control: The City experienced several spills related to roots, rags, and FOG during this audit period. The City has anecdotally indicated that roots originating from private laterals can occur in the collection system and occur more often in older VCP networks close to mature trees. The City has not found chemical root control to be an effective solution and does not utilize it and instead

focuses on rodding and jetting. As a courtesy, the City typically notifies homeowners when a private lateral appears to have heavy roots in it or a severe defect.

- Programmatic high-frequency cleaning (flushing and rodding): Gravity mains that have experienced spills or that have been observed to have high accumulation of debris (roots, rags, etc.) and FOG based on previous cleaning or CCTV inspections or spills are placed on a higher frequency cleaning list. If a gravity main appears to no longer have a concern, it can be removed from the high frequency cleaning list on a case-by-case basis. The City's high frequency list has remained relatively steady over the course of the audit period. This program has been effective.
- Programmatic & routine gravity sewer main CCTV inspections. The City conducts as-needed inspections and routine programmatic visualization of sewer gravity mains not previously inspected or where a known defect is being monitored. The City does not see a need to expand its internal CCTV resources, yet. This is because in 2015 the City conducted an extensive condition assessment program by a 3<sup>rd</sup> party that led to the CCTV visualization of nearly all VCP collection system assets. This very large data set has been invaluable to the City and is still being assessed and informs repair, rehabilitation, and replacement corrective actions.
  - **It is recommended that in the next 5 years the City reassess the utility of the 2015 condition assessment data in informing existing conditions (due to the age of the data) and consider hiring a programmatic 3<sup>rd</sup> party CCTV condition assessment resource through the Engineering/CIP department that will focus on the condition assessment of high-priority assets as required in the Revised General Order and informed by prioritization criteria developed by the City's upcoming new programmatic Asset Management Plan.**
- Routine sewer manhole downhole visual inspections occur and are incidental to main line cleaning and CCTV efforts and are effective.
- Easement Maintenance: The City controls vegetation on easements on an as-needed and routine/programmatic basis. However, there is an estimated 6,000 feet of sewer main located in areas that are generally inaccessible for ground-based preventative operations and maintenance activities and repair, rehabilitation, and replacement procedures. This is typically due to access control measures enforced by non-City entities (i.e., railroads, Caltrans, etc.) or physical and environmental constraints (e.g., too environmentally sensitive, steep, rough, wet, and/or vegetated) for vehicles. The City often can conduct condition assessments and hydroflushing of these line segments remotely (from further away). When and where it cannot reach those segments remotely, the City may at its discretion conduct advanced planning, coordination, and procurement of permits to gain access. In an emergency, the City uses its emergency authority to gain access as needed to respond to an emergency.
  - On a case-by-case basis the City may relocate facilities to make them more accessible, as it is proactively doing with the Loma Alta Creek Sewer Relocation project. **It is recommended that the City continue this effort and assess relocation as potential corrective action to poor access constraints via the City's upcoming new programmatic Asset Management Plan and when there are opportunities to do so in conjunction with parallel projects (e.g., flood control improvement projects).**

