

CRESCENTA VALLEY
WATER DISTRICT



SEWER SYSTEM MANAGEMENT PLAN

Appendix 10-A

Audit Report
February 2025

WDID# 4SSO10444

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Table of Acronyms

Acronyms	Description
CCTV	Closed Circuit Television
CIP	Capital Improvement Plan
CIWQS	California Integrated Water Quality System
CVWD	Crescenta Valley Water District
FOG	Fats, Oils and Grease
GIS	Geographical Information System
LRO	Legally Responsible Official
SSMP	Sewer System Management Plan
WDID	Waste Discharger Identification
WDR	Waste Discharge Requirements

PURPOSE

Crescenta Valley Water District (CVWD) conducts an internal audit of the Sewer System Management Plan (SSMP) every two years. The purpose of the audit is to review the elements of the SSMP that are currently in place to evaluate its effectiveness and to determine the District's compliance with the SSMP requirements. During this review process, the task is to determine compliance, identify any deficiencies and areas for improvement. The objective is to improve and strengthen the document in hopes of optimizing the District's wastewater service and overall spill response performance.

The audit was conducted by CVWD's Engineering Department in conjunction with the Operations and Maintenance Department. The report covers the audit period beginning August 2, 2021, and ending August 2, 2024. This report was prepared pursuant to the requirements included in the State Water Resources Control Board Order No. 2022-0103-DWQ – Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (General Order), per section 5.4. The requirements are:

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

Audit reports submitted to the CIWQS Sanitary Sewer System Database will be viewable only to Water Boards staff.

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

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- *Evaluate the implementation and effectiveness of the Enrollee’s Sewer System Management Plan in preventing spills;*
- *Evaluate the Enrollee’s compliance with this General Order;*
- *Identify Sewer System Management Plan deficiencies in addressing ongoing spills and discharges to waters of the State; and*
- *Identify necessary modifications to the Sewer System Management Plan to correct deficiencies.*
- *The Enrollee shall submit a complete audit report that includes:*
 - *Audit findings and recommended corrective actions;*
 - *A statement that sewer system operators’ input on the audit findings has been considered; and*
 - *A proposed schedule for the Enrollee to address the identified deficiencies.*

This audit serves as the 2024 SSMP Audit for the Sewer Maintenance Department of Crescenta Valley Water District within the County of Los Angeles.

BACKGROUND

The Crescenta Valley Water District was formed as the Crescenta Valley County Water District on December 14, 1950 by the vote of local residents. Organized under the provisions of Division 12 of the State of California Water Code, the District operates as a political subdivision of the State. The term "County" was officially deleted from the District's name in 1996.

In the early 1950's, the newly-formed District purchased the assets and consolidated the infrastructure of several small private water companies then in existence. This was made possible by voter approval of two capital improvement bonds with a value of \$1.35 million. By 1953, with rapid growth in the Crescenta Valley and surrounding foothill communities, it became apparent that the local groundwater supply was not going to be sufficient to meet the increasing demand. Residents from La Crescenta to Altadena voted to form the Foothill Municipal Water District (FMWD) to purchase and distribute imported water from the Metropolitan Water District of Southern California (MWD). By 1955, the District was augmenting its local well water with MWD water from the Colorado River. In the 1960's, MWD increased its supply by also contracting for Northern California water with the completion of the State Water Project. This blend of imported water, which fluctuates from 40% to 60% groundwater versus imported water continues today as the source of supply for District customers.

In the 1970's, District officials were becoming aware of potential problems with private wastewater disposal systems (septic tanks) in the vicinity and potential impacts on the local groundwater supply. With federal funds available through the Clean Water Act, the District created two sewer assessment Districts in 1979 and sold bonds for the construction of 64 miles of mainline sewer and 27 miles of house-connection laterals. Approximately 75% of the \$35 million cost was satisfied with federal grant money and the remainder through direct assessment of local property owners. The project also included the purchase of treatment plant capacity from the City of Glendale and the construction of 7 miles of large-diameter sewer interceptor through the City of Glendale. All sewer system construction was completed in the mid-1980's.

The District is located in the Crescenta Valley area of Los Angeles County in the foothills of the

San Gabriel Mountains, between the San Fernando and San Gabriel valleys. The District provides water distribution and sewage collection within its boundaries to the unincorporated communities of La Crescenta, Montrose, and Verdugo City as well as a small portion of the City of La Canada-Flintridge.

