Sewer System Management Plan (SSMP)

2025 Update

Sanitary Sewer Collection System

Waste Discharge ID (WDID): #2SSO10189

REVIEWED AND APPROVED BY:

JEFF KINGSTON, GENERAL MANAGER
Legally Responsible Official
Sausalito Marin City Sanitary District
Sanitary Sewer Collection System
(includes Element Development Plans & Schedules)

Date Signed

PREPARED BY:

FISCHER COMPLIANCE LLC
PRACTICES THAT COMPLY

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SSMP Action Items Checklist (Implementation Plans and Schedules)

The purpose of this table is to track and document the SSMP Implementation Plans and Schedules for each Element. Additional details are found in the discussions within each section of the SSMP. Abbreviations and acronyms are found on page vi.

PLAN	SCHEDULE	RESPONSIBLE STAFF
1.2 SSMP Update Schedule		
Prepare for next SSMP Audit	Begin 5/2/2027	DIR ENG MGR
Complete and Upload SSMP audit.	By 11/2/2027	DIR ENG
Incorporate Audit Findings, update Change Log and Update SSMP	5/2/2025	ENG
Board Approval and LRO Certification of SSMP	By 8/2/2031	DIR ENG
1.3 Sewer System Asset Overview		
Review District-owned asset statistics and element description; update as necessary	At the beginning of the audit cycle and when significant changes have been made.	ENG MGR
2. Organization		
Review names, contact information and position responsibilities; update as necessary.	Semi-Annually	ENG MGR
Review Chain of Communication outcomes for all spill responses	Each Spill Event	ENG MGR
Review Organizational Chart for any changes; update as necessary.	Semi-Annually	ENG MGR
3 Legal Authority		
Review Ordinance(s) to confirm all documents provide necessary required legal authority.	Once per 6-year SSMP Update Cycle	DIR ENG
Confer with storm drain owners to ensure current practices and contact information are up to date.	Annually	ENG

PLAN	SCHEDULE	RESPONSIBLE STAFF
Monitor and document occasions when Ordinance(s) failed to address issues as intended.	Continuously	DIR ENG MGR
4.1 Updated Map of Sewer System		
Review map update procedures with all affected staff.	Annually	ENG MGR
Review/ensure all newly installed facilities have been updated and included in the system maps	Annually	ENG MGR
4.2 Preventive Operation and Maintenance Activities		
Monitor “Past Due” work orders to ensure critical work is being completed	Quarterly	ENG MGR
Review scheduled PMs to ensure the prescribed schedule remains appropriate.	Annually	ENG MGR
4.3 Training		
Review training documentation to ensure all staff have received required training	Quarterly	ENG MGR
Review agreements with contractors and/or pre-job meeting minutes to ensure contract personnel have received instruction for responding to sewage spills	Each Contract	ENG MGR
4.4 Equipment Inventory		
Audit inventory lists to ensure stock is adequate	Annually	ENG MGR
Check with vendors to ensure lead times for critical parts are as expected.	Annually	ENG MGR
Ensure contracts with emergency support services are current	Annually	MGR
5.1 Updated Design Criteria/Construction Standards/Specifications		
Ensure all project plans are approved in accordance with the District’s Standard Specifications and Details.	Each Project	ENG
Verify design standards and hydraulic model previously completed are adequate and consistent with current standards of practice.	2025	ENG

PLAN	SCHEDULE	RESPONSIBLE STAFF
5.2 Procedures and Standards		
Verify inspection procedures are adequate and consistent with current standards of practice	2017 (10-year cycle)	MGR
Verify design standards and hydraulic model previously completed are adequate and consistent with current standards of practice.	2017 (10-year cycle)	MGR
6 Spill Emergency Response Plan		
Perform SERP training including practice drills.	Annually	ENG MGR
Review Post Spill Assessments to ensure adherence with the SERP and to identify any trends that should be addressed.	Annually	ENG MGR
7 Sewer Pipe Blockage Program		
Review/evaluate enforcement and inspection findings and implement changes as necessary.	Annually	ENG MGR
Review spill rates and causes and make changes to maintenance programs, as necessary.	Annually	ENG MGR
8.1 System Evaluation and Condition Assessment		
Review/evaluate enforcement and inspection findings and implement changes as necessary.	Annually	ENG MGR
Review spill rates and causes and make changes to maintenance programs, as necessary.	Annually	ENG MGR
Hold meeting to discuss any issues that may result from climate changes.	Annually	DIR ENG MGR
8.2 Capacity Assessment and Design Criteria		
Monitor/evaluate significant rain events to see if they exceed the design storm in the hydraulic model.	Each significant rain evet	ENG MGR
Identify and monitor flood-prone areas susceptible to erosion from rain events	After each significant rain event	ENG MGR
Monitor flows in each basin and update the hydraulic model	Per Engineering Department schedule	MGR

PLAN	SCHEDULE	RESPONSIBLE STAFF
8.3 Prioritization of Corrective Action		
Utilize all available data for prioritizing corrective actions considering severity and consequences of potential spills.	Each CIP Update	ENG MGR
Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities.	Continuously	ENG MGR
8.4 Capital Improvement Plan		
Hold regular coordination meetings, with all parties, to help keep the projects on track and resolve issues that may arise in a timely manner.	Annually	ENG MGR
For schedules that are not followed, justify and document the reason.	Each Delayed Project	MGR
9 Monitoring, Measurement, and Program Modifications		
Assess work programs to ensure outcomes are as intended.	Annually	ENG MGR
Prepare updates to work programs and the SSMP based on assessments.	As Needed	ENG MGR
Monitor and evaluate spill trends. Document efforts.	Annually	ENG MGR
10 Internal Audits		
Schedule audits in advance of due dates to ensure adequate time to complete. District has 6 months to complete the audit from the end of the audit period.	Beginning at end of audit period	ENG MGR
Ensure a plan and schedule is developed to address deficiencies.	Once the Audit is completed	ENG MGR
11 Communication Program		
Ensure the Board of Directors approves the SSMP per schedule.	Every 6 years	ENG MGR
Ensure the SSMP is posted on the District website and the link functions properly.	Annually	ENG MGR
Ensure Sewage Spill Warning signs are readily available to communicate with the public when necessary	Annually	MGR

SSMP Change Log of Revisions and Completed Action Items[1]

Revision Date	SSMP Section	Approval Date	Description of Change/Revision/Activity	Initials

Table 1 – SSMP Change Log of Revisions and Completed Action Items

[1] *Use this Change Log to document any edits/changes or action items as they are identified and document when they are completed. To add additional table rows, insert your curser into the bottom right cell of the table and hit the tab button. The table will continue on the next page.*

Abbreviations and Acronyms[2]

BMP	Best Management Practices
CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CIPP	Cured in Place Pipe
CIWQS	California Integrated Water Quality System (State Water Board Online Spill Database)
CMMS	Computerized Maintenance Management System
CPO	Chief Plant Operator (SWRCB designation)
DIR	Director
ENG	Engineering
EPA	US Environmental Protection Agency
FOG	Fats, Oils and Grease
FSE	Food Service Establishment
GCD	Grease Control Device
GGNRA	Golden Gate National Recreation Area
GIS	Geographic Information System
I & I	Inflow and Infiltration
KPI	Key Performance Indicator
LRO	Legally Responsible Official
MGR	Manager
MRP	Monitoring and Reporting Program
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SERP	Spill Emergency Response Plan
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
Spill	Sanitary Sewer Spill
SWRCB	State Water Resources Control Board
TCSD	Tamalpais Community Services District
WDID	Waste Discharge ID Number (CIWQS)
WDR	Sanitary Sewer Systems General Wastewater Discharge Requirements Order issued by the State Water Board (Order No. 2022-0103-DWQ)
WWTP	Wastewater Treatment Plant

Table 2 – Abbreviations and Acronyms

[2] *For a list of related WDR terms, see the WDR, Attachment A (page 32)*

Attn: Jeff Kingston, General Manager
Legally Responsible Official (LRO)
Sausalito-Marin City Sanitary District
1 East Road
Sausalito, CA 94965

Dear Jeff,

We are pleased to present the new 2025 Sewer System Management Plan (SSMP) Update developed in partnership with District management. The 2025 Update meets and exceeds compliance with the Reissued WDR (State Water Board, Water Quality Order No. 2022-0103-DWQ, Attachment D-10 and Specifications 5.4). The 2025 SSMP has been completely revised to harmonize with industry standard guidelines and incorporates the latest SSMP Audit findings.

The 2025 SSMP is a declaration of what the District is doing to demonstrate full compliance with the Reissued WDR. Attachment A of the Reissued WDR (page A-4), states "A sewer system management plan is a living document an Enrollee develops and implements to effectively manage its sanitary sewer system(s) in accordance with this General Order." This requires the District to periodically review and update the SSMP as necessary until its next required 6-year SSMP Update is completed.

To support these ongoing review and update requirements, this document includes a sample change log that may be used as a reference if a system is not already in place. We anticipate the District utilizing this SSMP incorporating management of its additional sewer system (City of Sausalito, WDID #2SSO10114).

We look forward to assisting the District wherever necessary to fully implement the new 2025 SSMP Update.

Sincerely,

Jim Fischer

James Fischer, P.E.
Principal, Fischer Compliance LLC
Credentialed U.S. EPA NPDES Compliance Inspector

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Introduction

This Sewer System Management Plan (SSMP) or "Plan" has been prepared for the Sausalito-Marin City Sanitary District (District) with technical assistance from Fischer Compliance, LLC for meeting and exceeding compliance with the State Water Resources Control Board's 2022 General Waste Discharge Requirements, Order WQ 2022-0103-DWQ for Sanitary Sewer Systems (Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D 2022) (referred to throughout this document as the WDR). The District provided all details, information and institutional insights for preparation of the SSMP. The document has been developed to meet the size, scale, and complexity, serving as a "living document" used as a tool for managing and operating the District's sanitary sewer collection system. This includes the management, operation and maintenance of the additional sewer system of City of Sausalito, (formerly WDID #2SSO10114). Additionally, the latest 2024 Sewer System Management Plan Guidance Manual (Bay Area Clean Water Agency (BACWA) 2024) published by the Bay Area Clean Water District (BACWA) was utilized as a model for development of the document to harmonize formatting/content and incorporate recommended suggested guidance wherever possible.

The District's commitment to meeting or exceeding regulatory requirements, along with their proactive approach to operation and management of the collection system, has served them well, as evidenced by system performance relative to other agencies in the region and the state.

This SSMP reflects the ongoing day-to-day activities of the District for the management, operation, maintenance, and funding of the District's sanitary collection system. As such, this SSMP is a living document subject to constant review and revision as conditions and needs of the collection system change. This SSMP relies on numerous supporting documents, which are also subject to change, and which form the basis for how the District performs operation and maintenance of the collection system. The most current version of the SSMP, although it may be subject to update at any time, will be posted on the District's website.

Prior to finalizing this SSMP, the District will incorporate additional information and details into this document and also obtain governing board approval from the District Council before uploading this publication into CIWQS.

Figure 1 – Collection System Operational Report – SWRCB CIWQS (below) provides key District spill metrics, including data comparing the District's spill record with state and regional system data. The District consistently performs better than the statewide and regional spill rate indices and net spill volumes for all categories of spills from its sanitary sewer collection system.

SEARCH CRITERIA: [REFINE SEARCH] [NEW SEARCH] [GLOSSARY]
WDID (**2SSO10189**)
Date Range: Start_Date (**01/01/2010**) End_Date (**08/04/2025**)

DRILLDOWN HISTORY: [GO BACK TO LISTING OF COLLECTION SYSTEMS]
Sausalito CS
Agency: Sausalito-Marin City San District

General Information

Region	Place ID	Place Name	CS Category	Place Address	Place County
2	631019	Sausalito CS	Municipal(Public)	1 Sausalito CA 94965	Marin

Collection System Spill Summary

Operational Indices: Sausalito CS

Spill Rate Indice (spills/100mi/yr)

	Category 1			Category 2		Category 3	
	Main System	Laterals	Other	Main System	Other	Main System	Other
Sausalito CS	4.08	N/A	0.58	1.17	0.0	1.75	0.58
State Municipal(Public) Average	1.43	N/A	0.42	0.53	0.46	2.69	0.52
Region Municipal Average	2.75	N/A	0.34	0.63	0.19	5.79	0.71

Net Volume Spills Indice (gallons/1000 Capita/yr)

	Category 1			Category 2		Category 3	
	Main System	Laterals	Other	Main System	Other	Main System	Other
Sausalito CS	280.26	N/A	2.4	14.09	0.0	0.09	0.0
State Municipal(Public) Average	1512.69	N/A	3105.36	227.3	2922.5	26.6	7.76
Region Municipal Average	717.07	N/A	427.56	74.36	4711.98	55.66	14.89

Figure 1 – Collection System Operational Report – SWRCB CIWQS

SSMP Organization

This SSMP is organized into 11 core elements following Attachment D of the WDR, with inclusion of applicable Specifications requirements.

Each individual element in the SSMP includes the following technical contents.

1. Requirements – Provides the actual description of applicable requirements in the WDR.
2. Compliance – Describes the District's approach to complying with the WDR requirements.
3. Effectiveness – As measured by Key Performance Indicators (KPIs.)
4. Implementation – Demonstrates how the District will ensure the SSMP will be carried out as described.
5. Resilience – Demonstrates the resilience that is addressed in the SSMP and built-in to the District's collection system and procedures.
6. Appendix Inclusions – List the items included in the Appendix for each SSMP Element, if any.

1. Goal and Introduction

WDR REQUIREMENTS

(Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D 2022, Attachment D-1 (pg. D-2))

"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:"

1.1. Regulatory Context

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-1.1; pg. D-2)

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

COMPLIANCE

The District maintains the local sanitary sewer system and is committed to protecting the public's health and the environment. Federal and State Water Quality regulations require agencies to maintain a comprehensive Sewer System Management Plan (SSMP) with the goal of preventing sewage spills.

The District is committed to fully implementing the 2022 WDR which includes addressing all requirements by integrating a wide range of programs specifically designed for ensuring the integrity and efficiency of the District's sanitary sewer collection system. Moreover, the District is dedicated to maintaining its collection system in a systematic manner by implementing various work programs, with a focus on critical areas, to prevent spills, allowing for a comprehensive approach to maintenance. Work programs include CCTV inspections, pipe cleaning, manhole inspections, lift station maintenance, root control, source control and pipe repair, just to name a few. Work programs are described in more detail in Section 4 "Specifications 5.19 – Operations and Maintenance" of this SSMP.

By prioritizing proactive measures and taking a comprehensive approach, the District is well-equipped with a proven track record of effectively operating its sanitary sewer collection system with the highest levels of service, complying with the WDR, and reducing/eliminating sewage spills.

EFFECTIVENESS

N/A

IMPLEMENTATION PLAN/SCHEDULE

N/A

1.2. SSMP Update Schedule

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-1.2; pg. D-2)

> *"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."*

COMPLIANCE

The District utilizes the *State Water Resources Control Board Lookup Tool*[3] to ensure compliance with all required due dates for updating its SSMP and completing its required SSMP Audits (see Figure 2 – District Sewer System Management Plan, Subsequent Updates and Audit Due Dates., below).

The District's most recent SSMP audit was completed for the period August 2021 through August 2024 (see Appendix 10.1).

Sewer System Management Plan & Audit Required Due Dates
Transition from General Order 2006-0003-DWQ to Reissued General Order

Search by Waste Discharge Identification (WDID) Number

Enter your Waste Discharge Identification (WDID) number in the search field to retrieve the required Sewer System Management Plan (SSMP) Update and Audit due dates for your system.

2SSO10189

Show Update/Audit Dates

Sewer System Management Plan & Subsequent Update Due Dates

System Name	WDID Number	Original Plan Required Due Date	Required Plan Update Due Date	Required Plan Update Due Date	Required Plan Update Due Date*
Sausalito CS	2SSO10189	8/2/2009	8/2/2014	8/2/2019	8/2/2025

Audit Due Dates

System Name	WDID Number	Original Required Plan Audit Due Date	Required Plan Audit Due Date	Required Plan Audit Due Date	Required Plan Audit Due Date	Required Plan Audit Due Date	Required Plan Audit Due Date	End of Required 3-Year Audit Period**
Sausalito CS	2SSO10189	8/2/2011	8/2/2013	8/2/2015	8/2/2017	8/2/2019	8/2/2021	8/2/2024

* Per Section 5.5 and Attachment E1, Section 3.11 of the General Order, Plan updates are due within six years after the required due date of the Enrollee's last Plan Update.

** Per Section 5.4 and Attachment E1, Section 3.10 of the General Order, the Audit Report is due within six months after the end of the required 3-year audit period.

Figure 2 – District Sewer System Management Plan, Subsequent Updates and Audit Due Dates.

[3] *State Water Resources Control Board Lookup Tool: https://www.waterboards.ca.gov/water_issues/programs/sso/lookup/*

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Are SSMP Audits and SSMP Updates being performed as scheduled?
- Has the SSMP been approved by the governing board on the required schedule (i.e., every six years)?
- Are specific internally established sewer program milestones being monitored?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

1.3. Sewer System Asset Overview

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-1.3 (pg. D-3)

"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 percentage of residential, commercial, and industrial service connections; and*
- *Unique service boundary conditions and challenge(s).*

Additionally, the Plan Introduction section must provide reference to the Enrollee's up-to-date map of its sanitary sewer system, as required in section 4.1 (Updated Map of Sanitary Sewer System) of this Attachment".

COMPLIANCE

The District is located in Marin county and provides wastewater collection services to the District (see Figure 3 – Vicinity Map of District Sewer Service Area), that conveys sewage from the City of Sausalito (City), a portion of Tamalpais Community Services District (TCSD), and from Golden Gate National Recreation Area (GGNRA) to the District Wastewater Treatment Plant (SMCSD WWTP).

The District's collection system serves approximately 2,000 connections in Marin City and the unincorporated areas, services a population of approximately 18,000 throughout its service area (including the City population that utilizes the District interceptor system), and includes approximately 7.4 miles of gravity sewer pipes, 3.7 miles of force main, and 7 pump stations. An additional 4 pump stations are owned by the City but operated and maintained by the District. The District has also acquired the 22 miles of gravity sewer previously owned by the City of Sausalito.

The collection system does not have any stormwater diversion structures.

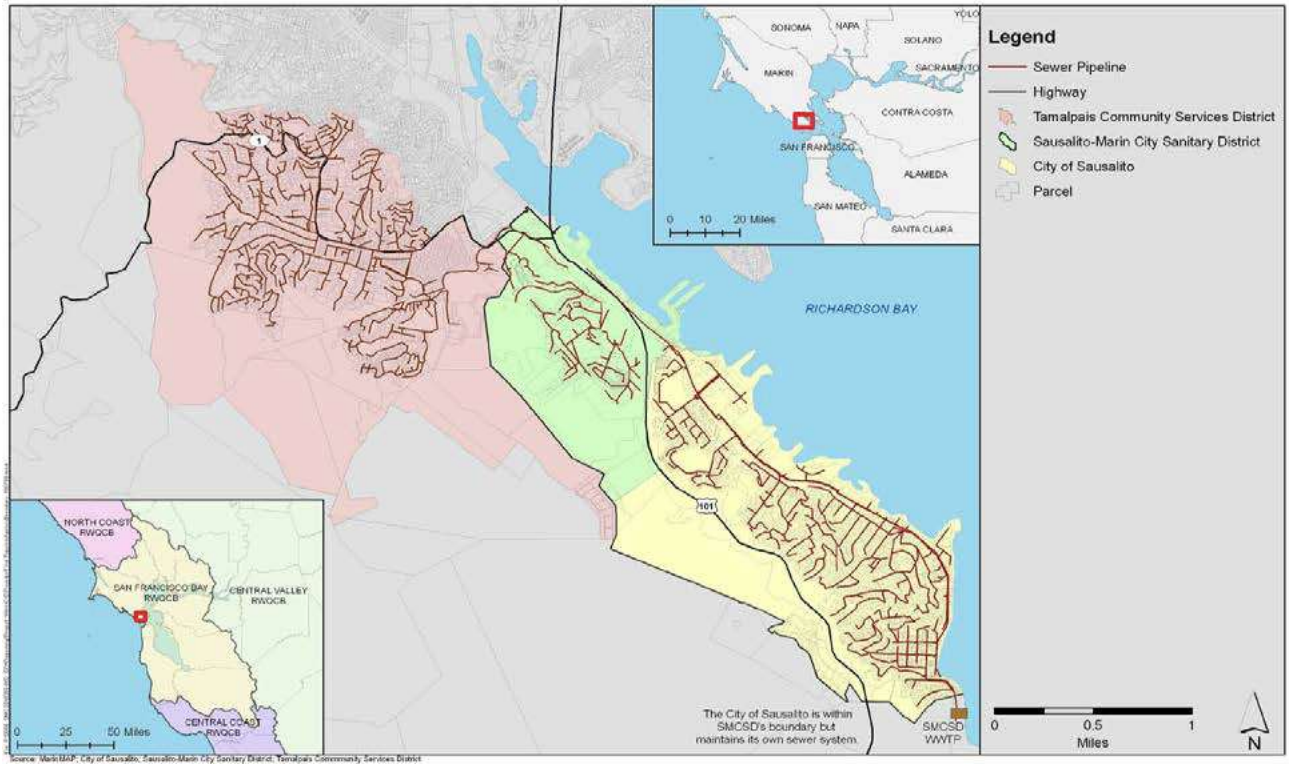

Figure 3 – Vicinity Map of District Sewer Service Area

The District utilizes describe the data management systems used by the District – CMMS, GIS and any other they may use. (Discussed in more detail in Element 4.2 below)

The District does not own or maintain sewer service laterals.

Estimated customer connection flow classifications and connection data are presented in Table 3 – District Sewer Connection Flow Classifications and Connections Data, below, for residential, commercial industrial, and institutional data.

Use Type	Number or % of Connections
Residential	<80%
Commercial	~ 20%
Industrial/Institutional	None

Table 3 – District Sewer Connection Flow Classifications and Connections Data

Overall, the District is in a good position to maintain its collection system and does not have operation and maintenance challenges due the service area. The District maintains up to date system maps (see Element 4.1 Updated Map of Sewer System for more details).

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Are asset statistics periodically reviewed and updated as necessary?
- Are omissions or errors addressed in a timely manner?
- Are system maps up to date?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 1 by:

- Adhering to an SOP for collecting and managing asset data.
- Redundancy: More than one member of staff is trained and able to retrieve and manage the data.
- Implementing a QA/QC process to help ensure information is accurate.
- Using Calendar Reminders to ensure compliance deadlines are met.

APPENDIX 1 INCLUSIONS

- None

Specifications 5.2 – SSMP Development and Implementation

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Specification 5.2; pg. 18)

> *"To facilitate adequate local funding and management of its sanitary sewer system(s), the Enrollee shall develop and implement an updated Sewer System Management Plan. The scale and complexity of the Sewer System Management Plan, and specific elements of the Plan, must match the size, scale, and complexity of the Enrollee's sanitary sewer system(s). The Sewer System Management Plan must address, at minimum, the required Plan elements in Attachment D (Sewer System Management Plan – Required Elements) of this General Order. To be effective, the Sewer System Management Plan must include procedures for the management, operation, and maintenance of the sanitary sewer system(s). The procedures must: (1) incorporate the prioritization of system repairs and maintenance to proactively prevent spills, and (2) address the implementation of current standard industry practices through available equipment, technologies, and strategies."*

COMPLIANCE

This SSMP has been completed updated to meet the requirements of Order WQ 2022-0103-DWQ and address all required Elements and Specifications required by the Order. The SSMP addresses management, operations and maintenance procedures specific to the District's collection system. The District maintains a proactive O&M program to operate its system and identify defects, which are then prioritized for repair, replacement, rehabilitation, or placed on modified maintenance schedules. (See Elements 4 and 8 and Specifications 5.19 of this SSMP for more detail).

The District keeps up with current industry standards, technology and best practices by reviewing industry periodicals, networking and attending industry conferences and workshops. The District also continuously evaluates emerging practices, equipment and technologies for possible implementation to enhance operations.

Specifications 5.7 – Allocation of Resources

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Specification 5.7; pg. 22)

"The Enrollee shall comply with the following requirements:

- *Establish and maintain a means to manage all necessary revenues and expenditures related to the sanitary sewer system; and*
- *Allocate the necessary resources to its sewer system management program for:*
    - *Compliance with this General Order,*
    - *Full implementation of its updated Sewer System Management Plan,*
    - *System operation, maintenance, and repair, and*
    - *Spill responses."*

COMPLIANCE

The District maintains various revenue sources to maintain financial stability, meet its operational needs and manage all necessary expenditures to operate its sewer system. The District equipment inventory and staffing levels are adequate to effectively implement this SSMP, properly manage the collection system, and respond to emergencies.

Provisions 6.1 – Enforcement Provisions

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Provision 6.1; pg. 27)

> *"The following enforcement provisions are based on existing federal and state regulations, laws and policies, including the federal Clean Water Act, the state Water Code and the State Water Board Enforcement Policy."*

COMPLIANCE

The District is aware of the consequences for noncompliance including associated penalties for violations. The District maintains a proactive stance with full implementation of its SSMP.

Noncompliance with requirements of this General Order or discharging sewage without enrolling in this General Order constitutes a violation of the Water Code and a potential violation of the Clean Water Act and is grounds for an enforcement action by the State Water Board or the applicable Regional Water Board. Failure to comply with the notification, monitoring, inspection, entry, reporting, and recordkeeping requirements may subject the District to administrative civil liabilities of up to $10,000 a day per violation pursuant to Water Code section 13385; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. Discharging waste not in compliance with the requirements of this General Order or the Clean Water Act may subject the District to administrative civil liabilities up to $10,000 a day per violation and additional liability up to $10 per gallon of discharge not cleaned up after the first 1,000 gallons of discharge; up to $5,000 a day per violation pursuant to Water Code section 13350 or up to $20 per gallon of waste discharged; or referral to the Attorney General for judicial civil enforcement.

Provisions 6.3 – Sewer System Management Plan Availability

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Provision 6.3; pg. 31)

> *"The Enrollee's updated Sewer System Management Plan must be maintained for public inspection at the Enrollee's offices and facilities and must be available to the public through CIWQS and/or on the Enrollee's website, in accordance with section 3.8 (Sewer System Management Plan Reporting Requirements) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order."*

COMPLIANCE

After finalizing this SSMP, the District anticipates uploading the final document to the CIWQS database and will publish this document on the District website. In addition, the SSMP is available for public review at District offices, by appointment, during regular business hours.

2. Organization

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-2; pg. D-3)

"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 Element;*
- *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 District, and State Office of emergency Services.)*

COMPLIANCE

The above items are addressed below:

District's Legally Responsible Officials (LRO) are listed below:

- Jeff Kingston (General Manager)
- Kevin Rahman (District Engineer)

The District's LRO meets the requirements set forth in Specifications 5.1 of the WDR.

Specific SSMP responsibilities for the core WDR requirements are presented in Table 4 - District Implementation Responsibilities (below), followed by Table 5 – District SSMP Responsible Position Contact Information. Figure 4 – Sausalito-Marin City Sanitary District Organizational Chart (below) summarizes appropriate SSMP organizational staffing responsibilities for the District. And finally, Figure 5 – Chain of Communication for Reporting Spills (below) presents the overarching chain of communication for reporting sewage spills.

