Sewer System Management Plan 2025

Sanitary Sewer Collection System

Waste Discharge ID (WDID): # 2SSO10215

West Bay Sanitary District

Serving Our Community Since 1902

REVIEWED AND APPROVED BY:

Sergio Ramirez, General Manager
General Manager, Legally Responsible Official
West Bay Sanitary District

PREPARED BY:

FISCHER COMPLIANCE LLC
PRACTICES THAT COMPLY

7/23/2025
Date Signed

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

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FISCHER LLC COMPLIANCE
PRACTICES THAT COMPLY

West Bay Sanitary District
Att: Sergio Ramirez
Legally Responsible Official (LRO)
500 Laurel ST
Menlo Park, CA 94025

Dear Mr. Beyer,

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 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.

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

Sincerely,

James 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 District with technical assistance from Fischer Compliance LLC for meeting and exceeding compliance with the State Water Resources Control Board 2022 General Waste Discharge Requirements, Order WQ 2022-0103-DWQ for Sanitary Sewer Systems (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 agency's sanitary sewer collection system. Additionally, the latest 2024 Sewer System Management Plan Guidance Manual published by the Bay Area Clean Water Agency (BACWA) was utilized as a model for development of the document to harmonize formatting/content and incorporate recommended suggested guidance wherever possible.

The Agency'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.

Figure 1 provides key District spill metrics, (5/1/2015 to 5/1/2025) including data comparing the District's spill record with state and regional system data. The District consistently performs better than both statewide and regional spill rate indices and net spill volumes for all categories of spills from its sanitary sewer collection system.

Collection System Spill Summary

Operational Indices: West Bay Sd CS

Spill Rate Indice (spills/100mi/yr)							
	Category 1			Category 2		Category 3	
	Main System	Laterals	Other	Main System	Other	Main System	Other
West Bay Sd CS	0.05	N/A	0.1	0.05	0.05	1.43	0.0
State Municipal(Public) Average	1.56	N/A	0.52	0.73	0.72	2.45	0.45
Region Municipal Average	2.72	N/A	0.41	0.83	0.42	4.46	0.75

Net Volume Spills Indice (gallons/1000 Capita/yr)							
	Category 1			Category 2		Category 3	
	Main System	Laterals	Other	Main System	Other	Main System	Other
West Bay Sd CS	0.41	N/A	142.6	0.0	0.05	1.88	0.0
State Municipal(Public) Average	2088.44	N/A	6610.02	276.71	3810.77	35.52	14.25
Region Municipal Average	-396.92	N/A	686.0	87.59	2287.94	77.18	36.41

Figure 1 - Collection System Operational Report – SWRCB Integrated Water Quality System (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 Agency'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 Plan is being carried out as described.
5. Resilience – Demonstrates the resilience that is addressed in the SSMP and built-in to the Agency's collection system and procedures.
6. Appendix Inclusions – List the items included in the Appendix for each SSMP Element, if any.

Abbreviations and Acronyms

BMP	Best Management Practices
CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CIWQS	California Integrated Water Quality System (State Water Board Online Spill Database)
CMMS	Computerized Maintenance Management System
DE	District Engineer
EPA	US Environmental Protection Agency
FOG	Fats, Oils and Grease
FSE	Food Service Establishment
GCD	Grease Control Device
GIS	Geographic Information System
GM	General Manager
I & I	Inflow and Infiltration
LRO	Legally Responsible Official
MRP	Monitoring and Reporting Program
OPS	Operations Supervisor
PS	Pumps Supervisor
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SERP	Spill Emergency Response Plan
SOP	Standard Operating Procedure
Spill	Sanitary Sewer Spill
SPT	Operations Superintendent
SSMP	Sewer System Management Plan
SPT	Superintendent
WDR	Sanitary Sewer Systems General Wastewater Discharge Requirements Order issued by the State Water Board (Order No. 2022-0103-DWQ)
WQM	Water Quality Manager
SWRCB	State Water Resources Control Board
WDID	Waste Discharge ID Number (CIWQS)

Table 1 - Abbreviations and Acronyms

1. Goal and Introduction

REQUIREMENTS

Att. 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 (see below):"

1.1. Regulatory Context

WDR REQUIREMENTS

Att. D-1.1 (pg. D-2)

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

COMPLIANCE

West Bay Sanitary District (District) is committed to fully implementing the WDR[1] which includes addressing all requirements by integrating a wide range of programs specifically designed for ensuring the integrity and efficiency of the Agency'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, but are not limited to, CCTV inspections, pipe cleaning, manhole inspections, lift station maintenance, root control, source control and pipe repair. Work programs are described in more detail in sections Specifications 5.19 Operation 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] *State Water Resources Control Board, Statewide Waster Discharge requirements, General Order for Sanitary Sewer Systems*

1.2. SSMP Update Schedule

WDR REQUIREMENTS

Att. D-1.2 (pg. D-3)

"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 Board's online lookup tool for ensuring all required due dates for updating its SSMP and completing its required SSMP Audits (see chart below).

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*
West Bay Sd CS	2SSO10215	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**
West Bay Sd CS	2SSO10215	8/2/2011	8/2/2013	8/2/2015	8/2/2017	8/2/2019	8/2/2021	8/2/2024

Figure 2 - Sewer System Management Plan, Subsequent Update and Audit Due Dates

Notable maintenance milestones include optimization of preventative measures including 6-year CCTV inspection cycle, diameter-specific cleaning cycles for gravity mains and continuous monitoring of pump stations via SCADA.

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 Sewer System Management Plan been approved by the governing board on schedule (every six years)?
- Are specific internally established sewer program milestones being monitored?

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			GM	WQM	SPT
1.2.1	Prepare for next SSMP Audit	Begin 5/2/2027	X	X	X
1.2.2	Complete and Upload SSMP audit.	By 11/2/2027	X	X	X
1.2.3	Incorporate Audit Findings, update Change Log and Update SSMP	5/2/2025		X	X
1.2.4	Board Approval and LRO Certification of SSMP	By 5/2/2031	X	X	X

1.3. Sewer System Asset Overview

WDR REQUIREMENTS

Att. 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 owns, operates and maintains the wastewater collection system that serves a population of approximately 55,000 and includes areas in Menlo Park, Atherton, Portola Valley, East Palo Alto, Woodside, and portions of Unincorporated San Mateo and Santa Clara Counties. The service area, shown on Figure 1, lies west of the San Francisco Bay in the southeastern corner of San Mateo County adjoining the northern boundary of Santa Clara. It lies within the northeasterly or bay ward slope of Kings Mountain and of the connecting ridges, which form the northeasterly extension of the Santa Cruz Mountains. These ridges, which are part of the Coast Range, lie along an axis approximately 40 degrees west and divide the San Francisco Peninsula between the watersheds of San Francisco Bay on the east and the Pacific Ocean on the west.

The system is divided into three major drainage basins. Basin A consists of nine sub-basins covering approximately 2,730 acres in the central district of the City of Menlo Park and portions of Redwood City, Atherton and Woodside. Basin B consists of eight sub-basins covering approximately 3,787 acres east of the central district and extending west into the Portola Valley area and unincorporated portions of San Mateo County. Basin C consists of five sub-basins covering approximately 1,806 acres north of the central district and including a portion of the city of East Palo Alto. For more detail on basin delineation, see the District's 2023 Master Plan. The District is currently responsible for the operation and maintenance of approximately 220 miles of public sewer mains ranging in size from 2 to 54 inches in diameter, pump stations and approximately 9 miles of force main.

The District does not have lateral responsibility for the 20,074 laterals (150 miles) connected to the system, nor does the District own any structures that divert storm water to the sewer system.