- Programmatic & routine lift station operation and maintenance is conducted daily or every other day (depending on lift station) and each lift station is monitored via SCADA. Visual inspections of mechanical, electrical, instrumentation, and major structural improvements are conducted during routine O&M site visits.
- Lift Station Condition Assessments occur during programmatic & routine lift station maintenance. Historically, Engineering/CIP conduct more detailed condition assessments of lift stations when larger repairs and rehabilitation projects are conducted.
- Forcemains Condition Assessment & Maintenance: The City historically has not implemented a routine or programmatic condition assessment nor specialized flushing and pigging maintenance action for forcemains, and does not intend to at this time. Due to the unique design, bypassing, and access constraints for each forcemain, the City typically would need to (1) construct dedicated entry/exit points and appurtenances for pigging and (2) perform a full system shutdown and bypass of the forcemain to complete the work. The cost, operational impacts, and risk associated with these planned shutdown/bypass activities and permanent modifications far outweigh the benefit of routine pigging. Instead, the City's current approach—SCADA/pump performance monitoring to identify abnormal operations and “tell-tale” indicators of potential forcemain issues, followed by targeted investigation and repair when warranted—has proven effective and is a more practical, cost-effective maintenance strategy for the City's forcemains. The City has conducted detailed condition assessments of select forcemains on a case-by-case basis (typically old, large, and ductile or steel / ferrous pipelines) in coordination with lift station CIPs. Visualizations of forcemains where exposed (bridges and valve vaults, etc.) are incidental to Collections routine operation and maintenance, and in coordination with Collections programmatic air valve replacement program. Overall, this program has been effective.
- I&I Investigations: I&I performance is typically captured and assessed during sewer master plan work efforts led by Engineering/CIP. Collections does strategically use a combination of flow monitors and level sensors throughout the service area and is notified when monitored sewer main segments achieve a surcharged condition, which has been effective.
  - **The City will conduct a standard I&I analysis in the City's upcoming new sewer master plan, per established practice.**

### Rehabilitation and Replacement Plan

- Through its preventive O&M activities and intermittent detailed condition assessments of sewer lift stations and forcemains, the City actively collects condition data and anecdotal information on all types of sewer assets.
- Collections first applies reactive repair and rehabilitation corrective actions to localized high priority or emergency defects in gravity sewer mains, lift stations, forcemains, and manholes on an expedited and emergency timeline (days to months). Collections first attempt to utilize in-house and rented resources and all Collections field staff are capable of repair work on various sewer assets and cross-trained on construction equipment. On-call general and specialty contractors are typically utilized for work that requires traffic control, equipment, and procedures that exceed the City's internal resources, including specialty work like CIPP lining and manhole coatings.

- If the required response exceeds the Collections department internal and on-call resources and capabilities, requires advanced planning and design support, and/or the defect is not urgent; then the Collections department will refer the project to the Engineering/CIP department. Typically, a yearly programmatic point repair project is conducted through the Engineering/CIP Department (10-20 locations on a 1 year implementation timeline). Other major CIPs are discussed below.
- Next, Engineering/CIP takes all the data it has gathered and it assigns repair, rehabilitation, and replacement correction actions for collection and conveyance system assets on an as-needed-basis. The process considers a) long-term strategic objectives, b) hydraulic capacity, c) risk of failure (age, severity of defect, location, etc.) and D) best judgment of the Engineering/CIP team. These corrective actions are sorted, bundled, and prioritized into a project with a budgeted cost, project manager, and implementation schedule. Depending on the priority, size, design and permitting complexity of the project and funding sources, a major CIP may take 2-10 years to identify, plan, and implement. The City uses a 10-year forecast in its funding model, and conducts service studies on as-needed-basis and when rate updates are recommended. Funding has been adequate.
- Over the audit period, the City has committed extensive resources and budget on various CIPs listed below:
  - Sewer Gravity Mains:
    - The City has prioritized the realignment of an inaccessible sewer trunk in Loma Alta Creek, an environmentally sensitive area, to the public right of way on Oceanside Blvd.
    - Downtown Phase 2 (of 5) Sewer Pipe Replacements (including a forcemain) which is systematic and phased replacement (2026) of old sewer collection system assets.
    - Raymond Lane Sewer Replacement
    - Scheduled for Work Soon:
      - Lucky Street Sewer Replacement
      - Loma Alta Creek Sewer Relocation Phase 2
      - Harbor Area Sewer Lining and Replacement
      - Leonard Weitzel Sewer Replacement
      - Wisconsin and The Strand Sewer and Trail Protection
      - Mission Ave Siphon Improvement (Buena St. Siphon)
  - Lift Stations and Forcemains:
    - Marlado LS pumps and valving mechanical improvements
    - Pilgrim Creek LS Retrofit
    - Ocean Blvd LS & FM replacement and relocation
    - Roja LS repairs
    - Buena Vista LS pumps and valving mechanical improvements
    - Buena Vista LS Feasibility Study – retrofit to protect from flooding
    - Scheduled for Work Soon:
      - New Oceanside Mesa Garrison (OMG) Lift Station
      - New OMG 36” forcemain to start in 2026 – Redundant Main to the 42” Trunk Sewer Line