IMPLEMENTATION RESPONSIBILITIES

Sewer System Management Plan Elements	Responsible Position
1. SSMP Plan, Goal and Introduction	General Manager
1.1. Regulatory Context	General Manager
1.2. SSMP Update Schedule	General Manager
1.3. Sewer System Asset Overview	General Manager
2. Organization	General Manager
3. Legal Authority	General Manager
4. Operations and Maintenance Program	District Engineer
4.1. Updated maps of Sanitary Sewer System	Operations Supervisor/Superintendent
4.2. Preventive Operation & Maintenance	Operations Supervisor/Superintendent
4.3. Training	Operations Supervisor/Superintendent
4.4. Equipment Inventory	Operations Supervisor/Superintendent
5. Design/Performance	District Engineer
5.1. Updated Design Criteria & Construction Standards	District Engineer
5.2. Procedures and Standards	District Engineer
6. Spill Emergency Response Plan	Operations Supervisor/Superintendent
7. Sewer Pipe Blockage Program	Operations Supervisor/Superintendent
8. System Eval, Capacity Assurance, Capital Imp.	District Engineer
8.1. System Evaluation and Condition Assessment	District Engineer
8.2. Capacity Assessment and Design Criteria	District Engineer
8.3. Prioritization of Corrective Action	District Engineer
8.4. Capital Improvement Plan	District Engineer
9. Monitoring, Measurement & Program Modifications	District Engineer
10. Internal Audits	Operations Supervisor/Superintendent
11. Communication Program	Operations Supervisor/Superintendent

Table 4 - District Implementation Responsibilities

RESPONSIBLE POSITION CONTACT INFORMATION

Name	Title	Phone	Email
Jeff Kingston	General Manager	(415) 331-4718, Ext. 4718	jeffrey@smcsd.net
Kevin Rahman	District Engineer	(415) 331-4714	Kevin@smcsd.net

Table 5 – District SSMP Responsible Position Contact Information

2.1. Organizational Chart

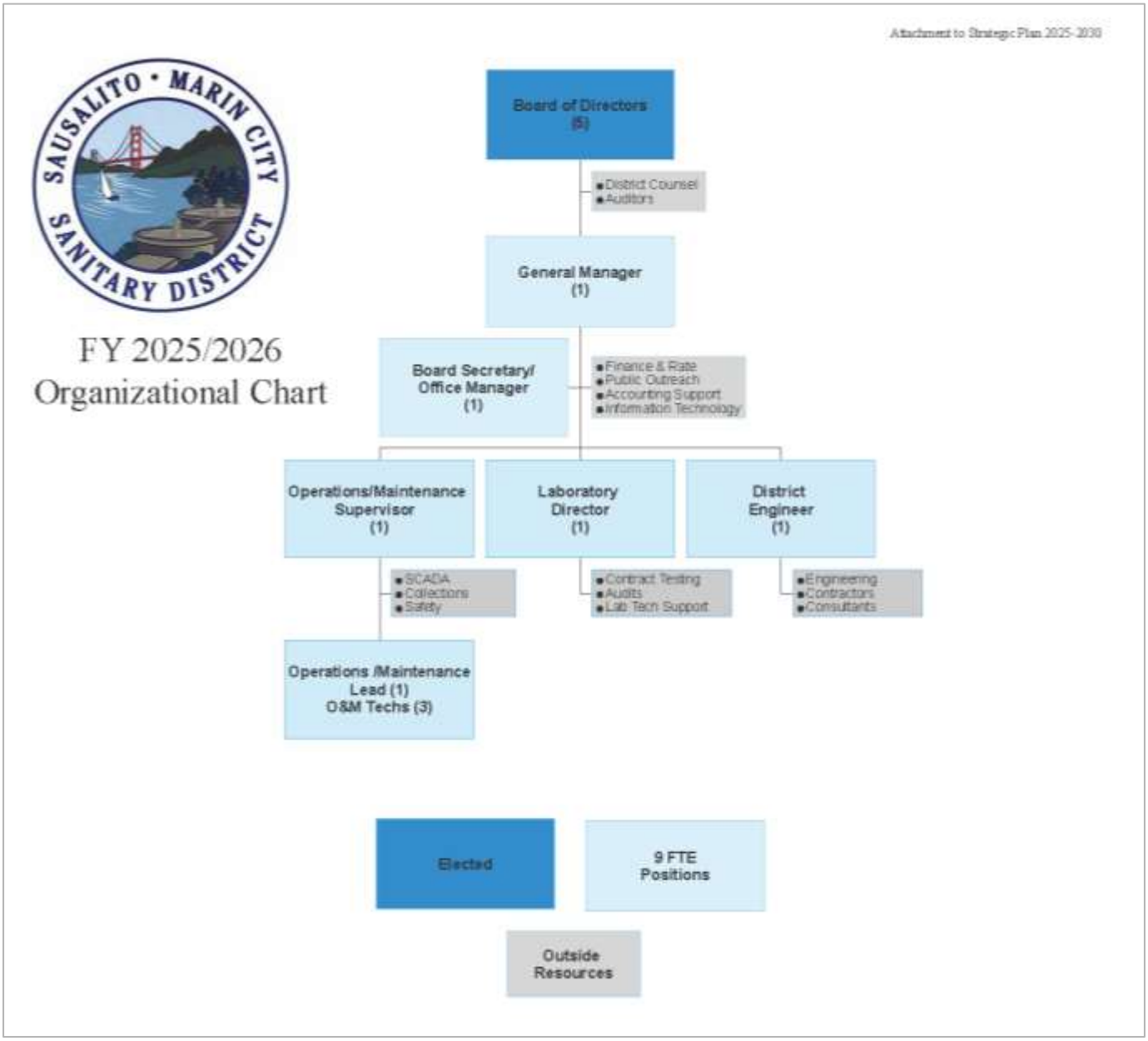

Figure 4 – Sausalito-Marin City Sanitary District FY 2025/2026 Organizational Chart

2.2. Organizational Staffing Responsibilities

Position	Narrative Explanation
Board of Directors	• Provides policy direction and appropriates funds to implement SSMP activities
General Manager	• Authorized representative. • Oversee the SSMP, including performance and budget. • Supervises engineering, administrative, and O&M functions that include capital improvement activities. • Acts as a regulatory agency liaison.
Administrative Assistant	• Responsible for the overall office and business functions such as accounting, human resources, payroll, etc. • The Administrative Assistant serves as the District Board Secretary.
District Engineer	• Manages and oversees the work of engineering consultants and contractors in the repair/rehabilitation of sewers, pump stations and the treatment plant. • Reviews sewer plans and inspects sewer installations for conformance with the District's Design and Construction Standards. • Maintains the District's Capital Improvements Program prioritizing work and managing budget, scope and schedule of all projects.
Operations Superintendent (Superintendent)	• Authorized representative. • Manages day-to-day operations and maintenance. • Updates the SSMP and CMMS. • Oversee O&M staff, including SSO response. • Receives and enters reports of SSO's in CIWQS and notifies other regulatory agencies. • Oversee SSMP training. • Manages non-routine SSO response activities. Regulatory agency liaison and acts as an LRO.
Lead Operator	• Schedules and directs sewer cleaning and CCTV contractor. • Investigates sewer overflow reports and with direction from Superintendent, manages mainline sewer overflow response. • Participates in containment and SSO clean-up activities. • Provides field reports of SSO containment and clean-up to the Superintendent. • Performs in the capacity of the Superintendent in his absence. • Acts as an LRO.
Laboratory Technician	• Schedules, collects and analyzes water quality samples for regulatory reporting and process control. • Provides guidance for water quality sampling to other staff members. • Implements and coordinates the District's public outreach programs. • Implements and coordinates the District's fats, oils, and grease and pollutant source control programs.

Position	Narrative Explanation
O&M Technicians	• Perform sewer system inspection and monitoring. • Assist in clean-up efforts and oversees sewer service contractor field work. • Performs FOG control inspections and prepares reports. • Administers the District's computerized maintenance management system (CMMS) including entering maintenance data, generating reports and printing work orders.
Electrical/ Mechanical Maintenance Technician	• Performs sewer system inspection and monitoring. • Assists in clean-up efforts and oversees contractor sewer service field work. • Performs electrical corrective and preventive maintenance activities.
Sewer Cleaning and CCTV Contractor	• Performs sewer cleaning, maintenance and CCTV inspection services. • Supports SSO containment and clean-up activities as directed by the District.

Table 6 – District Organization Positions and Responsibilities

2.4. Chain of Communication for Reporting Spills

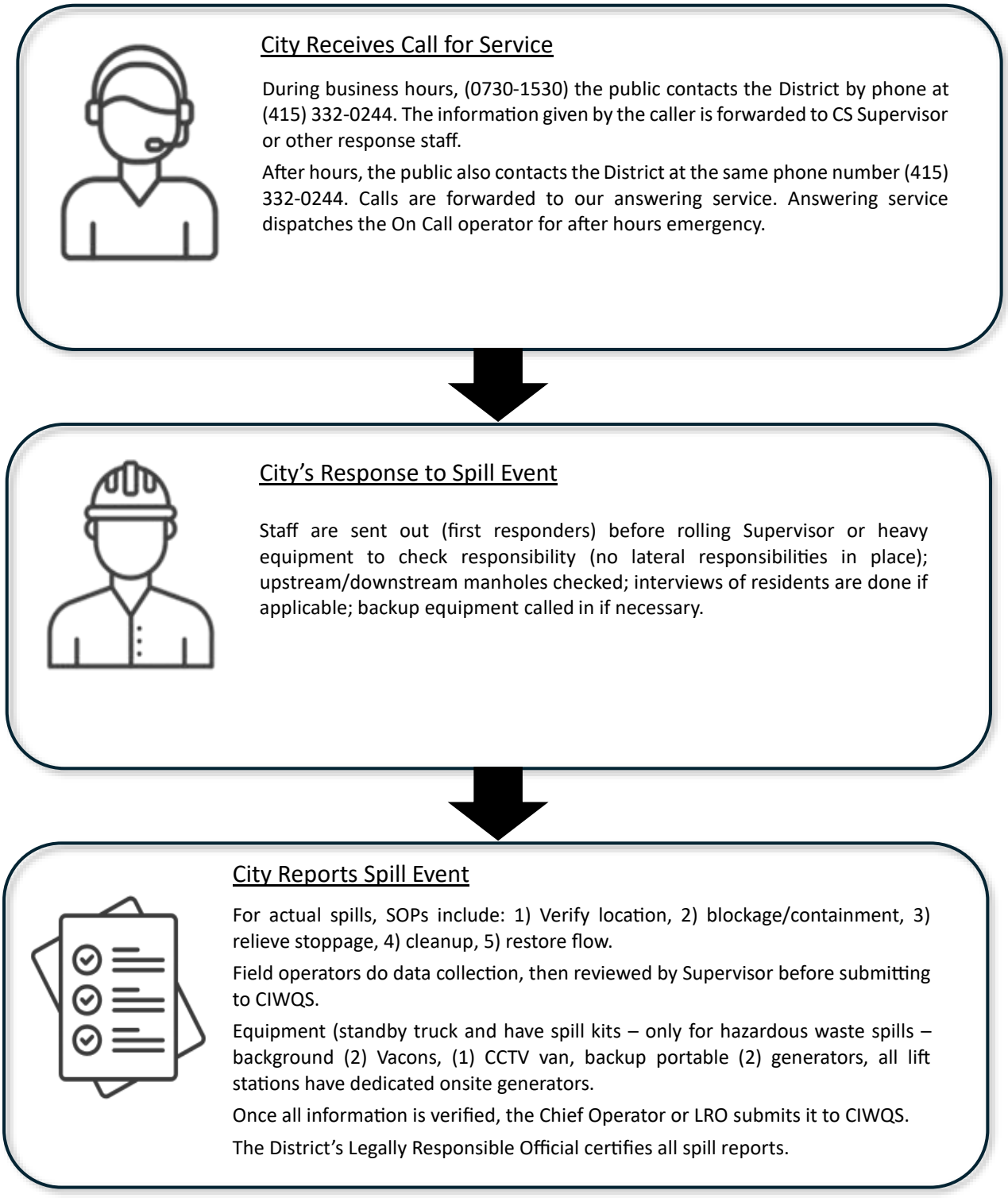

Figure 5 – Chain of Communication for Reporting Spills

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Have there been any changes requiring updates to the Organizational Chart?
- Have there been instances when a service call for a spill was not properly routed to response personnel?
- Were all spill response activities documented and forwarded to the LRO?
- Have there been any changes in assigned responsibilities for implementing the SSMP?
- Is there a process in place to ensure all contact information remains up to date?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 2 by:

- Ensuring that more than one person is capable and responsible for specific duties for SSMP implementation, e.g., back-up personnel.
- Designation of more than one LRO to help ensure full and continuous coverage of duties.
- Testing the phone notification system to ensure calls are received and routed to appropriate personnel.

APPENDIX 2 INCLUSIONS

- None

3. Legal Authority

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-3; pg. D-4)

"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;*
- *Ensure access for maintenance, inspection, and/or repairs 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.*

COMPLIANCE

The above items are addressed by the District below in order (all general descriptions below to be checked, assessed and verified prior to final of this report).

- The District has established authority to prevent illicit discharges into District's Wastewater Collection System through its existing authority provided under District 2016 Code, Chapters 2.15 and 2.40.
- The District is developing and implementing established pre-planned collaboration and coordination with storm water assets since the District owns and operates these facilities.
- The District with its Design Standards and Specifications has established requirements requiring all sewer system components and connections are properly designed and constructed with its existing authority provided under District 2016 Code, Chapters 2.25, 2.30, 2.33, 2.35.
- District facilities are located within legal easements for ensuring maintenance or coordinated with for ensuring necessary O/M.
- The District does not own or maintain sewer service laterals.
- The District has established legal authority to enforce violations of its sewer ordinances, service agreements, or other legally binding procedures with its existing authority provided under District 2016 Code, Chapter 2.55.
- The majority of District sewer assets are located within easements; however, some notices are periodically sent to property owners with easements as necessary to help facilitate communication and ensure access for maintenance, inspection and repair activities.

- The District maintains some easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable and works with individual property owners as necessary to complete necessary O/M and emergency response tasks.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Are the District ordinances and standards adequate for fulfilling the SSMP Plan legal requirements?
- Does the District have a process in place for periodic review and evaluation of ordinances?
- Have there been instances when the code or ordinance did not address a need or circumstance?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 3 by:

- Keeping abreast of industry trends and local ordinances that may affect operations.

APPENDIX 3 INCLUSIONS

- None

4. Operation and Maintenance Program

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-4; pg. D-4)

> *"The Plan must include the items listed below that are appropriate and applicable to the Enrollee's system."*

4.1. Updated Map of Sewer System

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-4.1; pg. D-4)

> *"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."*

COMPLIANCE

System maps include gravity mains, force mains, manholes, pump stations, property boundaries and addresses, creek locations, and storm drain mapping, and pipe asset information (ID number, diameter, flow direction, segment length, material type, and age).

The District maintains current PDF copies of sewer maps for all District-owned sewers and has process in place to update maps in PAINTSHOP whenever necessary. The District can make its sewer maps available to Water Board staff upon request.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Were all map updates completed in a timely manner?
- Are all staff trained in the procedure for providing map update information?
- Are newly installed sewer assets incorporated into the system maps?
- Are there terrain features or assets that should be incorporated in future map updates (e.g. exposed pipe, siphons, ARVs, surface water, etc.)

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

4.2. Preventive Operation and Maintenance Activities

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-4.2; pg. D-4/D-5)

"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."

COMPLIANCE

The purpose of a work order system is to program and track all required inspection and maintenance activities within the collection system to help proactively prevent blockages/operational problems or spills. The District uses NEXGEN for its Computerized Maintenance Management System (CMMS), which allows the District to make informed decisions regarding its assets and infrastructure by using the collected data from field work orders and documented inspections.

The District's CMMS (NEXGEN) maintains historical data for all maintenance activities and provides a basis for critical analysis and data-driven planning and decision-making today and into the future. This allows for prioritizing and planning routine activities such as CCTV inspections, pipe cleaning and pump station maintenance activities.

In addition, the CMMS (NEXGEN) is used to plan and schedule higher-frequency inspection and maintenance activities such as Hot Spot cleanings (approximately 100 locations) and selective root control activities. Emergency and other reactive activities are documented in work orders as well.

The scheduling system allows staff to put certain activities on a preventive schedule where the CMMS (NEXGEN) automatically create work orders on a prescribed interval. Work orders for other activities are generated by supervisory personnel on an as-needed basis.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Are the District's maintenance, operations, and engineering work orders periodically audited for accuracy and completeness?
- Does the District monitor "open," "overdue," or "not yet completed" work orders to ensure completion of tasks?
- Are inspection and maintenance activities reducing the number and volume of spills?
- Is maintenance work being completed as scheduled?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

4.3. Training

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-4.3; pg. D-5)

> *"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."*

COMPLIANCE

The District's training program covers numerous areas involving or associated with wastewater collection systems and serves to develop and maintain highly qualified, knowledgeable, and capable staff. This training is provided through a variety of modes (self-study, seminars, conferences, on-the-job, etc.) and begins from the first day on the job and continues regularly thereafter.

Staff involved in responding to customer service calls, including sewage spills, receive annual training on the District's Spill Emergency Response Plan completed by Fischer Compliance LLC (see Appendix 6.1, District Spill Emergency Response Plan). This training is part classroom and part hands-on exercises and drills for responding to spill events and includes containment, restoring flow, spill volume, volume recovered, spill start time estimations, clean up and completing the spill event data collection forms.

The District utilizes Fischer Compliance, LLC for providing spill response training guidance and is developing new spill response procedures for Contract Service personnel who perform work for the District requiring them to:

- Immediately notify the District of any sewage spill they encounter;
- Make attempts to contain the spill;
- Cordon off the area to keep the public safe; and
- Remain onsite until District staff arrives and relieves them.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Has all training been completed as scheduled?
- Have records of training and attendance been documented and maintained?
- Have all staff demonstrated ability and knowledge after each training event?
- Have contractors received, at a minimum, direction for reporting and responding to spills?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

4.4. Equipment Inventory

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-4.4; pg. D-5)

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

COMPLIANCE

- The District maintains a host of equipment for both routine maintenance and for contingency or emergency operations. The District maintains a spare part inventory and has identified "critical" parts allowing the District to respond and resolve issues in a timely manner.
- Prior to finalizing this SSMP, the District anticipates updating this element to include additional information and details to address all requirements specified in this section above.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Have inventory lists been audited as scheduled?
- Have any inventory deficiencies or omissions been discovered and rectified?
- Has the District experienced any equipment failure that inhibited a spill response?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 4 by:

- Developing an SOP for updating maps when errors are discovered.
- Developing and using forms (paper or electronic) for data collection to help ensure all pertinent information is consistently collected.
- Periodically evaluating inspection cycle intervals to help ensure they are optimized.
- Requiring staff to demonstrate ability and/or knowledge for all training activities.
- Monitoring equipment and critical spare parts usage for and trends.
- Performing periodic audits of the vehicle and equipment inventory List.

APPENDIX 4 INCLUSIONS

- None

Specifications 5.19 – Operations and Maintenance

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Specification 5.19; pg. 27)

> *"To prevent discharges to the environment, the Enrollee shall maintain in good working order, and operate as designed, any facility or treatment and control system designed to contain sewage and convey it to a treatment plant."*

COMPLIANCE

To comply with these requirements, the District has the established work programs for operating and maintaining its sanitary sewer collection system.

Operations and Maintenance

- Gravity Main Cleaning – The goal is to clean all gravity mains over a 3-year cycle. Hot Spot areas are identified and scheduled to be cleaned every 4-months. A large portion of the Main gravity trunk line is cleaned annually.
- Gravity Main inspection (CCTV) – The goal is to CCTV the system over a 5-year period. Lines with issues found during cleaning will be followed up by CCTV to assess the condition of the pipe. If a spill occurred, the area of the blockage will receive CCTV as a follow up.
- Manhole Inspections – Manholes are inspected annually with maintenance completed as needed.
- Pump Station Inspections/Maintenance – Pump stations are inspected, and equipment is manually tested twice per week. Pumps are on a 5-year maintenance cycle.
- Easement Maintenance – Easement areas are inspected annually for access confirmation and for vegetation growth management.
- Pipe Repair/Rehabilitation – The District has contracts with pipe repair contractors for maintenance and emergency repair. Pipe rehabilitation projects are developed and scheduled based on condition assessments and age.
- Root Control – Currently the district does not have a root control program.

5. Design and Performance Provisions

5.1. Updated Design Criteria/Construction Standards/Specifications

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-5.1; pg. D-5)

> *"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."*

COMPLIANCE

District Code (Sausalito-Marin City Sanitary District Code 2016, 20; Section 2.35.090)[4]contains design/standards criteria for sewers.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Are plan checking QA/QC processes helping to ensure adherence to the standards?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

[4] *https://sausalitomarincitysanitarydistrict.com/doc/1426/*

5.2. Procedures and Standards

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-5.2; pg. D-5)

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

COMPLIANCE

District 2016 Code (Sausalito-Marin City Sanitary District Code 2016) contains applicable criteria (procedures, standards, etc. for testing sewers)

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Were any design or installation deficiencies found during warranty inspections?
- Are deviations from standard procedures and/or specs, testing, etc., justified and documented?
- Does the District stay abreast of industry design standards and technical advances in the industry?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 5 by:

- Staying abreast of industry trends and standards.
- Performing warranty inspections of newly installed or repaired assets to evaluate design and installation practices.
- Evaluating as-built changes for trends and areas for design and performance improvements.

APPENDIX 5 INCLUSIONS

- None

6. Spill Emergency Response Plan

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-6; pg. D-6)

"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 inter-District 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."*

COMPLIANCE

The District's Spill Emergency Response Plan (SERP) is a stand-alone document that contains all the key elements necessary for an appropriate spill response: notification, emergency incident response, reporting, and impact mitigation. The current plan, prepared by DKF Solutions Group meets the requirements of the WDR, which became effective on June 5, 2023. Initial training has been provided to affected staff and refresher training is conducted annually. A copy of the SERP is available for viewing at the District office upon request.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Have staff's spill response efforts helped to prevent the discharge of sewage to surface waters?
- Do post-spill assessments indicate staff are following the procedures outlined in the SERP?
- Is SERP training effective and are trainees demonstrating adequate knowledge and abilities?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 6 by:

- Multiple staff are trained to respond to spill events.
- Post-spill assessments are conducted to evaluate staff's adherence to the SERP and to identify areas for improvement.
- Data collection forms are used to direct staff to collect all the required data to be submitted to CIWQS and are designed as a guide to a proper spill event response.
- The District employees several different spill volume estimation methods to account for different circumstances.

APPENDIX 6 INCLUSIONS

- None

7. Sewer Pipe Blockage Program

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-7; pg. D-7)

"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."*

COMPLIANCE

In many sanitary sewer collection systems, Fats, Oils, and Grease (FOG) is known to be a significant cause, and or contributor, of sewer blockages in pipe and the cause of operational disruptions and damage to sewage pump stations. Although service areas that include commercial and institutional food service establishments (FSEs) are obvious sources of FOG, residential communities, especially those of medium and high-density multi-family residences, can also be a significant source of FOG. It is the purpose of the FOG Control Program to ensure all customers in our service area are following the District Ordinance, and state and federal requirements, to prevent sewage overflows caused by FOG related blockages in our sewer collection system.

The District complies with the above requirements through the following measures (all to be checked and verified, including review/transfer or data from current SSMP as necessary prior to final SSMP publication):

- Public Outreach: Public education is implemented for this effort primarily through restaurant inspections. The District conducts a public information and outreach program for FOG source control as part of a collaborative effort with other wastewater treatment agencies in Marin County. These Southern Marin Agencies plan public outreach presentations at fairs, tours, and other public gathering

events as well as in elementary school classrooms in the County. Some of the FOG-specific activities include informational brochures, public comment questionnaires, calendar of environmental events, and a grease-scraping tool handed out for people to use. Topics included in the informational outreach include:

- The difference between storm drains and sanitary sewers and the function of each.
- Appropriate types of wastes for the sanitary sewer
- Issues relating to preventing FOG-related sanitary sewer overflows.
- Private laterals, ownership responsibility, and their potential to cause SSOs.

- Pipe Blocking Substances: The District has established legal authority to limit fats, oils, and grease through its authority established under District Code (Sausalito-Marin City Sanitary District Code 2016, 21; § 2.40.060) including provisions and provides the legal authority to implement a FOG Control Program including prohibition of certain discharges and measures to prevent spills.

  District Code contains regulations that prohibit the discharge of wastewater containing more than 100 mg/L of fat, oil, or grease. District staff inspect the condition of the grease interceptors on an as-needed basis to determine that they are being properly maintained and pumped on a regular schedule. While Sausalito-Marin County regulations provide legal authority to require installation and proper maintenance of grease and oil interceptors, they do not provide the District legal authority to inspect and enforce a FOG ordinance.

  The District has developed relationships with FSE managers to effectively communicate the value and importance of managing FOG appropriately.

  Grease Control Devices: District Code (Sausalito-Marin City Sanitary District Code 2016, 24; § 2.40.060) provides the District with authority to require installation of grease control devices.
- Inspections: District Code (Sausalito-Marin City Sanitary District Code 2016, p.25; § 2.40.070) includes requirements for
  - Portions of Sewers Subject to FOG: The District maintains a list of Hot Spot cleaning program locations, including sections subject to FOG build-up and blockages. The “Areas of Interest” or Hot Spots are scheduled for more frequent cleanings and monitoring.
  - Source Control Measures: (Sausalito-Marin City Sanitary District Code 2016, 25; § 2.40.100)

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Have there been any blockages/spills from any identified problem area?
- Is the District receiving feedback on public outreach efforts?
- Are the debris and other sewage solids collected during cleaning activities being disposed of appropriately?
- Have there been spills due to excessive fats, oil, grease, roots, or non-disposable wipes discovered in the sewer system during the audit period?
- Are there repeat offenders among FSEs?
- Are enforcement trends decreasing?
- Are Source Control and Collection staff included in the plan check process?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 7 by:

- Inspection of select assets directly downstream of grease producing businesses to ensure source control is effective.
- Residential FOG outreach and education program.
- Performance of regular assessments of system assets to monitor performance.
- QA/QA process for evaluating pipe cleaning effectiveness.
- Daily disposal of pipe blocking materials retrieved during maintenance activities.

APPENDIX 7 INCLUSIONS

- None

8. System Evaluation, Capacity Assurance, Capital Improvements

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-8; pg. D-7)

"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

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-8.1; pg. D-7/D-8)

"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:*
  - *Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, Capacity issues, or other system deficiencies;*
  - *Are located in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas;*
  - *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 method;.*
- *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."*

COMPLIANCE

- The District addresses the above requirements as outlined below. Further, prior to finalizing this SSMP, the District anticipates updating this element to include additional information and details to address all requirements specified in this section above.
- The District with assistance from its Engineering staff will transfer data from its current SSMP for updating this section prior to finalization of this document.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Has the District maintained its schedule for (information needed) and is data being reviewed in a timely manner?
  - CCTV Gravity Mains
  - Laterals
  - Manholes
  - Pump Stations
- Are inspection efforts discovering deficiencies in a timely manner?
- Are maintenance and inspection activities being properly documented?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

8.2. Capacity Assessment and Design Criteria

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-8.2; pg. D-8/D-9)

"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."*

COMPLIANCE

The District with assistance from its Engineering staff will transfer data from its current SSMP for updating this section prior to finalization of this document.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Number of Capacity-related spills or surcharge condition during the audit period.
- Has the system responded to rain events as indicated by the hydraulic model?
- Has there been any changes to zoning designations (residential, commercial, industrial)?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

8.3. Prioritization of Corrective Action

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-8.3; pg. D-9)

> *"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."*

COMPLIANCE

The District is currently updating its Wastewater System Master Plan. The scope of work includes the development of a hydraulic model of the entire wastewater system. Capacity evaluation of the collection system as well as the pump stations will be conducted.

For more background information about hydraulic modeling, the District has traditionally conducted, extensive floor, modeling, and flow monitoring of the collection system. More detail can be found in Appendix 8.2. The information compiled in this Appendix includes a summary of the hydraulic model and mapping for the District's sanitary sewer system. Additional information is available upon request from the District.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Has the District adhered to its system evaluation/condition assessment schedule?
- Has the District adhered to its prioritization/corrective procedures for sewer repair and Capacity improvement projects?
- Have projects been completed before deficiencies caused failures?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

8.4. Capital Improvement Plan

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-8.4; pg. D-9)

"The capital improvement plan must include the following items:

- *Project schedules include 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 Inter-District coordination with other impacted utility agencies."*

COMPLIANCE

The Sausalito-Marin City Sanitary District (SMCSD) is in full compliance with Section 8.4 of its Sewer System Management Plan (SSMP) and the associated Waste Discharge Requirements (WDR) Order. The District's Capital Improvement Program (CIP) provides a structured, ongoing framework for identifying infrastructure needs, establishing project schedules, and securing internal and external funding. The program ensures coordination among Operations, Maintenance, Engineering, and Finance staff, as well as with partner agencies such as the City of Sausalito and the Tamalpais Community Services District (TCSD).

The CIP was originally established in Fiscal Year 2011/12 following a systemwide evaluation that identified approximately $54 million in needed improvements. It is maintained as a rolling five-year plan, updated annually by staff, reviewed by the Capital Projects Committee, and approved by the Board of Directors. Projects address aging infrastructure, regulatory requirements, capacity and operational efficiency, and are prioritized for safety, reliability, and cost-effectiveness.

Funding for CIP projects is primarily derived from sewer service fees, supplemented by proceeds from the 2017 Revenue Bonds issued through the Marin Public Financing Authority—a Joint Powers Agreement with the Las Gallinas Sanitary District. The $33.63 million bond issue, with an average annual debt service of $2.153 million through 2042, has financed major treatment and conveyance upgrades.

Through defined schedules, verified funding sources, and coordinated planning, design, and construction activities, the District's CIP fulfills all regulatory requirements by documenting completion timelines, funding mechanisms, and inter-departmental and inter-agency collaboration. Completion of the Wet Weather Flow Upgrade Project and other major improvements over the past decade has achieved the objectives of the original 10-year plan and positions the District for continued reliability and compliance.

For a complete list of Projects in Progress/Planned and Completed Projects please see Appendix 8.1

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Has the District's capital improvement plan schedule been adhered to?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 8 by:

- Is there an annual review of the Capital Improvement Plan by all appropriate individuals including both Engineering and Operations?

APPENDIX 8 INCLUSIONS

- 8.1. Completed/In-Progress/Planned Capital Improvement Plan Projects (CIP)
- 8.2 Hydraulic Model and Sewer System Mapping for the District

9. Monitoring, Measurement, and Program Modifications

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-9; pg. D-9)

"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."*

COMPLIANCE

The above requirements are addressed below. Further, prior to finalizing this SSMP, the District anticipates updating this element to include additional information and details to address all requirements specified in this section above.

- The District maintains accurate and relevant inspection and maintenance records for the collection system. Much of the documentation today is maintained electronically, which allows for ease of access and analysis. This helps District staff to make sound decisions and prioritize activities when dealing with the routine and the unexpected.
- Monitoring of the District's SSMP focuses on each element in terms of its implementation and effectiveness. The SSMP has been designed to include key performance indicators for each element, which are used to measure effectiveness. In addition, implementation responsibilities are included for each element to help ensure the SSMP is being implemented as intended.
- The District assesses the success of maintenance and operation activities by ensuing activities are being performed as expected, by monitoring actual outcomes compared to intended outcomes, as well as monitoring spill trends.
- The District is committed to continuous improvement and monitors and evaluates performance of work programs and SSMP elements to ensure intended outcomes are achieved while looking for areas for improvement. Although the SWRCB requires that the SSMP be updated every six years, the SSMP should be considered as a dynamic document and may require updating on a more frequent basis. Routine changes to administrative information, notwithstanding, minor changes will likely be required to address improvements identified through the SSMP Audit or through modifications required as conditions change.
- The District monitors spill trends, at a minimum every three years during required audits, utilizing the CMMS database, inspection records and CIWQS data. These resources are helpful in planning and programing work, and adjusting as needed, enabling the District to be adaptive and capitalize on lessons learned.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Are SSMP Elements being periodically evaluated for effectiveness?
- Are work activities and spill events being documented?
- Has a plan and schedule been established to address audit findings/deficiencies from the last audit?
- Is Trend Analysis being performed on spill causes?
- Have work programs been assessed and updated as necessary?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 9 by:

- Development of key performance indicators to measure effectiveness of the SSMP.
- Performing periodic reviews of the SSMP to help ensure it is being properly implemented.
- Developing and adhering to a timeline to correct deficiencies found during the audit process.
- Periodically evaluating work programs to help ensure effectiveness.

APPENDIX 9 INCLUSIONS

- None

10. Internal Audits

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-10; pg. D-10)

> *"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."*

COMPLIANCE

The District completed its last audit with Fischer Compliance LLC in July 2025 (see Appendix 10.1) and will complete audits every three (3) years moving forward. The objective of the audit is to evaluate compliance, implementation and effectiveness of the SSMP. Additionally, the SSMP includes a description of how the District will comply with the requirements of each Element. The audit review includes an evaluation to determine if compliance has been met.