Service Area

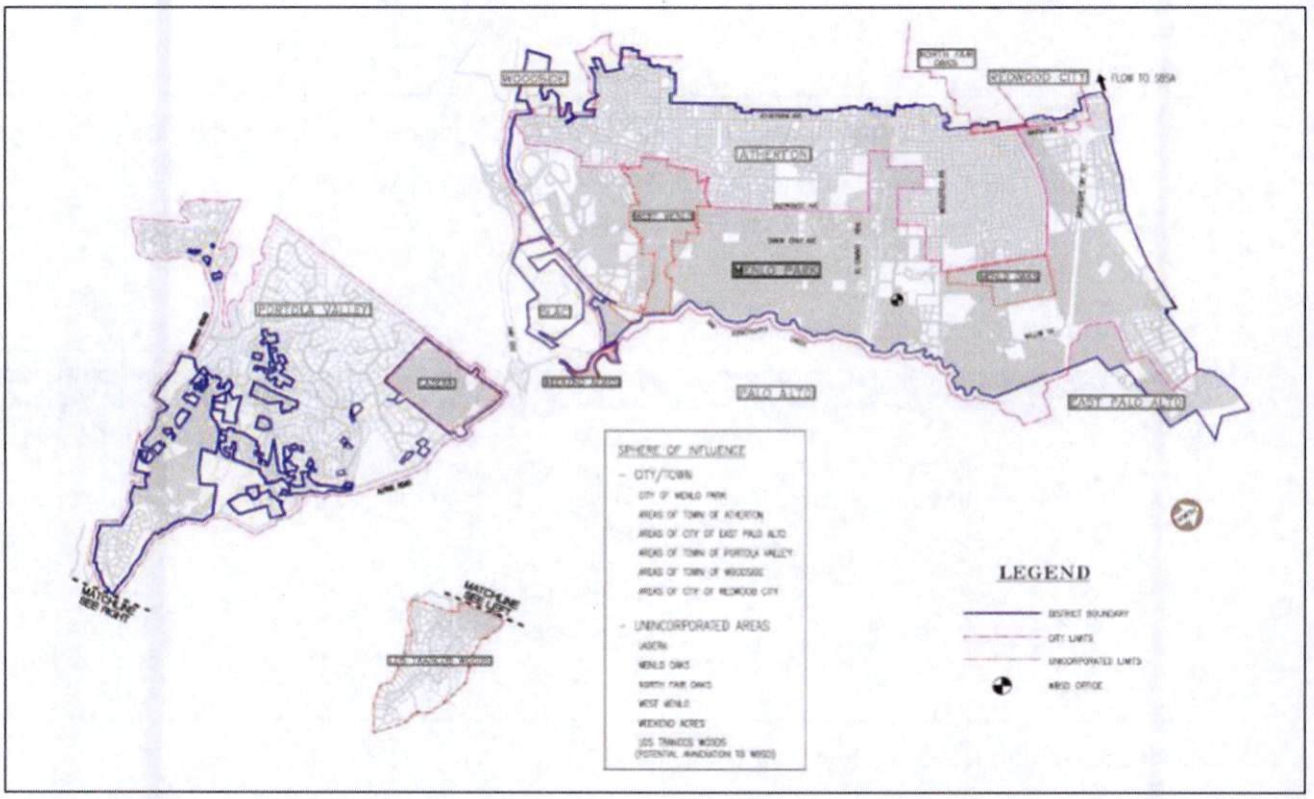

Figure 3 - WBSD Vicinity Map and Service Area

Estimated customer connection Classifications and connects data are presented in Table 2 below for residential, commercial industrial, and institutional data.

Use Type	Number of Connections
Residential	20463
Commercial	612
Industrial/Institutional	50

Table 2 - District Sewer Connection Flow Classifications and Connections data

Overall, the District has put itself in good position to maintain its collection system and does not have many operation and maintenance challenges due the service area conditions.

WBSD pump crews maintains 96 private Step Systems in Portola Valley. (The number of Step Systems continues to grow.) Property owners have the option to annex into the District when their septic system fails. This requires they install Step Systems, designed and installed to District standards, owned by the property owner and maintained by the District. These step systems are high maintenance, requiring a disproportionate amount of District resources.

Backyard easements present a maintenance challenge due to restricted access. All portions of these facilities can be maintained, but the effort to do so is time-consuming, requiring additional staff and cooperation and pre-planned coordination with homeowners.

WBSD maintains up to date system maps. See Element 4.1 - Updated Map of Sanitary Sewer System maps for more detail.

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

No.	Plan	Schedule	Responsible Party		
			DE	WQM	SPT
1.3.1	Review Agency-owned asset statistics and element description; update as necessary	At the beginning of the audit cycle and when significant changes have been made.		X	X
1.3.2	Update Maps	Within 30 Days of Correction Submittal of Completion of Development Project	X		

RESILIENCE

Resilience is addressed for 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

Spec. 5.2 (pg. 18)

"To facilitate adequate local funding and management of its sanitary sewer system(s), the Agency 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 SSMP, 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 addresses all required Elements and Specifications. The SSMP addresses management, operations and maintenance procedures specific to the West Bay Sanitary District 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).

WBSD keeps up with current industry standards, technology and best practices in several ways. All field staff are required to be CWEA certified in collection system maintenance; by attending industry conferences and workshops; regional training opportunities; networking; vendors; and industry journals.

Specifications 5.7 – Allocation of Resources

WDR REQUIREMENTS

Spec. 5.7 (pg. 22)

"The Agency 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: (a) compliance with this General Order, (b) full implementation of its updated SSMP, (c) system operation, maintenance, and repair, and (d) spill responses."*

COMPLIANCE

West Bay Sanitary District maintains various revenue sources to maintain financial stability, meet its operational needs and manage all necessary expenditures for its sewer system operation. Sources of revenue include:

- Sewer Service Charges. This funds WBSD operations and maintenance, reserves, and capital replacement. In addition, WBSD is a member of a regional treatment facility JPA, and this revenue source funds the JPA treatment, operations and maintenance and capital costs.
- Sewer Connection Fees. This funds future upsizing of pipes and capital improvement projects.
- Service Agreements. WBSD provides operation and maintenance services, under contract, to three agencies within their service area. The monies received from each agreement covers the costs of services provided.
- Master Fee Schedule. Miscellaneous fees collected for such things as permits, swimming pool discharges, inspection fees, flow equalization facility fees, etc.

Provisions 6.1 - Enforcement Provisions

WDR REQUIREMENTS

Provisions 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

West Bay Sanitary District staff are 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 Enrollee 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 Enrollee 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

Provisions 6.3

"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

West Bay Sanitary District has uploaded this SSMP to the CIWQS database, publishes it on its website and makes it available for public review at District offices, by appointment, during regular business hours.

2. Organization

WDR REQUIREMENTS

Att. 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 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 agency, and State Office of emergency Services.)"*

COMPLIANCE

The above items are addressed in the order below:

West Bay Sanitary District has designated four Legally Responsible Officials (LROs), listed below:

- Sergio Ramirez, General Manager, over 27 years experience in collection system operations.
- Jed Beyer, Water Quality Manager, over 25 years experience in collection systems operations.
- Robert Hulsmann, Operations Superintendent, over 27 years experience in collection systems operations.
- Bob Scheidt, Assistant Superintendent, over 28 years experience in collection systems operations.

All meet the requirements set forth in Specifications 5.1 of Order (WQ-2022 0103-DWQ).

