Sewer System Management Plan (SSMP)

2025 Update

Sanitary Sewer Collection Systems

REVIEWED AND APPROVED BY:

DocuSigned by:
Matt Machado
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4/29/2026

MATT MACHADO, P.E.

District Engineer/Deputy CAO/Director Community Development & Infrastructure

Legally Responsible Official

Sanitary Sewer Collection Systems:

Davenport County Sanitation District - 3SSO10263

Freedom County Sanitation District - 3SSO10267

Santa Cruz County Sanitation District - 3SSO10324

County Service Area No. 5 Canon del Sol/Sand Dollar - 3SSO10323

County Service Area No. 7 Boulder Creek - 3SSO10326

County Service Area No. 10 Rolling Woods - 3SSO10312

Date Signed

PREPARED BY:

FISCHER COMPLIANCE LLC
PRACTICES THAT COMPLY

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Revision Date	SSMP Section	Approval Date	Description of Change/Revision Made	Initials
3/12/26	All	4/28/26	Proofread/edited for misspelling, punctuation, duplicate words	AH/JF
3/12/26	All	4/28/26	Amended automatic numbering and headings	AH/JF
3/12/26	All	4/28/26	Re-captioned table 4 and 5, replaced captions on tables that were missing, updated table numbers to all 7 tables	AH/JF
3/12/26	All	4/28/26	Amended the body of the document so that narrative references matched the automatic table number changes	AH/JF
3/12/26	All	4/28/26	Amended page numbering, updated TOC, List of Tables and List of Figures	AH/JF
3/12/26	All	4/28/29	Added titles of missing documents to the List of Appendices	AH/JF
3/16/26	2	4/28/26	Pg. 16 remove Ramon Sandoval as LRO	BB
3/16/26	2	4/28/26	Table 5, pg. 18 remove Ramon Sandoval as LRO	BB

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Santa Cruz County Sanitation SCCSD/CSAs
Att: Matt Machado, P.E.
District Engineer/Deputy CAO/Director Community Development & Infrastructure
Legally Responsible Official (LRO)
701 Ocean Street, Room 410
Santa Cruz, CA 95060

Dear Mr. Machado,

We are pleased to present the new 2025 Sewer System Management Plan (SSMP) Update developed in partnership with Santa Cruz County Sanitation District (SCCSD) 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 SCCSD is doing to demonstrate full compliance with the Reissued WDR. Attachment A of the Reissued WDR (page A-4), states “A sewer system management plan is a living document which requires the SCCSD to Enrollee develops and implements to effectively manage its sanitary sewer system(s) in accordance with this General Order.” This requires an enrollee 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 SCCSD wherever necessary to fully implement the new 2025 SSMP Update.

Sincerely,

Jim Fischer

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

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INTRODUCTION

This Sewer System Management Plan (SSMP) or "Plan" has been prepared for the County with technical assistance from Fischer Compliance LLC with the goal of 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).

This SSMP was prepared to cover the management, operation and maintenance of the Davenport County Sanitation District, Freedom County Sanitation District, Santa Cruz County Sanitation District and County Service Areas sanitary sewer systems. The three enterprise districts are referred to as the Districts. The County Service Areas are referred to as the CSAs.

The County of Santa Cruz Department of Community Development & Infrastructure (CDI) – Public Works Division is responsible for the administration, engineering, maintenance, emergency response and construction of all County sanitation services. The department also manages various Board-governed special districts and County Service Areas. The Sanitation Operations unit is one of six organizational units within the Special Services Division of Public Works and provides operation and maintenance services to County sanitation Districts and CSAs. Sanitation operations employees work in all Districts and County Service Areas. Each sanitation district is governed according to its specific code of regulations. The Districts' codes are very similar, and some sections are adopted by reference from the Santa Cruz County Sanitation District Code. The CSAs are governed according to the Santa Cruz County Code of Regulations. Most of the County Code pertaining to sanitary sewer collection systems is adopted by reference from the SCCSD Code.

Sanitary Sewer Collection System Description

The unique features of the Districts' and CSAs' sanitary sewer systems must be taken into account when comparing them to other sanitary sewer systems. The Districts/CSAs' sanitary sewer systems consist of geographically dispersed service areas with sometimes significant travel time. The relatively large number of pump stations and associated force mains increase staffing and cost.

Districts

Santa Cruz County Sanitation District

The SCCSD is governed by a three-member board and managed by the County's CDI Department of Public Works under the direction of the District Board of Directors. The SCCSD includes the following areas in the County with sewer services: Aptos, Capitola, Soquel, and Live Oak. The SCCSD collection system is pumped to the City of Santa Cruz POTW for treatment. The District is required to comply with the requirements of the City of Santa Cruz NPDES permit NO. CA0048194.

Davenport County Sanitation District

The DCSD is governed by a District Board comprised of members of the Santa Cruz County Board of Supervisors. The DCSD is a nonprofit public agency providing treated drinking water and sewage collection, treatment and disposal services to the town of Davenport. Revenues to operate the District are collected yearly from residents and businesses that are connected to either the waterworks or the sanitary sewer system.

The Freedom County Sanitation District

The FCSD is governed by a District Board comprised of members of the Santa Cruz County Board of Supervisors and is a nonprofit public agency providing sewage collection, treatment and disposal service to the Freedom area. The FCSD collection system is pumped into the wastewater treatment plant on Beach Street, owned and operated by the City of Watsonville. The FCSD is required to comply with the City of Watsonville's NPDES permit NO. CA0048216.

County Service Areas

The Sanitation Operations Division maintains and operates six small sewer systems in the County Service Areas. This includes unincorporated areas of the County that do not discharge to the Sanitation Districts. The CSAs are governed by the Santa Cruz County Board of Supervisors. The following CSAs were required to enroll under the GWDR.

CSA 5 Sand Dollar

This County Service Area has its own sewage treatment facilities which are maintained by the County Sanitation Operations Division. Revenues to maintain the sewage collection system are collected yearly from all residents whose homes are connected to the sanitary sewer system. The County does not own nor is it responsible for maintenance or repair of any portion of the sewer service laterals (the portion between the building and the public sewer main).