Implementation is evaluated by determining if the District is executing the SSMP as stated.

Effectiveness is evaluated by using key performance indicators, which have been developed specifically for each element. An additional evaluation is performed to comply with Specifications 5.6 addressing resilience.

Resilience is addressed for each Element and is built-in to the Agencies collection systems procedures and practices.

Any deficiencies discovered through the audit process are noted and a plan and schedule to implement corrective measures are established.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Have audits been performed as required?
- Have the audits assessed compliance, implementation, and effectiveness?
- Have deficiencies been identified?
- Has a plan and schedule to rectify the deficiencies been established?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 10 by:

- Periodically evaluating key performance indicators during the audit period to assess effectiveness and make corrections, if necessary, prior to the audit.
- Evaluating previous audits to ensure deficiencies have been rectified.
- Scheduling the audit due dates and completing the audit on time.

APPENDIX 10 INCLUSIONS

- 10.1. 2021-2024 SSMP Audit

11. Communication Program

WDR REQUIREMENTS

Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (Attachment D-11; pg. D-10)

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

- *The public for:*
  - *Spills and discharges resulting in closures of public areas, or that enter a source of drinking water; and*
  - *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:*
  - *System operation, maintenance, and capital improvement-related activities."*

COMPLIANCE

When the District experiences a spill, it is standard procedure to secure the affected area and keep the public away. This is generally done using barricades, cones, and caution tape. Should the District experience a spill that may require closure of public areas signs will be immediately placed indicating the issue and providing contact information. Staff will remain on site to provide an additional safety factor until appropriate authorities respond and direct otherwise. In all cases, the District will follow the advice of higher authorities, such as the local environmental health department and other regulatory authorities.

The District communicates on a regular basis with the public on the development, implementation, and performance of it SSMP. The communication system provides the public the opportunity to provide input to the District's SSMP and SSMP implementation. This communication occurs in the form of notices in the newsletter and on the District website. The SSMP and SSMP Audits are posted on the District website at http://smcsd.net under "Planning Documents" in the "Documents" section. Public comments are accepted at all monthly District Board meetings, and the District evaluates public input when provided and addresses questions and comments as appropriate.

To help supplement resources, the District also has an established resource for supporting the District with emergency assistance in the event of a major sanitary sewer spill. The District also has an ongoing agreement with contractor resources for both routine and emergency operations.

The District has a plan of communication with systems that are tributary and/or satellite to the District's sanitary sewer system. Tributary and/or satellite systems include the Tamalpais Community Services District, and GGNRA. Each of these agencies maintains a point of contact responsible for providing coordination relating to the sewer system. The District maintains a current contact list for contacts at each of these agencies.

EFFECTIVENESS

The District utilizes the following Key Performance Indicators for measuring effectiveness of this Element:

- Does the District place all SSMP action items on the agenda for regular counsel/board meetings?
- Does the District have signage, or other means, readily available to notify the public of environmental or public risk factors related to a sewage spill?
- Does the District perform outreach to residential customers?

IMPLEMENTATION PLAN/SCHEDULE

See "SSMP Action Items Checklist (Implementation Plans and Schedules)" at the beginning of this document.

RESILIENCE

Resilience is addressed in Element 11 by:

- Use the SSMP as a tool to communicate to the public how the District is managing the system.
- Maintain a consistent presence in the service area by attending community events or issuing periodic newsletters or other communications to the public.
- Make it clear and easy for the public to contact the District.

APPENDIX 11 INCLUSIONS

- None

List of Appendices

APPENDIX 1	• None
APPENDIX 2	• None
APPENDIX 3	• None
APPENDIX 4	• None
APPENDIX 5	• None
APPENDIX 6	• None
APPENDIX 7	• None
APPENDIX 8	• 8.1. Completed/In-Progress/Planned Capital Improvement Plan Projects (CIP) • 8.2 Hydraulic Model and Sewer System Mapping for the District
APPENDIX 9	• None
APPENDIX 10	• 10.1 2021-2024 SSMP Audit
APPENDIX 11	• None
APPENDIX 12	• None

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Sausalito-Marin City Sanitary District. 2024. "Sausalito-Marin City Sanitary District Sewer System Management Plan." *Sausalito-Marin City Sanitary District.* https://sausalitomarincitysanitarydistrict.com/doc/1543/.

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COMPLETED/IN-PROGRESS/PLANNED CAPITAL IMPROVEMENT PLAN (CIP) PROJECTS

Completed Projects

MARIN CITY SEWER REHABILITATION PROJECT (COMPLETED JANUARY 2013)

This project addressed structural and maintenance deficiencies in the Marin City collection system and reduced inflow & infiltration (I/I) through the repair, rehabilitation, and replacement of approximately 13,000 linear feet of sewer pipelines. The District partnered with the City of Sausalito and Tamalpais Community Services District (TCSD) for long-term I/I reduction efforts, including maintaining flow and rainfall measurement devices and performing formal flow-monitoring studies every five years.

PUMP STATION RELIABILITY IMPROVEMENTS PROJECT (COMPLETED 2013)

This project enhanced system redundancy across all pump stations by installing bypass pumping connections at each station and adding a bypass from the gravity interceptor to the Coloma force main. These upgrades improved operational flexibility and reduced the risk of service interruptions and sanitary sewer overflows during maintenance or high-flow conditions.

MAIN STREET PUMP STATION IMPROVEMENTS (COMPLETED JANUARY 2014)

This project involved replacement of the existing wet-weather pumps and addition of a backup pump at the Main Street Pump Station. The scope included bypass pumping connections at the Princess and Drake pump stations and a dry-weather bypass at the Main Street station's rock & debris catcher wet well. The work replaced the portable pump connection strategy previously described in the Capacity Assurance Plan (SSRAP Vol. III), improving operator safety, maintenance flexibility, and system reliability during high-flow events.

TREATMENT & WET WEATHER FLOW UPGRADE PROJECT (COMPLETED 2020)

This major system upgrade expanded the wastewater treatment plant's capacity, improved compliance with discharge regulations, and increased system performance and reliability during wet-weather events. Key elements included:

- A new headworks facility with upgraded screenings and grit removal.
- Installation of a redundant primary clarifier for operational flexibility.
- Refurbishment of fixed-film reactors and upgraded feed pumps, increasing secondary treatment capacity from 6 MGD to 9 MGD.
- Replacement of sand filters with rotating disc filters, increasing tertiary treatment capacity from 1 MGD to 6 MGD.

- Construction of a 600,000-gallon equalization basin to manage flows up to ~12.5 MGD during storm events and balance dry-weather flow fluctuations.

These enhancements significantly reduced blending events, improved effluent quality, and strengthened compliance and operational reliability.

GENERATOR RELIABILITY IMPROVEMENTS PROJECT (COMPLETED 2020)

This project improved emergency power reliability and system resilience during power outages or severe weather. The remodeled Operations Building includes a new laboratory meeting expanded regulatory testing requirements, a new control room office, and relocated operator facilities outside the plant operations area. The upgrades reduce emergency callouts and mobile equipment mobilization needs. Construction cost: ~$1.5 million**.**

COLOMA & WHISKEY SPRINGS PUMP STATION IMPROVEMENTS PROJECT (OPERATIONAL 2022; DEDICATION APRIL 2023)

This coordinated project replaced the former Coloma and Whiskey Springs pump stations with a new facility at Coloma Street. Planning began 2014, construction started March 2021, and the station became operational in May 2022 with a formal dedication in April 2023. The new pump station provides **a** firm capacity of 4.2 MGD, increasing interceptor capability and mitigating SSOs during storm events. Estimated cost: ~$4.95 million, with the City of Sausalito contributing ~$1.5 million for the Whiskey Springs portion.

Projects in Progress / Planned

BEACH FORCE MAIN REHABILITATION PROJECT (CONSTRUCTION FY 2025/26)

This project will provide critical redundancy to the Alexander Avenue Force Main conveying flows from the Main Street Pump Station to the treatment plant. Design documents were completed in 2024. The FY 2025/26 budget includes a $3 million construction line item. Construction is anticipated in Summer 2025. Estimated cost: ~$2 million. Benefits include enhanced system redundancy, independent inspection and maintenance of force mains, and reduced energy use at the Main Street Pump Station

SCREW PRESS RELOCATION PROJECT

This project involves relocating the existing sludge dewatering screw press and associated mechanical components to the equalization basin area. Key tasks include disassembly and inspection of the current system, replacement of the screw press motor and covers, installation of a new digested sludge feed pump and piping, relocation of the polymer feed system, construction of a new elevated platform with improved safety access, and modifications to electrical, instrumentation, and controls. The project reached the design-phase milestone by March 2024, and the Board authorized additional design services for an amendment not to exceed $29,958 (increasing the design budget from $165,715 to $195,673).

DIGESTER HEATING SYSTEM REPLACEMENT PROJECT

The District's digester heating system has reached the end of its useful life; this rehabilitation project includes demolition of the existing heating system and piping, installation of an owner-furnished heat exchanger and boiler, and installation of new piping, pumps and valves as required for the digester heating system replacement. The Notice Inviting Bids was issued with a bid opening scheduled for March 21, 2024.

SOUTH PRIMARY CLARIFIER REHABILITATION PROJECT

This project covers rehabilitation of the District's south primary clarifier at the treatment plant, including replacement of the mechanism, structural and coating repairs, utility upgrades, and associated improvements to ensure reliability and extended service life. Bidding documents were made available in late 2023, with a bid tab showing a low bid of approximately $3.42 million (Western Water) for the contract.

MAIN PLANT ELECTRICAL SYSTEM IMPROVEMENTS PROJECT

This project upgrades the main wastewater treatment plant's electrical system and includes installation of new main feeder cables for substations DP-1, MCC-P1, MCC-A, MS-1 and LP-4; new panelboards; motor control centers (MCCs); phone and fire alarm systems; automatic transfer switches (ATS); motor starters; wall modifications; and various system reliability enhancements. The project was advertised with bid documents in late 2023 and shows an estimated cost of $960,000, awarded to Fort Bragg Electric, Inc. (2023).

SMCSD Hydraulic Model

The modeling conducted for this capacity assessment utilized InfoWorks CS™, a fully dynamic hydraulic modeling software program that had been used for the previous modeling of the SMCSD system. The hydraulic model consists of a representation of key facilities in the SMCSD conveyance system, plus the sewer "subbasins" (called "subcatchments" in InfoWorks) that represent the flow from unmodeled sewers in the SMCSD, TCSD, and Sausalito collection systems that discharge to the SMCSD conveyance system. Specifically, the model includes the SMCSD interceptor system starting upstream at the Bell Lane Pump Station (the Bell Lane Pump Station and first approximately 4,000 feet of force main are owned by TCSD) and extending downstream to the WWTP. The model also includes the Marin City Pump Station and its connection to the interceptor.

Figure 4-1 shows the modeled SMCSD conveyance system and the tributary areas for Sausalito, Marin City (part of SMCSD), and TCSD, as well as the permanent flow monitoring sites in the SMCSD system. As part of the development of the 2008/09 flow monitoring program, collection system maps available in GIS format were used to delineate sewer subbasins. Sewer subbasins define areas within each agency's collection system that typically drain to a common point or several points in close proximity on the SMCSD interceptor.

Figure 4-2 through Figure 4-4 show the delineation of sewer subbasins and 2008/09 wet weather flow monitoring sites for the Sausalito, Marin City, and TCSD systems. (A total of 26 flow monitoring sites, including permanent pump station sites, were included in the 2008/09 program.) Note that because all flow from TCSD (other than a small area along Tennessee Valley Road identified as Subbasin TCSD-8 in Figure 4) is discharged into the SMCSD system via the Bell Lane Pump Station, TCSD is represented in the SMCSD model by only two areas, the combined Bell Lane tributary area (subbasins TCSD-1 through -6) and subbasin TCSD-8. (Note that TCSD also receives a small amount of flow from the Muir Woods National Monument, which is conveyed through the system to the Bell Lane Pump Station.) Therefore, the flow contribution from TCSD was based on the flows measured at the Bell Lane Pump Station. Data from the temporary meters installed elsewhere in TCSD were not used for SMCSD's capacity assessment.

Figure 4-5 shows an overall schematic diagram of the SMCSD modeled system and subbasins.

Figure 4-1: SMCSD Modeled Conveyance System, Tributary Areas, and Permanent Flow Monitoring Sites

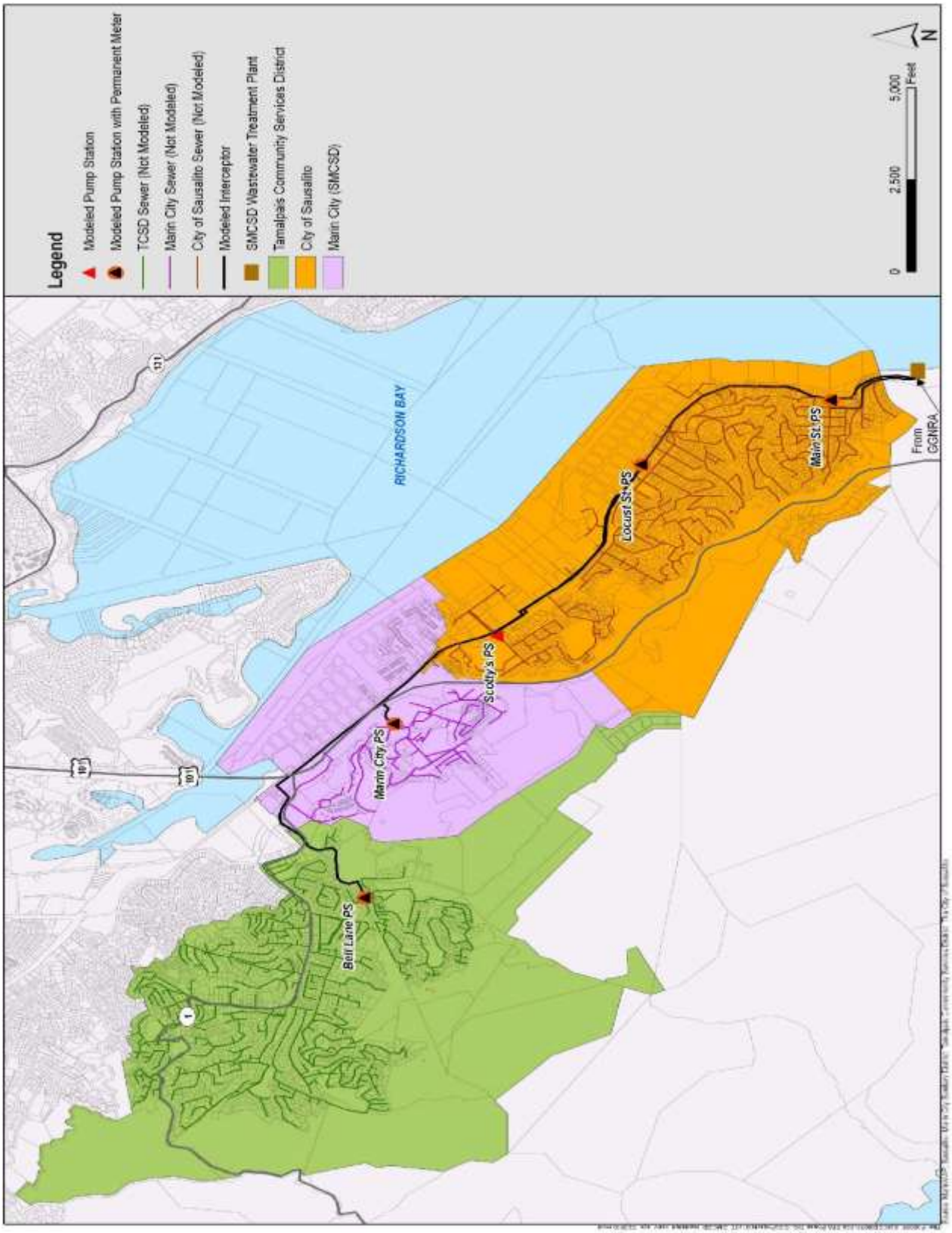


Figure 4-2: Sausalito Sewer Subbasins and Wet Weather Flow Monitoring Sites

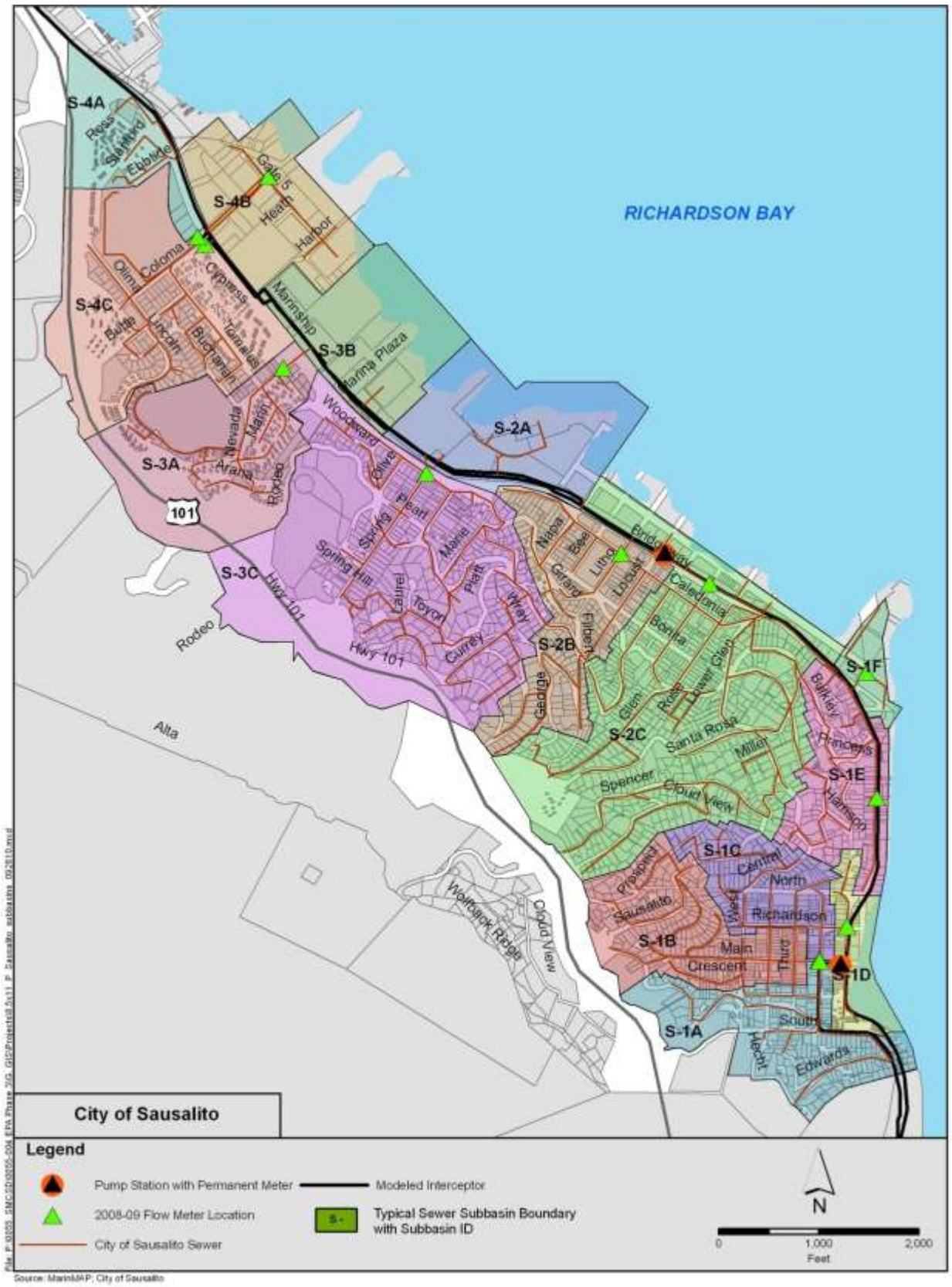


Figure 4-3: Marin City (SMCSD) Sewer Subbasins and Wet Weather Flow Monitoring Sites

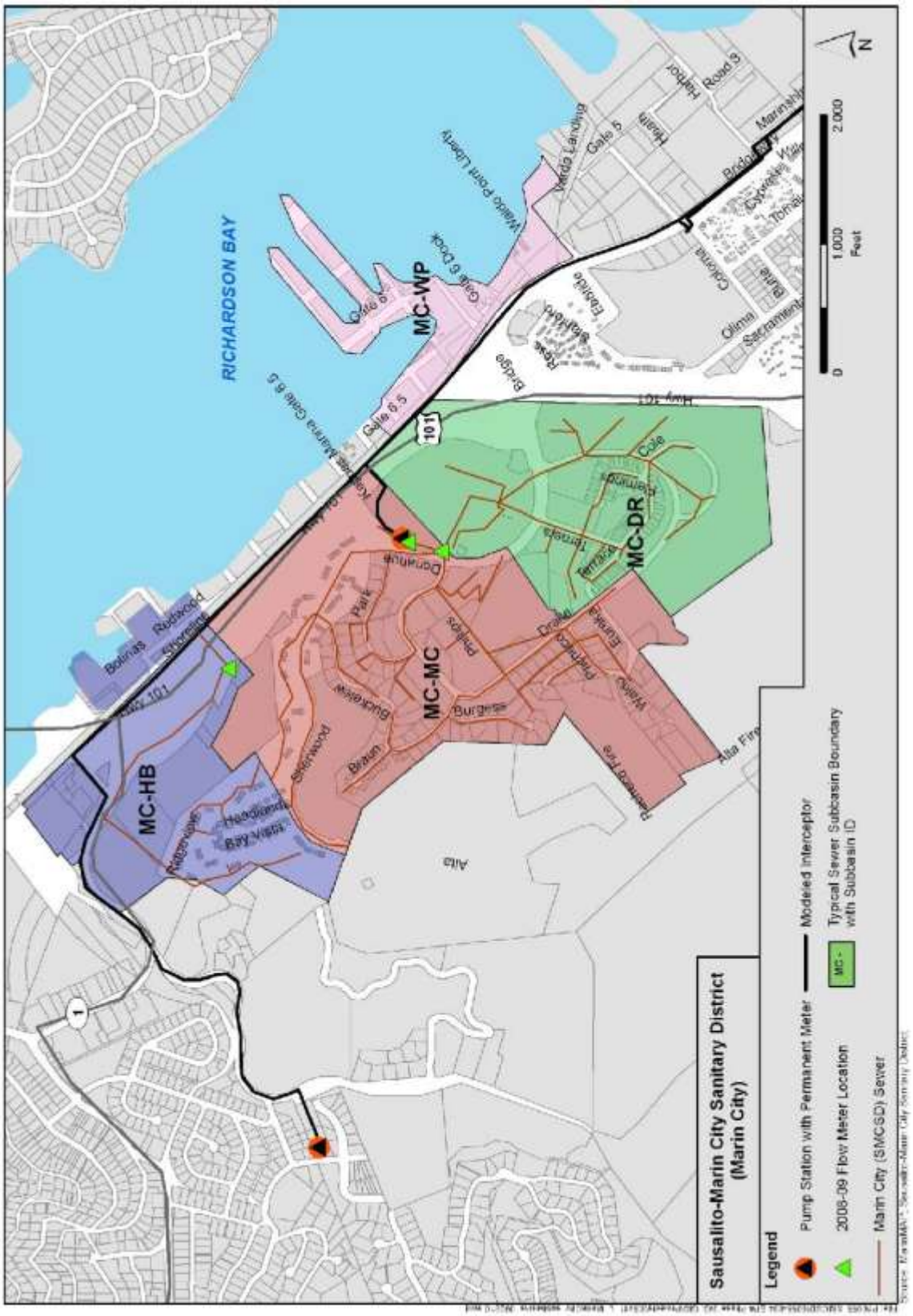


Figure 4-4: TCSD Sewer Subbasins and Wet Weather Flow Monitoring Sites

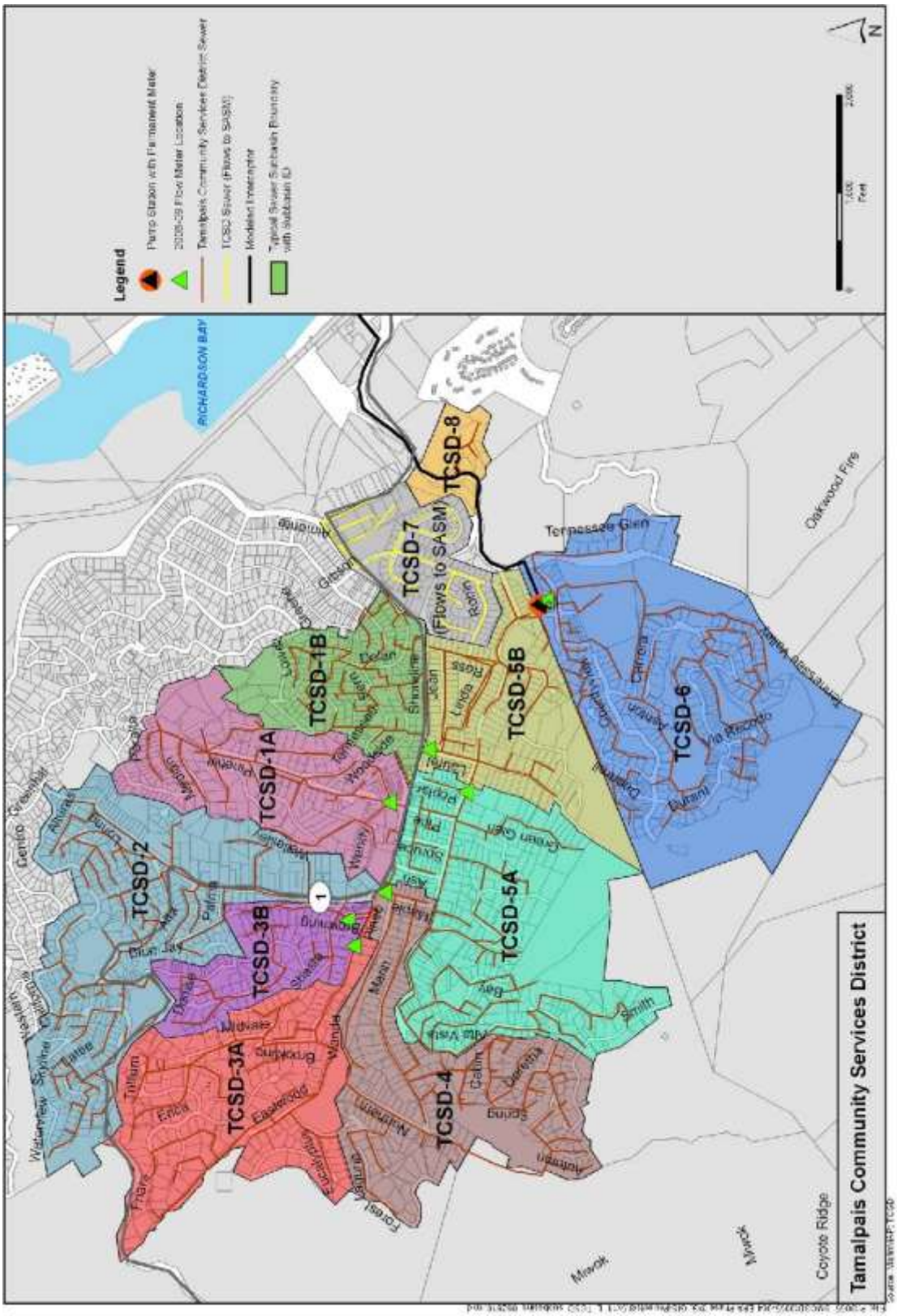
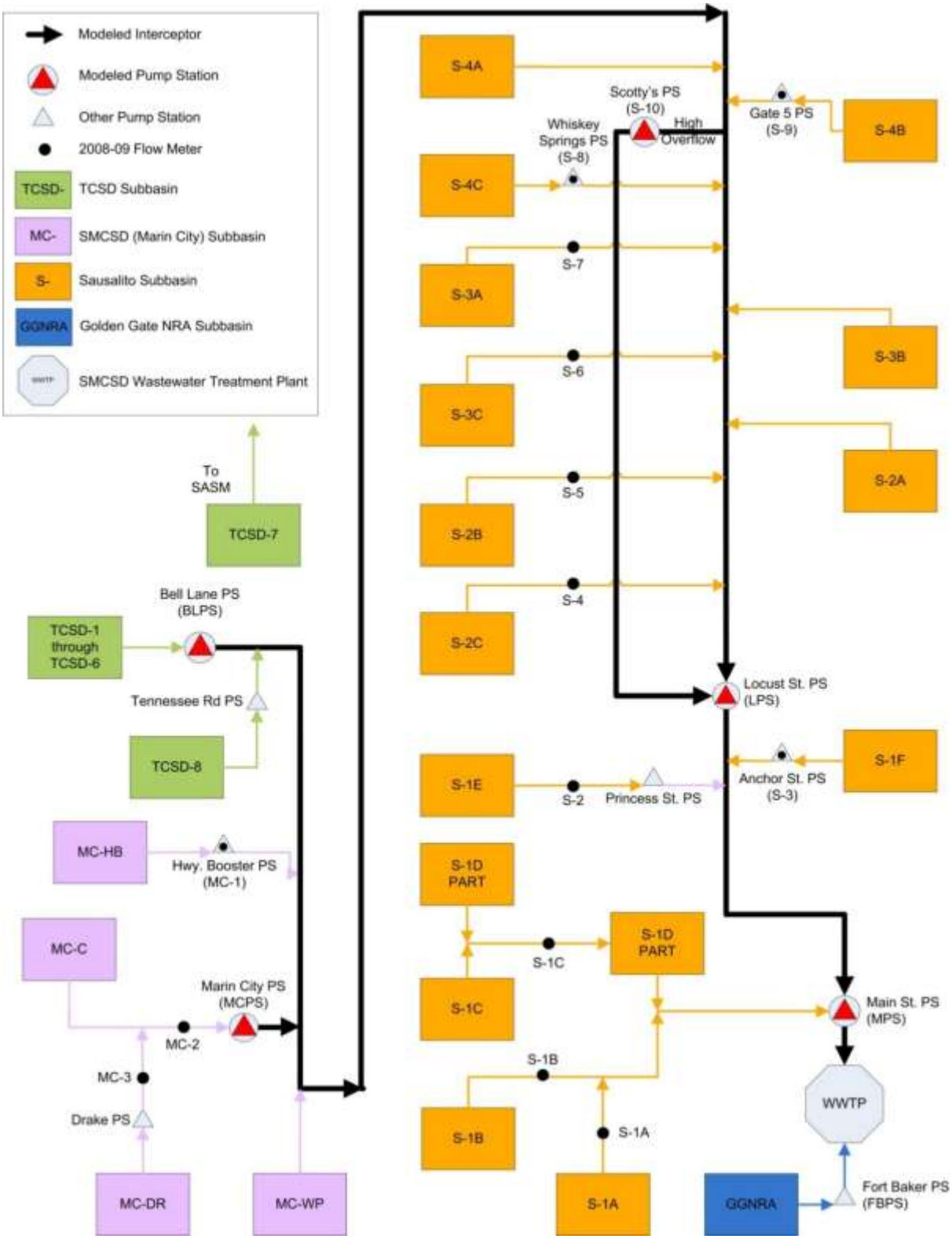


Figure 4-5: SMCSD System Schematic



Sewer System Management Plan (SSMP) Audit Report

8/2/2021 to 8/2/2024

Sanitary Sewer Collection System:

Waste Discharge ID (WDID): #2SSO10189

REVIEWED AND APPROVED BY:

Jeffrey Kingston
Legally Responsible Official

Sausalito Marin City Sanitary District
Sanitary Sewer System Waste Discharge ID #2SSO10189

Date Signed

PREPARED BY:

FISCHER COMPLIANCE LLC
PRACTICES THAT COMPLY

FISCHER COMPLIANCE LLC
PRACTICES THAT COMPLY

CERTIFICATE

OF COMPLETION

August 2, 2021 to August 2, 2024

SEWER SYSTEM MANAGEMENT PLAN AUDIT

- *Regulatory review, agency expectations and compliance best practices*
- *Regional Water Quality Control Board inspector expectations*
- *Completion of State Water Board Pre-Inspection Questionnaire*
- *Completion of Compliance Evaluation Inspection (CEI)*
- *Findings/Best Practice Recommendations for further improving agency program effectiveness, compliance, and resilience*

James Fischer

James Fischer, PE
NPDES Compliance Inspector

January 24, 2025

Sausalito Marin City Sanitary District
Att: Jeffrey Kingston, Legally Responsible Official (LRO)
1 East Road
Sausalito, CA 94965

Dear Mr. Kingston:

We are pleased to present the 2021-2024 Sewer System Management Plan (SSMP) Audit Report for the Sausalito Marin City Sanitary District. The Audit meets and exceeds compliance with the Reissued WDR (State Water Board, Water Quality Order No. 2022-0103-DWQ, Attachment D-10 and Specifications 5.4). The Audit shed light on many existing and successful best practices and presents additional areas to address with the Reissued WDR.