The District serves an area of approximately 4 square miles in relatively steep terrain ranging from 1,200 feet to almost 3,000 feet above sea level. The customer base is primarily residential with some light commercial along Foothill Boulevard in La Crescenta and Honolulu Avenue in Montrose. The District currently provides water to over 8,000 accounts representing a population of approximately 35,000. Customer growth is steady although the Crescenta Valley area is nearly built-out. Residential growth is occurring through increased housing density in the multiple-unit zoned areas (primarily Montrose) as well as limited in-fill housing development on random parcels in La Crescenta.

The District has staff authorized to serve as onsite managers for the collection systems managed by the District. These staff include:

- James Lee, General Manager
- Carla Dillon, Director of Engineering and Operations
- Brook Yared, Engineering Manager
- Darlene Telles, Operations and Maintenance Manager
- Siaki Mortenson, Construction Supervisor

Each of these staff members is authorized to act on behalf of CVWD to serve as Legally Responsible Officials for the collection system.

AUDIT OVERVIEW

The audit’s goal is an internal review of the eleven (11) Elements of the Sewer System Management Plan at least once every three years. The CVWD Sewer System Management Plan was last updated in August 2023. This audit assesses the current state of the Sewer System Management Plan compliance with the State Water Resources Control Board Order No. 2022-0103-DWQ – Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (General Order). CVWD intends to use the audit results to improve the Sewer System Management Plan compliance and performance of the collection system.

Crescenta Valley Water District conducted the Audit through a series of conversations with staff involved with implementation of tasks required by the General Order and an audit checklist of the eleven elements specific to CVWD’s sewer system. The audit team members supporting the audit process are listed below:

- Carla Dillon, Director of Engineering and Operations, Audit Support
- Brook Yared, Engineering Manager, Audit Support
- Christina Kopelman, Assistant Engineer, Lead Auditor

The Information was gathered over a period of approximately two weeks. Table 1 below documents the dates and participants of the SSMP Audit.

Table 1 SSMP Audit Participants

Date	General Order	Subject	Participants	Due Date
1/13/25	D.1 SSMP Management Plan Goal and Introduction	Introduction	Brook Yared Christina Kopelman	02/02/25
	D.2 Organization	Organization		

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Date	General Order	Subject	Participants	Due Date
	D.3 Legal Authorities	Legal Authorities		
	D.4 Operations and Maintenance Program	Operations and Maintenance		
	D.5 Design and Performance Provisions	Evaluation of Design and Performance		
	D.10 Internal Audit	Audit Report		
1/14/25	D.6 Spill Emergency Plan	Sewer System Overflow Response Plan	Brook Yared Christina Kopelman Darlene Telles	02/02/25
	D.9 Monitoring, Measurement and Program Modifications	Monitoring, Measurement and Program Modifications		
1/16/25	D.7 Sewage Pipe Blockage Control Program	Sewage Pipe blockage and Fats, Oils, and Grease	Brook Yared Christina Kopelman	02/02/25
1/20/25	D.6 Spill Emergency Plan	Overflow Emergency Response Plan	Brook Yared Christina Kopelman	02/02/25
	D.11 Communication Program	Communication Plan		
1/22/25	D.8 System Evaluation, Capacity Assurance and Capital Improvement	Capacity Assessment and Design Criteria	Brook Yared Christina Kopelman	02/02/25

Date	General Order	Subject	Participants	Due Date
1/28/25	D.4 Operations and Maintenance program	Sewer Maintenance schedule	Brook Yared Christina Kopelman	02/02/25

EVALUATION OF SSMP EFFECTIVENESS

The effectiveness of the sewer system management plan is evident in the consistently low rate of sewer system overflows, low average response times, and consistency in reporting spills of all sizes demonstrate the effectiveness of the SSMP.

1.1 SANITARY SEWER OVERFLOW RATE

Based on the overflow data trends since the last Audit in 2023, the SSMP program performs exceptionally well. During the Audit period, the District has had one sewer system overflow. The approximate overflow rate is 0.27 spills per 100 miles per year.