IMPLEMENTATION RESPONSIBILITIES

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

Table 3 - Implementation Responsibilities

RESPONSIBLE POSITION CONTACT INFORMATION

Responsible Position Contact Information	Phone	Email
Sergio Ramirez – General Manager	650-321-0384	sramirez@westbaysanitary.org
Jed Beyer – Water Quality Manager	650-321-0384	jbeyer@westbaysanitary.org
Robert Hulsmann – Operations Superintendent	650-321-0384	bhulsmann@westbaysanitary.org
Robert Scheidt – Assistant Operations Superintendent	650-321-0384	bscheidt@westbaysanitary.org
Heath Cortez – Operations Supervisor	650-321-0384	hcortez@westbaysanitary.org
Lisandro Marquez – Pump Facilites Supervisor	650-321-0384	lmarquez@westbaysanitary.org
Fariborz Heydari – District Engineer	650-321-0384	fheydari@westbaysanitary.org
Todd Reese – Office & Communications Manager	650-321-0384	treese@westbaysanitary.org

Table 4 - Responsible Position Contact Information

2.1. Organizational Chart

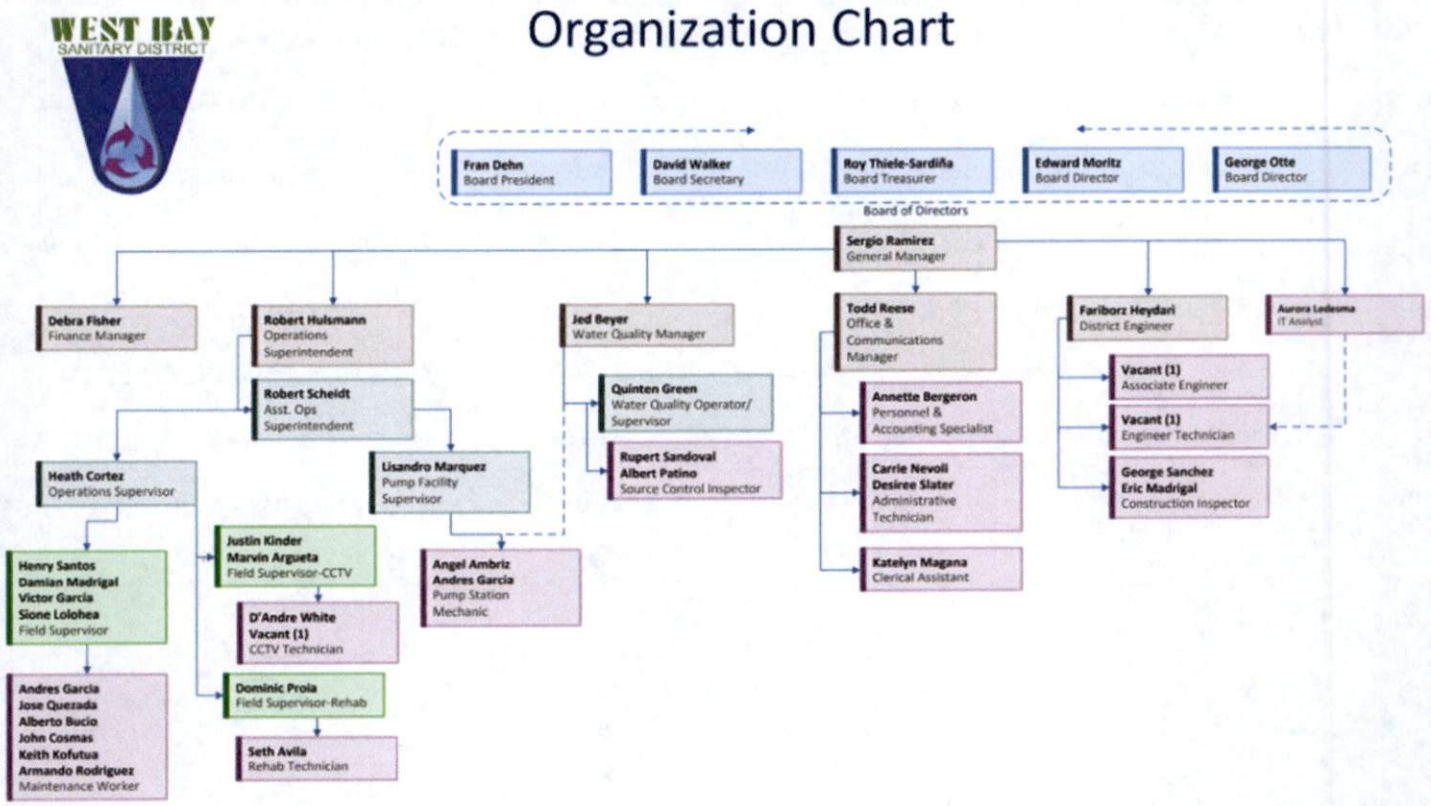

Figure 4 - Organization Chart

2.2. Organizational Staffing Responsibilities

Board of Directors

The West Bay Sanitary District is an independent and autonomous political entity that has no legal affiliation with any municipalities located within its service area boundaries. The powers of the District are established by the State of California Government Code and are vested in a five-member Board, elected at large, to staggered four-year terms.

General Manager

Designated as an LRO. Establishes policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as a public information officer.

Operations Superintendent

Designated as an LRO, and reports to the General Manager. Manages field operations and maintenance activities, provides relevant information to District management, prepares and implements contingency plans, and leads emergency response.

Assistant Operations Superintendent

Reports to the Operations Superintendent, and designated as a LRO. Coordinates required field activities with the Operations Supervisor and schedules rehabilitation and special projects as required.

Operations Supervisor

Under general direction of the Operations Superintendent and/or the Assistant Operations Superintendent, the Operations Supervisor plans, coordinates, supervises, and performs maintenance and construction on the District's collection system and collection system appurtenances. The position also assists in the planning and implementation of the preventive maintenance program and repairs for the collection system and appurtenances to include CCTV inspection, cleaning, and repair of assets. Schedules and trains crews on Cal-OSHA requirements and is the Districts Safety Officer.

Pump Facility Supervisor

Reports to the Operations Superintendent. Primary on-call person for pump station issues. Maintains and operates raw sewage pumping stations, Septic Tank Effluent Pump (STEP) systems, grinder pump systems, and performs by-pass pumping equipment support.

Maintenance Mechanic

Maintains and operates sewage pump stations, Septic Tank Effluent Pump (STEP) systems, grinder pump systems, and performs by-pass pumping equipment support and related equipment.

Field Crews

Report to the Operations Supervisor. Perform preventative maintenance activities, mobilize and respond to notification of stoppages and spills, and performs CCTV inspection, operations, and reporting. The on-call contact and First Responder is a member of the field crew, assigned on a rotating basis.

District Engineer

Reports to the General Manager. Prepares wastewater collection system planning documents, manages Capital Improvement Program, documents new and rehabilitated assets, and coordinates development and implementation of the District's Sanitary Sewer Master Plan, maintains Server Network.

Construction Inspectors

Reports to the District Engineer. Ensures that new and rehabilitated assets meet District standards, updates District maps, works with field crews to handle emergencies when contractors are involved, and provides verbal and written reports to the Project Manager.

Associate Engineering Technician

Reports to the District Engineer, performs plan review on new assets and ensures District Standards are met, assists with updating District Maps, may work with field crews to handle emergencies when contractors are involved, provides verbal and written reports to the Project Manager and maintains the CMMS.

Information Technology Analyst

Program Management Analyst reports to the General Manager. Provides overall responsibility for Lucity (GBA) database & ESRI mapping maintenance, and supports administrative staff in completion of secretarial, receptionist, and administrative tasks and Microsoft Office software training to staff.