Detailed desktop and field reviews incorporating USEPA/Water Board Compliance Evaluation Inspection (CEI) procedures, including comprehensive interviews with management and field staff were relied upon for generating the Audit findings and best practice recommendations. With completion of the Audit, the District becomes one of the few leading systems to be comprehensively evaluated under the Reissued WDR ahead of the required deadline.

We recommend utilizing the SSMP Audit developed in checklist format as a fully customized roadmap for improving SSMP compliance, implementation, and effectiveness. The District should complete Appendix 3 (SSMP Implementation Plan/Schedule) as soon as practical for addressing necessary improvements to reduce spills and potential enforcement exposure.

We look forward to providing continued Reissued WDR compliance support for the District.

Sincerely,

James Fischer

James Fischer, P.E., Principal, Credentialed U.S. EPA NPDES Compliance Inspector

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LIST OF ACRONYMS

Acronym	Description/Reference Hyperlinks
CEI	Compliance Evaluation Inspection
CIP	System Evaluation, Capacity Assurance/Capital Improvement Program (SECAP), Att. D-8
CIWQS	California Integrated Water Quality System
DS	Data Submitter (DS) registered with State Water Board
FOG	Fats, Oils and Grease (FOG) Control Program (Reissued WDR)
LRO	Legally Responsible Official (LRO) registered with State Water Board
NMMRP	Notification, Monitoring, Reporting, Record Keeping (NMRR), Att. E-1
SECAP	System Evaluation, Capacity Assurance/Capital Improvement Program (SECAP), Att. D-8
O/M	Operations and Maintenance Program (O/M)
SERP	Spill Emergency Response Plan (SERP)
SSMP	Sewer System Management Plan (SSMP)
SWRCB	State Water Resources Control Board (SWRCB)
Waters of the State	Any water, surface or underground, including saline waters, within the boundaries of California. In case of a sewage spill, storm drains are considered to be waters of the State unless the sewage is completely contained and returned to the sewer system; Aug also be referred to as surface water(s) or State waterway

PART 1 – EXECUTIVE SUMMARY

The Sausalito Marin City Sanitary District (District) is charged with complying the State Water Resources Control Board (SWRCB) General Reissued Waste Discharge Requirements (WDR) for Sanitary Sewer Systems ("Reissued WDR", Order No. 2022-0103-DWQ). The Reissued WDR replaced the original 2006 WDR (Order No. 2006-003-DWQ and its Monitoring and Reporting Program, Order No. 2013-0058-EXEC), which became effective on June 5, 2023.

The Reissued WDR requirements are the strictest sewer regulations in the country requiring a proactive approach for operations, maintenance, and management of sanitary sewer collection system to reduce or eliminate sewer spills. Attachment D-10 of the Reissued WDR requires periodic SSMP Audits to be completed by the District at least every three years.

To comply with the SSMP Audit requirements, Fischer Compliance LLC in collaboration with District management completed a Sewer System Management Plan (SSMP) Audit covering Aug 2, 2021 through Aug 2024 (due for approval by District management and uploading to CIWQS no later than 6 months, by 2/2/2025).

This Audit report meets and exceeds the minimum requirements specified in the Reissued WDR (Attachment D-10 and Specifications 5.4), scaled to the size/complexity of the District's sewer system. This includes evaluating the SSMP implementation and effectiveness, compliance with the Reissued WDR, and identifying deficiencies in addressing ongoing spills.

REGULATORY BACKGROUND

2006 WDR:

To provide a consistent, statewide regulatory approach to address sewage spills, the State Water Resources Control Board (State Water Board) adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003 (SSS WDRs), on Aug 2, 2006. All public agencies that own or operate a sanitary sewer system that is comprised of more than one mile of pipes or sewer lines that convey wastewater to a publicly owned treatment facility were required to apply for coverage under the Order.

2022 WDR:

The 2006 WDR was rescinded and replaced with a "Reissued WDR" (Order No. 2022-0103-DWQ), adopted on December 5, 2023 which became effective on 6/5/2023. The Reissued WDR updates many aspects of the 16-year-old Order and includes several new requirements for Sewer System Management Plans.

SSMP AUDIT REQUIREMENTS

This section provides details about the SSMP Audit requirements mandated by the Reissued WDR. An SSMP is a spill reduction/mitigation plan that lays the foundation for how an District implements its work programs, assesses effectiveness of its maintenance program, and provides resilience to bounce-back from emergencies, upsets, and scrutiny by regulators conducting a Compliance Evaluation Inspection (CEI) or formal spill investigation.
The Reissued WDR includes the following specific requirements for completion of SSMP Internal Audits:

Specifications 5.4 (Sewer System Management Plan Audits, page 19):

"The Enrollee shall conduct an internal audit of its Sewer System Management Plan, and implementation of its Plan, at a minimum frequency of once every three years. The audit must be conducted for the period after the end of the Enrollee's last required audit period. ***Within six months after the end of the required 3-year audit period,*** *the Legally Responsible Official shall submit an audit report into the online CIWQS Sanitary Sewer System Database per the requirements in section 3.10 (Sewer System Management Plan Audit Reporting Requirements) of Attachment E1 of this General Order. Audit reports submitted to the CIWQS Sanitary Sewer System Database will be viewable only to Water Boards staff.*

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."*

Attachment D-10 (Internal Audits, page D-10):

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."

SSMP AUDITING PROCEDURES

A comprehensive SSMP Audit was completed in partnership with managers responsible for providing the auditing team with all data requests and information evaluated in the project. The following key elements were reviewed for compeltion of the Audit:

- Assessment of the District's existing SSMP
- Detailed interviews with District collection management and field staff operators
- Completion of a Compliance Evaluation Inspection (CEI) mirroring procedures established and implemented by U.S. EPA and the Water Board staff assessing compliance and taking enforcement for noncompliance with the California Water Code, Federal Clean Water Act, and the Reissued WDR (see Appendix 1)
- Review of District spill reports, system data, and other documentation
- Guidelines and recommendations for SSMPs (see Appendix 5, incorporated throughout the Audit Report for thoroughness) prepared and published by the Bay Area Clean Water Agencies (BACWA) posted on the SWRCB's website.

COLLECTION SYSTEM INFORMATION

The District owns and operates sanitary sewer collection system (collection system) of approximately 6.7 miles of gravity sewers (CIWQs, 2024) and 1 mile of force main sewers (CIWQS, 2024).

Figure 1 below provides a "Facility-At-A-Glance report providing publicly-available information from the State Water Board's database for the sytem. The purpose of the report is to convey current staffing and present the official regulatory measures information for the colleciton system including identification of historic violations determined by the Regional Water Board, list inspection data and any past enforcement actions.

Facility At-A-Glance Report

[VIEW PRINTER FRIENDLY VERSION] [EXPORT THIS REPORT TO EXCEL]

SEARCH CRITERIA: [REFINE SEARCH] [NEW SEARCH] [GLOSSARY]

DRILLDOWN HISTORY: [BACK TO FACILITY LIST]
Place ID **631019**

General Information

Region	Place ID	Place Name	Place Type	Place Address	Place County
2	631019	Sausalito CS	Collection_System	1 East Sausalito, CA, 94965	Marin

Related Parties

Party	Party Type	Party Name	Role	Classification	Relationship Start Date	Relationship End Date
526260	Person	Kevin Beneda	Pending-is a data submitter for		11/07/2023	
526260	Person	Kevin Beneda	Is A Data Submitter For		11/07/2023	
606449	Person	Randall David Hart	Is A Data Submitter For		06/14/2022	
633633	Person	Kevin Rahman	Is A Data Submitter For		06/10/2022	
633624	Person	Catherine Andrea Bondanza	Is A Data Submitter For		06/09/2022	
526260	Person	Kevin Beneda	Is A Data Submitter For		06/06/2022	11/17/2022
520873	Person	Vincent Pasquini	Is A Data Submitter For		06/21/2019	
558353	Person	Jeffrey Kingston	Is Onsite Manager For		06/06/2019	
558353	Person	Jeffrey Kingston	Is A Data Submitter For		07/27/2016	02/01/2017
635733	Person	Jorge Omar Arias-Montez	Is Onsite Manager For		02/02/2016	05/31/2022
526260	Person	Kevin Beneda	Is A Data Submitter For		09/24/2015	05/11/2022
635733	Person	Jorge Omar Arias-Montez	Is A Data Submitter For		06/14/2011	02/02/2016
375058	Person	Craig Justice	Is Onsite Manager For		03/25/2011	06/10/2015
520873	Person	Vincent Pasquini	Is A Data Submitter For		01/21/2010	02/01/2017
520874	Person	Jeffrey Waters	Is A Data Submitter For		01/21/2010	11/06/2015
485385	Person	Gary Stenvers	Is A Data Submitter For		09/15/2008	03/17/2011
376864	Person	Graham Uemura	Is Onsite Manager For		11/28/2007	01/31/2011
82886	Person	Robert A Simmons	Is Onsite Manager For		04/03/2006	11/12/2013
40080	Organization	Sausalito-Marin City San District	Owner	Special District	04/03/2006	

Total Related Parties: 19

Regulatory Measures

Reg Measure ID	Reg Measure Type	Region	Program	Order No.	WDID	Effective Date	Expiration Date	Status	Amended?
300338	Enrollee	2	SSOMUNISML	2022-0103-DWQ	2SSO10189	12/06/2006		Active	N

Total Reg Measures: 1

Violations

Violation ID	Occurred Date	Violation Type	(-) Violation Description	Corrective Action	Status	Classification	Source

Report displays most recent five years of violations. Refer to the Interactive Violation Report for more data.

Total Violations: 0 **Priority Violations: 0**

*Click the "(+/-) Violation Description" link to expand and contract the violation description.
*As of 5/20/2010, the Water Board's Enforcement Policy requires that all violations be classified as 1, 2 or 3, with class 1 being the highest. Prior to this, violations were simply classified as Yes or No. If a 123 classification has been assigned to a violation that occurred before this date, that classification data will be displayed instead of the Yes/No data.

Violation Types

Enforcement Actions

Enf Id	Enf Type	Enf Order No.	Effective Date	Status
370857	Admin Civil Liability	R2-2009-0090	12/09/2009	Historical
371948	13267 Letter		08/29/2008	Historical
362625	13267 Letter		12/01/2004	Historical

Total Enf Actions: 3

Inspections

Inspection ID	Inspection Type	Lead Inspector	Actual End Date	Planned	Violations	Attachment

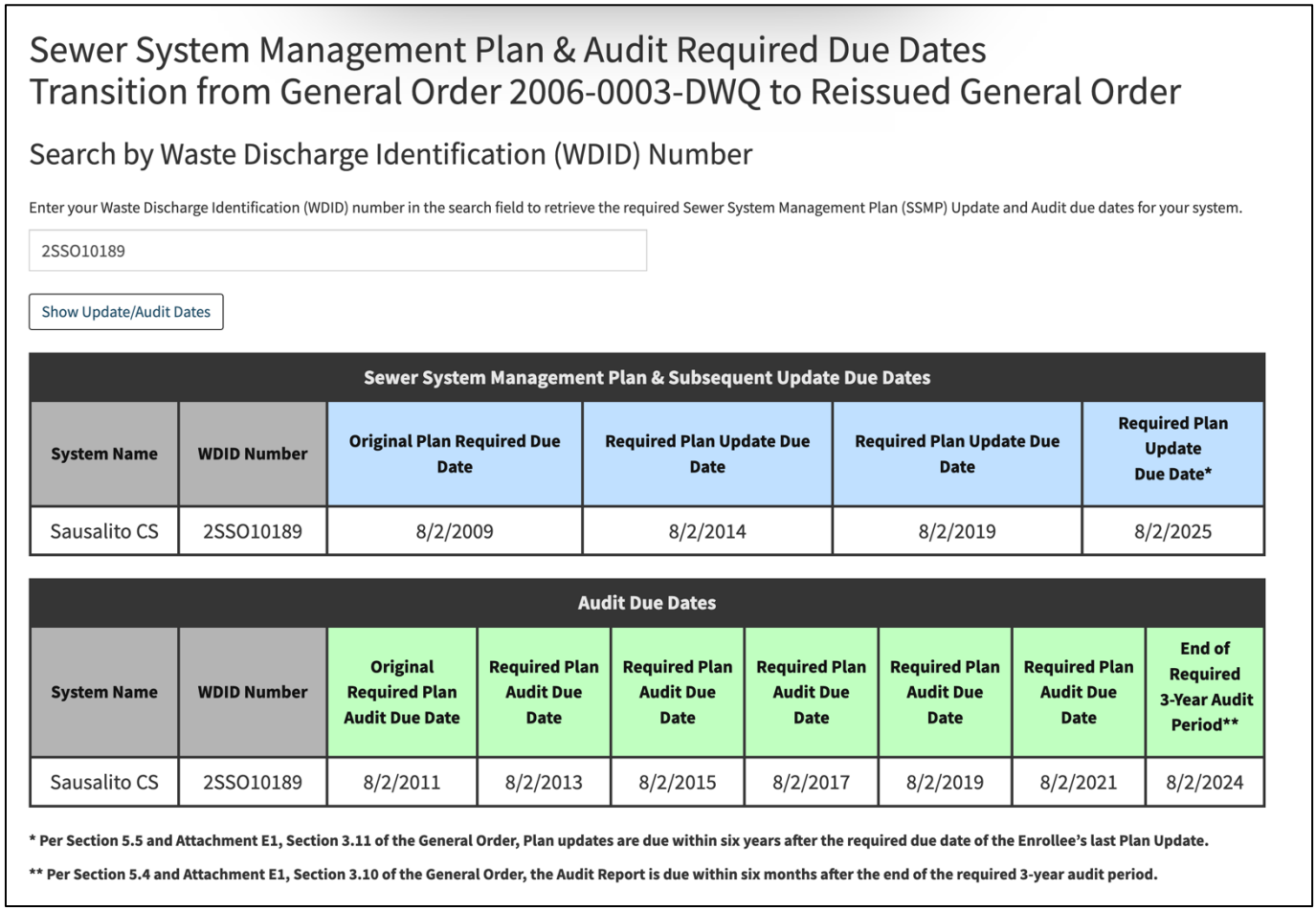
Total Inspections: 0 **Last Inspection: None**

Figure 1 - District Facility At-A-Glance report (downloaded from CIWQS, 1/24/25)

SSMP/AUDIT DUE DATES

This section provides an overview of upcoming due dates for the District to update its SSMP and complete its next SSMP Audit. Figure 4 below displays a summary of the upcoming due dates for the District posted on the State Water Board's online Lookup Tool (due 8/2/2025 for its 2025 SSMP Update and by 2/2/25 for its next required SSMP Audit, 6 months after the end of the Audit period shown in the table).

Figure 2 displays the District's upcoming due dates using the State Water Board's lookup tool for required due dates for its next SSMP Update and SSMP Audit as required by the Reissued WDR.



Sewer System Management Plan & Audit Required Due Dates
Transition from General Order 2006-0003-DWQ to Reissued General Order

Search by Waste Discharge Identification (WDID) Number

Enter your Waste Discharge Identification (WDID) number in the search field to retrieve the required Sewer System Management Plan (SSMP) Update and Audit due dates for your system.

2SSO10189

Show Update/Audit Dates

Sewer System Management Plan & Subsequent Update Due Dates

System Name	WDID Number	Original Plan Required Due Date	Required Plan Update Due Date	Required Plan Update Due Date	Required Plan Update Due Date*
Sausalito CS	2SSO10189	8/2/2009	8/2/2014	8/2/2019	8/2/2025

Audit Due Dates

System Name	WDID Number	Original Required Plan Audit Due Date	Required Plan Audit Due Date	Required Plan Audit Due Date	Required Plan Audit Due Date	Required Plan Audit Due Date	Required Plan Audit Due Date	End of Required 3-Year Audit Period**
Sausalito CS	2SSO10189	8/2/2011	8/2/2013	8/2/2015	8/2/2017	8/2/2019	8/2/2021	8/2/2024

*** Per Section 5.5 and Attachment E1, Section 3.11 of the General Order, Plan updates are due within six years after the required due date of the Enrollee's last Plan Update.**

**** Per Section 5.4 and Attachment E1, Section 3.10 of the General Order, the Audit Report is due within six months after the end of the required 3-year audit period.**

Figure 2- District SSMP Update/Audit Due Dates (SWRCB website)

SPILL PERFORMANCE

This section provides an overview to showcase District spill performance information including trends and benchmarks to allow a comparison of the District's performance against other collection system agencies within the Regional Water Board area and State.

Certified Spills (2007-2024)

- Appendix 2A includes a recent data pull for all certified spills entered into CIWQS to date.

SSMP AUDIT FINDINGS

This section provides a high-level summary of the SSMP Audit findings (see Tables 1 and 2 below) for incorporation into the District's 2025 SSMP Update due on or before 8/2/2025. The summary provides quick-rererence details to all key Audit findings for management and staff to facilitate implementation for addressing all identified violations and areas of concern with the Reissued WDR.

This section provides a high-level summary of the SSMP Audit findings (see Tables 1 and 2 below) for incorporation into the District's 2025 SSMP Update due on or before 8/2/2025. The summary provides quick-rererence details to all key Audit findings for management and staff to facilitate implementation for addressing all identified violations and areas of concern with the Reissued WDR.

Table 1 Summary of District SSMP Audit Findings (Reissued WDR, ATTACHMENTS)

SSMP AUDIT FINDINGS (ATTACHMENTS)							
WDR Reqs.	**Best Practices?**		**Violations?**		**Areas of Concern?**		**Audit References**
Att. D-1	👍	1	⚠	1		0	See Element 1 Analysis and Appendix 1
Att. D-2		0		0	🚧	2	See Element 2 Analysis and Appendix 1
Att. D-3		0		0	🚧	1	See Element 3 Analysis and Appendix 1
Att. D-4	👍	1		0	🚧	6	See Element 4 Analysis and Appendix 1
Att. D-5		0		0		0	None
Att. D-6	👍	1	⚠	1	🚧	1	See Element 6 Analysis and Appendix 1
Att. D-7		0		0		0	None
Att. D-8		0		0	🚧	3	See Element 8 Analysis and Appendix 1
Att. D-9		0		0		0	None
Att. D-10		0		0		0	None
Att. D-11	👍	1		0		0	None
Att. E1		0	⚠	19	🚧	1	See E1 Analysis and Appendix 1
Totals		**4**	⚠	**21**	🚧	**14**	**See individual Element Analysis**

Table 2 Summary of SSMP Audit Findings (Reissued WDR, SPECIFICATIONS)

SSMP AUDIT FINDINGS (ATTACHMENTS)							
WDR Specs.	**Best Practices?**		**Violations?**		**Areas of Concern?**		**Audit References**
5.1 (LRO)		1		2		0	See Element 1 Analysis and Appendix 1
5.2 (SSMP 1)		0		0		1	See Element 2 Analysis and Appendix 1
5.3 (SSMP 2)		0		0		1	See Element 3 Analysis and Appendix 1
5.4 (Audits)		2		0		9	See Element 4 Analysis and Appendix 1
5.6 (Resilience)		0		0		0	None
5.10 Resources)		1		1		1	See Element 6 Analysis and Appendix 1
5.11 (Performance)		1		0		1	See Element 7 Analysis and Appendix 1
5.12 (SERP)		0		0		4	See Element 8 Analysis and Appendix 1
5.13 (NMRR)		0		1		0	See Element 9 Analysis and Appendix 1
5.14 (Private spills)		0		1		0	See Element 10 Analysis and Appendix 1
5.15 (Reporting)		1		0		0	None
5.19 (Proper O/M)		0		1		0	See E1 Analysis and Appendix 1
Totals		**6**		**6**		**16**	**See all Elements and Appendix 1**

AUDIT CONCLUSIONS

The SSMP Audit completed by Fischer Compliance LLC in collaboration with District management and field operations staff shed light on many existing successful work programs in place and includes identified violations and areas of concern with the Reissued WDR which must be addressed to reduce potential enforcement liability/exposure for the District. When comparing the District spill data/metrics performance with other collection systems in the region, the District performs well.

Detailed Auditing procedures incorporating review of questionnaires, the District's existing SSMP, interviews and other data were relied on for generating the detailed Audit findings for documenting the District's SSMP compliance, implementation, and effectiveness. To facilitate the project and improve effectiveness of the Audit process, the District dedicated an internal staff person for managing the project, responding to questions/data requests, and provide regular communications to auditors in every phase of the project.

Several specific technical recommendations along with an implementation plan/schedule were generated for helping the District get a jump start on updating its SSMP, many months ahead of schedule before its due date on 8/2/2026. The Audit also revealed several areas to provide an advantage to help prepare the District for regulatory compliance inspections and improve SSMP effectiveness. This includes providing insights for the District to reflect on additional ways for further improving existing work programs and spill reduction measures.

Appendix 1 serves as the heart of the Audit containing detailed Compliance Evaluation Inspection (CEI) reports for supporting findings and conclusions. Appendix 2 allows District and regulators to evaluate spill performance and other data to help compare the District's performance against other collection systems in the region. Appendix 3 includes a checklist to help the District outline and track progress to address the Audit findings, refine updating of the District's SSMP (due by 8/2/2025), and provide an overall roadmap for focusing priorities and attention with the system over the next several years. Appendix 4-5 provide additional references for assisting the District with more tools for evaluating system effectiveness, tracking performance, and reviewing compliance differences between the 2006 and 2022 WDRs.

POST-AUDIT RECOMMENDATIONS

The District should complete Appendix 3 (SSMP Implementation Plan/Schedule) as soon as practical to commit to ongoing/future improvements to reduce the District's enforcement liability exposure. This exercise also provides valuable information for management to help expedite completion of the District's required 2025 SSMP Update due by 8/2/2025.

PART 2 (DETAILED AUDIT FINDINGS/RECOMMENDATIONS)

This section presents each of the major SSMP requirements required in the WDR along with an assessment in a checklist format of the District's compliance, implementation, effectiveness, and resilience. Detailed findings presented were derived from assessing the District's SSMP efforts against the WDR requirements.

The Audit Findings include the following determinations:

- WDR Conformance (Violations)
  - Required items for review/resolution for SSMP Update to avoid potential enforcment
- WDR Conformance (Areas of Concern)
  - Strongly recommended for review/resolution for SSMP Update to avoid future violation(s) and potential enforcement
- Recommendations
  - Suggestions for improving SSMP Update and adding resilience[1] for improving sytsem operations, maintenance, and holding up to outside scrutiny by regulators

This section is intended to be utilized as a checklist by the District to ensure all findings are addressed and incorporated as necessary prior to adoption of the next SSMP Update. This includes a completed checklist of "Violations or Areas of Concern" of the Reissued WDR at the conclusion of each SSMP Element Analysis in the document. This provides management with a summary of key compliance information specific to each Element distilled from the Appendix 5, including "Yes/No" answers applicable to the District findings for the Audit.

[1] *"Definitions" in section Attachment A of the Reissued WDR (page A-4): "Resilience is the ability to recover from or adjust to adversity or change, and grow from disruptions. Resilience can be built through planning, preparing for, mitigating, and adapting to changing conditions."*

ELEMENT 1 – GOAL AND INTRODUCTION

1.1. REGULATORY CONTEXT REQUIREMENTS[2]

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

1.2. SSMP UPDATE SCHEDULE REQUIREMENTS

"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."

1.3. SEWER SYSTEM ASSET OVERVIEW

"The District Sewer System Management Plan must have an Introduction section to provide a description of the District-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.
- Unique service boundary conditions and challenge(s).
- Reference to the Enrollee's up to-date map of its sanitary sewer system, as required in section 4.1 (Updated Map of Sanitary Sewer System) of this Attachment."

[2] *Required under Specification 5.4 of the Reissued WDR (see pages 19-20)*

FINDINGS - Element 1 (Analysis)

SSMP Element - Att. D-1

COMPLIANCE

To improve compliance, the District should address the following key findings revealed during the Audit prior to completing its 2025 SSMP Update (see Appendix 1).

WDR CONFORMANCE (VIOLATION)

- ❑ Failure to prevent discharges of sewage to surface waters of the State (1 Category 1 spill, 6,625 gallons reaching surface waters during Audit period).
- ❑ Improve narrative language and harmonize structure with Reissued WDR for 2025 SSMP Update.

IMPLEMENTATION

- ❑ Address WDR Conformance above by adjusting goals and improving SSMP implementation to reduce future spills.

WDR RECOMMENDATION

To assess implementation, the District should

- ❑ Annually review Element 1 entirely for ensuring all information is accurate and up to date.

EFFECTIVENESS

WDR RECOMMENDATION

To help measure effectiveness and align with available industry standard guidance, the District should check/verify The following data for inclusion in its next required SSMP update:

- ❑ Has the schedule for conducting audits been adhered to?
- ❑ Has the schedule for updating the Sewer System Management Plan been adhered to?
- ❑ Are established milestones being Monitored?
- ❑ Is the sewer system management program description up to date?
- ❑ Have audits been performed on schedule?
- ❑ Has the Sewer System Management Plan been approved by the governing board on schedule (every six years)?
- ❑ Is asset data kept in the computerized maintenance management system, GIS, etc., programs up to date?
- ❑ Does the sewer system asset overview reference up to date maps?

RESILIENCE

WDR RECOMMENDATION

To help provide resilience, the District should:

- ❑ Create a work order report for auditing open work orders and assets for any repeat spill locations.
- ❑ Implement a formal schedule for ensuring all WDR compliance deadlines are logged into management calendars.

FAILURE TO DEVELOP AND IMPLEMENT PROCEDURES FOR UPDATING SEWER MAPS

☑ Violations: No
☑ Areas of Concern: No

FAILURE TO PROVIDE APPROPRIATE NARRATIVE DESCRIPTIONS DESCRIBING PROCEDURES FOR PRIORITIZATION OF SYSTEM REPAIRS AND MAINTENANCE TO PREVENT SPILLS.

☑ Violations: No
☑ Areas of Concern: No

FAILURE TO DESCRIBE TECHNOLOGIES AND PRACTICES TO REDUCE SPILLS

☑ Violations: No
☑ Areas of Concern: No

ELEMENT 2 – ORGANIZATION

REQUIREMENTS

"The Plan must identify organizational responsible and integral for implementing the local Sewer System Management Plan through an organizational chart of other 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.*
- *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 District, and State Office of Emergency Services)."*

FINDINGS (Element 2: Analysis)

SSMP Element Att. D-2

COMPLIANCE

WDR CONFORMANCE (AREAS OF CONCERN):

To improve compliance, the District should address each of the following revealed during the Audit prior to completing its 2025 SSMP Update (see Appendix 1).

- ❑ Limited staffing, resources, and equipment for inspections (CCTV), line cleanings, maintenance, and emergency spill response
- ❑ Resource assessment recommended for planned significant expansion of sewer system ownership and operations
- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

- ❑ None

EFFECTIVENESS

WDR RECOMMENDATION

Improve testing (at least annually) and documentation for after-hours spill notification system for 2025 SSMP Update

To help measure effectiveness and align with available industry standard guidance, the District should check/verify the following, make adjustments as necessary, and include any changes in the next required SSMP update:

- ❑ Have there been instances when a service call for a spill was not properly routed to response personnel?
- ❑ Was all spill response activity documented/prepared for LRO?
- ❑ Have there been any changes in assigned responsibilities for implementing the Sewer System Management Plan?
- ❑ Is there a process in place for ensuring all contact information remains up to date?
- ❑ Is a process established for ensuring that org. chart is current?