CSA 7 Boulder Creek

Zone 1 and Zone 2 - This County Service Area has two zones with each zone having its own sewage treatment facility which is maintained by the County Sanitation Operations Division. Revenues to maintain the sewage collection system are collected yearly from all residents whose homes are connected to the sanitary sewer system. The County does not own nor is it responsible for maintenance or repair of any portion of the sewer service laterals (the portion between the building and the public sewer main).

CSA 10 Rolling Woods

This County Service Area is connected to a gravity sewer main that delivers sewage to the regional POTW operated by the City of Santa Cruz. The collection system is maintained by the County Sanitation Operations Division. Revenues to maintain the sewage collection system are collected yearly from all residents whose homes are connected to the sanitary sewer system. The County does not own nor is it responsible for maintenance or repair of any portion of the sewer service laterals (the portion between the building and the public sewer main).

The other three CSAs, CSA 2-Place de Mer, CSA 20-Trestle Beach, and Buena Vista are not required to enroll under the Waste Discharge Requirements as they do not meet the minimum requirements for enrollment.

SSMP Requirements

The Districts/CSAs' SSMPs are required to be updated every six years. The schedule for these updates is based on the WDR enrollment date deadlines for each sewer system established for populations served by the sewer systems. The SCCSD Board will approve this SSMP every six years based on the earliest date which will be uploaded to CIWQS by the Legally Responsible Official (LRO), currently served by Mr. Matt Machado. If any significant changes to the SSMP are made after Board approval prior to uploading to CIWQS, the LRO will document the changes in the SSMP Change Log, present the SSMP to the SCCSD Board for approval, and upload and certify the SSMP to CIWQS before the required deadlines. If no significant changes have been made, the LRO will upload and certify the previously approved SSMP. Table A below showcases a list of all applicable SSMP Update due dates for all Districts/CSAs' sanitary sewer systems.

The following are the sewer collection systems with the Waste Discharge Identification number and due dates for the SSMP updates:

Sanitary Sewer Collection System	Waste Discharge ID#	Next SSMP Due Dates
Davenport County Sanitation District (DCSD)	3SSO10263	8/2/2032
Freedom County Sanitation District (FCSD)	3SSO10267	8/2/2032
Santa Cruz County Sanitation District (SCCSD)	3SSO10324	8/2/2031
County Service Area #5 (CSA#5)	3SSO10323	8/2/2032
County Service Area #7 (CSA#7)	3SSO10326	8/2/2032
County Service Area #10 (CSA#10)	3SSO10312	8/2/2032

Table 1 – Districts/CSAs' Waste Discharge ID# Next SSMP Due Dates

Sanitation Operations staff provided all details, information, and institutional insights for preparation of this SSMP. The document has been developed as required by the WDR to meet the size, scale, and complexity of all Districts/CSAs' collection systems. The SSMP has also been structured to serve as a "living document" and as a tool for managing and operating the Districts/CSAs' sanitary sewer systems.

SSMP Structure

This SSMP has been specifically formulated into one single document that includes general to all SCCSD/CSAs sanitary sewer systems. Unique and specific information for individual systems is included in the appendices. This approach helps prevent duplication of information in each SSMP element and helps streamline the document and help readers improve understanding about the Districts/CSAs' sewer systems, internal work programs, and efforts to reduce sewage spills.

Industry Standard Guidance

The 2024 Sewer System Management Plan Guidance Manual published by the Bay Area Clean Water Agencies (BACWA) and used as a model for development of this SSMP document which incorporates recommended suggested guidance wherever possible.

The Districts/CSAs' 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.

Appendix 10 includes a copy of the 2025 SSMP Audit. Within Appendix 10 is Appendix 2B which provides key Districts/CSAs' spill metrics, including data comparing the Districts/CSA's spill record with state and regional system data. The Districts/CSAs' Sanitary Sewer Collection Systems consistently perform below both statewide and regional spill rate indices and net spill volumes for all categories of spills.

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 Districts/CSA's approach to complying with the WDR requirements.
3. Effectiveness – As measured by Key Performance Indicators (KPIs.)
4. Implementation – Demonstrates how the Districts/CSAs 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 Districts/CSAs' collection system and procedures.
6. Appendix Inclusions – Lists 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
CIPP	Cured in Place Pipe
CIWQS	California Integrated Water Quality System (State Water Board Online Spill Database)
CMMS	Computerized Maintenance Management System
EPA	US Environmental Protection SCCSD
FOG	Fats, Oils and Grease
FSE	Food Service Establishment
GCD	Grease Control Device
GIS	Geographic Information System
I & I	Inflow and Infiltration
LRO	Legally Responsible Official
MRP	Monitoring and Reporting Program
NPDES	National Pollutant Discharge Elimination System
RWQCB	Regional Water Quality Control Board (Lahontan Region)
SCADA	Supervisory Control and Data Acquisition
SERP	Spill Emergency Response Plan
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
Spill	Sanitary Sewer Spill
WDR	Sanitary Sewer Systems General Wastewater Discharge Requirements Order issued by the State Water Board (Order No. 2022-0103-DWQ)
SWRCB	State Water Resources Control Board
WDID	Waste Discharge ID Number (CIWQS)

1. GOAL AND INTRODUCTION

WDR 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

The Districts/CSAs are 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 Districts/CSAs' sanitary sewer collection system. Moreover, the Districts/CSAs are dedicated to maintaining its collection system in a systematic manner by implementing various work programs, with a focus on critical areas, to prevent spills, allowing for a comprehensive approach to maintenance. Work programs include CCTV inspections, pipe cleaning, manhole inspections, lift station maintenance, root control, source control and pipe repair, just to name a few. Work programs are described in more detail in sections Specifications 5.19 Operation and Maintenance of this SSMP.

By prioritizing proactive measures and taking a comprehensive approach, the Districts/CSAs are 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 Districts/CSAs utilize the State Water Board's Sewer System Management Plan & Audit Required Due Dates - Online Tool to ensure compliance with all required due dates for updating its SSMP and completing its required SSMP Audits. The WDIDs for the Districts/CSAs are presented in the Introduction section above.

The Districts/CSAs' SSMP Update and Audit schedules are included in Appendix 1.1.

Notable maintenance milestones include optimization of preventative measures including a 6-year gravity inspection cycle, targeted cleaning intervals based on age, condition and pipe diameter, bi-annual chemical root control main treatment, lift station inspections at least weekly, and capital improvement projects/schedules, all of which are monitored continuously throughout the 6-year SSMP update cycle.