Water Quality Manager

Reports to the General Manager and designated by the General Manager as the Authorized Representative or LRO for reporting & certifying spills to the SWQCB, RWQCB, Cal-EMA and other outside agencies. The Water Quality Manager, writes and revises compliance program plans, schedules facility inspections for source control, facilitates regulatory requirements, and coordinates development and implementation of the District's Sewer System Management Plan.

Water Quality Supervisor/Chief Plant Operator

Reports to the Water Quality Manager and is responsible for operating the 0.5 MGD recycled water plant located at Sharon Heights Golf and Country Club. The Water Quality Supervisor is also responsible for the supervision of the Source Control Inspectors.

Source Control Inspector

These inspectors report to the Water Quality Supervisor and are responsible for inspecting facilities for compliance with the District's general regulations, performing sampling and monitoring, flow monitoring, and responding to and mitigating spills and residential back-ups. Both Inspectors investigate and routinely report spills as Data Submitters.

Office & Communication Manager

Reports to the General Manager. Acts as initial point of customer contact, including forwarding of reports of spills to Field Crews, provides overall responsibility for preparation of Board agenda packages, annual connection fee statements, performs secretarial, receptionist and administrative tasks, some of which are complex and confidential in nature, and provides technical assistance to the general public and public agencies regarding Outreach & implementing District procedures for development review and permit issuance.

Administrative Technician

Report to the Office Manager. Act as an initial point of customer contact, including forward of reports of spills to Field Crews. Works under the supervision and general direction of the Office Manager to provide varied clerical support for the administration and collections staff and for the administrative needs of the District's customers.

Finance Manager

Reports to the General Manager. Responsible for all general accounting duties to be administered in accordance with the "Governmental Accounting Standards Board," and provides the District Board and staff with necessary historical and comparative financial data.

2.3. Chain of Communication for Reporting Spills

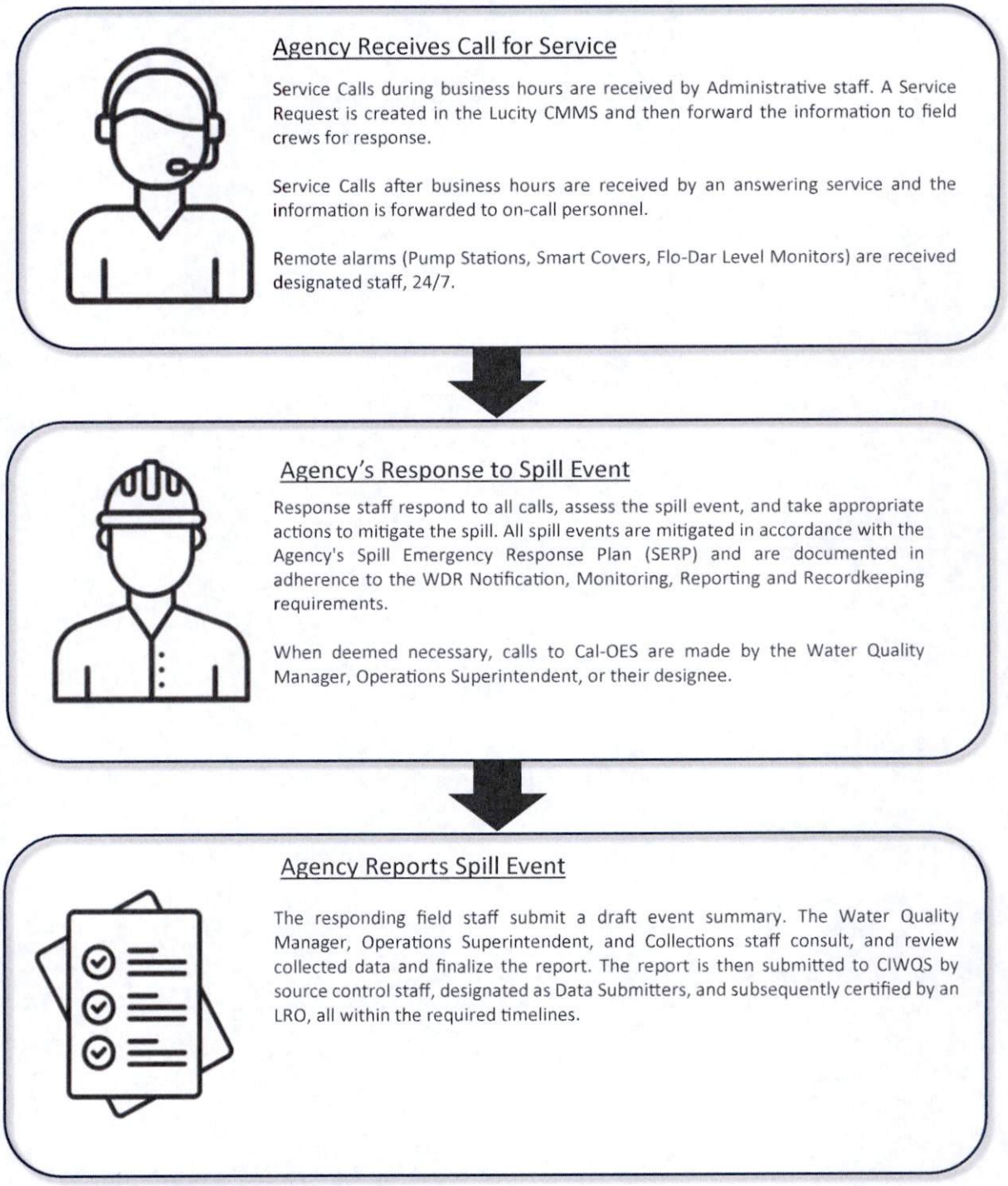

Figure 5 - Chain of Communication for Reporting Spills

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 Sewer System Management Plan?
- Is there a process in place to ensure all contact information remains up to date?

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			GM	WQM	SPT
2.1	Review names, contact information and position responsibilities. Update as necessary.	Semi-Annually		X	X
2.2	Review Chain of Communication outcomes for all spill responses	Each Spill Event		X	X
2.3	Review Organizational Chart for any changes. Update as necessary.	Semi-Annually	X	X	X

RESILIENCE

Resilience is addressed for Element 2 by:

- Ensuring that more than one person is capable and responsible for specific duties for Sewer System Management Plan 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

Att. 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 in order below:

See Code of General Regulations for more detail about citations listed below.

- Measures prohibiting illicit discharges are included in Article VI, Section 603, Prohibitions, of the District's Code. The purpose of this section is to prevent the discharge or any pollutant or any combination of pollutants into the sewers that would obstruct or damage the collection system, interfere with treatment or threaten harm to human health or the environment.
- The District has established coordination and collaboration with the storm drain owners within their service area. Historically, The District has accessed storm drain facilities, when needed, and then notified the storm drain owner of the event and actions taken. The District has been provided storm drain maps and emergency contact information from the storm drain owners within their service area for this purpose. The District continues to evaluate options for establishing a more formal agreement.
- Measures outlining the District's authority regarding proper design and construction of sewers and connections are included in the District's Code at:
  - Article IV, Specifications Controlling Manner of Construction and Clearing Services
  - Article VI, Use of Public Sewers
  - Article VII, Permits.
- Measures outlining the District's authority for access to laterals and other facilities for maintenance, inspection, and/or repairs is included in the District's Code at:
  - Article VII, Section 707.08, Inspection and Sampling
- The District's authority to enforce violations of the provisions of the Code is included in Article X. Currently, District facilities are located within a legal easement. Notices are sent to property owners with easements on their property annually to help facilitate communication and ensure access for

maintenance, inspection and repair activities. Article IV, Section 404 requires all public facilities within a public right-of-way or dedicated sewer easement.