RESILIENCE

WDR RECOMMENDATION

To provide resilience and align with available industry standard guidance, the District should check/verify the following data, make adjustments as necessary, and include any changes in the next required SSMP update:

- ❑ Designate more than one LRO to help ensure full and continuous coverage of duties.
- ❑ Ensure more than one staff member can implement and be responsible for specific Sewer System Management Plan elements.

- ❑ Periodically review contact information throughout this element for ensuring data is up to date.

ELEMENT 3 – LEGAL AUTHORITY

REQUIREMENTS [3]

"The District Sewer System Management 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."

- *"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 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."*
- *"Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned and/or operated by the Enrollee."*
- *"Enforce violation(s) of ordinances, service agreements, or other legally binding procedures."*
- *"Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable."*

[3] *See Attachment D-3 of* Reissued WDR *(page D-4)*

FINDINGS (Element 3: Analysis)

SSMP Element - Att. D-3

COMPLIANCE

To improve compliance, the District should address each of the following revealed during the Audit prior to completing its 2025 SSMP Update (see Appendix 1).

- ❑ The Agency should review illicit discharge prohibitions, enforcement authority, ability for adequate stormwater collaboration and access to easement areas for spill response and required maintenance; relevant codes, ordinances, and/or standards should be updated to ensure proper legal authority as required to comply with the Reissued WDR.
- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

- ❑ None

EFFECTIVENESS

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Annually review District codes and ordinances to ensure they are adequate in fulfilling all required legal requirements.
- ❑ Check for instances when the code/ordinance did not address a specific need/circumstance.

RESILIENCE

WDR RECOMMENDATION

To provide resilience and align with available industry standard guidance, the District should check/verify the following data, make adjustments as necessary, and include any changes in the next required SSMP update:

- ❑ Monitor performance of ordinances, codes, and agreements for deficiencies and omissions.
- ❑ Perform periodic review of ordinances, codes, and service agreements.
- ❑ Stay abreast of industry trends and local ordinances that Aug affect operations.

ELEMENT 4– OPERATIONS AND MAINTENANCE PROGRAM

4.1. UPDATED MAP OF SEWER SYSTEM REQUIREMENTS [4]

"The Plan must include the items listed below that are appropriate and applicable to the Enrollee's 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 REQUIREMENTS

"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*
- *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 the data from system inspection and maintenance activities, including system areas/components prone to root-intrusion resulting in system backup and/or failure."

4.3. TRAINING REQUIREMENTS

"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 REQUIREMENTS[1]

"An inventory of sewer system equipment, including identification of critical replacement/spare parts."

[4] *See Attachment D-4.1 of* Reissued WDR *(page D-4)*

FINDINGS (Element 4: Analysis)

SSMP Element - Att. D-4

COMPLIANCE

To improve compliance, the District should address the following findings revealed during the Audit prior to completing its 2025 SSMP Update (see Appendix 1).

WDR CONFORMANCE (AREAS OF CONCERN):

To improve compliance, the District should address each of the following revealed during the Audit prior to completing its 2025 SSMP Update (see Appendix 1).

- ❑ Assess the need for potential additional equipment for completing O/M in all easement areas throughout system
- ❑ Lack of written Standard Operating Procedures (SOPs) and training (including hands-on exercises) for ensuring consistency with adherence to District standards
- ❑ Improve identification of all critical/spare parts and backup parts/equipment inventory including having "shelf-ready" components such as ultrasonic transducers, fuses, capacitors, and other necessary equipment for spill prevention and supporting response operations. This should include the procedure of determining all appropriate spare parts and equipment deemed critical to maximize availability of parts and supplies for effective emergency response and resilience.
- ❑ Lack of formalized force main cleaning/inspection programs
- ❑ Abandoned Air Release Valves (ARVs) in system
- ❑ Improve manhole inspection program/form(s)
- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

- ❑ Address WDR Conformance above to improve current SSMP implementation deficiencies.

EFFECTIVENESS

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Were all map updates completed in a timely manner?
- ❑ Are staff trained to provide map update information?
- ❑ Are newly installed assets incorporated into maps?
- ❑ Are District maintenance, operations, engineering work orders periodically reviewed for completeness?
- ❑ Does the District monitor “open” or “overdue” work orders?
- ❑ Are inspection and maintenance activities reducing the number and volume of spills?
- ❑ Is maintenance work being completed as scheduled?

- ❑ Are inspections of pipes, manholes, and lift stations completed?
- ❑ Does the District have a proactive root control program?
- ❑ Has all training been completed as scheduled?
- ❑ Have consistent training records been maintained?
- ❑ Have staff demonstrated ability/knowledge after training?
- ❑ Have contractors received, at a minimum, directions for 1) reporting spills, containment, securing sites?
- ❑ Has the inventory list been audited as scheduled?
- ❑ Have any inventory deficiencies or omissions been discovered?

RESILIENCE

WDR RECOMMENDATION

To provide resilience and align with available industry standard guidance, the District should check/verify the following data, make adjustments as necessary, and include any changes in the next required SSMP update:

- ❑ Develop a Standard Operating Procedure (SOP) for updating maps when errors are discovered.
- ❑ Develop and use forms (paper or electronic) for data collection through inspections to ensure all pertinent information is consistently collected.
- ❑ Periodically evaluate inspection intervals to help ensure they are optimized.
- ❑ Require staff to demonstrate ability and/or knowledge for all training activities.
- ❑ Monitor equipment and critical spare parts usage for and trends.
- ❑ Ensure cross-training for CIWQS Data Submitters for ensuring more than one staff member can collect/manage all required spill data and meet all required deadlines specified in Attachment E1 of the Reissued WDR.

ELEMENT 5 – DESIGN AND PERFORMANCE PROVISIONS

5.1. UPDATED DESIGN CRITERIA AND CONSTRUCTION STANDARDS REQUIREMENTS [5]

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

"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 REQUIREMENTS

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

FINDINGS (Element 5: Analysis)

SSMP Element Att. D-5

COMPLIANCE

- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

- ❑ None

[5] *See Attachment D-5.1 of* Reissued WDR *(page D-5)*

EFFECTIVENESS

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Does the District implement its current design and construction standards, specifications, and inspection procedures?
- ❑ Does the District periodically review design and construction standards, specifications, and inspection procedures for ensuring conformance to requirements?
- ❑ Does the District have a review process for its standards and procedures?
- ❑ Were any design or installation deficiencies found during warranty inspections?
- ❑ Are hydraulic model findings included in the design process?
- ❑ Does the District stay abreast of industry design standards?

RESILIENCE

WDR RECOMMENDATION

To provide resilience and align with available industry standard guidance, the District should check/verify the following data, make adjustments as necessary, and include any changes in the next required SSMP update:

- ❑ Staying abreast of industry trends and standards.
- ❑ Performing warranty inspections of newly installed or repaired assets to evaluate design and installation practices.
- ❑ Evaluating as-built changes for trends and areas for design and performance improvements.

ELEMENT 6 – SPILL EMERGENCY RESPONSE PLAN

REQUIREMENTS [6]

"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 meet all the following.

- *"Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a* spill in a timely manner.
- *Notify other affected entities (for example, health agencies, water suppliers, etc.) of spills that 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 interDistrict 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 Guidance of spill response activities.*
- *Document and report spill events as required in this General Order.*
- *Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the* Plan as needed."

[6] *See Attachment D-6 of* Reissued WDR *(page D-6)*

FINDINGS (Element 6: Analysis)

SSMP Element - Att. D-6

COMPLIANCE

To improve compliance, the District should address the following findings revealed during the Audit prior to completing its 2025 SSMP Update (see Appendix 1).

WDR CONFORMANCE (AREAS OF CONCERN):

- ❑ Lack of individual and specific containment plans for al pump stations within 200 feet of surface water to maximize spill readiness and effective mitigation/recovery
- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

- ❑ Address WDR Conformance above to improve current SSMP implementation deficiencies

WDR RECOMMENDATION

- ❑ Refer to Compliance recommendations above for further improving implementation.

EFFECTIVENESS

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Check to ensure the District is implementing all recommendations for spill emergency response plans incorporated in SSMP Guidance Manual (see pages 35-39) including appropriate field data collection for spills to comply with Att. E1.
- ❑ Does the District implement an effective Spill Emergency Response Plan?

RESILIENCE

WDR RECOMMENDATION

To provide resilience and align with available industry standard guidance, the District should check/verify the following data, make adjustments as necessary, and include any changes in the next required SSMP update:

- ❑ Provide training on a regular basis for all spill response staff. Training should include:
- ❑ Determining Spill Start Time
- ❑ Determining spill volume and volume recovered.
- ❑ Data Collection (forms)
- ❑ Containment and clean up.
- ❑ CIWQS Data Submitting
- ❑ Develop a training plan for contracted services.
- ❑ Periodically review post-spill assessments/trends.

ELEMENT 7 – SEWER PIPE BLOCKAGE CONTROL PROGRAM

REQUIREMENTS [7]

"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 includes 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 prohibits discharges to the system and identifies 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."*

[7] *See Attachment D-7 of* Reissued WDR *(page D-7)*

FINDINGS (Element 7: Analysis)

SSMP Element - Att. D-7

COMPLIANCE

To improve compliance, the District should address the following findings revealed during the Audit prior to completing its 2025 SSMP Update (see Appendix 1).

- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

- ❑ None

EFFECTIVENESS

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Have there been any blockages/spills from any identified problem area?
- ❑ Is the District receiving feedback on public outreach efforts?
- ❑ Is the debris and other sewage solids collected during cleaning activities being disposed of appropriately?
- ❑ Does the District have a plan and schedule for inspection of grease producing facilities? Was the schedule adhered to?
- ❑ Have there been spills due to excessive fats, oil, or grease in the system?
- ❑ Are Source Control staff included in the plan check process?

RESILIENCE

WDR RECOMMENDATION

To provide resilience and align with available industry standard guidance, the District should check/verify the following data, make adjustments as necessary, and include any changes in the next required SSMP update:

- ❑ Inspect assets directly downstream of grease producing businesses to ensure source control is effective.
- ❑ Develop outreach doorhangers or flyers to perform targeted outreach when discoveries are made in the field.
- ❑ Perform regular assessments of system assets to monitor performance.
- ❑ Establish a QA/QA process for evaluating pipe cleaning effectiveness.

ELEMENT 8 – SYSTEM EVALUATION, CAPACITY ASSURANCE, CAPITAL IMPROVEMENTS

8.1. REQUIREMENTS

"The Plan must include procedures and activities for

- *Routine evaluation and guidance of system conditions,*
- *Capacity guidance and design criteria.*
- *Prioritization of corrective actions.*
- *Capital improvement plan."*

8.2. SYSTEM EVALUATION AND CONDITION GUIDANCE REQUIREMENTS [8]

"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 Guidance of system areas that:*
- *Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, Capacity issues, or other system deficiencies.*
- *Are in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas.*
- *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/Audit Findings/Recommendations of system conditions that 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 Guidance inspections and activities,*
- *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] *See Attachment D-8.1 of* Reissued WDR *(pages D-7 and D-8)*

FINDINGS (Element 8: Analysis)

SSMP Element - Att. D-8

COMPLIANCE

To improve compliance, the District should address the following findings revealed during the Audit prior to completing its 2025 SSMP Update (see Appendix 1).

WDR CONFORMANCE (AREAS OF CONCERN):

- ❑ Improve CCTV inspection program since mainlines have not been inspected in the system since 2012
- ❑ Develop a system-specific Climate Resilience Plan for the SSMP Update including but not limited addressing the factors listed in Findings 3.2.3 of the Reissue WDR such as:
  - Sea level rise impacts including flooding, coastal erosion, seawater intrusion, tidal inundation and submerged lands
  - Increased surface water flows due to higher intensity rain events.
  - Flooding
  - Wildfires and wildfire induced impacts
  - Earthquake induced damage
  - Landslides
  - Subsidence
- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

- ❑ Address WDR Conformance above to improve current SSMP implementation deficiencies

EFFECTIVENESS

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Number of Capacity-related spills or surcharge condition during the audit period?
- ❑ Has the system responded to rain events as indicated by the hydraulic model?
- ❑ Has there been any changes to zoning designations (residential, commercial, industrial)?
- ❑ Rain event trends: Has there been changes in rain event occurrences, intensity, and duration?
- ❑ Has the District's capital improvement plan been adhered to?
- ❑ Is there an annual review of the Capital Improvement Plan by all necessary individuals?
- ❑ Has the District adhered to its system evaluation/condition assessment efforts? Measured by annual review and update of system inspections/evaluations procedures.

- ❑ Has the District adhered to its prioritization/corrective actions for sewer repair and Capacity improvement projects? Measured by annual review and District prioritization/corrective actions procedures.

☑ Areas of Concern: No

ELEMENT 9 – MONITORING, MEASUREMENT, PROGRAM MODIFICATIONS

REQUIREMENTS [9]

"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."*

FINDINGS (Element 9: Analysis)

SSMP Element - Att. D-9

COMPLIANCE

- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

- ❑ None

EFFECTIVENESS

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Are trends being monitored and corrective action taken as necessary?

[9] *See Attachment D-9 of* Reissued WDR *(page D-9)*

- ❑ Have Key Performance Indicators been developed to measure the effectiveness of each Sewer System Management Plan element?
- ❑ Has a plan and schedule been established to address audit findings/deficiencies?
- ❑ Have changes been made to work programs and procedures because of monitoring efforts?

RESILIENCE

WDR RECOMMENDATION

To provide resilience and align with available industry standard guidance, the District should check/verify the following data, make adjustments as necessary, and include any changes in the next required SSMP update:

- ❑ Develop key performance indicators to measure effectiveness of the Sewer System Management Plan.
- ❑ Perform periodic reviews of the Sewer System Management Plan to help ensure the plan is being properly implemented.
- ❑ Develop and adhere to a timeline to correct deficiencies found during the audit process.
- ❑ Periodically evaluate work programs to help ensure effectiveness.

ELEMENT 10 – INTERNAL AUDITS

10.1. REQUIREMENTS [10]

"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."

10.2. SPECIFICATIONS (SEWER SYSTEM MANAGEMENT PLAN AUDITS)

"The Enrollee shall conduct an internal audit of its Sewer System Management Plan, and implementation of its Plan, at a minimum frequency of once every three years. The audit must be conducted for the period after the end of the Enrollee's last required audit period. Within six months after the end of the required 3-year audit period, the Legally Responsible Official shall submit an audit report into the online CIWQS Sanitary Sewer System Database per the requirements in section 3.10 (Sewer System Management Plan Audit Reporting Requirements) of Attachment E1 of this General Order. Audit reports submitted to the CIWQS Sanitary Sewer System Database will be viewable only to Water Boards staff. 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] *See Attachment D-10 of* Reissued WDR *(page D-10)*

FINDINGS (Element 10: Analysis)

SSMP Element - Att. D-10

COMPLIANCE

- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

- ❑ Assess all previous SSMP Audit findings not addressed and incorporate into SSMP Update
- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update

EFFECTIVENESS

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Have audits been performed as required?
- ❑ Have the audits assessed compliance, implementation, and effectiveness?
- ❑ Have deficiencies been identified?
- ❑ Has a plan and schedule to rectify the deficiencies been established?

RESILIENCE

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Periodically evaluate key performance indicators to assess effectiveness of each Sewer System Management Plan element.
- ❑ Evaluate previous audit findings for ensuring deficiencies have all been addressed/rectified.
- ❑ Calendar the audit due dates and complete the audit on time.
- ❑ Prepare for announced/unannounced compliance inspections by regulators and by proactive with preparing required Audits by completing the State Water Board Pre-Inspection Questionnaire (see Appendix 1).

ELEMENT 11– COMMUNICATION PROGRAM

REQUIREMENTS [11]

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

- *The public for spills and discharges resulting in closures of public areas, or that enter a source of drinking water, and the development, implementation, 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 system operation, maintenance, and capital improvement-related activities."*

[11] *See Attachment D-11 of* Reissued WDR *(page D-10)*

FINDINGS (Element 11: Analysis)

SSMP Element - Att. D-11

COMPLIANCE

- ❑ Assess element narrative and improve as necessary for 2025 SSMP Update.

IMPLEMENTATION

WDR RECOMMENDATION

- ❑ None

EFFECTIVENESS

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Does the District place all Sewer System Management Plan action items on the agenda for regular counsel/board meetings?
- ❑ Does the District have signage, or other means, readily available to notify the public of env. or public risk factors related to a sewage spill?
- ❑ Does the District regularly communicate with other systems connected to the system?
- ❑ Was the public afforded the opportunity to provide input as the program was being implemented?
- ❑ Does the District perform outreach to residential customers?

RESILIENCE

WDR RECOMMENDATION

To measure effectiveness and ensure alignment with available industry standard guidance, the District should check/verify the following data for inclusion in its next required SSMP update:

- ❑ Maintain a consistent presence in the service area by attending community events or issuing periodic newsletters or other communications to the public.
- ❑ Make it clear and easy for the public to contact the District.

Attachment E1 – Notification, Monitoring, Reporting, Record Keeping

REQUIREMENTS [12]

"The Notification Requirements (section 1), Spill-specific Monitoring Requirements (section 2), Reporting Requirements (section 3) and Recordkeeping Requirements (section 4) in this Attachment are pursuant to Water Code section 13267 and section 13383 and are an enforceable component of this General Order.

For the purpose of this General Order, the term:

- *Notification means the notifying of appropriate parties of a spill event or other activity.*
- *Spill-specific Monitoring means the gathering of information and data for a specific spill event to be reported or kept as records.*
- *Reporting means the reporting of information and data into the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database.*
- *Recordkeeping means the maintaining of information and data in an official records storage system. Failure to comply with the notification, monitoring, reporting and recordkeeping requirements in this General Order Aug subject the Enrollee to civil liabilities of up to $10,000 a day per violation pursuant to Water Code section 13385; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. Water Code section 13193 et seq. requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Resources Control Board (State Water Board) to collect sanitary sewer spill information for each spill event and make this information available to the public. Sanitary sewer spill information for each spill event includes but is not limited to: Enrollee contact information for each spill event, spill cause, estimated spill volume and factors used for estimation, location, date, time, duration, amount discharged to waters of the State, response and corrective action(s) taken."*

[12] *See Attachment D-11 of* Reissued WDR *(page D-10)*

FINDINGS (Attachment E1: Analysis)

SPILL NOTIFICATION/REPORTING COMPLIANCE

To improve compliance, the District should address the following findings revealed during the Audit prior to completing its 2025 SSMP Update (see Appendix 1).

WDR CONFORMANCE (VIOLATIONS AND AREAS OF CONCERN): Since there is no established legal statute of limitations for sewage spills/enforcement, the Audit incorporates a comprehensive review of all available spill data for the District since the collection system was originally enrolled for coverage by the State Water Board.

The Audit revealed the following specific VIOLATIONS for the District:

- ❑ 5 violations (2007-2024) for missing required timelines for 2-hour notification to Cal-OES for Category 1 spills greater than or equal to 1,000 gallons to surface waters.
- ❑ 1 violation (2007-2024) for missing required timelines for Certified Spill Reports in CIWQS within 15 calendar days.
- ❑ 12 violations for missing month for Spill/No Spill reporting (2007-2024).
- ❑ 1 violation for failure to maintain SSMP Change Log

The Audit revealed the following specific AREAS OF CONCERN for the District:

- ❑ The District could further improve field documentation including additional details for determination of spill start time, spill volume calculations, and amounts recovered to ensure full compliance with Att E1 requirements.

Recommendations:

- ❑ To improve compliance, the District should establish/implement customized internal procedures specific to the District for avoiding future notification/reporting violations of the WDR.
- ❑ All improvements to these procedures should be narrated in the 2025 SSMP Update.

LIST OF APPENDICES

APPENDIX 1A – Compliance Evaluation Inspection (CEI) Report (2024)

COMPLIANCE EVALUATION INSPECTION (1/2/25)

Prepared by:

FISCHER COMPLIANCE LLC
PRACTICES THAT COMPLY

Sanitary Sewer Collection System
Waste Discharge ID (WDID): #2SSO10189

Table of Contents

List of Tables

Acronyms

Acronym	Description/Reference Hyperlinks
CEI	Compliance Evaluation Inspection
CIP	System Evaluation, Capacity Assurance/Capital Improvement Program (SECAP), Att. D-8
CIWQS	California Integrated Water Quality System
DS	Data Submitter (DS) registered with State Water Board
FOG	Fats, Oils and Grease (FOG) Control Program (Reissued WDR)
LRO	Legally Responsible Official (LRO) registered with State Water Board
NMMRP	Notification, Monitoring, Reporting, Record Keeping (NMRR), Att. E-1
SECAP	System Evaluation, Capacity Assurance/Capital Improvement Program (SECAP), Att. D-8
O/M	Operations and Maintenance Program (O/M)
SERP	Spill Emergency Response Plan (SERP)
SSMP	Sewer System Management Plan (SSMP)
SWRCB	State Water Resources Control Board (SWRCB)
Waters of the State	Any water, surface or underground, including saline waters, within the boundaries of California. In case of a sewage spill, storm drains are considered to be waters of the State unless the sewage is completely contained and returned to the sewer system; Aug also be referred to as surface water(s) or State waterway

1. INTRODUCTION

On January 2, 2025, James Fischer (Fischer Compliance LLC) and Sam Rose (Sam Rose Consulting) conducted a Compliance Evaluation Inspection (CEI) of the District Sanitary Sewer collection system for completing a 2021-2024 SSMP Audit assessing compliance, implementation, and effectiveness with the compliance with the State Water Board's Sanitary Sewer Systems General Order (Order No. 2022-0103-DWQ), hereafter "Reissued WDR[1]. The inspection mirrors inspection procedures established and implemented by U.S. EPA and the State/Regional Water Board staff assessing compliance and taking enforcement for noncompliance with the California Water Code, Federal Clean Water Act, and the Reissued WDR.

FACILTY INSPECTED:	**INSPECTED BY:**
Sausalito Marin City Sanitary District Sanitary Sewer System 1 East Road Sausalito, CA 94965	James Fischer, P.E. NPDES Compliance Inspector[2] Principal, Fischer Compliance LLC James Fischer Date:
Water Quality Order No.	**2022-0103-DWQ (SWRCB Reissued WDR)**
Regional Water Board Area	2
County	Marin
Service Area Population	7,037 (CIWQS, 2025)
Miles of Sewers (gravity)	20 (CIWQS, 2025)
Miles of Sewers (force mains)	1 (CIWQS, 2025)
Next SSMP Audit (due to CIWQS)	02/2/2025[3]
District Representatives	**Title/Contact**
Vincent Pasquini	Operations Supervisor (415) 331-4715

[1] See https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0103-dwq.pdf
[2] Credentialed, U.S EPA 2017
[3] See https://www.waterboards.ca.gov/water_issues/programs/sso/lookup/

2. INSPECTION PROCEDURES

The inspection incorporated both a pre-inspection meeting with District management and onsite field inspections with both management and field staff for comprehensively assessing SSMP compliance, implementation, and effectiveness with the Reissued WDR (see Table 1 below). This included a practical evaluation of the collection system operations and maintenance efforts including assessing performance/data results which provides a key advantage for helping District managers proactively reflect on ways for further implementing necessary adjustments improve operations, maintenance, and management of the system and also update its SSMP due by 8/2/2025.

3. FIELD INSPECTION (Sausalito Marin Pump Station)

The purpose of this task was to inspect the pump station, including assessing spill response readiness, condition of equipment/assets, implementation of standard operating procedures (SOPs), operator training & competency, and soliciting input for completion of the inspection and SSMP Audit.

- Marin Pump station has a dedicated backup generator
- The pump station serves all of the all service area collected from Marin City.
- Sewage received to the station is then pumped and intercepts another separate force main sewer for conveying sewage to the wastewater treatment plant.

Photo 1: Inspection (pump station entry)

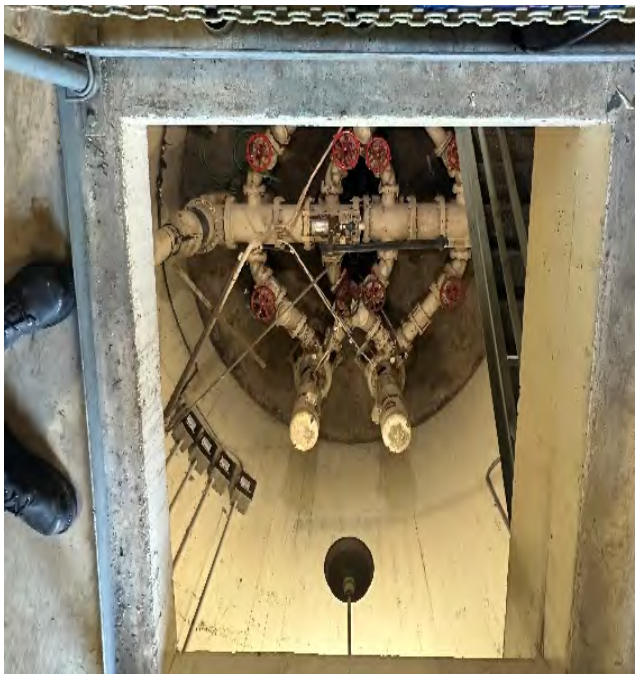


Photo 2: Inspection (pump station pump dry well)

Photo 3: Inspection (pump station hoses stored onsite for emergency pumping including bypass equipment, view 1)

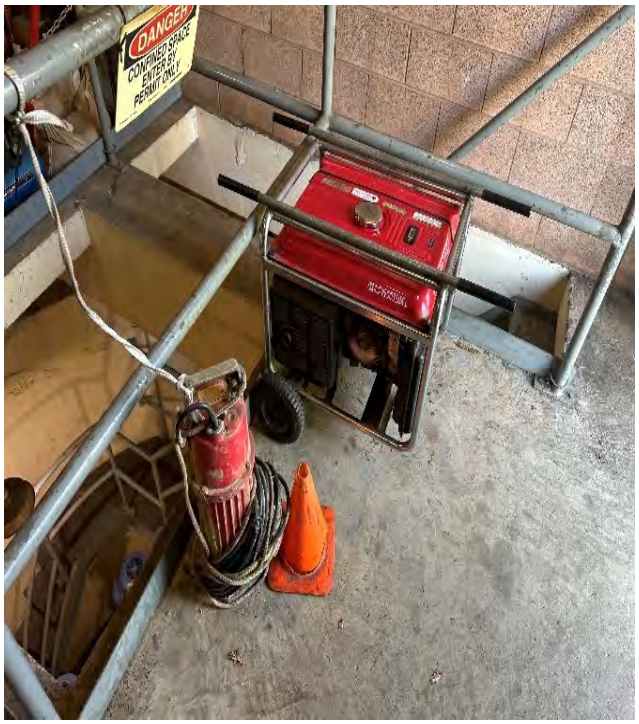
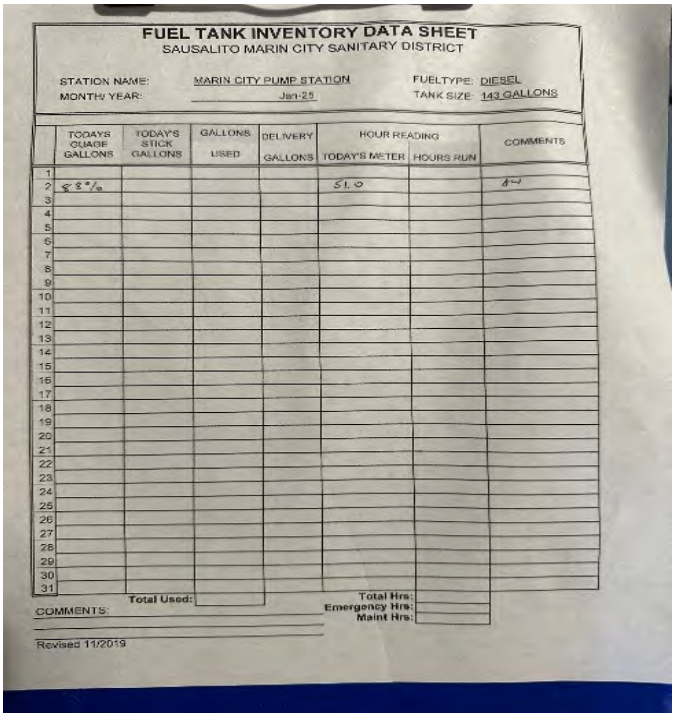


Photo 4: Inspection (pump station hoses stored onsite for emergency pumping including bypass equipment, view 2)

Photo 5: Inspection (pump station controls, view 1)

Photo 6: Inspection (pump station controls, view 2)



FUEL TANK INVENTORY DATA SHEET
SAUSALITO MARIN CITY SANITARY DISTRICT

STATION NAME: MARIN CITY PUMP STATION
MONTH/ YEAR: Jan-25
FUELTYPE: DIESEL
TANK SIZE: 143 GALLONS

	TODAYS GUAGE GALLONS	TODAY'S STICK GALLONS	GALLONS USED	DELIVERY GALLONS	HOUR READING TODAY'S METER	HOURS RUN	COMMENTS
1							
2	88%				51.0		4-4
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
		Total Used:			Total Hrs:		
					Emergency Hrs:		
					Maint Hrs:		

COMMENTS:

Revised 11/2019

Photo 7: Inspection (generator fuel tank log completed by field operations staff)

Photo 8: Inspection (operator controls)

Photo 1: Inspection (pump station manhole); mainline runs in ocean through the manhole and follows direction in red arrow

Photo 2: Inspection (pump station mainline route shown in red arrows)

Photo 3: Inspection (pump station building)

Photo 4: Inspection (pump station magnetic flow meter and bypass port)

4. FIELD INSPECTION (Buckaloo Spill Site)

The purpose of this task was to inspect a former spill site (540-gallon sewage spill) including staff interviews for assessing District field data collection procedures for completion of the inspection and SSMP Audit.

Photo 1: Inspection (spill overflow location, view 1); site clear of debris or evidence from spill

Photo 2: Inspection (spill overflow location, view 1); site clear of debris or evidence from spill

5. FIELD INSPECTION (Buckaloo Spill Site)

The purpose of this task was to inspect XXXXX including staff interviews for assessing equipment, standard operating procedures (SOPs), training, operator competency, and soliciting staff input for completion of the inspection.