- Mission Ave. Forcemain 24” Replacement to start in 2026
- Pacifica LS Replacement and Relocation
- Buccaneer Lift Station and Force Main – to replace La Salina Wastewater Treatment Plant
- Land Outfall Upsize and Replacement – Replace aging pipe and upsize to increase for planned increased effluent from SLRWRF due to centralization of sewer flows to one plant
- Leisure Village Sewer Lift Station No. 1 Rehabilitation
- North Valley Lift Station Replacement
- Siphon
  - The City is actively working on a capital improvement project (CIP) to address the capacity issues at the Buena St siphon that caused a spill during the audit period and was discussed between the Regional Board and the City.
- La Salina WWTP Decommissioning:
  - A new Buccaneer Lift Station and forcemain will be constructed to replace the La Salina WWTP. Once the lift station is operational, the wastewater treatment plant built in the 1940s will be decommissioned to reduce financial burden and environmental consequence of failure in close proximity to the coast. The facility improvement is in coordination with the climate action plan. Upstream sewer flows are being diverted to SLRWRF via new pipeline, forcemain, and pump station projects which will accommodate recycled water and purified water projects as part of the City’s goal to locally source 50% of the City’s water supply by 2030.
- Overall, the City’s rehabilitation and replacement plan has been effective. Pursuant to the Revised General Order, the rehabilitation and replacement plan section is being eliminated and rolled up in the system evaluation and capacity assurance plan, see Section 5.8 for more discussion on this topic.

## Training

- The City conducts internal staff training which varies by department and may include:
  - Onboarding and training rotations
  - Training on SSMP
  - Certification requirements (e.g., CWEA, when applicable)
  - Standard Operating Procedures
  - Seminars, Conferences
  - Confined Space Entry training
- Collections staff desire to utilize the SSMP more in their training regimen but feel hindered by its size and complexity. **To improve its application and usability for training, it is recommended that the SSMP utilize more visual aids, streamlined and bulleted processes, and descriptions with an emphasis on more user-friendly sections for Collections staff. In addition, it is recommended that Collections, Engineering/CIP, and Compliance staff undergo individual trainings on the updated SSMP after it is certified.**
- Contractors are required to meet City design and specification standards, which may include prequalification requirements, minimum experience requirements, applicable certifications, and project

specific training. The City utilizes a standalone, robust sewer bypass pumping specification which clearly defines contractor responsibilities, requires redundant safeguards and continuous monitoring, and strictly prohibits sewer spills and overflows. This specification has been effective in preventing bypass-related incidents.

### Equipment and Critical Replacement Parts

- The City maintains and frequently replaces a fleet of major vehicles and equipment, as well as an inventory of contingency spare/replacement parts that is appropriate for the size of the collection system. It rents equipment on an as-needed basis and maintains on-call contracts with specialty subcontractors as needed (inspectors, coating specialists, CIPP specialists, etc.).

### 5.4.2 Corrective Actions

**Table 7 – Review of SSS WDR Attachment D.4 – O&M Program**

SSMP Element Subsection	Compliance Or General Conformance (Yes or No)	Corrective Action
Updated Map of Sanitary Sewer System	Yes	None
Preventive O&M activities	Yes	None
Rehabilitation and Replacement (R&R) plan	N/A	This section has been removed from the updated SSS WDR.
Training	Yes	None
Equipment and critical replacement parts inventory	Yes	None

## 5.5 Design and Performance Provisions

### 5.5.1 Effectiveness of Existing SSMP Element and Any Recommendations

#### Sanitary Sewer Design/Construction Standards and Specifications

- The City maintains a Water, Sewer & Recycled Water Design and Construction Manual (City Design and Construction Manual) and Standard Drawings, which set standards for pipe, appurtenances, and lift stations.
- Two sewer spills that occurred during this audit were due to Contractors not following contractual requirements regarding sewer bypass pumping. The City utilizes a robust [sewer bypassing pumping specification](#) (Std. Spec Section 02960) which very clearly defines contractor requirements, reviews and approvals required, and that sewer spills are strictly prohibited. Water Works Engineers has reviewed this specification and does not have any recommended revisions.