1.2 SPILLS IMPACTING SURFACE WATERS

This District contains and recovers overflows as close to the site of the overflow as possible. Once notified of a sewer spill, the response team deploys CVWD’s Emergency Response Trailer that is fully equipped with sandbags and berms to dam any nearby storm drain channels or catch basins. The emergency response trailer is also equipped with bleach sprayers and hoses/pumps to setup temporary bypass. CVWD’s Vactor truck is also available to be deployed to cleanup spills and return it to the sewer system after any blockages in the area have been cleared.

1.3 NUMBER AND SIZE OF SEWER OVERFLOWS

Spill events are categorized into a number rating system. Category 1 spills are considered the most severe because they reach surface waters. Category 4 are the least severe because they are less than 50 gallons and do not reach surface waters. The District’s one spill event in this time

frame was a Category 1 spill. Since the spill an emergency generator has been installed at the site to prevent future spills from making it to the nearby storm drain.

Spill Category **Definitions from Monitoring and Reporting Requirements (Order No. WQ 2022-0103-DWQ)**

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

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

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

A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the Enrollee shall report all Category 1 spills per section 3.1 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of the General Order.

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

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

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

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

**Spill
Category**

**Definitions from Monitoring and Reporting Requirements
(Order No. WQ 2022-0103-DWQ)**

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

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

REVIEW OF EFFECTIVENESS OF SSMP ELEMENTS

Since the inception of the SSMP, the District has reviewed it focusing on evaluating the effectiveness of the SSMP and meeting requirements. An internal audit is completed every two years. The SSMP is re-certified every 5 years and filed in the online CIWQS database. The state Waste Discharge Requirements establish that all eleven (11) elements in the SSMP should be thoroughly reviewed for completeness. The following sections focus on evaluating the effectiveness of each element of the SSMP.

1.4 ELEMENT 1 – GOAL AND INTRODUCTION

The goal of the Sewer System Management Plan (Plan) is to provide a plan and schedule to: (1) properly manage, operate, and maintain all parts of the Enrollee’s sanitary sewer system(s), (2) reduce and prevent spills, and (3) contain and mitigate spills that do occur.

The Plan must include a narrative Introduction section that discusses the following items:

Regulatory Context

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

Sewer System Management Plan Update Schedule

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

Sewer System Asset Overview

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

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

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 the General Order.

Audit Findings:

Regulatory Context

The introduction section is missing. Add an introduction and include a general description of the sewer management program as required by the reissued general order. Include a description of services the District provides and an overview of the sewer management program.

The section does not discuss plan updates as required by the reissued General Order. Update the Plan to include a description of the updates.

Sewer System Management Plan Update and Schedule

The Plan does not include an audit and an updated schedule as required by the reissued Order. Add a schedule of planned audits and updates.

Sewer System Asset Overview

The reissued order requires that the plan include an overview of the sewer system assets. The plan does not include an overview in this section. The overview must be relocated from a separate section and include the following:

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

1.5 ELEMENT 2 – ORGANIZATION

General Order Requirements:

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

- *The name of the Legally Responsible Official as required in section 5.1 (Designation of a Legally Responsible Official) of this General Order;*
- *The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific Sewer System Management Plan elements;*
- *Organizational lines of authority; and*

- *Chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. (For example, County health officer, County environmental health agency, and State Office of Emergency Services.).*

Audit Findings:

The name of the Legally Responsible Official as required in section 5.1 (Designation of a Legally Responsible Official) of this General Order;

The Plan provides an organizational chart showing lines of authority. The organizational chart does not show the senior engineer position within the line of authority. As an LRO, the senior engineer and any other positions with that role should be identified within the chart. Update the organization chart to include a label on the organization chart showing which positions are serving as an LRO.

The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific Sewer System Management Plan elements

The plan includes a table with position names and phone numbers. The staff directory provides names and contact information that is out-of-date. Update the staff directory with correct position names, phone numbers, and email address for positions responsible for implementing specific Sewer System Management Plan elements. The SSMP does not need to include contact information for the whole organization.

Organizational lines of authority

The organizational chart does not show the Senior Engineer position listed as an LRO. The LRO should be identified in the organizational chart.

Chain of communication for reporting spills

Update the sewer system overflow response and reporting organization chart to include communication with other cities when additional support is needed. Update the names, titles and contact details of the members.