Photo 1: Inspection (easement mainline, view 1); crews The gravity sewer mainline runs along this sloped hillside and has no access for vehicle or heavy equipment; District field staff hand rod these sections of mainlines; all pipe has been lined recently to help reduce maintenance frequencies).

Photo 2: Inspection (easement mainline, view 2)

6. INTERVIEWS (FIELD OPERATIONS STAFF)

Interviews were completed with District field operations staff for completion of the inspection and SSMP Audit. The following comments were documented during the inspection:

- District Pump Stations:
  - Dedicated emergency standby generators very new and tested twice per week
  - District field operators refuel generators when levels hit 50%
  - Automatic transfer switches are tested at pump stations using a full load bank for two hours every other year

- District Training Program:
  - Most trainings are refreshers completed without hands-on exercises
  - Additional hands-on exercises would benefit staff and improve training outcomes
  - The District does not have standard operating procedures (SOPs) for use by field staff and for training

- Resources/Equipment Needs:
  - Operations staff commented it would be beneficial for the District to have a dedicated permanent onsite emergency generator at the Princess pump station since this station does not have much onsite storage for managing wastewater flows
  - Operations staff suggested it would benefit for the District to expand the mechanical shop for improving pump station maintenance capabilities

- Unique Challenges:
  - Difficult accessibility for required sewer maintenance in easement areas near surface waters, steep terrain, and offroad areas (example – Bay Vista Road)
  - Previous landslides breaking sewer lines
  - Pump station located in ocean

7. FINDINGS

Table 2 below includes a summary of the inspection findings for inclusion in the 2021-2024 SSMP Audit Report. To meet/exceed the requirements of the Reissued WDR, the District should address all findings prior to finalizing its next required SSMP Update (due for governing board approval/uploaded to CIWQS by 8/2/2025).

Table 1 – Inspection Findings

WDR Element	Description	Findings	Details
Prohibitions	Discharges (Waters of US)	**Violation (1)**	○ Failure to prevent discharges of sewage to Waters of the State (total of 1 Category 1 spill, 6,625 gallons reported by District to have discharged from collection system during Audit period)
Att. D-1	Goals & Intro	Best Practice	○ Proactive spill reduction program with experienced operators
Att. D-2	Organization	Area of Concern	○ Limited staffing, resources, and equipment for inspections (CCTV), line cleanings, maintenance, and emergency spill response ○ Resource assessment recommended for planned significant expansion of sewer system ownership and operations
Att. D-3	Legal Authority	Area of Concern	○ The District should review its illicit discharge prohibitions and enforcement authority and update any relevant codes, ordinances, or policies as necessary.
Att. D-4	O/M Program	Best Practice	○ Proactive system mainline cleaning to help reduce spills
Att. D-4	O/M Program	Area of Concern	○ Assess the need for potential additional equipment for completing O/M in all easement areas throughout system
Att. D-4	O/M Program	Area of Concern	○ Lack of written Standard Operating Procedures (SOPs) and training (including hands-on exercises) for ensuring consistency with adherence to District standards
Att. D-4	O/M Program	Area of Concern	○ Improve identification of all critical/spare parts and backup parts/equipment inventory including having "shelf-ready" components such as ultrasonic transducers, fuses, capacitors, and other necessary equipment for spill prevention and supporting response operations. This should include the procedure of determining all appropriate spare parts and equipment deemed critical to maximize availability of parts and supplies for effective emergency response and resilience.
Att. D-4	O/M Program	Area of Concern	○ Lack of formalized force main cleaning/inspection programs
Att. D-4	O/M Program	Area of Concern	○ Abandoned Air Release Valves (ARVs) in system
Att. D-4	O/M Program	Area of Concern	○ Improve manhole inspection program/form(s)

WDR Element	Description	Findings	Details
Att. D-6	SERP	Best Practices	○ Demonstrated strong/effective stop gap measures and practices for spill readiness and emergencies including routine bypass operations and training
Att. D-6	SERP	Best Practices	○ Enhanced mutual aid support program in place with neighboring collection system operators
Att. D-6	SERP	Area of Concern	○ Lack of individual and specific containment plans for al pump stations within 200 feet of surface water to maximize spill readiness and effective mitigation/recovery
Att. D-8	SECAP	Best Practices	Comprehensive sewer capital improvement program within past 10-15 years including pipe lining, open cut repairs, and pipe bursting projects completed (see Att. A)
Att. D-8	SECAP	Area of Concern	○ Improve CCTV inspection program since mainlines have not been inspected in the system since 2012
Att. D-8	SECAP	Area of Concern	○ Develop customized Climate Resilience Plan for system addressing factors listed in Findings 3.2.3 of the Reissued WDR at a minimum
Att. D-11	Communication	Best Practices	○ Enhanced mutual aid support program in place with neighboring collection system operators

8. Enforcement (Potential Liability for Noncompliance)

Potential liability for discretionary enforcement by the Water Boards for both discharge (spills) and non-discharge violations (late reporting, etc.) is presented in Table 3 below.

Table 2 – Potential District Liability for Noncompliance

WDR Element	Violation Type	Violation Description	Potential Liabilities
Prohibitions	Discharge (Spills)	1 Cat. 1 spill (6,625 gallons during Audit period, 8/2/21 to 8/2/24)	$10,000/day + $10,000/gallon (minis first 1,000 gallons)
Proper O/M	Discharge (Spills)	Failure to properly implement O/M to manage, operate, and maintain all parts of its sanitary sewer system and prevent Cat. 1 spills	$10,000/day x number of days out of compliance
2013 MRP	Non-Discharge (Notifications)	Failure to notify Cal-OES within 2 hours for Cat. 1 spills (5 violations, 2007-2024)	$1,000/day x number of days out of compliance
2013 MRP	Non-Discharge (Reporting)	Failure to certify spill report to CIWQS within 15 calendar days (1 violation, 2007-2024)	$1,000/day x number of days out of compliance
2013 MRP	Non-Discharge (Monthly "No Spill" Certifications)	Failure/inaccurate reporting for monthly "No Spill" certifications (12 violations, 2007-2024)	$1,000/day x number of days out of compliance
2013 MRP	Non-Discharge (Records)	Failure to adequately maintain and update required SSMP Change Log (1 violation)	$1,000/day x number of days out of compliance

List of Attachments

Attachment A (District Capital Improvement Program Summary)

Attachment A (District Capital Improvement Program Summary)

SAUSALITO-MARIN CITY SANITARY DISTRICT

1 EAST ROAD • SAUSALITO, CALIFORNIA 94965
OFFICE 415.332.0244 • PLANT 415.332.0240 • FAX 415.332.0453

General Manager
Jeffrey Kingston

Office Manager/Board Secretary
Catherine A. Bondanza

Directors
Dan Rheiner, President
William Ring, Vice President
Don Beers
Shirley Thornton

1-9-2025

SUBJECT: SMCSD CAPITAL IMPROVEMENTS PROGRAM

The District maintains an ongoing 10-year Capital Improvements Program (CIP) to maintain capacity, reliability and safety of its wastewater collections, conveyance and treatment infrastructures. The District funded a major treatment plant upgrade which was completed in 2020 by issuing revenue bonds through a Joint Powers Authority and financing agreement. The District continues to fund the 10-year CIP through sewer service fees which contribute approximately $4 Million annually. The District's CIP is updated and prioritized on an annual basis.

Some of the key improvements which have been completed by the District to improve overall system reliability and capacity include; 1) The Wet Weather Flow Upgrade Project which addresses new discharge regulations, manages peak wet weather flows, and improves treatment plant performance and reliability. The Upgrade Project increased the plant's secondary treatment capacity to 9 MGD and increased tertiary treatment capacity to 6 MGD; 2) The Coloma Street Pump Station Replacement Project which increases the firm capacity of the District's gravity interceptor by 4.2 MGD at a critical point in the conveyance system to mitigate potential sanitary sewer overflows (SSOs) during peak storm events; and 3) The Generator Reliability Improvements Project which improves overall system reliability and capacity during power outages. This project also reduces emergency callouts and the need to mobilize portable equipment in preparation for storms and/or planned power outages.

Additional projects which have been added to the District's CIP to further incorporate efficiency and redundancy at all major conveyance and treatment facilities include rehabilitation of the treatment plant's existing clarifier and rehabilitation of the conveyance system's Beach Force Main. The existing clarifier, which has been in consistent use since its construction in 1953, will require a complete replacement of its collector mechanism and improvements to odor control. The Beach Force Main Rehabilitation Project will allow critical force main redundancy with the Alexander Avenue force main which conveys wastewater from the Main Street pump station to the treatment plant. Rehabilitation of the Beach Force Main will also allow for force main inspections and reduce energy costs at the Main Street pump station.

A more detailed and complete list of projects over the past 4 years which have been completed or are in construction since 2020 are listed below:

<u>Treatment and Wet Weather Flow Upgrade Project</u>: (Completed in 2020)

The Upgrade Project includes new screenings and grit removal which will improve effluent water quality and protect downstream treatment facilities from grit and debris. A 600,000-gallon equalization basin was constructed to allow for full secondary treatment during a 10-year storm event which can deliver an influent plant flow rate of up to 12.5 MGD. In addition, this tank can be used to shut down plant flow for an entire workday during dry weather to support maintenance or future improvements. A secondary clarifier was added to provide reliability through redundancy and allow for needed maintenance on the primary clarifier. Fixed film reactors (FFRs) were refurbished and fitted with new media to support increased flow capacity. The new FFR feed pumps increase secondary treatment capacity from 6 MGD to 9.0 MGD. Four effluent sand filters were demolished and replaced with rotating disc filters to improve effluent water quality and to increase tertiary treatment capacity from 1.0 MGD to up to 6.0 MGD. This project was funded by revenue bonds.

New Control Panels

Grit Washer

Spiral Screens

Completed Walls and Paving

EQ Basin & New Stairs

Disc Filter Railing & Grating

<u>Site Access and Security:</u> (Completed in 2021)

A new access gate has been installed at the District's treatment plant and is now in operation. This gate improves security as well as safety. The previous gate was a swing style gate which allowed foot traffic to enter the plant during off hours. The new gate is equipped with safety features which include a laser eye (similar to that used on garage doors) as well as a sensor pad which will immediately stop the gate in the event an object is detected. The gate also includes advanced controls and timers which allow it to close automatically at the end of the work day. Vehicles leaving after the gate has closed are detected by a smart

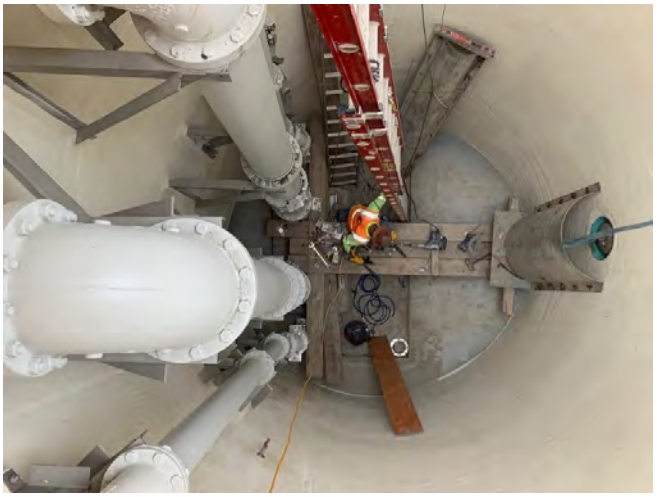
laser scanner which triggers the gate to open, and then close automatically after a set time delay. In order to maintain security, the scanner's sensitivity is programmed so it will not detect animals. The gate can be manually operated using keypads and remote controls.

Fence installed around entire plant easement.

Treatment Plant entrance gate

<u>Coloma Pump Station Improvements Project</u>: (Completed in 2022)

The new Coloma Pump Station (PS) replaced two existing pump stations including Whiskey Springs and Scotties. Whiskey Springs PS is a City owned station which serves their collection system and Scotties PS is a District owned station used to maintain conveyance system capacity during major storm events. The new combined station improves reliability, capacity (an increase of 4.2 MGD) and safety. The new wet well is 28 feet deep and 16 feet in diameter allowing for additional storage and response time. This project was rate funded.



New station wet well.

Underground controls building.

<u>Generator Reliability Improvements Project</u>: (Completed in 2022)

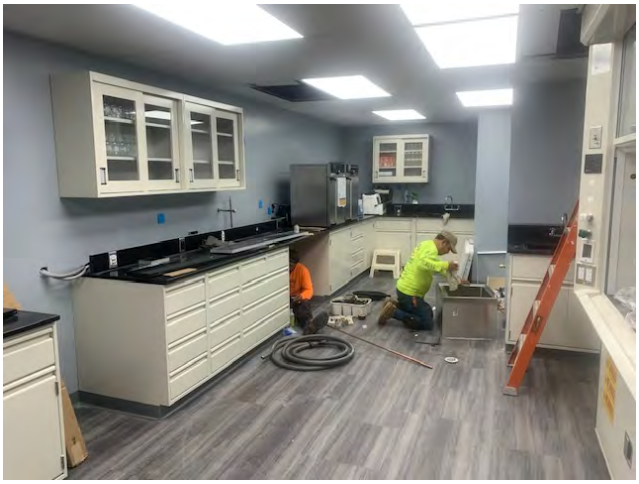
This project replaces four of the District's emergency backup generators and one City owned generator, adds generators to two City owned stations, procures a portable generator and replaces the control panel at the District's Princess Pump Station. Generators are being replaced or added to maintain reliability during power outages. The existing Princess PS control panel is aging and located on a deteriorating dock. This project was funded through Bond sales from the plant upgrade project until bond funds were expended. The remaining budget was rate funded capital.

Old plant generator being removed.

New Main St. Pump Station generator.

<u>Operations Center and Laboratory Remodel Project:</u> (Completed in 2023)

The operations building was remodeled to provide better working space for the control room and lab. A new operations office was completed utilizing an old break room. The lab was expanded utilizing an unused area of the control building. A new fume hood, cabinets and shelves were installed to improve working space. This project was rate funded.

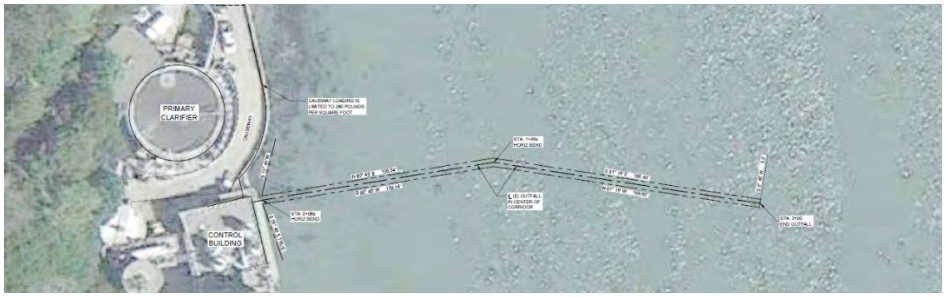


Final work being completed in new lab.

New vapor hood installation.

Inspection of the Treatment Plant's Outfall Pipe: (Completed in 2024)

The District's outfall pipe is inspected every 5 years to ensure regulatory compliance. The outfall pipe extends 300 feet into the bay where it discharges into deep water (roughly 20 to 25 feet deep) through 30 duckbill diffusers which are located along the last 100 feet of pipe. The outfall was last rehabilitated in 2014. Rehabilitation work included the replacement of flapper style check valves with duckbill diffusers and replacement of anchoring straps.



Treatment Plant Outfall Pipeline extending 300 feet into the San Francisco Bay

Primary Digester Heating System Replacement Project: (Completed in 2024)

This project replaces the District's primary digester heating system in its entirety. The existing heating system reached the end of its useful life due to corrosion and wear. The project design includes a hot water connection to the secondary digester heating system to incorporate boiler redundancy. Boiler redundancy allows either boiler to heat either digester thereby improving system reliability. This project was rate funded.

New boiler, heat exchanger and piping.

South Clarifier Rehabilitation Project: (In Construction – 2025)

This project rehabilitates the District's existing clarifier providing increased capacity and redundancy for primary treatment. This clarifier has been in continuous operation since 1953. Fabrication of the new clarifier during the plant upgrade project has allowed for needed repairs and upgrades. Enhanced odor control is also included in the project scope to reduce odors during warm weather periods. This project is rate funded.

Clarifier prior to construction.

New odor control cover.

Beach Force Main Rehabilitation Project: (In Construction – 2025)

This project will provide force main redundancy from the Main Street Pump Station to improve conveyance system reliability, allow for inspection and cleaning of the Alexander Avenue force main and reduce electricity costs. The existing Beach Force Main will be slip lined and additional pumps and controls installed at the Main Street PS. In addition, this project provides redundancy to our Main Street PS which conveys 95% of the flow to the treatment plant. This project is rate funded.

Beach Force Main Connection to Treatment Plant.

TCSD Flow Meter Project: (In Construction – 2025)

A flow meter will be installed on the District's conveyance force main in the vicinity of TCSD's connection to the District. This flow meter will improve capacity modeling of the District's conveyance system and provide operators with real time flowrates to help improve response times during high flow events. District staff worked with flow meter manufacturers to identify an acceptable solar powered clamp-on style flow meter. A clamp-on style flow meter will substantially reduce construction cost and risk while maintaining an accuracy of +/- 1%. Flow data will be transmitted to SCADA using a radio to provide real time data.

Example of a clamp on ultrasonic flow meter.

Biosolids Handling Project: (In Construction – 2025)

The District's solids handling process is currently located in the center of the treatment plant and requires operators to transfer biosolids to the shop level for off-haul. This configuration inhibits egress through the treatment plant, results in biosolids requiring cleanup from the plant causeway and requires operator time to transfer biosolids. In addition, this process requires operators to use a front loader tractor to transfer biosolids up the plant's narrow driveway 4 times a day which introduces potential safety concerns. The existing screw press will be rehabilitated and relocated to the new Equalization Basin. The press will be equipped with new appurtenant equipment such as polymer feed, pumps and a new control panel. The new location will be on a platform which allows the press to drop dewatered solids directly into off-haul bins and therefor eliminates the need for District operators to transport dewatered solids. This project is rate funded.

Existing screw press located on platform.

Biosolids require transporting to off-haul bins.

Plant Electrical Upgrade Project: (In Construction - 2025)

The District's treatment plant was originally built in 1953 with limited facilities. Major plant expansion projects were completed in 1986 and 2020. The majority of existing electrical power systems have been upgraded and meet current NEC (National Electrical Code) requirements. However, facilities constructed in 1986 including the operations building, maintenance shop and the safety building have not been upgraded and have reached the end of their useful life. In addition to replacement of conduits and conductors/wires, several transformers installed in the same time period will be replaced to ensure reliability and safety. This project was rate funded.

CAPITAL IMPROVEMENTS PROGRAM

In the coming years, projects move focus from the treatment plant to the collections and conveyance systems. These projects include:

- **Marin City Pump Station Replacement Project**: This project includes a complete rebuild of the pump station to eliminate confined spaces and to upgrade pumps and controls. This pump station serves about 90% of Marin City. The project will be rate funded to improve reliability and safety.
- **Princess Pump Station Rehabilitation Project**: This project rehabilitates the existing wet well to ensure continued reliability. The project will include re-grading of Bridgeway Blvd in the proximity of the pump station (the station is located in the roadway) to improve safety for bicyclist who frequent this location. This project will be rate funded.
- **Marin City Collection System Rehabilitation Project, Phase II**: This is project includes a complete condition assessment of the District's 6 miles of collection system piping and manholes. This project will focus on I/I reductions to reduce flow during wet weather. This project will be rate funded.
- **Force Main Cleaning and Inspection Project**: This project will include a condition assessment of all major force mains in the District's conveyance system. This project will be rate funded.

APPENDIX 2A – Certified Spills List (2007-2024)

California Home

Tuesday, December 31, 2024

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

California Integrated Water Quality System Project (CIWQS)

Spill Public Report – Spill Event ID(s) Page

Here is the detail page of your Sanitary Sewer System Spill Report search for selected Regional Board, county, responsible agency, or sanitary sewer system. These results correspond to the following search criteria:

SEARCH CRITERIA: [REFINE SEARCH]

- Agency (**Sausalito-Marin City San District**)
- Spill Type (**Category 1; Category 2; Category 3**))
- Agency (**Sausalito-Marin City San District**)

The table below presents important details from Enrollee-submitted certified spill events, as submitted through individual spill reports, which meet the search criteria selected on the Sanitary Sewer System (SSS) Spill Report Form. If data is not shown for a particular field, it means the Enrollee did not provide the information and was not required to do so. To view the entire spill report, select the corresponding “Spill Event ID”.

DRILLDOWN HISTORY: [GO BACK TO SUMMARY PAGE]

REGION: **2**

[VIEW PRINTER FRIENDLY VERSION] [EXPORT THIS REPORT TO EXCEL]

Event ID	Region	Responsible Agency	Sewer System	WDID	Spill Category	Spill Start Date	Spill Vol (gal)	Spill Vol Recovered (gal)	Spill Vol Reached Surface Water (gal)	System Failure Location	Spill Appearance Point
650088	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2007-05-02 07:00	250	0	250	Main	Manhole
710805	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2008-01-04 10:30	18,000	0	18,000		Manhole
711996	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2008-01-25 14:15	63,000	0	63,000		Manhole
719079	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2008-06-06 13:00	200	100	100	Main	Manhole
725075	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 3	2008-08-21 12:00	10	10	0	Main	Manhole
748394	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2010-01-18 10:16	34,000	2,000	32,000	Main	Force main or pressure sewer
754221	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 3	2010-06-30 09:00	5	5	0	Main	Gravity sewer;Manhole
765559	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 2	2011-03-24 12:00	5,050	0	0	Lower Lateral	Manhole
770690	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 2	2011-09-04 17:00	1,520	0	0	Main	Manhole
776978	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2012-02-07 10:40	3,275	500	2,775	Lower Lateral	Manhole
781647	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 3	2012-05-24 13:22	50	40	0	Main	Manhole
799084	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 3	2013-09-13 14:15	50	50	0	Connection of private lateral line to the public sewer. The District called a construction contractor to reconnect the private lateralline.	Lower Lateral (Private)
804718	2	Sausalito-Marin City San	Sausalito CS	2SSO10189	Category 1	2014-03-16	7,350	0	7,350	Manhole	Manhole

		District				07:00					
813177	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2015-02-15 13:30	900	0	400	Gravity Mainline	Manhole
817138	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2015-08-03 20:00	864	28	836	Gravity Mainline	Manhole
832902	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2017-02-17 18:57	30,555	0	30,555	Manhole	Manhole
833543	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 2	2017-03-01 20:00	2,436	0	0	Gravity Mainline	Gravity Mainline
858553	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2019-05-23 07:00	674	0	674	Failure occurred at a pipe that used to be used as a force main. Most of the flow was re-routed through a new pipe over the hill. 19 homes remained connected to this shoreline pipe.	Other sewer system structure
871343	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 3	2020-12-26 14:00	15	0	0	Gravity Mainline	Manhole
885095	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Category 1	2022-12-31 15:30	6,625	0	6,625	Gravity Mainline	Gravity Mainline
891583	2	Sausalito-Marin City San District	Sausalito CS	2SSO10189	Monthly Category 3 Spill	2023-11-29 14:12	540	0		Lower Lateral	Manhole

Page 1 of 1

Go To Page:
1

25 Records/Page

The current report was generated with data entered by Enrollees on the previous day.

Back to Main Page | **Back to Top of Page**

APPENDIX 2B – Certified Spills (Current Operational Report, 2023-2024)

California Home

Monday, January 27, 2025

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
STATE WATER RESOURCES CONTROL BOARD

California Integrated Water Quality System Project (CIWQS)

COLLECTION SYSTEM OPERATIONAL REPORT

Please see the **Glossary of Terms** for explanations of the search results column headings. **More information about the report is found at the bottom of this page**.

Click to Print This Page (Select Printer as Adobe PDF)

SEARCH CRITERIA: [REFINE SEARCH] [NEW SEARCH] [GLOSSARY]
WDID (**2SSO10189**)
Date Range: Start_Date (**08/02/2021**) End_Date (**08/02/2024**)

DRILLDOWN HISTORY: [GO BACK TO LISTING OF COLLECTION SYSTEMS]
Sausalito CS
Agency: Sausalito-Marin City San District

General Information

Region	Place ID	Place Name	CS Category	Place Address	Place County
2	631019	Sausalito CS	Municipal(Public)	1 Sausalito CA 94965	Marin

Collection System Spill Summary

Operational Indices: Sausalito CS

Spill Rate Indice (spills/100mi/yr)							
	Category 1			Category 2		Category 3	
	Main System	Laterals	Other	Main System	Other	Main System	Other
Sausalito CS	3.03	N/A	0.0	0.0	0.0	0.0	0.0
State Municipal(Public) Average	1.9	N/A	1.14	1.89	2.85	3.42	0.75
Region Municipal Average	3.13	N/A	1.02	1.34	0.04	3.83	0.81

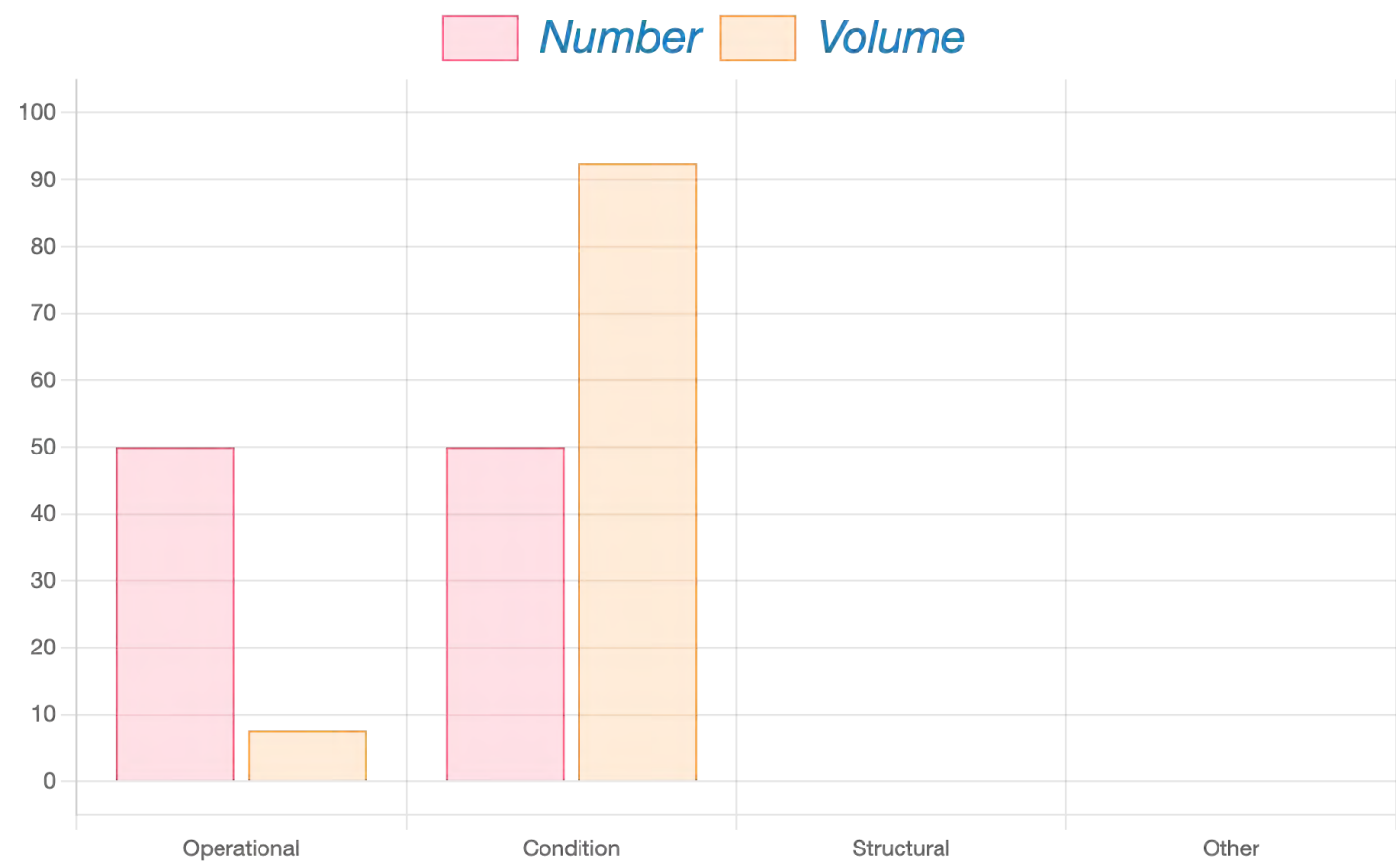
Net Volume Spills Indice (gallons/1000 Capita/yr)							
	Category 1			Category 2		Category 3	
	Main System	Laterals	Other	Main System	Other	Main System	Other
Sausalito CS	122.57	N/A	0.0	0.0	0.0	0.0	0.0
State Municipal(Public) Average	8971.05	N/A	3452.8	265.8	2603.82	89.35	55.22
Region Municipal Average	-5548.63	N/A	3526.5	261.03	3.13	199.91	170.34

Note: Click on hyperlinks to get comparison charts for CS, Region, and State grouped by 'Miles Of Pipe'.

(1) The number of Category 1, 2 and 3 SSOs resulting from a failure in the Enrollee sewer system per 100 miles sewer system owned by the Enrollee per year.
(2) Net Volume (volume spilled minus volume recovered) of SSOs, for which the reporting Enrollee is responsible, per capita (i.e. the population served by your agency's sanitary sewer system), per year.
(3) Value calculated using miles of force mains and other pressure systems and miles of gravity sewers the agency is responsible for.
(4) Value calculated using miles of laterals the agency is responsible for (Lower Only, UpperLower). For collection systems with no lateral responsibility a N/A is shown.
(5) Value Calculated using total miles of collection system pipe the agency is responsible for.
(6) Comparison made between similar collection systems type (e.g. municipal) and lateral responsibility for the entire state over the selected time period. Comparison indices are calculated for all similar collection systems and averaged for comparison.
(7) Comparison made between similar collection systems type (e.g. Municipal) and lateral responsibility for collection systems in same region (e.g. Region 5S). Collection system indices are calculated for all similar collection systems and averaged for comparison. For airport, hospital, marinas, military, park, port, prison, school, and other collection systems facilities, only state comparison is shown.
(8) For Criteria used and term definitions refer to the SSO Glossary of Terms.
(9) Other: Includes spills caused by vandalism, surcharged pipe, operator error, and unknown causes.