EFFECTIVENESS

The SCCSD 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 SCCSD governing board on schedule (every six years)?
- Are specific internally established sewer program milestones being monitored?

IMPLEMENTATION PLAN/SCHEDULE

Refer to this Implementation Schedule for SCCSD

No.	Plan	Schedule	Responsible Party		
			Dir	Eng	Sup
1.2.1	Prepare for next SSMP Audit	Begin 8/2/2027	X	X	X
1.2.2	Complete and Upload next SSMP Audit	By 2/2/2028	X	X	
1.2.3	Incorporate Audit Findings, update Change Log and Update SSMP	Begin after completion of SSMP Audit		X	
1.2.4	Prepare for next SSMP Audit	Begin 8/2/2030	X	X	X
1.2.5	Complete and Upload next SSMP Audit	By 2/2/2031	X	X	
1.2.6	Incorporate Audit Findings, update Change Log and Update SSMP	Begin after completion of SSMP Audit		X	
1.2.7	Prepare for next SSMP Update	Begin 2/2/2031	X	X	
1.2.8	Board Approval deadline for SSMP Update*	By June 2031	X	X	

Refer to this Implementation Schedule for FCSD, DCSD and CSAs

No.	Plan	Schedule	Responsible Party		
			Dir	Eng	Sup
1.2.1	Prepare for next SSMP Audit	Begin 8/2/2028	X	X	X
1.2.2	Complete and Upload next SSMP Audit	By 2/2/2029	X	X	
1.2.3	Incorporate Audit Findings, update Change Log and Update SSMP	Begin after completion of SSMP Audit		X	
1.2.4	Prepare for next SSMP Audit	Begin 5/2/2032	X	X	X
1.2.5	Complete and Upload next SSMP Audit	By 5/2/2032	X	X	
1.2.6	Incorporate Audit Findings, update Change Log and Update SSMP	Begin after completion of SSMP Audit		X	
1.2.7	Prepare for next SSMP Update	Begin 11/2/2031	X	X	
1.2.8	Board Approval deadline for SSMP Update	By March 2032	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

All sewer systems are located in Santa Cruz County. Information about each of the individual sewer systems and service areas are included in the table below. See Appendix 1.1 for specific SCCSD/CSA Service Area Boundary maps.

Sewer System	Gravity Main Miles	Pump Stations	Force Main Miles	Siphons	Storm Water Diversion Structures	Population
Davenport County Sanitation District (DCSD)	3	2	1.3	0	None	215
Freedom County Sanitation District (FCSD)	15	9	1	0	None	4,158
Santa Cruz County Sanitation District (SCCSD)	186	35	14	3	None	72,200
County Service Area #5 (CSA #5)	1	2	0.28	0	None	218
County Service Area #7 (CSA #7)	303	5	2	0	None	536
County Service Area #10 (CSA #10)	4	1	0.25	1	None	300

Table 2 – Santa Cruz County Sewer Systems and Service Areas Information

The Districts/CSAs utilize Lucity™ for its Computerized Maintenance Management System (CMMS) that includes scheduling, work orders and asset management, (ESRI) ArcGIS for mapping, and GraniteNet for CCTV data capture. Sewer laterals within the Districts/CSAs' service areas are privately owned. The Districts/CSAs do not own sewer service laterals.

System Name	Residential	Commercial	Industrial	Institutional
Santa Cruz County Sanitation District (SCCSD)	91.02%	7.75%	1.23%	0%
Davenport County Sanitation District (CSD)	87.71%	9.64%	2.63%	0%
Freedom County Sanitation District (CSD)	97.82%	1.70%	0.48%	0%
County Service Area (CSA) #5	100.00%	0%	0%	0%
County Service Area (CSA) #7	100.00%	0%	0%	0%
County Service Area (CSA) #10	99.00%	1.00%	0%	0%

Table 3 – Districts/CSAs' Sewer Connection Flow Classifications and Connections Data

Overall, the Districts/CSAs have put themselves in good position to operate and manage the six sewer systems and do not encounter major challenges in its service areas. However, a common and unique challenge for operations staff is facility access in some easements. The challenge is overcoming the design standards from the past that allowed sewer facilities to be located in restricted areas that do not accommodate today's maintenance equipment. All facilities in these restricted-access areas can be maintained, but restricted access to facilities requires additional resources to perform maintenance activities. Examples include facilities in backyards, landscaping and hardscaping installations over sewer infrastructure.

Activities in these areas require:

- Pre-planned communication and coordination with property owners, and businesses
    - This at times requires advance notice and negotiation.
- Pre-planning to coordinate with supervisors and field staff.
- Additional staff access issues for asset maintenance to complete the work.
    - Remote setups with hydro-vacs and CCTV vehicles requires additional staff to drag and carry equipment and hoses to manholes.
- Additional labor hours to complete tasks Specific SCCSD challenges include:
    - King Tidal impacts causing some excessive inflow/infiltration into parts of the sewer system located near and adjacent to the Pacific Ocean.
    - Access to sewer assets at the Capitola Pump Station during certain times from vehicles in parking areas blocking access hatches.

The District maintains up to date collection system maps. See Element 4.1 – Collection Map of Sanitary Sewer Systems for more detail.

EFFECTIVENESS

The SCCSD 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		
			Dir	Eng	Sup
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	Monthly		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

- 1.1 Districts/CSA Sewer System Vicinity Maps
- 1.2 Districts/CSA Sewer System SSMP Audit and Update Schedules

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 SCCSD 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 and updated to meet the requirements of Order WQ 2022-0103-DWQ and addresses all required Elements and Specifications required by the Reissued WDR (Order No. 2022-0103-DWQ). The SSMP addresses management, operations and maintenance procedures for the Districts/CSAs' sewer collection systems. The Community Development & Infrastructure Public Works Division, Engineering and Sanitation Operations 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 details).

Sanitation Operations staff keeps up with current industry standards, technology and best practices by reviewing industry periodicals, networking and attending industry conferences and workshops. The Districts/CSAs' staff continuously evaluates emerging practices, equipment and technologies for possible implementation to enhance operations and collaborates with nearby sewer agencies.

Specifications 5.7 – Allocation of Resources

WDR REQUIREMENTS

Spec. 5.7 (pg. 22)

"The SCCSD 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

The County of Santa Cruz Department of Community Development & Infrastructure (CDI) – Public Works Division maintains various revenue sources to maintain financial stability, meet its operational needs and manage all necessary expenditures to operate the various sewer system.