1.6 ELEMENT 3- LEGAL AUTHORITY

General Order Requirements:

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 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 sewers and connections be properly designed and constructed;*
- Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned or maintained by the Public Agency;*
- 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.*

Audit Findings:

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;

The plan does not include a copy of the Districts Rules and Regulations. Update the SSMP to provide a copy or a link of the Districts Rules and Regulations, specifically Article 9, Rules Applicable to Existing Sewer Customers.

1.7 ELEMENT 4 – OPERATION AND MAINTENANCE PROGRAM

General Order Requirements:

The Sewer System Management Plan (SSMP) must include the items listed below that are appropriate and applicable to the Enrollee's system:

Updated Map of the Sanitary Sewer System

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

Preventive Operation and Maintenance Activities

A scheduling system and a data collection system for preventive operation and maintenance activities conducted by staff and contractors. The scheduling system must include:

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

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

Training

- In-house and external training provided on a regular basis for sanitary sewer system operations and maintenance staff and contractors. The training must cover:*
- The requirements of the General Order;*
- The Spill Emergency Response Plan procedures and practice drills;*

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- *Skilled estimation of spill volume for field operators; and*
- *Electronic CIWQS reporting procedures for staff submitting data.*

Equipment Inventory

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

Audit Findings:

Inspection and maintenance activities.

An update to table Appendix 9-A is below to highlight the District’s maintenance activities:

	2016	2017	2018	2019	2020	2021	2022	2023	2024
Response Time (min)									
Average	12	No Spill Events	No Spill Events	No Spill Events	No Spill Events	No Spill Events	20	No Spill Events	No Spill Events
Maximum	12	No Spill Events	No Spill Events	No Spill Events	No Spill Events	No Spill Events	20	No Spill Events	No Spill Events
Number of SSO’s									
Main Line Failure	0	0	0	0	0	0	0	0	0
Capacity Failure	0	0	0	0	0	0	1	0	0
FOG Related Spill	1	0	0	0	0	0	0	0	0
Private	1	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	1	0	0
SSO volume (gals)									
Volume of Spill	100	No Spill Events	No Spill Events	No Spill Events	No Spill Events	No Spill Events	385	No Spill Events	No Spill Events
Cleaning and Inspection									

Miles Cleaned	35	15	21	10	13	20	28.3	5.4	0
Miles CCTV Inspected	20	5	15	0	0	3	1.9	30.1	14.1

Regular visual and closed-circuit television (CCTV) inspections of manholes and sewer pipes.

Update the plan to include an accelerated cleaning schedule to catch up on the cleaning schedule. Staff is behind schedule on the Department goal of cleaning the entire wastewater collection system on tri-annual basis. The cleaning schedule consists of three phases in which each phase is completed within a year. The previous cleaning cycle ended, and a new cycle began in 2023. Since 2023, Phase 1 has been completed, Phase 2 is in progress, and Phase 3 is projected to be completed in 2026.

Training

Update the SSMP to document training on electronic CIWQS reporting procedures for all staff entering data into the database, as required by the reissued general order. Include Mock sewer overflow in SSMP.

1.8 **ELEMENTS 5 – DESIGN AND PERFORMANCE PROVISIONS**

General Order Requirements:

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

Updated Design Criteria and Construction Standards and Specifications

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

Procedures and Standards

Procedures and standards for inspecting and testing the installation of newly constructed, installed, repaired, and rehabilitated sewers, pumps, and other appurtenances.

Audit Findings:

The District has standard plans and specifications for the construction of sanitary sewers and appurtenances to ensure that sewer lines and connections are properly designed and constructed within unincorporated areas. All specifications reference standard drawings and incorporate the “Greenbook” Standard Specifications for Public Works Construction. No updates are necessary in this section.

1.9 **ELEMENT 6 – SPILL EMERGENCY RESPONSE PLAN**

General Order Requirements:

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.*

Audit Findings:

District staff are available 24 hours a day, 7 days a week to respond to emergency situations. Staff's average response time is less than 30 minutes. Update the SSMP to include the District's official webpage for the public to report urgent problems via the link. Change the webpage to include "questions, feedback, service requests, or other needs".

<https://www.cvwd.com/contact-us>

Update the plan to include mock sewer emergency response plan training records. The documents contain a detailed approach to training staff on the proper procedures to ensure an effective spill recovery.