Percentage of total Number and Volume of SSOs by Spill Cause

Collection System: Sausalito CS



Percentage of total Volume of SSOs by Spill Cause

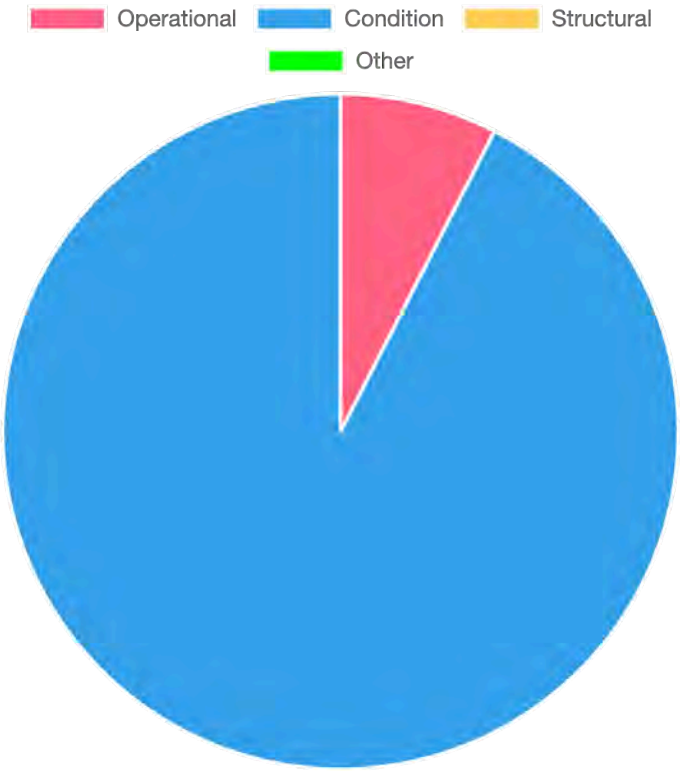
Operational: Debris from Construction, Debris from Lateral, Debris-General, Debris-Rags, Fats and Oils and Grease, Root Intrusion, Debris-Wipes/Non-Disposable

Condition: Flow Exceeded Capacity (Separate CS Only), Natural Disaster, Rainfall Exceeded Design, II (Separate CS Only)

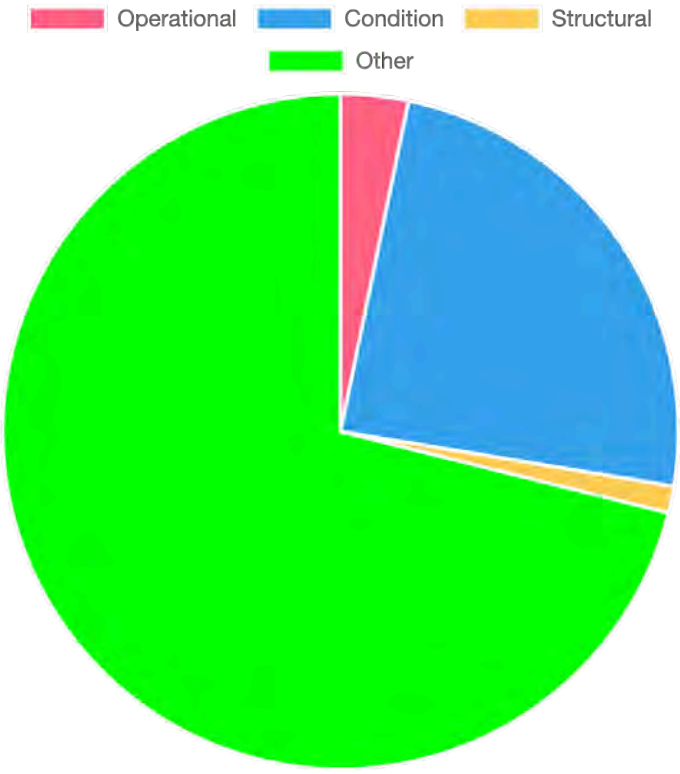
Structural: Air Relief Valve (ARV)/Blow-Off Valve (BOV) Failure , Pipe Structural Problem/Failure, Pipe Structural Problem/Failure - Installation, Pump Station Failure-Controls, Pump Station Failure-Mechanical, Pump Station Failure-Power, Siphon Failure

Other: Construction Diversion Failure, CS Maintenance Failure, Damage by Others Not Related to CS Construction/Maintenance (Specify Below), Inappropriate Discharge to CS, Operator Error, Other (specify below), Surcharged Pipe (Combined CS Only), Vandalism

Sausalito CS



Region 2



State of California

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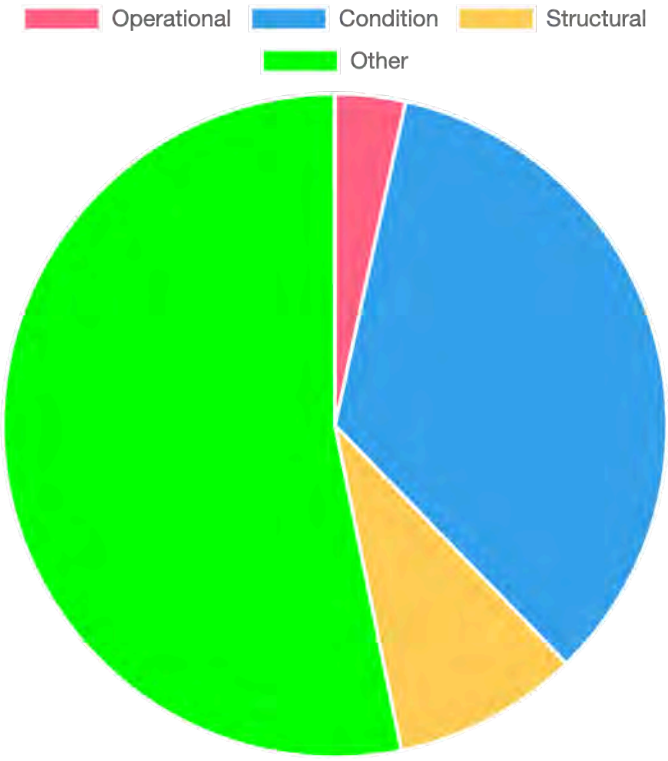


Percentage of total Number of SSOs by Spill Cause

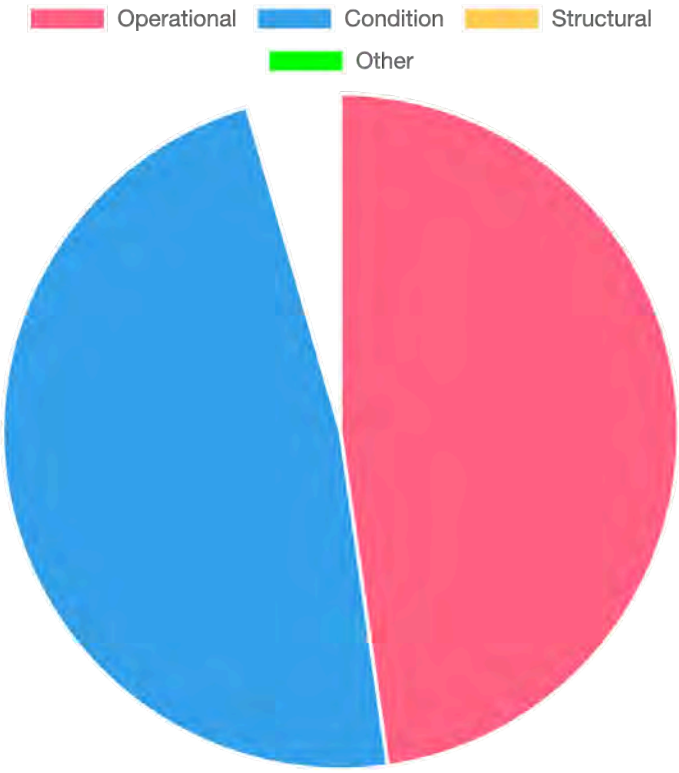
Operational: Debris from Construction, Debris from Lateral, Debris-General, Debris-Rags, Fats and Oils and Grease, Root Intrusion, Debris-Wipes/Non-Disposable

Condition: Flow Exceeded Capacity (Separate CS Only), Natural Disaster, Rainfall Exceeded Design, II (Separate CS Only)

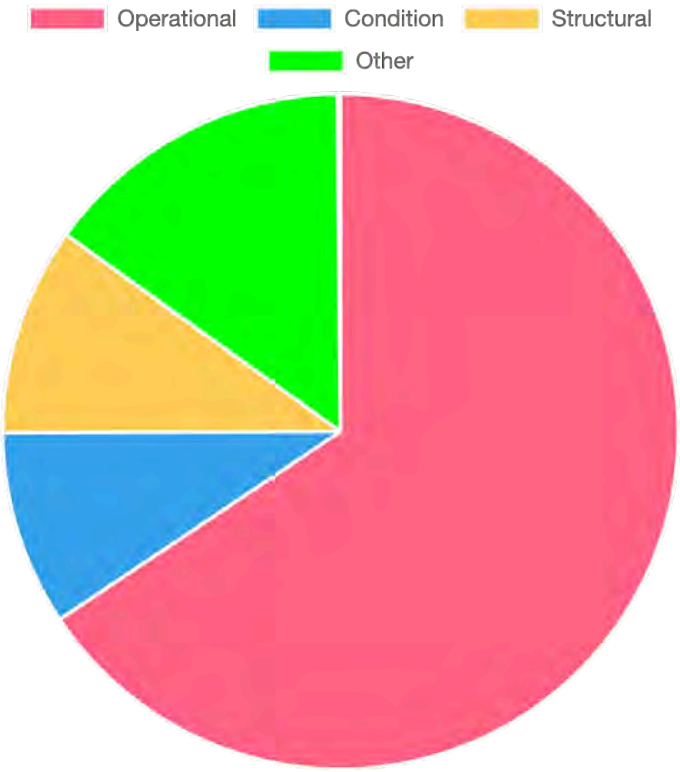
Structural: Air Relief Valve (ARV)/Blow-Off Valve (BOV) Failure , Pipe Structural Problem/Failure, Pipe Structural Problem/Failure - Installation, Pump Station Failure-Controls, Pump Station Failure-Mechanical, Pump Station Failure-Power, Siphon Failure

Other: Construction Diversion Failure, CS Maintenance Failure, Damage by Others Not Related to CS Construction/Maintenance (Specify Below), Inappropriate Discharge to CS, Operator Error, Other (specify below), Surcharged Pipe (Combined CS Only), Vandalism

Sausalito CS



Region 2



State of California

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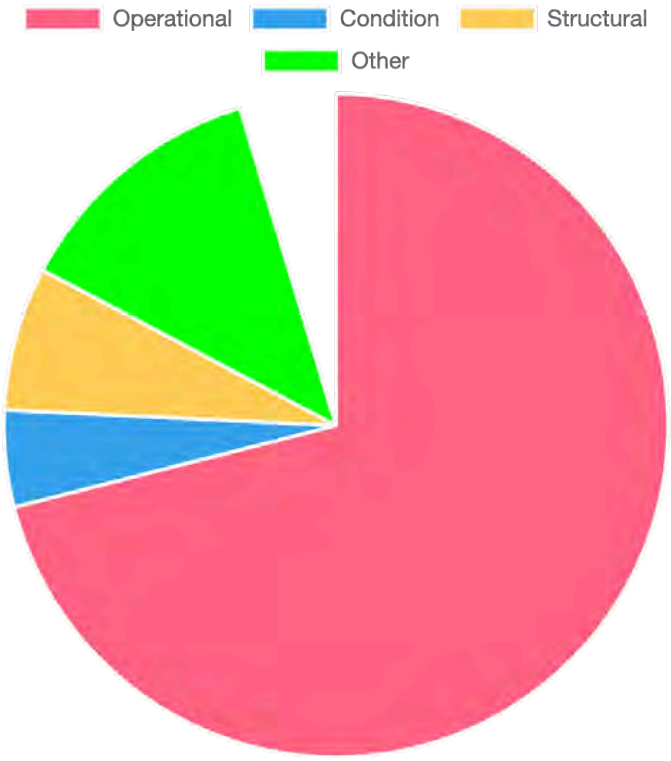

Collection System Annual Report Data(*)

Collection System Information: Sausalito CS

Status	Certified
Last Updated On	2024-03-27 11:05:30
Population Served	18000
Miles of Force Main	4
Miles of Gravity Sewer	7
Portion of Laterals Responsible	None
Miles of Laterals Responsible	0
Number of Lateral Connections	2000
Total pumps 2020 Current	1
Total pumps 2000 2019	0
Total pumps 1980 1999	0
Total pumps 1960 1979	3
Total pumps 1940 1959	3
Total pumps 1920 1939	0
Total pumps 1900 1919	0
Total pumps Before 1900	0
Inaccessible Sewer (Miles)	1
Sewer Clean Production (Miles/Yr)	4
Sewer System Inspected (Miles/Yr)	1

(*) The information presented above was provided by the Enrollee in the Collection System Questionnaire. Enrollees are required to update the questionnaire information at least once a year; therefore, the information presented above may not be the most current.

Enrollee: Sausalito CS

Sewer System Management Plan (SSMP) Due Dates (*)

SSMP Due Date	Certification Date	Access SSMP
08/02/2025	null	N/A
08/02/2031	null	N/A

Audit Report Due Dates (**)

Audit Period	Audit Report Due	Certification Date
08/02/2021 to 08/02/2024	02/02/2025	
08/03/2024 to 08/02/2027	02/02/2028	

* A Sewer System Management Plan (SSMP) is a living document an Enrollee develops and implements to effectively manage its sanitary sewer system(s). Section 5.2 and Attachment E1 section 3.11 of the General Order requires an Enrollee to provide and certify the SSMP in CIWQS Sanitary Sewer Systems data base every six years.

** The Legally Responsible Official shall upload and certify an audit report into the online CIWQS Sanitary Sewer System Database per the requirements in section 3.10 of Attachment E1 of the General Order.

Additional Information:

- Data used for the Operational report is reported by the enrollees through the CIWQS (California Integrated Water Quality System) SSO module.
- Indices are calculated for the date range specified (default is past 4 months) and using data available since reporting was required for all enrollees as specified in the Sanitary Sewer Systems WDR. Reporting was required to begin for Regions 4,8,9 on 1/2/2007, Regions 1,2,3 on 5/2/2007, and, Regions 5,6,7 on 9/2/2007.
- Comparisons are made between similar collection systems type (e.g. Municipal), and lateral responsibility for the entire state and region. Indices are calculated for all similar collection systems and averaged for comparison.
- Category 1 and 2 spills are required to be fully certified 15 calendar days after SSO response conclusion and Category 3 spills are required to be fully certified 30 Calendar days after end of calendar month which SSO occurred. Therefore, spill records for the past approximately 60 days may be incomplete.
- Average Number of Spills per 100 miles: Measures the number of sewer overflows per 100 miles of sewer lines. Notice that these indices are strongly influenced by the length of collection system owned by the enrollee.
    - For instance, an enrollee that owns and operates a collection system of one (1) mile in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 100.0 spills/100mi/yr. On the other hand, an enrollee that owns and operates a collection system of one hundred (100) miles in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 1.0 spills/100mi/yr.
- Average Net Volume (volume spilled minus volume recovered) of Spills per Capita: Measures the volume in gallons of SSOs, for which the reporting Enrollee is responsible, per capita (the population served by your agency's sanitary sewer system). Where the volume recovered is greater than the volume spilled, the net volume will be considered to be zero.
- The “agency” or Enrollee listed on a SSO report is responsible for the data presented in this report and should be contacted directly for questions related to their Data.
- More information on the Sanitary Sewer Overflow Reduction program is available at: http://www.waterboards.ca.gov/water_issues/programs/sso/index.shtml
- The Sanitary Sewer Overflows Incident Map is available at: http://www.waterboards.ca.gov/water_issues/programs/sso/sso_map/sso_pub.shtml
- The Interactive SSO report: https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=sso_main

The current report was generated with data as of: Sunday, January 26, 2025
Regional Boards are in the process of entering backlogged data.
As a result, data may be incomplete.

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APPENDIX 2C – Certified Spills (Historic Operational Report, 2007-2023)

The purpose of this Appendix is to provide a historical Operational Report from including derived from certified spill reports and other data for assisting managers and regulators comprehensively assess the system performance over time. The report utilizes available data from the State Water Board online database (CIWQS) and Fischer Compliance LLC's customized modeling software including development of comprehensive data visualizations to compare the Agency's benchmarks against other sewer collection system operators located within the same region.

The data model source files include all available CIWQS data to comprehensively assess agency performance for the SSMP Audit to help reveal any potential systematic compliance violations with spill notification, reporting, monthly "No Spill" certifications and showcasing other sanitary sewer collection system data, including comparisons with other comparable collection system agencies in the same region.

List of Figures

Figure 1 - Agency Spill Dashboard (by # of spills), 2007-2024

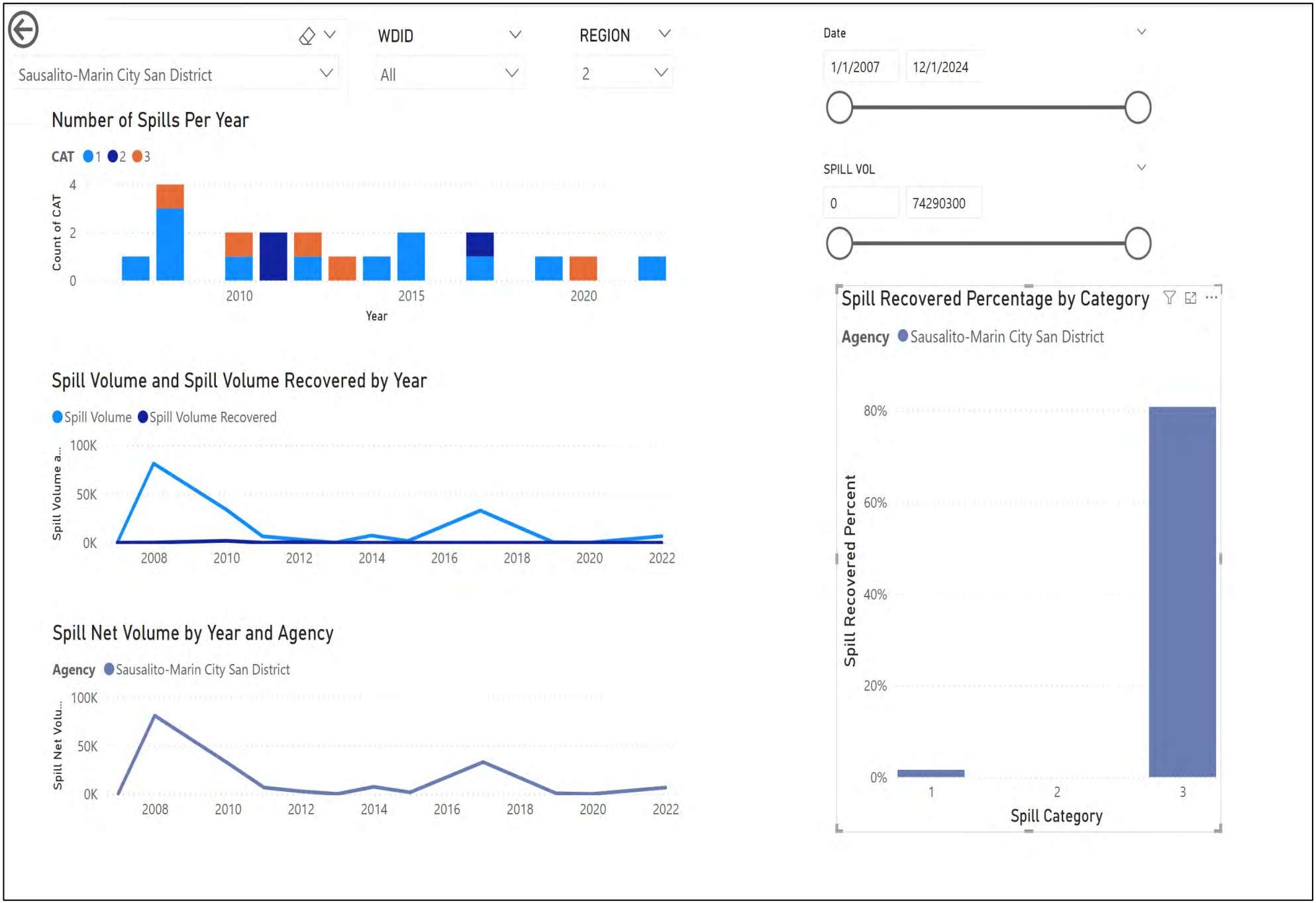

Figure 2 - Agency Spill Dashboard (by Volume), 2007-2024

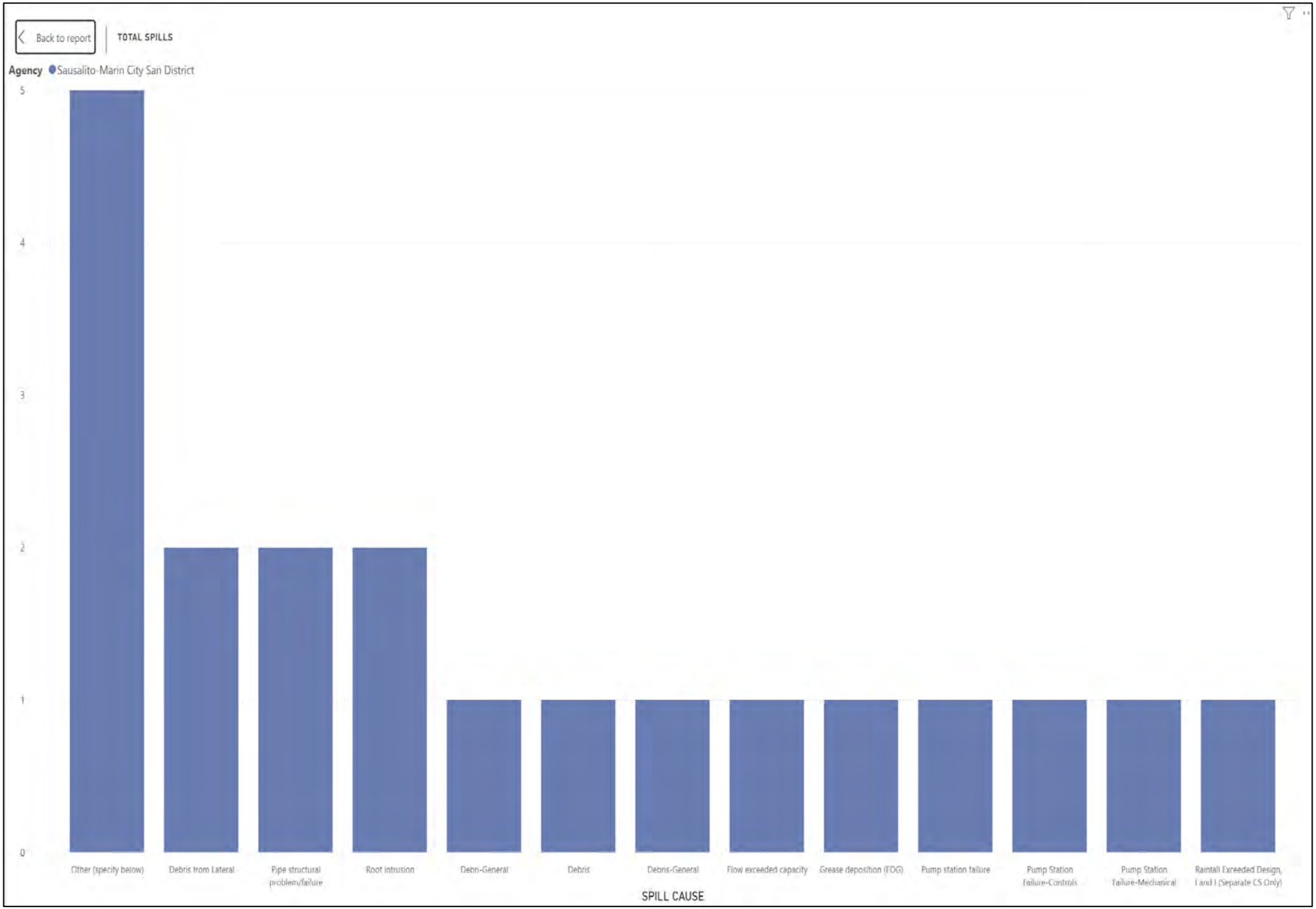

Figure 3 - Agency Spill Causes (by # of spills), 2007-2024

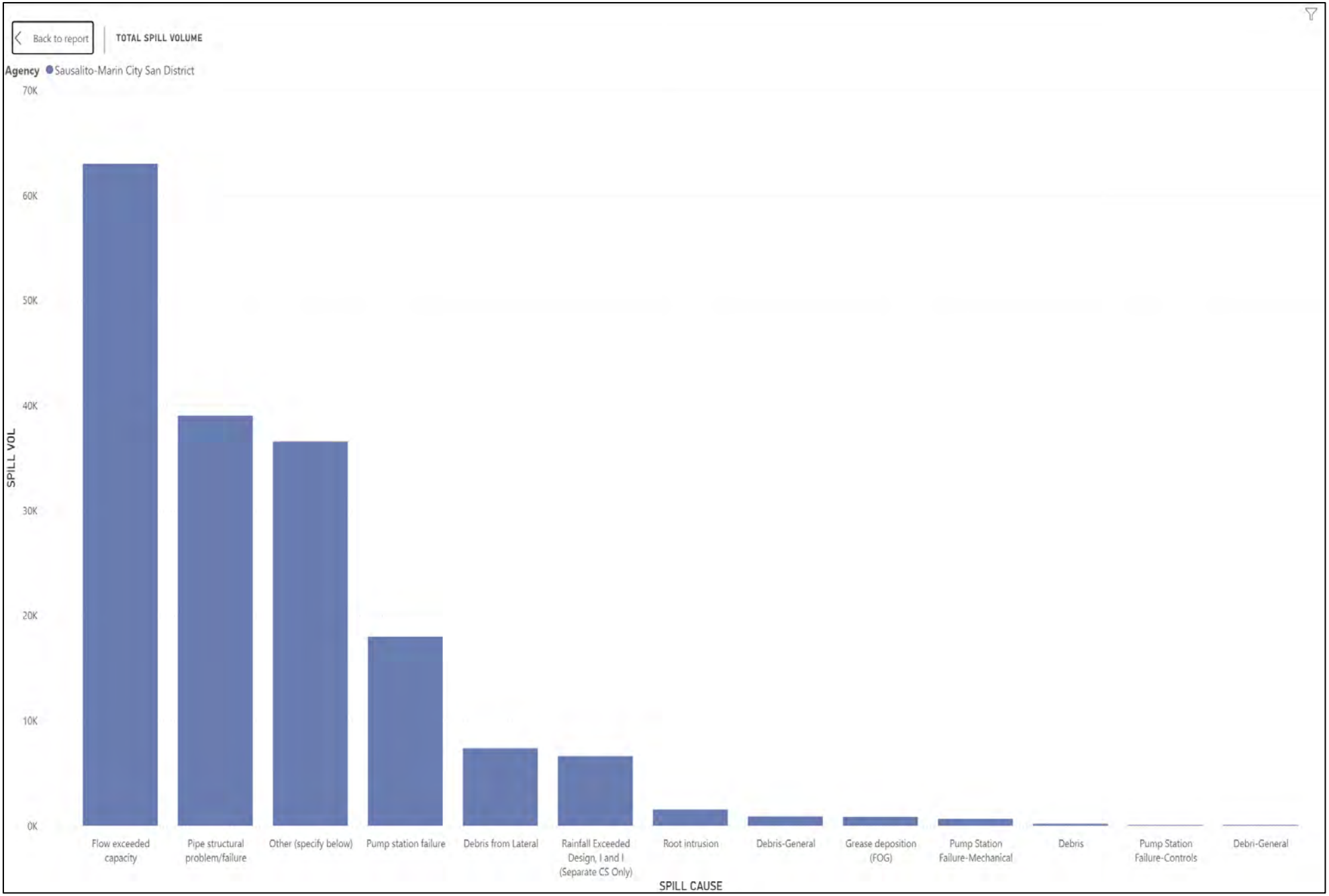

Figure 4 - Agency Spill Causes (by volume of spills), 2007-2024

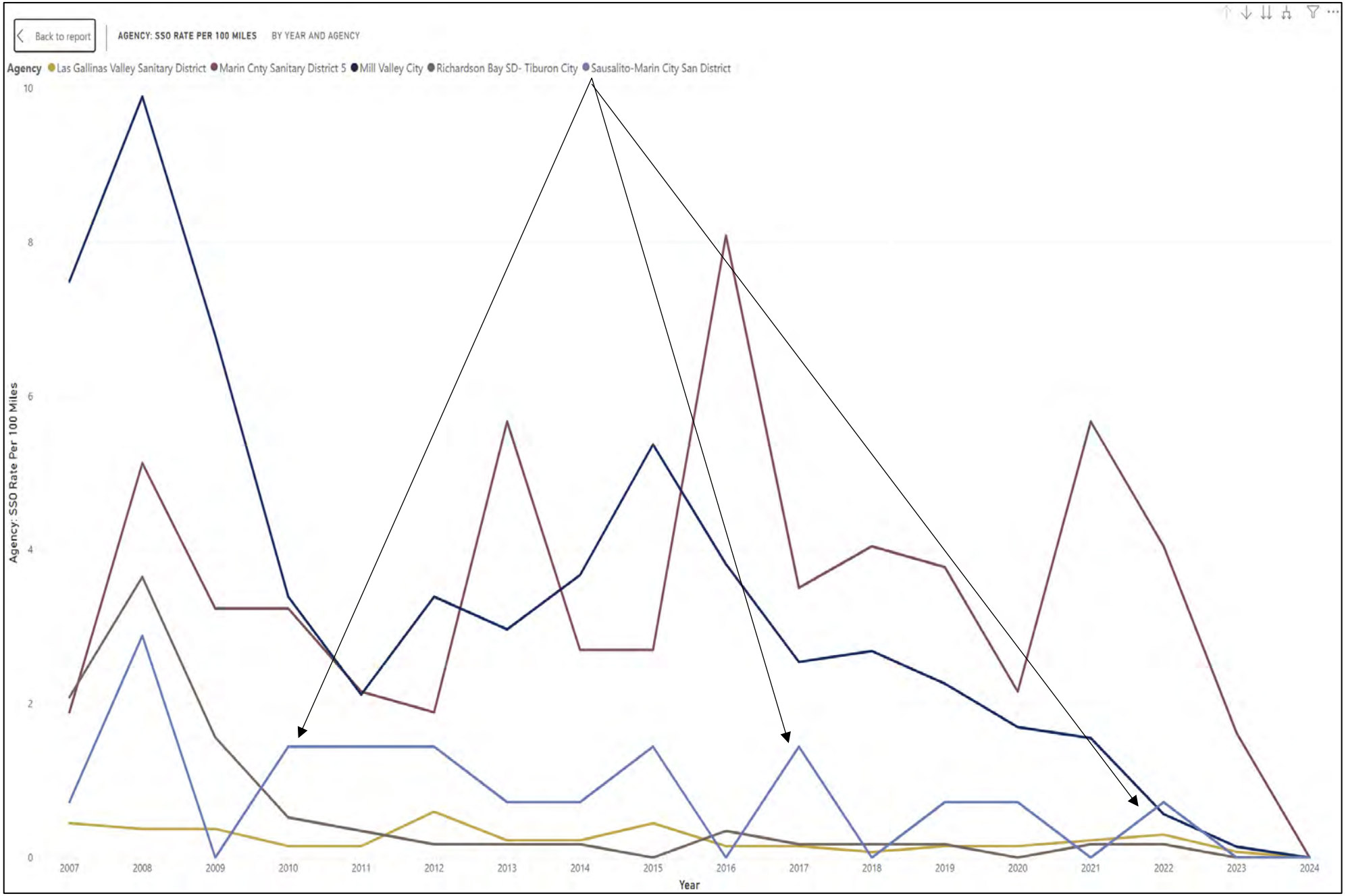

Figure 5 - Agency Spill Rate compared to other agency collection systems

APPENDIX 3 – SSMP Audit Implementation Plan and Schedule

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-1						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-2						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-3						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-4						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-5						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-6						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-7						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-8						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-9						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-10						

REISSUED WDR (ATT D: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Att. D-11						

REISSUED WDR (SPECIFICATIONS: IMPLEMENTATION PLAN/SCHEDULE LOG – 2024 to 2027)						
Requirement	Finding	Agree? (Yes/No)	Proposed Schedule	Date Completed	Implementation Notes	LRO Initials
Spec 5.1 through Spec. 5-15						

APPENDIX 4 – References (Key Performance Indicators, KPIs)

Key Performance Indicators (KPIs)

This document provides a list of additional Key Performance Indicators (KPIs) to facilitate review of the Agency's SSMP for compliance and effectiveness required for SSMP Audits.