#### Sanitary Sewer System Inspection and Testing Standards and Procedures

- The City Design and Construction Manual contains inspection/testing requirements and acceptance procedures. The City employs Water Utilities inspectors who are trained on all types of water, sewer, and

recycled water infrastructure and facilities type construction projects that are primarily required as part of a development project, as well as capital projects depending on project size and workload. For larger CIPs that require a more dedicated, longer-term commitment the City typically elects to hire 3rd party inspectors that are project-specific to be responsive to the minimum amount of inspection that is required at any given time. The City uses third-party as-needed construction management and inspection for small-to-medium size projects, to supplement the inspection team.

- **In its next major CIP project if and when a bypass pumping submittal is received, it is recommended that the City conduct an internal training course refresher on its sewer bypass pumping specification, and reaffirm its application, procedures, lines of communication, and roles between City inspector, 3rd party inspector (if applicable), Contractor, Designer, and Collections staff.**

### 5.5.2 Corrective Actions

**Table 8 – Review of SSS WDR Attachment D.5 – Design and Performance Provisions**

SSMP Element Subsection	Compliance Or General Conformance (Yes or No)	Corrective Action
Sanitary sewer design criteria and construction standards and specifications	Yes	None
Procedures and standards for inspecting and testing new and RRR sewer assets	Yes	None

## 5.6 Spill Emergency Response Plan

The City’s Overflow Emergency Response Plan (OERP) is included as Attachment F1 to the 2021 SSMP (last updated March/April 2021).

### 5.6.1 Effectiveness of SSMP Element and Any Recommendations

#### Notification Procedures

- The OERP includes chain of communication (working hours/after hours) and protocols to notify internal City resources as well as external regulatory entities such as the county DEH, CalOES, RWQCB, and SWRCB. The OERP has been effective.
  - Note, the OERP is renamed as SERP (Spill Emergency Response Plan) in the Revised General Order).

#### Compliance with Notification, Monitoring, and Reporting Requirements

- Correspondence between the City and the Regional Board during this audit period highlighted administrative reporting issues with uploading No Spill Reports to CIWQS, providing photographs for spill reports, and misinterpretation of dry surface features being ephemeral streams or not. The City has re-reviewed the Revised General Order and updated internal protocols and procedures as a corrective action. **It is recommended that these changes be memorialized in the SERP and SSMP update.**

### Spill Response Staff and Contractors Implementation and Training

- The City has a training program for all City spill response staff. The City includes training requirements for contractors in the project specifications. This program has been effective. No recommendations.

### Emergency Response Procedures

- The OERP includes procedures to consult with the County DEH, law enforcement, and CalOES for traffic and crowd control procedures as well as posting requirements. This program has been effective. No recommendations.

### Spill Containment/Minimization, Removal, and Cleaning

- The City’s OERP response procedures prioritize the prevention and containment of confirmed/potential Category 1 spills. This program has been effective. No recommendations.

## 5.6.2 Corrective Actions

**Table 9 – Review of SSS WDR Attachment D.6 – Spill Emergency Response Plan (SERP)**

SSMP Element Subsection	Compliance Or General Conformance (Yes or No)	Corrective Action
Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner	Yes	None
Notify other potentially affected entities (for example, health agencies, water suppliers, etc.) of spills that potentially affect public health or reach waters of the State	Yes	None
Comply with the notification, monitoring and reporting requirements of this General Order, State law and regulations, and applicable Regional Water Board Orders	Yes	None
Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained	Yes	None
Address emergency system operations, traffic control and other necessary response activities	Yes	None
Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system	Yes	None
Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State	Yes	None
Remove sewage from the drainage conveyance system	Yes	None
Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters	Yes	None
Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery	Yes	None
Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event	Yes	None