The Sanitation Operations unit is one of six organizational units within the Special Services Division of Public Works which operates and maintains six separate sanitary sewer systems within the County, which are either District sewer assets or County Service Areas (CSAs). Each derive their operating revenue from sewer user fees within each of the Districts/CSAs. Funds do not co-mingle between the Districts/CSAs and are used to support the operation and maintenance of the sewer systems.

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

The Districts/CSAs are aware of the consequences for noncompliance including associated penalties for violations. The Districts/CSAs 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

The Districts/CSAs upload this SSMP to the CIWQS database, publishes it on its website and makes it available for public review at Sanitation Operation office, 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 SCCSD, and State Office of emergency Services.)*

COMPLIANCE

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

- LRO 1 – Matt Machado, District Engineer/Deputy CAO/Director of CDI
- LRO 2 – Carolyn Burke, Assistant District Engineer/Assistant Director
- LRO 3 – Beatriz Barranco, Sanitation Operations Manager

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

Implementation Responsibilities

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

Table 4 – Implementation Responsibilities

Responsible Position Contact Information

Responsible Person	Position	Phone	Email
Matt Machado	District Engineer/Deputy CAO/Director Community Development & Infrastructure Legally Responsible Official	(831) 454-2160	matt.machado@santacruzcountyca.gov
Carolyn Burke	Assistant District Engineer/Assistant Director Special Services Legally Responsible Official	(831) 454-2160	carolyn.burke@santacruzcountyca.gov
Beatriz Barranco	Sanitation Operations Manager Legally Responsible Official	(831) 477-3907	beatriz.barranco@santacruzcountyca.gov

Table 5 – Responsible Position Contact Information

2.1. Organizational Staffing Responsibilities

Assistant Director Special Services/Assistant District Engineer

Legally Responsible Official under general direction, plans, organizes and directs the Special Services Section, acts as the Director in the absence of the Director of CDI; and does other work as required. Assistant Director Special Services is the fully functional.

Assistant department head level and is responsible for operations, management, and supervision of several sections of the department.

Assistant Public Works Superintendent

Legally Responsible Official under direction, assist in the planning and supervision of the Sanitation Division activities and facilities; supervise staff assigned to a variety of activities; evaluate personnel and equipment safety, and institute appropriate safety programs; and perform other duties as required.

District Engineer/Deputy CAO/Director of Community Development & Infrastructure

Legally Responsible Official required by legislative and administrative determination of policy, to plan, organize and direct the work of the Public Works Division; and to do other work as required. This position is responsible for administering the Public Works Division, including engineering, maintenance and construction of the County's roads, bikeways, sanitation and drainage facilities and solid waste disposal services. The District Engineer/Deputy CAO/Director of Community Development & Infrastructure serves as Road Commissioner and District Engineer.

Electrical Instrumentation Supervisor

The position in this series supervises the electrical instrumentation technicians and perform work related to the design, fabrication, installation, maintenance, operation, inspection, and testing of a variety of control systems equipment including, but not limited to, electrical, electronic, pneumatic, computer, microprocessor and variable frequency drive, electro-mechanical, digital, telemetry, and analog components used in wastewater process control systems; and perform other duties as required.

Electrical Instrumentation Technician

Positions in this series perform work related to the design, fabrication, installation, maintenance, operation, inspection, and testing of a variety of control systems equipment including, but not limited to, electrical, electronic, pneumatic, computer, microprocessor and variable frequency drive, electro-mechanical, digital, telemetry, and analog components used in wastewater process control systems and perform other duties as required.

Environmental Programs Coordinator

Under direction, supervises, administers and manages the sampling, monitoring, and reporting programs for County household hazardous waste and solid waste programs; or industrial waste pretreatment, waste minimization, and source control programs; prepares, coordinates and administers grant funded programs in solid waste management, household hazardous waste management and resource recovery; or industrial waste pretreatment, waste minimization and source control; plans, develops and delivers hazardous, solid or industrial waste and waste minimization training programs; and does other work as required.

Pretreatment Program Specialist

Under general supervision, inspects and monitors industrial and commercial wastewater sources for compliance with Federal, State and local discharge regulations; inspects pretreatment facilities, grease traps and interceptors; collects samples, and operates and maintains sampling equipment; and performs other work as required.

Public Works Supervisor

Under direction, to plan, assign and supervise the work of public works maintenance personnel in an assigned program/division (Roads, Sanitation, Solid Waste Disposal, or Drainage); assure the quality of the work performed; may perform the more difficult and technical work of the assigned division; and perform other duties as required.

Pump Maintenance Mechanic

Perform skilled mechanical repair and maintenance work on pumps, diesel engines and equipment in sewage transmission facilities, wastewater treatment plants and water treatment plants.

Sanitation Maintenance Worker

Under general supervision, perform a wide variety of tasks related to the maintenance and repair of pump stations and sewer lines and the maintenance of wastewater treatment and water treatment plants; and perform other duties as required.

Santa Cruz County Board of Supervisors

Establishes policy for the CSAs, Davenport, and Freedom County Sanitation Districts.

Santa Cruz County Sanitation District Board of Directors

Establishes policy for the SCCSD.

Sanitation Operations Manager

Plan, organize and manage the operation and maintenance of the Districts/County's sanitation facilities; directs, through subordinate supervisors, the work of a staff engaged in a wide variety of activities connected with sanitation operations and maintenance; ensures that all sanitation facilities comply with State and Federal laws and regulations.

Senior Civil Engineer

Plan, organize and manage the engineering of the Districts/County's sanitation collection systems; directs, through subordinate supervisors, the work of a staff engaged in a wide variety of activities connected with the design and improvements of sanitation facilities.

Treatment Plant Operator

Under general supervision, to perform difficult and complex operations and maintenance functions for the County's wastewater and water treatment plants; to function as a lead worker to trainee operators; may act as chief plant operator for a class II or I wastewater treatment plant; and to perform other duties as required.

Treatment Plant Operator Supervisor

Under direction, to oversee all water or wastewater treatment operations, assist in the preparation of treatment plant budgets, plan, assign and supervise the work of a crew operating and maintaining wastewater or water treatment plants, and to perform other duties as required.