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 Sewer System Management 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

No.	Plan	Schedule	Responsible Party		
			GM	WQM	SPT
3.1	Review Ordinance to confirm all documents provide necessary required legal authority.	Once per 6-year SSMP Update Cycle	X	X	
3.2	Confer with storm drain owners to ensure current practices and contact information are up to date.	Annually		X	
3.3	Monitor and Document occasions when ordinance(s) failed to address issues as intended.	Continuously	X	X	X

RESILIENCE

Resilience is addressed for Element 3 by:

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

APPENDIX 3 INCLUSIONS:

- None

4. Operation and Maintenance Program

Att. 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

Att. D-4 (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 crossing locations, and pipe asset information (ID number, diameter, flow direction, segment length, material type, and age). Currently the District utilizes paper and digital versions (PDF) of storm drain maps.

The District utilizes Map Change Forms to facilitate map updates when discoveries of errors or omissions are discovered in the field. Staff provides details of the map change and then submit the form to supervisory or managerial staff for verification and then it is forwarded to the District's engineering technician, who makes the correction(s).

Asset details of newly constructed and approved facilities are forwarded by engineering to the engineering technician for inclusion in the District's system maps.

The District's system maps are made available to the State and Regional Water Boards 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

No	Plan	Schedule	Responsible Party		
			GM	DE	SPT
4.1.1	Review map update procedures with all affected staff.	Annually		X	X
4.1.2	Review/ensure all newly installed facilities have been updated and included in the system maps	Annually		X	X

4.2. Preventive Operation and Maintenance Activities

WDR REQUIREMENTS

Att. D-4 (pgs. 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 utilizes the Lucity 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 employs a quality assurance procedure that utilizes a color-coded mapping system to track maintenance activities that have been completed and activities that were scheduled to be completed, to help ensure all work was completed as scheduled.

The District's CMMS 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 is used to plan and schedule higher-frequency inspection and maintenance activities such as Hot Spot cleaning and 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 staff 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 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

No.	Plan	Schedule	Responsible Party		
			GM	OPS	SPT
4.2.1	Monitor "Past Due" work orders to ensure critical work is being completed	Quarterly		X	X
4.2.2	Review scheduled PMs to ensure the prescribed schedule remains appropriate.	Annually		X	X

4.3. Training

WDR REQUIREMENTS

Att. D-4 (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 several 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. 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, and spill start time estimations, clean up and completing the spill event data collection forms.

Data Submitters and LROs are trained on the District's procedures for submitting data to the CIWQS database.

The District has developed spill response procedures for Contract Service personnel who perform work for the District are required 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.
- Remain onsite until District staff arrives and relieves them.

In addition, Capital Improvement Program Contractors are required to have the Knowledge, Skills and Abilities (KSAs) necessary to perform the job they were awarded.

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

No.	Plan	Schedule	Responsible Party		
			DE	WPM	OPS
4.3.1	Review training documentation to ensure all staff have received required training	Quarterly			X
4.3.2	Review agreements with contractors and/or Pre-Job meeting minutes to ensure contract personnel have received instruction for responding to sewage spills	Each Contract	X		X

4.4. Equipment Inventory

WDR REQUIREMENTS

Att. D-4 (pg. D-5)

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

COMPLIANCE

The District owns a variety of vehicles and equipment for both routine maintenance and for contingency or emergency operations and maintains spare parts, including critical spare parts, to facilitate corrective actions for the most common failure occurrences that might be encountered.

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 agency experienced any equipment failure that inhibited a spill response?

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			GM	OPS	PS
4.4.1	Audit inventory lists to ensure stock is adequate	Annually		X	X
4.4.2	Check with vendors to ensure critical parts lead times are as expected.	Annually		X	X
4.2.3	Ensure contracts with emergency support services are current	Annually			X

RESILIENCE

Resilience is addressed for 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

Spec. 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

Below are brief descriptions of work programs performed by the District

Sewer Cleaning

The District's primary sewer maintenance activity is high pressure hydro-jetting. The District has established a "Regular" Preventative Maintenance (PM) applicable to every mainline pipe and a "High Frequency" PM cleaning program for pipes deemed to require a more frequent cleaning. These two cleaning programs are discussed below.

The Regular PM Cleaning consists of high-pressure hydro jet cleaning every gravity mainline pipe in the District ranging from 4" through 10" pipe, in 12–16-month intervals. Pipe sizes 12" to 21" are cleaned in 36-month intervals. Pipe sizes 24" to 54" are cleaned in 60-month (5 year) intervals. The District primary cleaning nozzle is the Worthog Nozzle for the ½ Inch Jetters and the Hydraulic Rootsaw or Warthog for the ¾ inch and 1-inch jetters; but for more aggressive root growth the Super Nova Chain Flail may be used. Where the root saws are deployed, a proofing tool is utilized to ensure a high-quality cleaning has been performed.

High Frequency PM consists of 1-, 3-, and 6-month high pressure hydro jet cleaning schedules for pipes needing more frequent cleaning. Mainline pipes deemed to require more frequent cleaning are cleaned on the High Frequency cleaning schedule. High Frequency schedules are determined by reviewing the history of mainline stoppages and overflows, and/or by CCTV assessment.

Post Spill Assessments (PSA) are performed on mainline sections where a spill has occurred. A mainline sewer pipe is televised within two (2) working days of an overflow or back up. Upon review of the CCTV assessment, a High Frequency schedule may be assigned to the mainline section, or a Point Repair may be scheduled.

Where necessary, a mainline is added to the CIP list for replacement/rehabilitation. In the event the mainline pipe section is added to the CIP list, the cleaning frequency will be increased, and that higher frequency cleaning schedule will be implemented until rehabilitation and/or replacement is completed.

The District's Siphons are on a 1-month cleaning schedule all other pipes are on a 3-, 6-, or 12-month schedules. Additionally, the schedules have been grouped by Basin so to reduce travel time and make cleaning processes more efficient.

Sewer Cleaning Results Matrix - The District collects all observations made by its sewer cleaning crews regarding the extent and nature of materials removed during the cleaning process. The observations are recorded in the District's computerized information management system. The District maintains or changes the frequency of its High Frequency PM Cleaning Program for a Sewer Line Segment based on the Sewer Cleaning Results and CCTV inspection. See Matrix below in accordance with the section labeled "Action." Changes in cleaning frequency based upon cleaning results and or CCTV data shall be determined by the District Collection System Operations Superintendent or Assistant Superintendent and no reduction in cleaning frequency shall be made in a Sewer Line Segment with a previous history of spills without the

approval of the District Collection System Assistant Operations Superintendent, or Operations Superintendent.

Root Control - Roots are removed mechanically, through high pressure hydro-jetting and chain flailing during regular cleaning. Every effort is made to trap roots physically at the downstream manhole to remove them from the collection system. In 2010, the District funded and implemented a chemical root control treatment system in areas of the District with a history of root intrusion and difficult access. The root control treatment reduces the need for frequent visits by the Hydro-jet crews and significantly reduces spills in these areas. This cost-effective approach, which allowed cleaning crews to be more productive in cleaning more pipeline in other areas of the District, will be continued in the future.