Conduct post-spill assessments of spill response activities	Yes	None
Document and report spill events as required in this General Order	Yes	None
Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.	No	Conduct annual review and assessment

## 5.7 Sewer Pipe Blockage Control Program

### 5.7.1 Effectiveness of SSMP Element

- The City has sufficient authority to inspect, enforce, and prohibit discharges, and maintains a FOG program that is required for commercial kitchens’ grease disposal permits, grease control devices, BMPs, sizing, type and location of grease traps, and maintenance requirements. Approximately 430 food service establishments are subject to FOG control, with 430 permits issued and one dedicated FOG inspector with three enforcement actions taken during the audit period. This program has been effective. No recommendations.

### 5.7.2 Corrective Actions

**Table 10 – Review of SSS WDR Attachment D.7 – Sewer Pipe Blockage (SPB) Control Program**

SSMP Element Subsection	Compliance Or General Conformance (Yes or No)	Corrective Action
Public Education and Outreach Plan	Yes	None
SPB disposal Plan and Schedule	Yes	None
Legal Authority	Yes	None
FOG Removal Device Requirements	Yes	None
Authority to inspect and enforce municipal code related to FOG	Yes	None
FOG Characterization Assessment and Hot Spot Cleaning Schedule	Yes	None
Implementation of FOG Source Control Measures	Yes	None

## 5.8 System Evaluation and Capacity Assurance Plan

### 5.8.1 Effectiveness of SSMP Element

#### Hydraulic Capacity Evaluation

- The City maintains a hydraulic model of the sanitary sewer system which was last updated in 2015. The model is updated with zoning/population data and predictions and is calibrated with historical flow metering and storm data. The model is the basis for the City to identify hydraulic deficiencies and address them with capital improvement projects before they contribute to spills.
- In early 2026, the City will initiate the 2026 Sewer Master Plan Update, which will evaluate the hydraulic capacity of the City’s sewer system at projected peak wet weather buildout flows and its inflow and infiltration performance. The Revised General Order requires that climate change become a factor in

hydraulic assessments. **Consequently, it is recommended that the master plan update consider using NOAA Atlas 15 climate-affected rainfall precipitation (if the update is available in time) or otherwise consider implementing stress tests and sensitivity analyses with higher intensity design storms to simulate higher intensity climate-change enhanced precipitation events.**

### Design Criteria

- The City outlined design/performance criteria for sanitary sewer system evaluation in the 2015 Sewer Master Plan Update including a design storm for peak wet weather flows and capacity-based-criteria to trigger a corrective action based on maximum depth over diameter (d/D). The 2026 Sewer Master Plan Update will utilize a similar approach. No recommendations.

### Capacity Enhancement Measures

- The City outlined capacity enhancement measures in the 2015 Sewer Master Plan Update. This included phased short-term and long-term CIPs with associated preliminary opinion of probable costs, prioritized to meet the system design criteria governing the model. The 2026 Sewer Master Plan Update will follow similar protocols and will become the new source of information to assess existing and future CIPs. No recommendations.

### Capital Improvement Program Schedule

- The City identified capital improvement projects in its 2015 Sewer Master Plan Update and has completed many subsequent projects.
- The City is currently working on a new 2026 Sewer Master Plan Update, which will evaluate the hydraulic capacity of the City's sewer system and will act as an input for the prioritization of corrective actions the City will consider in the Capital improvement program.
- The City is currently planning a new programmatic Asset Management Plan that will focus on the implementation of a new CMMS and assigning risk and consequence of failure scoring that will inform capital improvement program prioritization.
- The City is actively working on and will report back to the Regional Board no later than January 2027 with the results, recommendations, and an implementation plan for a feasibility study mandated by NOV R9-2024-0060 evaluating the long-term improvement alternatives to eliminate or minimize risk of future flooding from Buena Vista Creek to the Buena Vista Lift Station.