2.2. Organization Chart

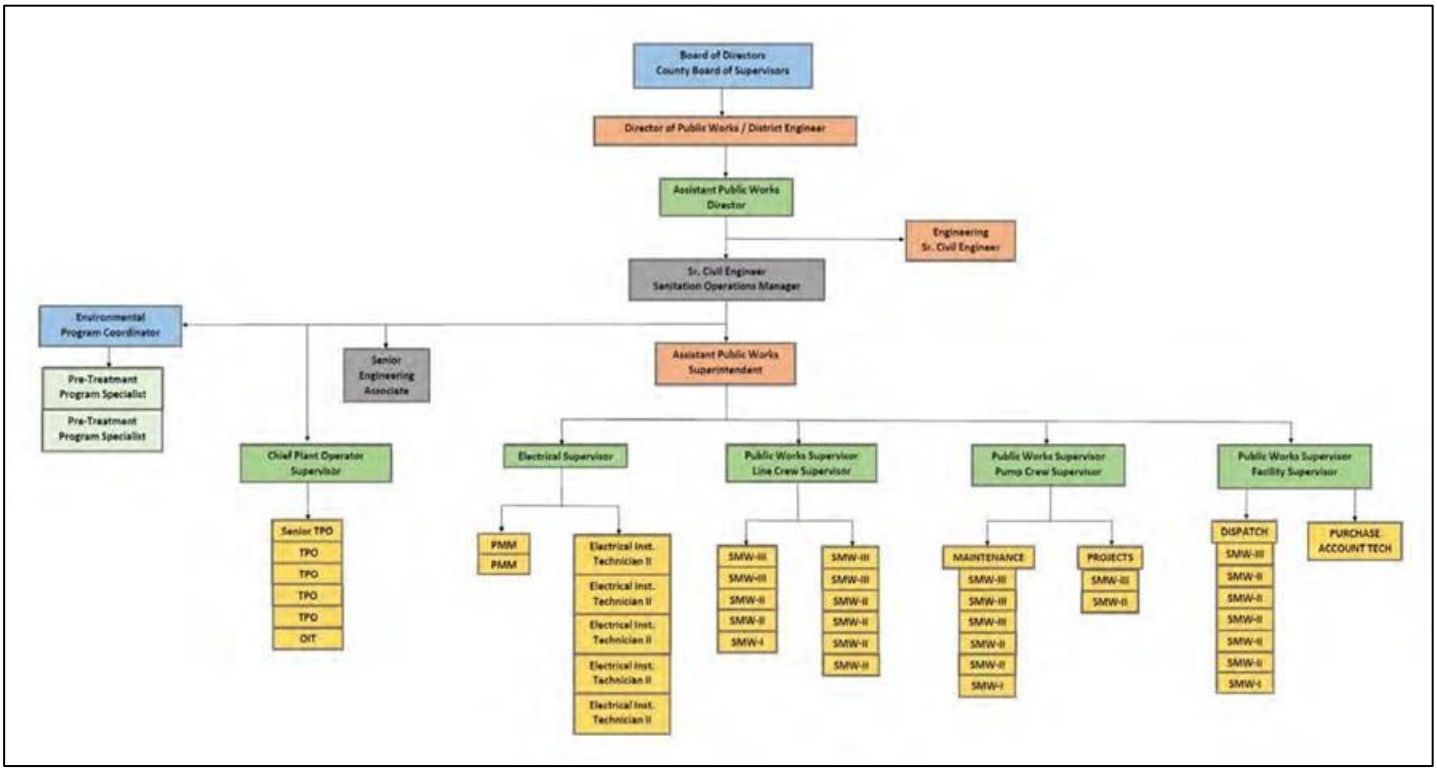

Figure 1 – SCCSD Organization Chart

2.3. Chain of Communication for Reporting Spills

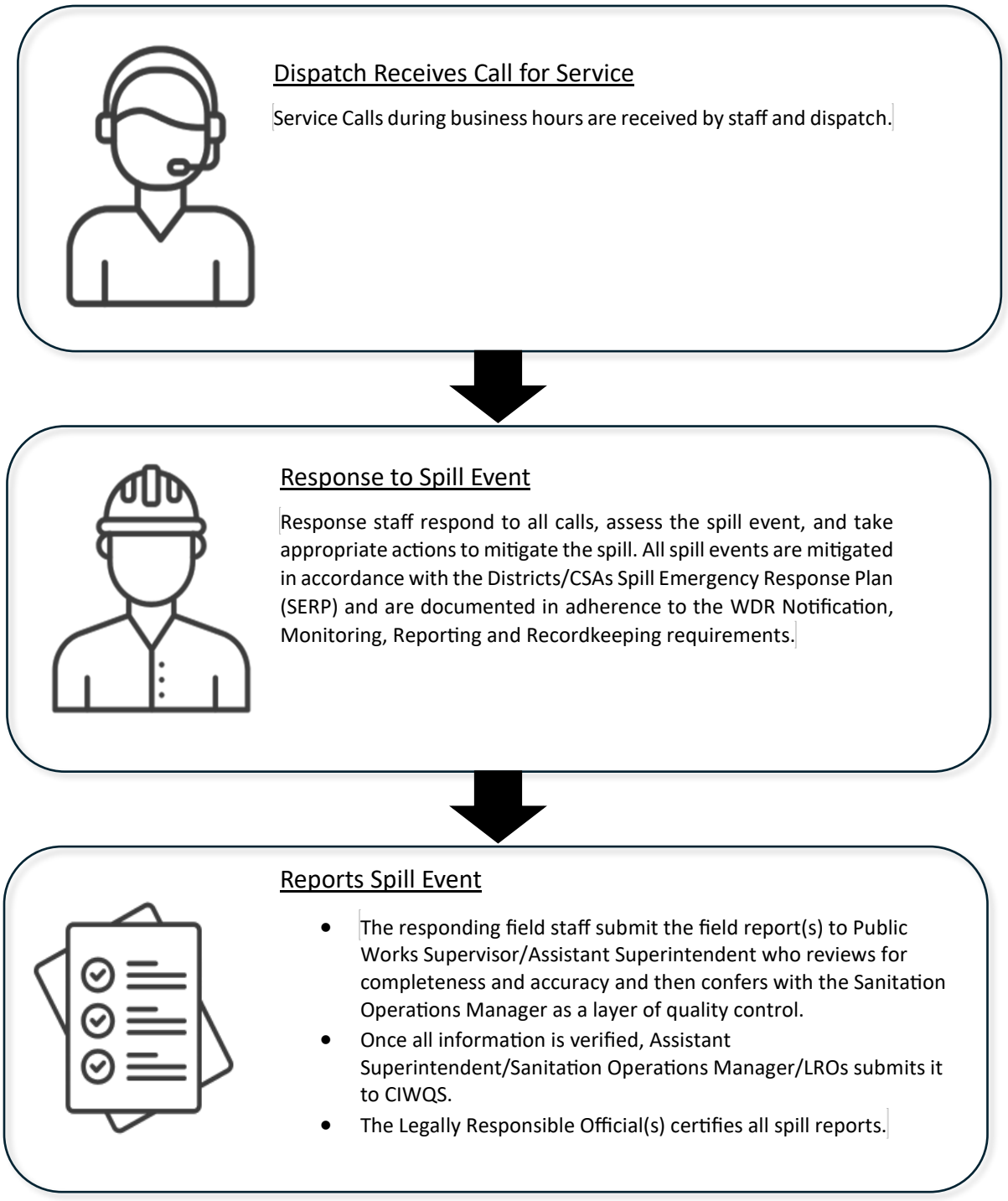

Figure 2 – SCCSD Chain of Communication for Spills

EFFECTIVENESS

The District/CSAs 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		
			Dir	Eng	Sup
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

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:

The Community Development & Infrastructure Public Works Division is responsible for the administration, engineering, maintenance, emergency response and construction of all County sanitation services. The division also manages various Board-governed special districts and County Service Areas.

The Sanitation Operations unit is one of six organizational units within the Special Services Section of CDI and provides operation and maintenance services to the Santa Cruz County Sanitation District, Freedom County Sanitation District, Davenport County Sanitation District and CSAs. Sanitation Operations employees work in all Districts and service areas. Each sanitation District is governed according to its specific code of regulations. The Districts/CSAs' codes are very similar, and some sections are adopted by reference from the SCCSD Code. The CSAs are governed according to the Santa Cruz County Code of Regulations. Most of the County Code pertaining to sanitary sewer collection systems is adopted by reference from the SCCSD Code.

a. Authority to prevent Illicit discharges into SCCSD Wastewater Collection System is provided by Codes and are all available online. A list of all Codes for Districts/CSAs to address these requirements are provided in Appendix 1).

b. Specific online links for limiting illicit discharges for Districts/CSAs are provided below:

- SCCSD Code 4.04.370 and 4.04.410
- Davenport Sanitation County Code section 4.04.370 and 4.04.410
- Freedom Sanitation County Code 3.04.380
- County of Santa Cruz CSAs Code, SCCC 7.39.020, SCCSD 7.04.310 (Adopted by Reference)

c. The Districts/CSAs' pre-planned collaboration and coordination with storm drain agencies.

In most cases, the County owns and operates both the storm drain and sewer collection systems within each sewer service area. As such, the County has de facto authority to access storm drains during and after spill events should the need arise. Historically, the County has accessed storm drains owned by other agencies when needed, retrieved the sewage and returned it to the sewer system, cleaned the storm drain system, and notified the storm drain owner. The County is working with storm drain owners within its service area to formalize procedures and expectations to better address this requirement.

d. Require that sewer system components and connections be properly designed and constructed.

Online links for addressing each of these requirements are provided below are provided below:

- SCCSD Code 7.04.310