Pump Station/Siphon Maintenance - District maintenance staff performs regular inspections and maintenance of the District's twelve (12) publicly owned Pump/Lift stations. In addition, District staff maintains private pump stations consisting of 96 residential grinder pump systems and Septic Tank Effluent Pump Systems (STEP). Maintenance schedules for publicly owned pump stations are performed weekly while private pump stations are checked biannually. All of the publicly owned pump stations are constantly being monitored using the District's telemetry system 24-hours per day.

Siphon Maintenance - The District maintains five (5) siphons that are designed to be self-flushing. The siphons are monitored by a level monitoring system (SmartCover); as well as chemically treated and high-pressure hydro-jet cleaned monthly.

Odor Control - The District has few odor complaints – less than five per year. However, when odor complaints are received, District crews respond with an on-site investigation and improvements, if needed. For example, the District had been working with an isolated odor issue at the Corte Madera pump station emanating from the Village Square Lift Station. In late 2016 the flows from the (former) Corte Madera Pump Station were redirected to the new Sausal Vista Pump Station. The District currently treats the Village Square pump station with Helix-Commander odor control product to control the odors and H2S. Its effectiveness is measured regularly with the District's OdaLogger Unit.

Corrosion Control, Cathodic Protection - The District currently has a "Corrosion Control Program" in place. Low voltage rectifiers and anodes are used on the Force Main located at the Flow Equalization Facility, which is calibrated and tested on an annual basis and inspected on a monthly basis by Pump Station personnel.

Investigation of Customer Complaints - The District places high priority on responding to customer complaints about sewer service. Complaints are generally related to sewer stoppages, overflows, or, less frequently, odors. Detailed information about communication and the District's response procedures are included in the District's SERP, which is discussed further in Element 6. Response is performed by the field crews during work hours and the on-call staff member during nonworking hours. Response includes making a field assessment of the complaint and taking necessary action(s) required to resolve the problem. Increased preventative maintenance may be implemented if the problem is mainline related to minimize recurrence of the issue. The District maintains a customer service survey process and regularly reviews customer service comments so that employees know how the District's work is regarded by the public. Customer Survey forms are reviewed regularly in an effort to achieve continuous improvement in customer service.

Condition Assessment - The District conducts closed circuit television (CCTV) inspections of its sewer facilities to evaluate their condition and identify needed increased preventative maintenance, repairs and rehabilitation. This activity has been further augmented by the purchase of two (3) Pipe Hunter Jetter Unit that performs CCTV during preventative maintenance operations which ensures the line is cleaned properly.

CCTV inspections of the collection system are performed on a six (6) year cycle by District crews. In addition to inspection of existing pipelines, the District performs CCTV inspection on newly installed pipelines and

inspects pipelines which have experienced spills to assess cause of the overflow and to determine the best method and frequency of cleaning or needed repair to prevent a repeat spill. The District's CCTV equipment records inspection information that is stored in CMMS software. CCTV data is then transferred to the District's CMMS database. The District assigns condition ratings as set forth by the Pipeline Assessment & Certification Program (PACP) to each of the inspected pipelines using the protocol established by the National Association of Sewer Service Companies (NASSCO). The District uploads pipeline condition ratings on an ongoing basis into Lucity.

CCTV reports and videos, together with field observations, form the basis for establishing needed system maintenance and repairs. Results are logged using fault (defect) codes and a numerical rating scale (with weights assigned to each type of defect). The ratings reflect the relative severity of the observed defects. The table below is used as a guide for the selection of pipes for sewer repair or rehabilitation.

Pipe Repairs - Point repairs are completed by District crews. Larger repairs are designed and competitively bid for construction through the District's Capital Improvement Program. Other factors are considered for placing a pipe segment on the CIP such as:

- Maintenance history,
- Number of defects within a segment,
- Spills history if any,
- Impact should a spill occur, and
- Remaining useful life of pipeline.

Service Laterals - All side sewers, from the connection to the District public sewer to the property served, are the property of, solely owned by, and sole responsibility of the property owner. However, the District does, as a courtesy, provide blockage clearing services from a conforming property line cleanout to the mainline sewer when requested by the property owner.

In fiscal year 2009/10, the District developed a near-term prioritized replacement plan to jumpstart its long-term CIP. The District adopted its Master Plan in June of 2011 and has tentatively prioritized its 10-year plus Capital Improvement Program. The collection system Master Plan included a flow monitoring study performed in 2009/2010, historical CCTV records, and the collection system's maintenance history as a whole to develop fundable groupings of pipeline replacement projects and included capacity improvement projects as suggested by the hydraulic modeling discussed further in Section 8. As of January 2017, the District accelerated its Flow Monitoring program by installing flow meters at each of its 15 sub-basins to monitor the collection system and confirm tentatively prioritized CIP projects are required. The District initiated the Master Plan update in FY1/16 and changed the program name to "Sustainability Plan" to better reflect the ongoing assessments of our system which will be completed soon. In the interim the District has compiled a 10-year CIP program going out to FY33/34.

The District participates in the Bay Area Clean Water Agency (BACWA) public outreach committee and, as a member of this group, has helped to develop a handout for plumbers that apply for permits to perform sewer lateral repairs and/or replacements. In addition, the District provides standard details for repair and replacement work that can be used by plumbers, contractors, or homeowners. This information is available on the District's website and at the District's front office counter.

5. Design and Performance Provisions

5.1. Updated Design Criteria/Construction Standards/Specifications

WDR REQUIREMENTS

Att. D-1.1 (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

The design and installation of sanitary sewer collection and conveyance facilities for the District are governed by the WBSD Standard Specifications for the Design and Construction of Sanitary Sewer Collection and Conveyance Facilities document.

These standards include:

- Intent and Purpose
- A description of the District's Collection System Sustainability Plan
- Definitions and Terms
- Design Standards
- Construction Standards
- Standard Drawings

EFFECTIVENESS

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

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

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			GM	DE	SPT
5.1.1	Ensure all project plans are approved in accordance with the Agency's Standard Specifications and Details.	Each Project		X	
5.1.2	Verify design standards and hydraulic model previously completed are adequate and consistent with current standards of practice.	2025		X	

5.2. Procedures and Standards

WDR REQUIREMENTS

Att. D-1.1 (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

The District's Inspection of Construction, of the District's Code of General Regulations requires inspection and testing of new and rehabilitated facilities. Section 403 reads, in pertinent part, "After approval of the plans by the District Board, actual construction may be started and all work shall be performed under the inspection of, and in accordance with the standard specifications of the District. All work shall be inspected by the District when construction is completed but before use is made of the facilities constructed."

In addition, Section 707. Wastewater Discharge Permits (08 Inspection and Sampling) of the District's Code authorizes further inspection under required permits, as follows, "The General Manager is hereby authorized to inspect the premises at all reasonable times to ascertain whether the provisions of this Code or the provisions of any permit issued pursuant to this Code are being complied with."

These requirements are repeated in the District's Standard Specifications for the Design and Construction of Sanitary Sewer Collection and Conveyance Facilities.

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

No.	Plan	Schedule	Responsible Party		
			GM	DE	SPT
5.2.1	Verify inspection procedures are adequate and consistent with current standards of practice	2017 (10-year cycle)		X	X
5.2.2	Verify design standards and hydraulic model previously completed are adequate and consistent with current standards of practice.	2017 (10-year cycle)		X	X

RESILIENCE

Resilience is addressed for 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

Att. D-1.1 (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 interagency coordination to expedite spill containment and recovery;*
- *Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event;*
- *Conduct post-spill assessments of spill response activities;*
- *Document and report spill events as required in this General Order; and*
- *Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed."*

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 procedures, emergency incident response, impact mitigation, and reporting. The current plan, prepared by Fischer Compliance, LLC, meets the requirements of the State Water Resources Control Board's reissued Waste Discharge Requirements (Order WQ-2022-0103-DWQ), 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 on the District's website and for viewing at the District's offices, during business hours, by appointment. (500 Laural Street, Menlo Park, CA 94025. Phone: 650-321-0384)

Spill Emergency Response Plan

EFFECTIVENESS

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

- Have staff 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 trainees demonstrating adequate knowledge and abilities?