### 5.8.2 Corrective Actions

**Table 11 – Review of SSS WDR Attachment D.8 – System Evaluation, Capacity Assurance, and Capital Improvements**

SSMP Element Subsection	Compliance Or General Conformance (Yes or No)	Corrective Action
<b>System Evaluation and Condition Assessment</b>		
Evaluate the SSS assets utilizing the best practices and technologies available	Yes	None
Identify and justify the amount (%) of system for condition assessment each year	Yes	None
Prioritize the condition assessment of system areas that: <ul style="list-style-type: none"> <li>• Have high environmental consequences upon failure</li> <li>• Located within vicinity of surface waters, steep terrain, high groundwater, environmentally sensitive areas</li> <li>• Are within the vicinity of a receiving water with a bacterial-related impairment</li> </ul>	No	Evaluate these parameters in the upcoming Asset Management Plan.
Assess the system conditions using visual observations, video surveillance and/or other comparable inspection methods	Yes	None
Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State	Yes	None

Maintain documents and record keeping of system evaluation and condition assessment inspections and activities	Yes	None
Identify system assets vulnerable to direct and indirect impacts of climate change	No	Evaluate these parameters in the upcoming Asset Management Plan.
<b>Design Criteria</b> <ul style="list-style-type: none"> <li>• Dry weather peak flow conditions</li> <li>• Appropriate design storm</li> <li>• Capacity of key system components</li> <li>• Identification of major sources contributing to peak flows</li> </ul>	Yes	None
Data from existing system condition assessments, system inspections, system Audits, spill history, and other information	Yes	None
Capacity of flood-prone systems subject to increases Inflow and Infiltration (I&I) under normal and storm conditions	Yes	None
Capacity of SSS assets subject to increased I&I due to larger and/or higher-intensity storm events as a result of climate change	No	Evaluate these parameters in the 2026 Sewer Master Plan Update
Increases of erosive forces in canyons and streams near underground system components due to larger and/or higher-intensity storms	No	Evaluate these parameters in the upcoming Asset Management Plan
Capacity of major SSS assets to accommodate dry weather peak flow conditions, updated design storm and wet weather events	Yes	None
Necessary redundancy in pumping and storage capacities	Yes	None
Prioritization of Corrective Action	No	Condition and capacity assessments must be drivers for prioritization and consequence of spill must be considered. Evaluate these parameters in the upcoming Asset Management Plan
Capital Improvement Plan	Yes	None

## 5.9 Monitoring, Measurement, and Program Modifications

### 5.9.1 Effectiveness of SSMP Element

#### Maintain Relevant Information for SSMP Activities

- The City utilizes a computerized work management system (CMMS) in conjunction with a GIS program to prioritize, issue, and track work related to preventive O&M activities, spill response, and equipment/asset inventories. The City tracks the following data in the CMMS:
  - Linear feet of sewer lines cleaned
  - Linear feet of sewer lines televised
  - Number of mainline blockages
  - Location of all blockages
  - Location of all sewer spills
  - Amount of gallons spilled
  - Amount of gallons recovered
  - Cause of blockage
  - The tracking of all work orders
- The City intends to update the CMMS program by 2030 as part of the upcoming Asset Management Plan and the City will likely expand upon the list of data tracked in the CMMS.

#### Metrics to Monitor Effectiveness of SSMP

- The City tracks quantifiable data in CMMS (e.g., feet cleaned, blockages, spill causes) that can be used to evaluate SSMP implementation. However, this information has not yet been rolled into a triennial audit under the Revised General Order. **It is recommended that this information be assessed in the next internal audit.**

#### Assess Success of Preventative Maintenance Program

- The City implements preventive O&M activities such as scheduled cleaning, CCTV inspections, and lift station monitoring. These activities have been effective, with relatively low spill occurrence compared to regional averages. No recommendations.

#### Update Program Elements Based on Performance

- No significant updates have been made to this iteration of the SSMP program elements as the City has not experienced negative trending data in its monitoring and performance measures. This has been effective. No recommendations.

#### Spill Trends – Frequency, Location, and Volume

- The City tracks spill data in CIWQs and analyzes it in its audit process. This has been effective. No recommendations.