- Davenport Sanitation County Code section 4.04.370 and 4.04.410
- Freedom Sanitation County Code 3.04.380
- County of Santa Cruz CSAs Code, SCCC 7.39.020, SCCSD 7.04.310 (adopted by reference)

e. Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned and/or operated by the Enrollee.

Online links for addressing each of these requirements are provided below are provided below:

- SCCSD Code 7.04.310
- Davenport Sanitation County Code section 4.04.520
- Freedom Sanitation County Code 3.04.540
- County of Santa Cruz CSAs Code, SCCC 7.39.020, SCCSD 7.04.380

f. Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures.

Online links for addressing each of these requirements are provided below are provided below:

- SCCSD Code 7.04.310
- Davenport Sanitation County Code section 4.04.530, 4.04.447, SCCSD 7.04.545 (adopted by reference)
- Freedom Sanitation County Code 3.04.467, SCCSD 7.04.545 (adopted by reference)
- County of Santa Cruz CSAs Code, SCCSD 7.39.020, SCCSD 7.04.545, 7.04.240 (adopted by reference)

g. Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

Online links for addressing each of these requirements are provided below are provided below:

- SCCSD Code 1.12.010 , 7.04.545
- Davenport Sanitation County Code section 4.04.530, 4.04.447, SCCSD7.04.545 (adopted by reference)
- Freedom Sanitation County Code 3.04.467, SCCSD 7.04.545 (adopted by reference)
- County of Santa Cruz CSAs Code, SCCSD 7.39.020, SCCSD 7.04.545, 1.12.010 (adopted by reference)

EFFECTIVENESS

The Districts/CSAs utilize the following Key Performance Indicators for measuring effectiveness of this Element:

- Are the SCCSD ordinances and standards adequate for fulfilling the Sewer System Management Plan legal requirements?
- Does the SCCSD 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		
			Dir	Eng	Sup
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

- 3.1 Table of District/CSA Legal Authority Codes

4. OPERATION AND MAINTENANCE PROGRAM

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

4.1. Updated Map of 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

The Districts/CSAs maintain sewer collection system maps for all enrolled agencies using GIS and AutoCAD. The maps include all gravity line segments, cleanouts, ARVs, manholes, pumping stations, force mains, storm drains and other structures used to transport and maintain sewer contents. In 2016, Sanitation Operations staff began using tablets in the field to view sanitary sewer maps through GIS. Hard copy maps produced from the GIS are used, as necessary. The collection systems maps are updated continuously. Discrepancies identified by the field crews are forwarded to the GIS analyst for action.

System maps include hot spots, sewer mains with root treatment, 30- and 90-day jetted sewer mains, gravity mains, force mains, manholes, pump stations, property boundaries and addresses, creek locations, and storm drain mapping, and pipe asset information (ID number, diameter, flow direction, segment length, material type, and age).