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			GM	WQM	SPT
6.1	Perform SERP training including practice drills.	Annually		X	X
6.2	Review Post Spill Assessments to ensure adherence and to indemnify any trends that should be addressed	Annually		X	X

RESILIENCE

Resilience is addressed for Element 6 by:

- Multiple staff are trained to respond to spill events.
- Post-spill assessments are conducted to evaluate staff adherence to the SERP and to identify areas for improvement.
- Data collection forms 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

Att. 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

The requirements listed above are addressed in order below:

a. The District has implemented a residential public outreach program for FOG and other substances/items that might cause blockages. The District website includes a Do's and Don'ts section that outlines actions residents can take to help maintain a well functioning system and a Got Grease? section that promotes proper kitchen grease disposal. In addition, the District uses leaflets for targeted outreach and YouTube ads.

b. Currently, grease haulers dispose of grease pumped from interceptors at a grease collection facility, Darling International, Salinas Tallow, or at Silicon Valley Clean Water (SVCW). Currently, there does not appear to be a need for additional grease disposal facilities to collect grease from the WBSD service area. However, the District may choose to evaluate this need further, should the need for additional grease disposal facilities become an issue in the future. District crews dispose of items collected during maintenance activities at the District's FERF facility, on an as-needed basis.

c. The District's Code of General Regulations provides the legal framework for enforcing illicit discharges of FOG to the collection system. This code enables the District to protect the integrity of the collection system by limiting what may or may not be discharged to the system. Article VI,

Section 602 regulates the discharge of grease and Article VI, Section 603, Prohibitions, regulates other illicit discharges.

d. Article VI, Section 602 provides the authority to require the installation and maintenance of grease and oil interceptors for FSE and other grease producing facilities.

e. Article X, Section 1000 provides the authority to enter upon all properties for the purpose of inspection, observation, measurement, sampling, and testing.

f. The District has identified portions of the collection system subject to excessive grease and have established higher frequency cleaning schedules to properly manage pipe performance in the areas. District personnel performing maintenance activities within the collection system report all observations of grease to the Operations Superintendent. Field reports noting FOG-related observations are forwarded to the Water Quality Department for follow up investigation, mitigation and or distribution of outreach materials.

g. The District's Water Quality Department employs two Source Control Inspectors who perform facility inspections of all commercial and industrial businesses within the District's sphere of influence. One of the functions of this department is to ensure that FOG-related businesses (restaurants, food preparation facilities, vehicle service facilities, etc.) are inspected on a regular basis and maintain consistent compliance with the District's Code of General Regulations, and state and local ordinances related to FOG.

All FOG-related businesses are inspected on a quarterly basis. Facilities noted as "non-compliant" are re-inspected within 30 days and if found "Non-Compliant" upon re-inspection are in violation of the District's code and are subject to a $230.00 fine. In the event that enforcement action is required, the District will issue a "Compliance Time Schedule (CTS)" and work with the Facility Operator until compliance is achieved, or schedule required work and place a Tax Lien on the property. Other agencies may become involved in the CTS process, including the San Mateo County Environmental Health Department officials and the City/Town Code enforcement officers, to ensure compliance with regulations in a timely manner.

The District's Source Control Inspectors perform routine inspections of restaurants and vehicle service facilities with grease traps, interceptors, and oil water separators to ensure compliance with the discharge limits of grease and oils per the District regulations. Inspectors perform sampling to ensure that facilities are following the District's Code of General Regulations. Staff also works in conjunction with outside agencies, (i.e., Fire Department, City of Menlo Park's Code Enforcement and the San Mateo County Environmental Health Department).

The District's Source Control Inspection Program covers approximately 500-550commercial and industrial facilities.

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 agency receiving feedback on public outreach efforts?
- Is 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-dispersible 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

No	Plan	Schedule	Responsible Party		
			GM	WQM	SPT
7.1	Review/evaluate enforcement and inspection findings and implement changes as necessary.	Annually		X	X
7.2	Review spill rates and causes and make changes to maintenance programs, as necessary.	Annually		X	X

RESILIENCE

Resilience is addressed for 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

Att. D-8 (pgs. D-7/D-8)

"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

Att. D-8 (pgs. D-7/D-8)

"The Agency SSMP 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 methods.*
- *Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State.*
- *Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and*
- *Identify system assets vulnerable to direct and indirect impacts of climate change, including but not limited to: (a) sea level rise, (b) flooding and/or erosion due to increased storm volumes, frequency, and/or intensity; (c) wildfires; and (4) increased power disruptions."*

COMPLIANCE

The above requirements are addressed in order below:

a. The assessment of a collection system involves every component of the District's collection system, including pipelines, manholes, and pump stations. CCTV inspections of gravity mains are performed continuously, manholes are visually inspected, employing a top-down method, flows are monitored in various portions of the system using 17 Flow Monitors and 43 SmartCover Units. Both the flow monitors and SmartCover utilize high-level alarms, which District staff responds to., pump stations are visually inspected weekly with a more comprehensive inspection being performed annually.

b. Currently, gravity mains are inspected on a 6-year interval. This is based on historical pipe performance. The District's spill rate is low, and the spill trend line remains flat. Small diameter pipes are cleaned on a 12 to 16-month interval, which means each pipe will be cleaned 5 to 7 times in between inspections. Large diameter pipes are cleaned 1 to 2 times in between inspection cycles.

   Field staff performing cleaning operations monitor and rate what is brought back to the manhole and take appropriate action when there are significant findings. Defects requiring pipe repairs are addressed in a prioritized manner.

   These efforts help ensure pipes are performing as intended and puts the District in position to properly manage the collection and maintain a low spill rate. The District continues to evaluate system performance to optimize maintenance practices and inspection intervals, with the goal of reducing the likelihood of a spill.

c. The District has performed an assessment to determine portions of the collection within the vicinity of critical areas, such as creeks, parks, hospitals and schools, and places a higher priority on these areas for public health and environmental reasons.

d. The District utilizes the NASSCO PACP defect coding system to rank defects found during CCTV inspections of gravity mains. Discuss how agency assesses the system conditions using visual observations, video surveillance and/or other comparable system inspection methods.

   Routine and annual pump station assessments include review of wet wells, vaults, open cabinets, generators and other above-grade facilities.

   Manholes are visually inspected by CCTV crews during routine CCTV activities. Areas identified as possibly susceptible to erosion or landslides and creek crossings pipes, including siphons are visually inspected after significant rain events. In addition, some of these assets are monitored by Smart Covers.

   As a matter of practice, District crews are trained to monitor system assets for spills, sink holes, loose or ill-fitting lids, construction activities, etc., while driving and performing their work throughout the service area.

   Visual inspections are performed in low-lying areas during storm and King Tide events due to potential flooding.

e. The District is not aware of exfiltration from the system. The District is aware of areas of infiltration, which could be an exit point for exfiltration, and these are addressed in the 2023 Master Plan. In

addition, as a proactive measure, the District does baseline water quality monitoring of surface water in the service area.

f. The District maintains records and documentation of all system evaluation and condition assessment inspections and activities.

g. A rise in sea level could lead to flooding from King Tide events. This has been mostly mitigated by the raising of levees in the District's service area. One section of levee, in Menlo Park, is currently under construction. The potential for damage caused by wildfire is remote and related power outages would not affect district operations because remote facilities have on-site generators. The District will evaluate the potential impacts from climate change at least every three years during SSMP Audits.