1.10 ELEMENT 7 – SEWER PIPE BLOCKAGE CONTROL PROGRAM PLAN

General Order Requirements:

The Sewer System Management Plan must include procedures for the evaluation of the Enrollee’s service area to determine whether a sewer 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 procedure 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.*

Audit Findings:

Update the plan with the new section title “Sewer Pipe Blockage Control Program.”

The public outreach program described in the Plan is outdated. Update the plan to provide an updated description of the District’s implementation and scheduling of public outreach efforts.

Update the plan to describe existing procedures used to identify the source of fats, oils and grease sites, and how these sections are being tracked. Update the Industrial Waste Management Division (IWMD's) contact information and title.

1.11 **ELEMENT 8 – SYSTEM EVALUATION, CAPACITY ASSURANCE AND CAPITAL IMPROVEMENTS**

General Order Requirements:

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.*

System Evaluation and Condition Assessment

The Plan must include procedures to:

- Evaluate the sanitary sewer system assets utilizing the best practices and technologies available;
- Identify and justify the amount (percentage) of its system for its condition to be assessed each year;

Prioritize the condition assessment of system areas that:

- Hold a high level of environmental consequences of vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies;
- Are located within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas;

- *Are within the vicinity of receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List;*

Assess the system conditions using visual observation, video surveillance and/or other comparable system inspection methods;

Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State;

Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and

Identify system assets vulnerable to direct and indirect impacts of climate change, including but not limited to: sea level rise; flooding and/or erosion due to increased storm volumes, frequency, and/or intensity; wildfires; and increased power disruptions.

Capacity Assessment and Design Criteria

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

- *Dry-weather peak flow conditions that cause or contributes to spill events;*
- *The appropriate design storm(s) or wet weather events that causes or contributes to spill events;*
- *The capacity of key system components; and*
- *Identify the major sources that contribute to the peak flows associated with sewer spills.*
- *The capacity assessment must consider:*
- *Data from existing system condition assessments, system inspections, system audits, spill history, and other available information;*

- *Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;*
- *Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change;*
- *Increases of erosive forces in canyons and streams near underground and aboveground 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.*

Prioritization of Corrective Action

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

Capital Improvement Plan

The capital improvement plan must include the following items:

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

Audit Findings:

Update the SSMP to Include the Capital Improvement Program and Business Risk Vulnerability Assessments from wastewater master plan. Include the completed hydraulic model. Update sections related to the flows and modeling to reference new SWMM based model.

1.12 **ELEMENT 9 - MONITORING,
MEASUREMENT, AND PROGRAM
MODIFICATIONS**

General Order Requirements:

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

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

Audit Findings:

Update the plan to include monitoring information such as performance monitoring through the CIWQS database administered by the state and regional Water Quality Control Boards to track information under the statewide general order. Include a link to the public reports portal at:

https://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.html#sso

The District no longer has a Regulatory and Public Affairs Manager performing plan monitoring and evaluation. Update the plan to show the changes. The plan does not summarize how the District is monitoring the implementation and measuring the effectiveness of each plan element. Update the plan to include a checklist or a table to track each element's effectiveness. Revise table 9-1 to include Element 11, Communication.

1.13 ELEMENT 10 – SSMP INTERNAL AUDITS

General Order Requirement:

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

Specification 5.4 – Sewer System Management Plan Audits

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

Audit reports submitted to the CIWQS Sanitary Sewer System Database will be viewable only to Water Boards staff.

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

- *Evaluate the implementation and effectiveness of the Enrollee’s Sewer System Management Plan in preventing spills;*
- *Evaluate the Enrollee’s compliance with this General Order;*
- *Identify Sewer System Management Plan deficiencies in addressing ongoing spills and discharges to waters of the State; and*
- *Identify necessary modifications to the Sewer System Management Plan to correct deficiencies.*
- *The Enrollee shall submit a complete audit report that includes:*
- *Audit findings and recommended corrective actions;*
- *A statement that sewer system operators’ input on the audit findings has been considered; and*
- *A proposed schedule for the Enrollee to address the identified deficiencies.*

Audit Findings:

The audit schedule described in the SSMP is still based on a 2-year audit cycle. Update the SSMP audit schedule to reflect audit requirements from the 2022 General Order.