Mapping errors or omissions discovered by field staff are documented and submitted to supervisory staff who verify the proposed changes and then forward to engineering/GIS for implementation. New development projects are added to the mapping system after project acceptance.

System maps will be made available to State and Regional Water Board staff upon request.

EFFECTIVENESS

The SCCSD 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		
			Dir	Eng	Sup
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 Sanitation Operations staff utilizes Lucity™ to manage assets, create work orders, track preventive maintenance, schedule repairs, track inventory, and record spill events. Sewer asset information (pipe locations, material, size, manhole locations) can be accessed through ARC-GIS software.

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. Sanitation Operations staff utilize a Lucity™ for making informed decisions regarding its assets and infrastructure by using the collected data from field work orders and documented inspections. Lucity™ is used for maintaining 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, Lucity™ is used to plan and schedule higher-frequency inspection and maintenance activities such as Hot Spot cleaning and selective root control activities. Emergency and other reactive activities are documented in work orders as well.

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

EFFECTIVENESS

The Districts/CSAs utilize the following Key Performance Indicators for measuring effectiveness of this Element:

- Is the SCCSD maintenance, operations, engineering work orders periodically audited for accuracy and completeness?
- Does the SCCSD 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		
			Dir	Eng	Sup
4.2.1	Monitor “Past Due” work orders to ensure critical work is being completed	Monthly		X	X
4.2.2	Review scheduled PMs to ensure the prescribed schedule remains appropriate.	Monthly		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 Districts/CSAs use a combination of in-house classes, on-the-job (SERP) training, conferences, seminars, and other training opportunities to train its sanitation operations and engineering staff. SCCSD staff who maintain the treatment plants are also trained on the Spill Emergency Response Plan.

Equipment and operations training is initially provided by the vendor or manufacturer of the equipment. Ongoing technical training is provided through on-the-job training and rotation among the different maintenance crews and equipment. The Districts/CSAs rely on regional and statewide training available through seminars and conferences. New employees receive orientation training on spills and the SERP. Annual in-class refresher training is conducted by private contractors. The training resources are shown in Table 6 below.

The District's/CSA'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.

SPONSOR	EVENT	TIMEFRAME	REFERENCE
California Water Environment Association	State Conference	April	www.cwea.org
	Northern Regional Training Conference	September	
	Monterey Bay Section	Semi-Annually	
	San Francisco Bay and Santa Clara Valley Section Collection System Committees	Quarterly	
California State University, Sacramento	Videos, manuals, home study courses	As needed	www.owp.csus.edu
WDR and SSMP	Classroom	Annually	
Districts/CSAs	SERP Training- Class- room and Field exercises	Semi-Annually and all new employees	
Consultants	PACP, Spill response volume estimation, and Pump Classes	Semi-Annually	
CSRMA	Sewer Summit	Annually	
Northern American Society for Trenchless Technologies	Various Trenchless Classes	As classes are offered	
California Association of Sanitation Agencies	Various	Varies as classes/seminars are offered	www.casaweb.org
In-House Safety Training			
DKF Solution Training			

Table 6 – District/CSA's Training Program

Staff involved in responding to customer service calls, including sewage spills, receive annual training on the Districts/CSAs' 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.

The Districts/CSAs have developed spill response procedures for Contract Service personnel who perform work for the District/CSAs. They are required to:

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

EFFECTIVENESS

The Districts/CSAs utilize 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		
			Dir	Eng	Sup
4.3.1	Review training documentation to ensure all staff have received required training	Quarterly		X	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 Districts/CSAs maintain a host of equipment for both routine maintenance and for contingency or emergency operations. Included in this inventory are portable generators, spare pumps, electrical components, spare PLC components, floats, level indicators (pressure transducers, backup UPSs and components for SmartCovers).

- The SCCSD has equipment and replacement part inventories and has identified its critical replacement parts, including comprehensive list of pump stations, electrical components and pipeline spare parts.

EFFECTIVENESS

The SCCSD 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 SCCSD experienced any equipment failure that inhibited a spill response?

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			Dir	Eng	Sup
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
4.4.3	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

Preventative Maintenance

The Districts/CSAs have different methods of preventative maintenance and operation activities. Pipeline maintenance is performed on a daily basis by the line crews and includes regular sewer pipe cleaning, high frequency cleaning, and CCTV of the collection system. Sections of mainlines, where there is reported grease build up, pipe offsets, and excessive root intrusion require further assessment, are televised and the cleaning frequency is increased, or the pipe is repaired in-house or with a contractor. An area where grease is reported in the collection systems is further reviewed by the Environmental Compliance section. If the mainline sections require replacement, they are included in the capital improvement program (CIP).

The SCCSD is divided into basins alpha numerically. The cleaning schedule is assigned according to basin. Sanitation Operations proactively cleans all gravity sewers that are 12 inches in diameter and smaller every five years and preventively cleans sewer hotspots every 30 and 90 days depending on the severity of the hotspot. Hotspots are areas in the sewer collection system that have a history of blockages caused by grease, root intrusions, sags, and poor grade.

Sanitation Operations visually inspects the condition of its larger sewers (larger than 12 inches) every five years and conducts cleaning if needed. The visual inspection and cleaning are contracted out. Standard operating procedure for sewer cleaning is included as Appendix 4-A. The Freedom CSD has segments of sewer main larger than 12 inches and visual inspections and cleaning were completed in 2023.

Gravity Main Inspection (CCTV)

Gravity sewer cleaning is scheduled using work orders generated by Lucity™. The systems cleaned by SCCSD are cleaned every 4 years with some areas cleaned more frequently. Completed work is documented in Lucity™. The completed work orders include field crew observations on the nature and quantity of materials removed from the gravity sewers during cleaning. This information, along with field crew recommendations, is used to establish the cleaning method and frequency 30- and 90-day jetting frequency.

Root Control

The SCCSD contracts for chemical root control throughout their systems on an as-needed basis. Approximately one third of the designated lines are treated by the contractor in the late spring of each calendar year. The City of Santa Cruz POTW must approve chemicals used by the root control contractor.