## 5.9.2 Corrective Actions

**Table 12 – Review of SSS WDR Attachment D.9 – Monitoring, Measurement, and Program Modifications**

SSMP Element Subsection	Compliance Or General Conformance (Yes or No)	Corrective Action
Maintain relevant information, including Audit findings, to establish and prioritize SSMP activities	Yes	None
Monitoring the implementation and measuring the effectiveness of SSMP elements	Yes	None
Assess success of preventative operation and maintenance program	Yes	None
Update SSMP procedures and activities as appropriate, based on results of monitoring and performance evaluations	Yes	None
Identify and illustrate spill trends, including spill frequency, locations and estimated volumes	Yes	None

## 5.10 SSMP Program Audits

### 5.10.1 Effectiveness of SSMP Element

#### Audit Procedures, Roles, and Responsibilities

- The City last completed an internal audit in 2021 and it utilized industry best practice and was comprehensive. Appropriate personnel were consulted during the production of the audit.
- The City missed the 11/2/2024 deadline for the SSMP Audit covering 2021-2024. The next audit is required to be completed no later than 11/2/2027. Recommendations were listed in previous sections for improving tracking of all administrative items, deadline, roles, responsibilities, and lines of communication.

#### SSMP Program Modification/Update Process

- The last Audit was conducted in 2021 and minimal recommended modifications were made.
- The City missed the 5/2/2024 deadline for the 2025 SSMP update. The next SSMP Update is required to be completed no later than 5/2/2030. Recommendations were listed in previous sections for improving tracking of all administrative items, deadline, roles, responsibilities, and lines of communication.

### 5.10.2 Corrective Actions

This Audit was prepared to meet the requirements of the new Revised General Order listed in Table 13 below. As such, the City may choose to use this format as a basis for future Audits. The City is not required to use outside consultants to complete the internal audit work and may choose to conduct the audit using internal resources, which is up to the City’s discretion. If the City intends to use outside consultants, it is recommended that the City solicit consulting services prior to FY27-28 so that there is adequate time to complete the audit by the next deadline.

**Table 13 – Review of SSS WDR Attachment D.10 – Internal Audits**

SSMP Element Subsection	Compliance Or General Conformance (Yes or No)	Corrective Action
Conduct triennial Audits	<b>No</b>	2021-2024 audit submitted late. For next triennial audit, submit no later than 11/2/2027.
Evaluate the implementation and effectiveness of the SSMP in preventing spills.	<b>Yes</b>	None
Evaluate compliance with Revised General Order	<b>Yes</b>	None
Identify SSMP deficiencies in addressing ongoing spills and recommend corrective modifications to the SSMP with a proposed schedule	<b>Yes</b>	None
State the operator’s input on Audit findings has been considered	<b>Yes</b>	City must provide cover letter to this audit making the required statement from Collections regarding their input on audit findings.

## 5.11 Communication Program

### 5.11.1 Effectiveness of SSMP Element

#### Public Communication

- The City maintains a public outreach program through its website, educational binders for new FSEs, pamphlets to residents on an as-needed basis, and social media presence. The City’s funding, budget, CIP program and SSMP are all updated and revised and certified through City Council action and are subject to comments from the Public. This public communication program has been effective. No recommendations.

#### Communication with Tributary / Satellite Systems

- The City has open lines of communication and working relationships with all satellite and tributary systems which has been successful. No recommendations.

### 5.11.2 Recommended Corrective Action or Opportunity for Improvement

**Table 14 – Review of SSS WDR Attachment D.11 – Communication Program**

SSMP Element Subsection	Compliance Or General Conformance (Yes or No)	Corrective Action
Procedures for communication with public for spills resulting in closures of public areas, or that enter a source of drinking water	Yes	None
Communicate with public on the development, implementation, and updating of the SSMP, including opportunities for public input	Yes	None
Communicate with Owners/operators of tributary/satellite systems for operation, maintenance, and capital improvement-related activities	Yes	None