EFFECTIVENESS

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

- Has the District maintained its schedule for 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

No.	Plan	Schedule	Responsible Party			
			DE	GM	WQM	SPT
8.1.1	Review/evaluate enforcement and inspection findings and implement changes as necessary.	Annually	X		X	X
8.1.2	Review spill rates and causes and make changes to maintenance programs, as necessary.	Annually			X	X
8.1.3	Hold meeting to discuss any issues that may result from climate changes	Annually		X	X	X

8.2. Capacity Assessment and Design Criteria

WDR REQUIREMENTS

Att. D-8 (pgs. D-7/D-8)

"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

As part of the 2023 Master Plan, a flow monitoring study of the District's trunk lines was performed in 2009/2010, and subsequently updated in 2023, to assess system capacity. This data, along with CCTV data and maintenance records was used to create a "Hydraulic Model" of the District's collection system and pumping facilities. The hydraulic model was used to identify potential adverse conditions, during storm events and build-out of the cities and towns discharging into the District's conveyance system. It should be noted; the model did not address:

1. Capacity of systems subject to increased inflow and infiltration ("I&I") due to larger and/or higher-intensity storm events as a result of climate change.
2. Increase of erosive forces in canyons and streams near underground and aboveground system components due to larger and/or higher intensity storm events
3. The hydraulic model evaluates the predicted capacity of the District's wastewater collection system under flow loading from a hypothetical design storm. The selected design storm was a 10-year, 24-hour storm.
4. The hydraulic model identified two locations that were predicted to spill during a design storm event. No hydraulic deficiencies were identified during peak dry weather conditions.
5. The model determined all pump stations are sufficiently sized to convey design storm flows. All pump stations have adequate redundancy.

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

No	Plan	Schedule	Responsible Party		
			DE	WQM	SPT
8.2.1	Monitor/Evaluate significant rain events to see if they exceed the design storm in the hydraulic model.	Each significant rain evet	X	X	X
8.2.2	Identify and monitor flood-prone areas susceptible to erosion from rain events	After each significant rain event	X	X	X
8.2.3	Monitor flows in each basin and update the hydraulic model	Per Engineering Department schedule	X	X	X

8.3. Prioritization of Corrective Action

WDR REQUIREMENTS

Att. D-8 (pgs. D-7/D-8)

> *"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's 2023 Master Plan included a Linear Asset management Plan (LAMP) that identifies gravity sewer pipelines with the highest risk of failure, develops rehabilitation recommendations for these pipelines, estimates costs, and prioritize repairs to assist in capital project planning. The LAMP uses a numerical risk model to assign a Risk Score to every gravity pipe segment. The risk model calculates Risk as a product of Likelihood and Consequence of Failure.

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

No.	Plan	Schedule	Responsible Party		
			GM	DE	SPT
8.3.1	Utilize all available data for prioritizing corrective actions considering severity and consequences of potential spills.	Each CIP Update		X	X
8.3.2	Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities.	Continuously		X	X

8.4. Capital Improvement Plan

WDR REQUIREMENTS

Att. D-8 (pgs. D-7/D-8)

"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 Interagency coordination with other impacted utility agencies."*

COMPLIANCE

The 2023 Master Plan identified two major capacity projects (1) Elena Avenue Capacity Improvement Project and (2) Willow Pump Station Discharge Capacity Improvement Project. Planning level costs were developed for each project, which will be refined during project design.

The CIP also included projects developed as a result of condition assessment efforts by collection system staff.

Weekly meetings are held between Maintenance, pump facility supervisor and engineering. Operations are included in all CIP meetings, and their input is accepted by engineering. In addition, new development projects are reviewed by collections staff prior to approval.

EFFECTIVENESS

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

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

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			GM	DE	SPT
8.4.1	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		X	X
8.4.2	For schedules that are not kept, justify and document the reason	Each Delayed Project	X	X	X

RESILIENCE

Resilience is addressed for 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

- None

9. Monitoring, Measurement, and Program Modifications

WDR REQUIREMENTS

Att. D-9 (pg. D-9)

"The Agency SSMP 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 SSMP activities.*
- *Monitoring the implementation and measuring the effectiveness of each element.*
- *Assessing the success of the preventive operation and maintenance activities.*
- *Updating SSMP 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 in order below:

a. 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.

b. 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 (KPIs) 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.

c. 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.

d. 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.

e. 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

No.	Plan	Schedule	Responsible Party		
			GM	WQM	SPT
9.1	Assess work programs to ensure outcomes are as intended	Annually	X	X	X
9.2	Ensure updates to work programs and the SSMP based on assessments.	As Needed		X	X
9.3	Monitor and evaluate spill trends. Document efforts.	Annually		X	X

RESILIENCE

Resilience is addressed for Element 9 by:

- Development of key performance indicators to measure effectiveness of the Sewer System Management Plan.
- Performing periodic reviews of the Sewer System Management Plan to help ensure the plan 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

Att. D-10 (pg. D-10)

> *"The Agency SSMP 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 in August 2024 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 City is executing the SSMP as stated.

Effectiveness is evaluated by using key performance indicators, which have been developed specifically for each element.

Resilience An additional evaluation is performed to comply with Specifications 5.6 addressing resilience.

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

No.	Plan	Schedule	Responsible Party		
			GM	WQM	SPT
10.1	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.	Begin end of audit period		X	X
10.2	Ensure a plan and schedule is developed to address deficiencies.	Once the Audit is completed	X	X	X

RESILIENCE

Resilience is addressed for Element 10 by:

- Periodically evaluate key performance indicators during the audit period to assess effectiveness and make corrections, if necessary, prior to the audit.
- Evaluate previous audit to ensure deficiencies have been rectified.
- Calendar the audit due dates and complete the audit on time.

APPENDIX 10 INCLUSIONS:

- None

11. Communication Program

WDR REQUIREMENTS

Att. 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

a. 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. The District will always follow San Mateo County Environmental Health recommendations.

b. There are opportunities for stakeholders and the public to participate and provide input on the development and update of the District's Sewer System Management Plan. The District posts the Sewer System Management Plan on their website, which includes a Contact Us feature, making it convenient for the public to communicate with the District. Every 6 years the SSMP is updated and approved by the Board of Directors. All Board agenda items are advertised to the public prior to the meetings and there is opportunity for comment from the public on each agenda item.

c. The District communicates quarterly with Stanford Linear Accelerator Center (SLAC) (U.S. Department of Energy) System operation and maintenance and capital improvements.

EFFECTIVENESS

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

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

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			GM	WQM	Sup
11.1	Ensure the Board of Directors approves the SSMP per schedule	Every 6 years	X	X	X
11.2	Ensure the SSMP is posted on the District Website and the link functions properly.	Annually		X	X
11.3	Ensure Sewage Spill Warning signs are readily available to communicate with the public when necessary	Annually		X	X

RESILIENCE

Resilience is addressed for Element 11 by:

- Use the Sewer System Management Plan as a tool to communicate to the public how the agency 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 agency.

APPENDIX 11 INCLUSIONS

- None

LIST OF APPENDICIES

APPENDIX 1	• None
APPENDIX 2	• None
APPENDIX 3	• None
APPENDIX 4	• None
APPENDIX 5	• None
APPENDIX 6	• None
APPENDIX 7	• None
APPENDIX 8	• None
APPENDIX 9	• None
APPENDIX 10	• None
APPENDIX 11	• None