Table of Contents

1. ELEMENT I (Goal and Introduction)

Attach. D-1 (SSMP Goal and Introduction)		
SSMP Implementation		
○ KPI D-1(a)	○ Are the Agencys goals adequate in maintaining the sewer system, including O&M and spill reduction and response? ○ Does the Agency have established response time goals for customer service response?	Action: ○ Annual review
SSMP Effectiveness		
○ KPI D-1(b)	○ Are the Agency's Preventative Maintenance work plans being Implemented?	Element Review Frequency/Tasks: ○ Annual review
○ KPI D-1(c)	○ Are Agency spill Reduction Goals being met?	○ Annual review
	○ What is the Agencys average response time for response?	○ Annual review
	○ Total number of spills prevented (plugged mains that were discovered while doing routine PM)	○ Annual review
○ KPI D-1(e)	○ Are Agency spill event responses effective?	Element Review Frequency/Tasks: ○ Annual review
○ KPI D-1(f)	○ Annual review/update of Agency goals and narrative descriptions	Element Review Frequency/Tasks: ○ Annual review
○ KPI D-1(g)	○ Annual review/update of system performance (wet weather spill/surcharge events).	Element Review Frequency/Tasks: ○ Annual review
○ KPI D-1(h)	○ Does the Agency update its sewer system asset inventory annually?	○ Annual review
SSMP Resilience		
○ KPI D-1(h)	○ None	○ None

2. ELEMENT 2 (Organization)

Attach. D-2 (Organization)		

SSMP Implementation

○ KPI D-2(a)	○ Are the Agency's organizational procedures adequate for ensuring full SSMP compliance?	Element Review Frequency/Tasks: ○ Annual review

SSMP Effectiveness

○ KPI D-2(b)	○ Does the Agency SSMP adequately describe SSMP Responsibilities/Tasks for all staffing?	Element Review Frequency/Tasks: ○ Annual review
○ KPI D-2(c)	○ Is Agency Chain of Communication effective and updated?	○ Annual review

SSMP Resilience

○ KPI D-2(d)	○ None	○ None

3. ELEMENT 3 (Legal Authority)

Attach. D-3 (Legal Authority)		
SSMP Implementation		
○ KPI D-3(a)	○ Does the Agency implement its existing codes and ordinances?	Element Review Frequency/Tasks: ○ Periodic review of sewer use ordinance implementation to ensure adequate required legal authority
SSMP Effectiveness		
○ KPI D-3(a)	○ Are the Agency codes and ordinances adequate for fulfilling the SSMP legal requirements?	Element Review Frequency/Tasks: ○ Annual review/update of review of completed work orders and customer complaints to ensure adequacy of authority ○ Annual review/update of any encounters by staff for circumstances where sewer use ordinance was inadequate
SSMP Resilience		
○ KPI D-3(d)	○ None	○ None

4. ELEMENT 4 (Operations and Maintenance Program)

Attach. D-4 (Operations and Maintenance)		
SSMP Implementation		
○ KPI D-4(a)	○ Are the Agency's organizational procedures adequate for ensuring full SSMP compliance? ○ Are Agency preventative maintenance programs implemented and effective? ○ Is Agency tracking metrics for miles of pipe cleaned, CCTV-inspected, and pump station inspections performed in system?	Element Review Frequency/Tasks: ○ Annual review/update of Agency organizational staffing, contacts, and responsibilities ○ Annual review of O/M program ○ Annual review of program metrics
SSMP Effectiveness		
○ KPI D-4(b)	○ Are Agency maps up to date?	Element Review Frequency/Tasks: ○ Annual review/update to ensure all system maps are up to date per change requests submitted by field staff
○ KPI D-4(c)	○ % of new assets added to Agencys sewer mapping system	Element Review Frequency/Tasks: ○ Annual review/update of requirements to ensure compliance conformance. ○ Annual review/update of current maps to ensure new construction project assets have been added.
○ KPI D-4(d)	○ Does Capital Improvement Plan (CIP) properly address Agency needs? ○ Annual Agency Capital budget for rehabilitation or replacement?	Element Review Frequency/Tasks: ○ Is each segment evaluated for capaAgency deficiencies based on projected growth ○ Are system assets evaluated for remaining useful life ○ Is existing CIP plan and schedule being implemented as intended?
○ KPI D-4(e)	○ Are Agency complete maintenance, operations, engineering work orders reviewed for accuracy and completeness? ○ Number of annual PM work orders completed?	Element Review Frequency/Tasks: ○ Annual review
○ KPI D-4(f)	○ Is Agency Rehabilitation and Replacement (R/R) plan being implemented?	Element Review Frequency/Tasks: ○ Annual review/update of R/R plan to ensure adherence to plan and schedule
○ KPI D-4(g)	○ % of Agencys CCTV goal completed ○ Number of annual CCTV work orders completed?	Element Review Frequency/Tasks: ○
○ KPI D-4(h)	○ Is Agency critical spare parts adequate and up-to-date.	Element Review Frequency/Tasks: ○ Bi-annual review

	○ % if required critical spare parts in stock?	○ Bi-annual review
○ KPI D-4(i)	○ Has all required Agency staff training been completed?	Element Review Frequency/Tasks: ○ Bi-annual review
	○ % of required training completed for wastewater collection staff	○ Bi-annual review
SSMP Resilience		
○ KPI D-2jl)	○ None	○ None

5. ELEMENT 5 (Design and Performance Provisions)

Attach. D-5 (Design and Performance Provisions)		
SSMP Implementation		
○ KPI D-5(a)	○ Does the Agency implement its current design and construction standards, specifications, and inspection procedures?	Element Review Frequency/Tasks: ○ Annual review
SSMP Effectiveness		
○ KPI D-5(b)	○ Are existing Agency design and construction standards, specifications, and inspection procedures adequate for the collection system? ○ Annual review of the Agencys standards and procedures for acceptance and testing of new infrastructure? ○ % of new infrastructure accepted vs inspected	Element Review Frequency/Tasks: ○ Annual review ○ Annual review ○ Annual review
SSMP Resilience		
○ KPI D-5(c)	○ None	○ None

6. ELEMENT 6 (Spill Emergency Response Plan)

Attach. D-6 (Spill Emergency Response Plan)		
SSMP Implementation		
○ KPI D-6(a)	○ Develop and implement a Spill Emergency Response Plan	Element Review Frequency/Tasks: ○ Quarterly review and training on SERP ○ Quarterly training/drills on SERP including practice drills with completing field data collection form
SSMP Effectiveness		
○ KPI D-6(b)	○ Were Agency notification procedures outlined in the SERP adhered to for each spill event?	Element Review Frequency/Tasks: ○ Annual review
○ KPI D-6(c)	○ Procedures reviewed to provide prompt notification to appropriate Agency parties for a spill event?	Element Review Frequency/Tasks: ○ Annual review
○ KPI D-6(d)	○ Was Agency SERP training performed as prescribed in SSMP? ○ % of employees that completed annual training on SERP versus total field staff	Element Review Frequency/Tasks: Element Review Frequency/Tasks:
○ KPI D-6(e)	○ Did the Agency complete a Category 1 spill assessment checklist for all large spills?	Element Review Frequency/Tasks: ○ Annual review of completed checklists for all Category 1 spills >1,000 gallons reaching surface waters
SSMP Resilience		
○ KPI D-6(f)	○ ○ Coordinate meetings to improve mapping and Spill response activities with Kern County ○ % of Bi-annual meetings with Kern County completed	○ None

7. ELEMENT 7 (Sewer Pipe Blockage Control Program)

Attach. D-7 (Sewer Pipe Blockage Control Program)		
SSMP Implementation		
○ KPI D-7(a)	○ Is Agency commercial FOG program being implemented and are goals being achieved?	Element Review Frequency/Tasks: ○ Annual review of goals
SSMP Effectiveness		
○ KPI D-7(b)	○ Is Agency residential FOG and root programs being administered and are goals being achieved?	○ Annual review
	○ Number of spills caused by hot spots or FOG	○ Annual review
	○ % of spills caused by FOG	○ Annual review
	○ % of spills caused by Roots	○ Annual review
	○ % of spills caused by debris/rags (non-Dispersables)	○ Annual review
	○ % of hot spots inspected annually	○ Annual review
	○ Number of hot spots removed from Hot Spot list annually?	○ Annual review
SSMP Resilience		
○ KPI D-7(e)	○ None	○ None

8. ELEMENT 8 (System Eval./CapaAgency/Cap. Improvements)

Attach. D-7 (Sewer Pipe Blockage Control Program)

SSMP Implementation

○ KPI D-8(a)	○ Has the Agency been adhered to its system evaluation/condition assessment efforts?	Element Review Frequency/Tasks: ○ Annual review/update of system inspections/evaluations

SSMP Effectiveness

- ○ % of sewer system condition assessment completed annually
- ○ # of flowmeters installed to evaluate system capaAgency

○ KPI D-8(b)	○ Has the Agency experienced any capaAgency-related spills or surcharge events?	Element Review Frequency ○ Annual review
○ KPI D-8(c)	○ Have any changes occurred within the Agency service area that might affect the hydraulic model?	○ Annual review
○ KPI D-8(d)	○ Has CIP capaAgency-related projects/schedule been adhered to?	○ Annual review
○ KPI D-8(e)	○ Has the prioritization/corrective actions for sewer repairs been adhered to?	○ Annual review
○ KPI D-8(f)	○ Has the capital improvement plan been adhered to?	○ Annual review

SSMP Resilience

○ KPI D-8(g)	○ Improve capaAgency-related investigations and inspections	Element Review Frequency/Tasks: ○ Periodic review of flow/level sensor data (wet weather months) ○ Periodic review of goals and KPIs (wet weather months)

9. ELEMENT 9 (Monitoring, Measurement, Program Modifications)

Att. D-9 (Monitoring, Measurement. Program Modifications)		
SSMP Implementation		
○ KPI D-9(a)	○ Were Agency KPIs reviewed and evaluated for each element of the SSMP efforts?	Element Review Frequency/Tasks: ○ Annual review
SSMP Effectiveness		
○ KPI D-9(b)	○ Were annual Agency maintenance/repair activities including Performance Measures evaluated/updated?	Element Review Frequency/Tasks: ○ Annual review
○ KPI D-9(c)	○ Were any Agency SSMP program compliance point(s) corrected and/or updated based on results of performance measures? ○ Spills per 100 miles of pipe ○ Volume of spills per 100 miles of pipe ○ Number of Category 1 spills ○ Number of spills caused by lift station failure ○ Number of repeat spills from same location	Element Review Frequency/Tasks: ○ Annual review
SSMP Resilience		
○ KPI D-9(d)	○ None	○ None

10. ELEMENT 10 (Internal Audits)

Att. D-10 (SSMP Internal Audits)		
SSMP Implementation		
○ KPI D-10(a)	○ Were SSMP internal program audits completed?	Element Review Frequency/Tasks: ○ Review of Audit reports
SSMP Effectiveness		
○ KPI D-10(b)	○ Did the SSMP internal audit evaluate the SSMP for compliance?	Element Review Frequency/Tasks: ○ Review of completed SSMP internal audits
○ KPI D-10(b)	○ Did the SSMP internal audit evaluate the SSMP for effectiveness?	Element Review Frequency/Tasks: ○ Review of completed SSMP internal audits
○ KPI D-10(c)	○ Were all past SSMP internal audit findings and schedule met for incorporating new changes into SSMP?	Element Review Frequency/Tasks: ○ Review of past SSMP internal audit commitments and priorities, including any outstanding items not captured in SSMP/change log to be flagged for carry-over for next SSMP update
○ KPI D-10(d)	○ Were any upgrades made to enhance SSMP work programs?	Element Review Frequency/Tasks: ○ Review of SSMP/change log
SSMP Resilience		
○ KPI D-10(e)	○ None	○ None

11. ELEMENT 11 (Communication Program)

Att. D-11 (Communication Program)

SSMP Implementation

○ KPI D-10(a)	○ Was the public afforded the opportunity to provide input as the program is being implemented?	Element Review Frequency/Tasks: ○ Periodic review to ensure board has approved latest SSMP. ○ Periodic review to verify latest SSMP/docs are posted on website. ○ Periodic review of any public comments received via website or direct contact with Agency staff annual review/update of KPIs

SSMP Effectiveness

○ KPI D-10(b)	○ Were all outside agency/communications documented? ○ Number of annual public outreach events ○ Number of Regional Partner meetings ○ % of customers receiving public outreach information	Element Review Frequency/Tasks: ○ Element Review Frequency periodic review of outside agency/satellite meetings/emails/notices of communications.

SSMP Resilience

○ KPI D-10(c)	○ External communications verifications	Element Review Frequency/Tasks: ○ Annual review/update to ensure the general public has access to the Agency SSMP via website with a mechanism to provide input/comments

12. SPEC. 5.2 (Designation of LRO)

Spec. 5.1 (Designation of Legally Responsible Official)		
SSMP Implementation		
○ KPI 5.1(a)	○ Does the Agency LRO and supporting staff possess adequate knowledgeable, training, skills, and abilities for implementing all Reissued WDR requirements?	Element Review Frequency/Tasks: ○ Annual review/update of staff competency checks/tests
SSMP Effectiveness		
○ KPI 5.1(b)	○ Are Agency LRO policies in place adequate, including authorization for making managerial decisions governing 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?	Element Review Frequency/Tasks: ○ Annual review/update of any issues arisen attributable to inadequate LRO oversight, training/competency ○ Annual review/update of KPI frequency and success rate/adjust as necessary
○ KPI 5.1(c)	○ Has the Agency complied with all the ongoing WDR deadlines?	○ Annual review/update of Agency compliance performance with spill notification, monitoring, reporting, recordkeeping
○ KPI 5.1(d)	○ Has the Agency complied with the change notification requirements for its LROs?	○ Review of any change(s) in LRO designation(s) and meeting compliance deadlines specified in Attachment E1
○ KPI 5.1(e)	○ Compliance with SWRCB pre-inspection questionnaire	○ Annual review/update of questionnaire, document changes to work programs/accomplishments
○ KPI 5.1(f)	○ Compliance with internal SSMP Audit findings and recommendations	○ Annual review/update of past SSMP Audit findings and recommendations for improving compliance, implementation, and spill reduction performance

13. SPEC. 5.2 (Develop/Implement SSMP)

Spec. 5.2 (Development and Implementation of SSMP)		
SSMP Implementation		
○ KPI 5.2(a)	○ Are the Agency's existing work programs effective in reducing spills to meet SSMP goals and objectives?	Element Review Frequency/Tasks: ○ Annual review/update of exiting work programs to ensure conformance with SSMP goals and objectives
SSMP Effectiveness		
○ KPI 5.2(b)	○ Does the Agency implement standard operator procedures (SOPs) to measure and support improving SSMP effectiveness?	Element Review Frequency/Tasks: ○ Annual review/update of Agency SOPs
○ KPI 5.2(c)	○ Does the Agency implement standard operator procedures (SOPs) to measure and support improving SSMP effectiveness?	Element Review Frequency/Tasks: ○ Annual review/update of all related SSMP procedures and work programs
○ KPI 5.2(d)	○ Does the Agency's existing data collection and work order system adequately allow analysis of potential impacts that could cause spills?	Element Review Frequency/Tasks: ○ Annual review/update data collection methods and work orders and documentation of accomplishments, including instances where spills were eliminated
○ KPI 5.2(e)	○ Do the Agency work programs include procedures for spill containment/recovery, sewer mapping, work order system/tracking, emergency responses, and operator training?	Element Review Frequency/Tasks: ○ Annual review/update of Agency work programs
○ KPI 5.2(f)	○ Does the Agency meet its proposed objectives with improving its SSMP ranking >80% by October 2024?	Element Review Frequency/Tasks: ○ Annual review/update and assessment/ranking of all SSMP requirements
SSMP Resilience		
○ KPI 5.2(g)	○ Collection system certification (CWEA)	Element Review Frequency/Tasks: ○ Annual survey of line staff resources

14. SPEC. 5.6 (System Resilience)

Spec. 5.6 (Sewer System Resilience)		
SSMP Implementation		
○ KPI 5.6(a)	○ Are the Agency's existing efforts in identifying possible spill vulnerabilities effective?	Element Review Frequency/Tasks: ○ Annual review/update/update of historic spill causes and vulnerabilities
SSMP Effectiveness		
○ KPI 5.6(b)	○ Does the Agency proactively prioritize its operation and maintenance, condition assessments, and repair, and rehabilitation efforts to help further reduce vulnerabilities for spills??	Element Review Frequency/Tasks: ○ Annual review/update of Agency CCTV records and data
○ KPI 5.6(c)	○ Does the Agency assess/review its ongoing historic spills, causes, and vulnerabilities?	Element Review Frequency/Tasks: ○ Annual review/update/update of historic spill causes and vulnerabilities; adjust resilience matrix as necessary
○ KPI 5.6(e)	○ Does the Agency implement a program to address existing "Hot Spots" to help further reduce vulnerabilities for spills?	Element Review Frequency/Tasks: ○ Annual review/update/update of "hot spot" implementation plan/schedule conformance
○ KPI 5.6(f)	○ Does the Agency have a "Hot Spot" reduction program to help further reduce vulnerabilities for spills??	Element Review Frequency/Tasks: ○ Annual review/update of specific "hot spot" resources (time/labor/materials) spent on cleaning all locations and list of locations repaired, resolved, and eliminated
SSMP Resilience		
○ KPI 5.6(h)	○ Collection system electronic monitoring	Element Review Frequency/Tasks: ○ Evaluation for installation of flow/level sensors in system areas necessary for further reducing risks for future spills and improve monitoring
	○ Collection system resilience	○ Development of Agency "resilience indicators" for measuring how well the collection system can withstand and recovery quickly from real-world stresses, setbacks and /or difficulties including major infrastructure failures

15. SPEC. 5.7 (Allocate Necessary Resources)

Spec. 5.7 (Allocate Necessary Resources)		
SSMP Implementation		
○ KPI 5.7(a)	○ Are the Agency's existing resources adequate?	Element Review Frequency/Tasks: ○ Annual review/update of resource allocations and budgets specific to sewer collection system operations, maintenance, and capital improvements
SSMP Effectiveness		
○ KPI 5.7(b)	○ Does the Agency maintain adequate means to manage revenues and expenditures for supporting the sewer collection system?	Element Review Frequency/Tasks: ○ Annual review/update of Agency budget allocations/funds spent on sewer system ○ Long-range review (5-10 years) of Agency financial planning for ensuring adequate budgets/allocations for sewer system operations/maintenance and capital projects
○ KPI 5.7(c)	○ Does the Agency maintain adequate sewer fees for supporting its the sewer system requirements?	Element Review Frequency/Tasks: ○ Annual review/update of Agency sewer fees
SSMP Resilience		
○ KPI 5.7(d)	○ None	○ None

16. SPEC. 5.13 (Comply with Attachment E1 Requirements)

Spec. 5.13 (Compliance with Attachment E1 Requirements)		
SSMP Implementation		
○ KPI 5.13(a)	○ Are the Agency's data collection efforts (field forms, work order system) adequate for supporting all required information required by Attachment E1?	Element Review Frequency/Tasks: ○ Annual review/update of Agency data collection and reporting efforts against Attachment E1 requirements
SSMP Effectiveness		
○ KPI 5.13(a)	○ Do Agency field data collection efforts comply with Attachment E1?	Element Review Frequency/Tasks: ○ Element Review Frequency annual review/update of all Agency field data collection forms against requirements
○ KPI 5.13(c)	○ Are required spill notification timeframes for Category 1 spills being met?	Element Review Frequency/Tasks: ○ Element Review Frequency annual review/update of all Category 1 spills against requirements for notifying Cal-OES within 2 hours
○ KPI 5.13(d)	○ Are required spill notification timeframes for Category 2 spills being met?	Element Review Frequency/Tasks: ○ Element Review Frequency annual review/update of all Category 2 spills against requirements for notifying Cal-OES
○ KPI 5.13(e)	○ Are required spill reporting timeframes for Category 3 spills being met?	Element Review Frequency/Tasks: ○ Element Review Frequency annual review/update of all Category 1 spills vs. requirements
○ KPI 5.13(f)	○ Are required spill reporting timeframes for Category 4 spills being met?	Element Review Frequency/Tasks: ○ Element Review Frequency annual review/update of all Category 1 spills vs. requirements
○ KPI 5.13(g)	○ Are the Agency field staff competent with operations, maintenance, repair, and spill response procedures?	Element Review Frequency/Tasks: ○ Assessments (every 3 years) for all Agency field staff
SSMP Resilience		
○ KPI 5.13(h)	○ Quarterly training on Agency field data collection form and required procedures	Element Review Frequency/Tasks: ○ Quarterly training to ensure consistency with staff data collection and improving procedures as necessary

APPENDIX 5 – References (Key Regulatory References for SSMP Development and Updating)

Guide for Developing and Updating of Sewer System Management Plans

JULY 2024

APPENDIX 5 (Page2)

Appendix 1 (Key Regulatory Changes for Sewer System Management Plan Development/Updates)

2006 WDR (rescinded)	2022 WDR (current)	2022 Changes	Summary of Key 2022 WDR Changes
1. Goal Provision D.13(i)	1. Goal and Introduction Att. D-6, Spec. 5.2	Many	• Implementation of SSMP as "living document." • Enforcement of development, update, and implementation. • Narratives for regulatory context, assets, updated sewer map(s).
2. Organization Provision D.13(ii)	2. Organization Attachment D-6, Spec. 5.1	Few	• Name of Legally Responsible Official. • Enhanced details on LRO training and experience requirements.
3. Legal Authority Provision D.13 (iii)	3. Legal Authority Attachment D-6	Few	• Collaboration with storm drain agencies; easement accessibility agreements.
4. O/M Program Provision D.13 (iv)	4. O/M Program Attachment D-6	Many	• Procedures for maintaining/providing Water Board access to sewer map(s) • Enhanced training/WDR, drills/skilled vol. est., CIWQS reporting; scheduling system in place.
5. Design and Performance Provisions Provision D.13 (v)	5. Design and Performance Provisions Attachment D-6	Few	• Few changes.
6. Overflow Emergency Response Plan Provision D.13 (vi)	6. Spill Emergency Response Plan Attachment D-6	Many	• Numerous upgrades to notification, monitoring, reporting, record keeping, definitions. • Staff/contractor requirements for implementation, removing/cleaning sewage from drainage conveyance systems not impacting beneficial uses/receiving waters. • Coordination/collaboration with storm drain agencies (prior, during, after) spills. • Post-spill assessments, annual assessment, implement containment tech/practices. • Requires annual certification in Annual Report that plan is up-do-date.
7. Fats, Oils, and Grease Control Program Provision D.13 (vii)	7. Sewer Pipe Blockage Control Program Attachment D-6	Few	• Plan/schedule for pipe-blocking substances. • Commercial controls/authority to inspect, "hot spot" program, source controls.
8. System Evaluation and Capacity Assurance Plan Provision D.13 (viii)	8. System Evaluation, Capacity Assurance, and Capital Improvements Attachment D-6	Many	• Implementation of capital improvements. • Identify/justify and prioritize specific system areas (high env. consequences/areas, new surface waters, steep terrain, high groundwater, near surface waters), exfiltration, recordkeeping enhancements, assets vulnerable to climate impacts. • More information for capacity assessments, inspections, audits. • Capacity of flood-prone systems subject to inflow/infiltration. • Increases in erosive forces, pumping redundancy, prioritization of corrective actions.

2006 WDR (rescinded)	2022 WDR (current)	2022 Changes	Summary of Key 2022 WDR Changes
			• Enhanced coordination (operations/maintenance/engineering, other utilities).
9. Monitoring, Measurement, and Program Modifications Provision D.13 (ix)	9. Monitoring, Measurement, and Program Modifications Attachment D-6	Few	• Adaptive management/implementation effectiveness (Key Performance Indicators) • Update plan procedures/activities based on monitoring/performance evaluations.
10. SSMP Audits	10. Internal Audits Attachment D-6	Few	• Completed every 3 years (vs. every 2 years), input from operators, and cert/upload/LRO.
11. Communication Program Provision D.13 (xi)	11. Communication Program Attachment D-6	Few	• Enhanced communications procedures (public/owners/operators connected to sewers).

2006 WDR (rescinded)	2022 WDR (current)	2022 Changes	Summary of Key 2022 WDR Changes
Legally Responsible Official	Designation of LRO Spec. 5.1 (pg. 18)	Major	• Legally Responsible Official must have authority to ensure compliance, authority over management of the entire sewer system, and authorized to make managerial decisions governing operations, capital improvements, and ensuring long-term environmental compliance. • Legally Responsible Official must possess recognized degree/certificate for O/M of sewer systems and/or professional training and experience demonstrated through extensive knowledge, training, and experience.
SSMP Development and Implementation Provision D.11 (pg. 9)	SSMP Development and Implementation Spec. 5.2 (pgs. 18-19)	Major	• Agencies must develop and implement an SSMP (ensuring adequate funding/management, matching size, scale and complexity, procedures for management, operation, maintenance, prioritization of system repairs and maintenance, implementation of current standard industry practices through available equipment, technologies, and strategies)."
Certification of System Management Plan + Updates Provision D.14 (pg. 15)	Certification of SSMP and Updates Spec. 5.3 (pg. 19)	Major	• Legally Responsible Official must certify/upload SSMPs to CIWQS.
SSMP Internal Audits Provision D.13(x) (pg. 14)	SSMP Development and Update Spec. 5.4 (pgs. 19-20)	Minor	• Audits of SSMPs every 3 years (vs. every 2 years under 2006 WDR). • Within 6 months after the end of the required 3- year Audit period, the agency Legally Responsible Official shall submit the Audit report into the online CIWQS database per requirements of section 3.10 of Attachment E1 of the Reissued WDR). Audit reports will only be viewable publicly in CIWQS by Water Board staff. • Audits must : 1) be sized/scaled to system, 2) evaluate implementation and effectiveness of SSMP in preventing spills, 3) identify necessary modifications to SSMP for correcting deficiencies, and 4) include a proposed schedule for correcting

2006 WDR (rescinded)	2022 WDR (current)	2022 Changes	Summary of Key 2022 WDR Changes
			deficiencies.
SSMP Updates Provision D.14 (pg. 15)	Six-Year SSMP Update Spec. 5.5 (pgs. 21)	Minor	• Agencies must update their SSMPs and include a summary of revisions based on Audit findings every 6 years (vs. every 5 years under 2006 WDR).
N/A	System Resilience Spec 5.6 (pg. 22)	N/A	• Agencies must include and implement system-specific procedures to proactively prioritize O/M, condition assessments, and repair/rehabilitation.
Notif, Monit, Report., Records 2013-0058-EXEC	Notif, Monit, Report., Records Attachment E1	Major	• Numerous changes throughout; adds one new spill category (Category 4); new reporting requirements for systems with enrollee-owned laterals.
Collection System Questionnaire	Annual Report	Minor	• Streamlined (fewer) reporting fields; requires uploading of spill performance charts; includes options for adding comments and/or attaching doc(s) to elaborate on answers.
N/A	Sanitary Sewer System Service Area Boundary Map	Major	• New requirements (Specifications 5.14) for uploading an electronic boundary map (required between July1 to Dec 31, 2025, for all continuing enrollees).
N/A	Pre-Insp. Questionnaire	Major	• Requires agencies to provide pre-inspection information to State and Regional Water Board staff through the completion of a Questionnaire (see Provisions 6.4.2).