1.14 ELEMENT 11 – COMMUNICATION PROGRAM

General Order Requirements:

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.

Audit Findings:

Communication plan to inform the public in the event of spills and discharges resulting in closures of public areas, or that enter a source of drinking water.

The District's communication plan to inform the public in the event of a spill or discharge where the public may be exposed to discharge, such as public parks, the sewer spill response team assesses the extent of the spill and posts signage around the impacted areas. The Plan does not include the communication procedure to notify the public about spills and discharges. Update the plan to include a communication procedure to notify the public of spills and discharges that result in public area closures or that enter a source of drinking water.

Communication with the public on the development implementation, and update of its Plan, including opportunities for public input to Plan implementation and updates.

The District routinely updates and maintains a Wastewater webpage on the Districts website:

<https://www.cvwd.com/wastewater/2021-sewer-system-management-plan-ssmp>

The website provides the public with the necessary information associated with the SSMP and its program implementation:

- Latest version of the SSMP
- Homeowner responsibilities

The wastewater page does not include an SSMP audit report. Update the plan to include a link to the audit report.

The District does not provide a "Feedback" link on the Wastewater page to provide the public with opportunities for public input to plan implementation and updates. Update the plan to include a link with a phone number for inquiries and a mailing address for written inquiries.

STRENGTHS IMPLEMENTATION & ACCOMPLISHMENTS

Strengths and Implementation accomplishments of the SSMP and program implementation to support continued growth and success are listed in the table below.

Table 5: Strengths and Implementation Accomplishments

SSMP	Strengths and Implementation Accomplishments
Overall	Overall, the Districts’ sewer overflow performance is satisfactory. It fulfils expectations and has a very low sewer system overflow rate per 100 miles per year.
Organization	Multiple staff members with the proper training to manage SSO events.
Legal Authorities	Legal Authorities to enforce compliance
Operation and Maintenance Program	The District installed four (4) sewer manhole smart covers. Field maps is now available on mobile devises and tablets to access as-builts in the field.
Communication Program	The Public outreach team runs and maintains a webpage as well as an emergency alert notification system to push notifications when necessary.

SSMP AUDIT FINDINGS SUMMARY

During the audit, several findings were identified. The table below summarizes the audit findings.

SSMP ELEMENT	AUDIT FINDING	UPDATE DEADLINE
1. SSMP Goal and Introduction	Update Introduction section. Add a schedule of plan audits and updates.	8/2/2025
2. Organization	Update the organization chart to include a label on the organization chart showing which positions are serving as an LRO.	8/2/2025
3. Legal Authority	Update the SSMP to provide a copy or a link of the Districts Rules and Regulations, specifically Article 9, Rules Applicable to Existing Sewer Customers.	8/2/2025
4. Operation and Maintenance Program	Update Table 9.1. Update the plan to include an accelerated cleaning schedule.	8/2/2025
5. Design and Performance Provisions	No updates are necessary in this section.	8/2/2025
6. Spill Emergency Response Plan	Update the SSMP to include the District’s official webpage for the public to report urgent problems. Update the plan to include mock sewer emergency response plan training records	8/2/2025
7. Sewer Pipe Blockage Control Program Plan	Update the plan with the new section title “Sewer Pipe Blockage Control Program”.	8/2/2025
8. System Evaluation,	Update the SSMP to Include the Capital Improvement Program and Business Risk Vulnerability Assessments	8/2/2025

SSMP ELEMENT	AUDIT FINDING	UPDATE DEADLINE
Capacity Assurance and Capital Improvements	from wastewater master plan. Include the completed hydraulic model.	
9. Monitoring, Measurement, and Program Modifications	<p>Update the plan to include monitoring information such as performance monitoring through the CIWQS database.</p> <p>Revise table 9-1 to include Element 11, Communication.</p>	8/2/2025
10. SSMP Audits	The audit schedule described in the SSMP is still based on a 2-year audit cycle. Update the SSMP audit schedule to reflect audit requirements from the 2022 General Order.	8/2/2025
11. Communication Program	<p>Update the plan to include a communication procedure to notify the public of spills and discharges that result in public area closures or that enter a source of drinking water.</p> <p>Update the plan to include a link to the audit report.</p> <p>Update the plan to include a link with a phone number for inquiries and a mailing address for written inquiries</p>	8/2/2025