Sanitation Operations staff uses the procedures below when applying root treatment to sewer mains:

- Blocking the line upstream and downstream of the area of application. When root treatment is applied upstream and downstream do not get blocked.
- Using root control agents that have a half-life of sixty (60) days or less and the breakdown products are non-toxic to aquatic plants or animals.
- Record keeping that includes identifying the PACP rating in the section being treated; a map identifying locations where treatment occurs; the chemical(s) used, including the MSDS sheets; and the amounts applied.
- Not applying any root control agent to any sewer line that has a known PACP rating of 4 or 5 unless the Districts/CSAs can ensure that none of the root control agent will escape the sewer line through any line defect.
- Not knowingly applying any root control agent in any location where groundwater can be contaminated via infiltration or exfiltration.
- Verifying through CCTV'ing of the sewer lines, whenever possible, prior to the expiration of the applicable warranty that the root control agent applied worked effectively to remove the identified root(s).
- Using RootX between applications when root(s) problems are noticed, after 6 weeks of the application the root(s) are cut.
- If roots are encountered during routine maintenance, remove roots through high pressure hydro-jetting during regular cleaning.

CCTV

Sanitation Operations uses CCTV to inspect sewers, and a GoPro camera attached to a nozzle top to determine the condition of the gravity sewers and to determine the primary cause of blockages and spills and to determine the best method and frequency of cleaning or needed repair to prevent a repeat spill.

Sanitation Operations intends to continue inspecting the gravity sewers thereafter on a six-year cycle. A CCTV inspection crew operates daily. The inspection data is reviewed by the Public Works Supervisor and the Sanitation Senior Civil Engineer to determine whether repair or rehabilitation/replacement is warranted. Sanitation Operations staff assigns condition ratings as set forth by the Pipeline Assessment and Certification Program (PACP) to each inspected pipelines using the protocol established by the National Association of Sewer Service Companies (NASSCO).

Identified hot spots are used in prioritizing repair activities and for providing input to Sanitation Engineering on the Capital Improvement Program. Projects in the CIP are prioritized based on PACP ratings and GraniteNet software. Additionally, Autodesk's InfoWorks ICM software is used to determine the likelihood and consequences of sewer system failures and will be used to develop the CIPs for each sewer system.

Siphons

The Districts/CSAs maintain 4 siphons that are designed to be self-flushing. The 3 siphons in the Districts/CSAs are high pressure hydro - jet cleaned monthly. The siphon in CSA 10 Rolling Woods is designed to be self- cleaning.

Manhole Inspections

The Districts/CSAs inspect manholes during CCTV activities. Deficiencies are noted in Lucity™, and manholes are replaced or repaired with adjacent pipelines, as needed and as scheduled in the Districts/CSA's capital improvement program (CIP).

Pump Station Inspections/Maintenance

The Districts/CSAs' Pump Station O&M Program consists of monitoring, operational inspections, preventive maintenance, and corrective maintenance activities.

There are 56 pump stations throughout the Districts/CSAs. Nine employees are assigned to the pump crew. However, other sanitation operations staff may respond to pump stations when needed. Staff are cross- trained so they are able to work on various parts of the sewer collection systems. Pump stations are continuously monitored through a SCADA system.

If the pumps are failing or wet well levels are too high or low, alarms are sent through SCADA, the SMW at dispatch reports the alarm, and the appropriate crew is notified of the alarms and responds.

Pump stations are visually inspected every week. Facility or equipment problems observed during the operational inspections are repaired at that time or noted in logs maintained at the pump stations and on work orders for follow-up action. Pumps turn on and off based on flow and wet well levels.

Large pump stations have backup pumps onsite. Pump stations that have pumps with over 40 horsepower motors are considered large. Spare pumps for the remaining pump stations are stored at the sanitation operations facility located at 2750 Lode St. Santa Cruz CA, 95062. Electrical control panels are maintained by the electrical instrumentation technicians.

Two pump stations are without emergency onsite back-up generators, A-3 pump station in the Santa Cruz County Sanitation District and Pauline pump station in the Freedom County Sanitation District. There are portable generators stored at the sanitation operations facility in case of an emergency. Onsite and portable generators are maintained by two pump mechanics.

Pump stations are inspected weekly. The information in the inspection is used to identify major maintenance, rehabilitation and capital improvement needs. Sanitation Operations staff completes repairs and conducts maintenance. Specialty repairs, maintenance, or rehabilitation/replacement are completed by contract. Identified capital improvement needs will be included in the Capital Improvement Program.

A total of 37 SmartCovers and Mission Dialers were installed at critical pump stations to provide redundancy in the event that SCADA communication fails.

Pump Station Emergency Response Plans

The Districts/CSAs have an ongoing initiative for development and implementation of customized pump station emergency response plans covering its most critical stations to ensure continuous and safe operations. This includes a new project for development of a new emergency response plan for the SCCSD’s largest pump station, and 36-inch force main sewers planned for completion in late 2025. Several of the largest pump stations have dedicated onsite backup generators. Sanitation Operations has also compiled a comprehensive list of pump stations, electrical components and pipeline spare parts.

Easement Maintenance

Sewer Easements

The Districts/CSAs maintain a network of sanitary sewer infrastructure, including pipelines that are located within public rights-of-way and within sewer easements that cross private property. Sewer easements are legal rights that grant the Districts/CSAs' access to private property for the purpose of inspecting, operating, maintaining, repairing, or replacing sanitary sewer facilities.

To ensure uninterrupted sewer service and protect public health and the environment, the Districts/CSAs are committed to proactively managing and maintaining sewer infrastructure located within these easements. This includes:

1. Easement Access and Documentation

   The Districts/CSAs are in the process of reviewing and updating its inventory of sewer easements to confirm access rights, locate infrastructure, and identify any encroachments. Clear documentation is essential for legal access and effective response during maintenance or emergency repairs.

2. Routine Maintenance Activities

   Easement lines are scheduled for regular cleaning, inspection (via CCTV), and assessment. These proactive measures help identify blockages, root intrusion, pipe defects, and other issues before they result in sewer spills or service disruptions.

3. Vegetation Management

   Easements are to be kept clear of trees, fences, structures, or other encroachments that may hinder access or damage infrastructure. Property owners are notified of any required removals or restrictions in accordance with easement agreements/rights.

4. Community Outreach

   The Districts/CSAs will continue to educate property owners about the importance of keeping sewer easements accessible and the role of easements in maintaining a safe and reliable sewer system.

Force Mains

The Districts/CSAs' force main O&M program consists of periodic inspections, preventive maintenance, and corrective maintenance activities.

The Districts/CSAs are members of Underground Service Alert and marks the location of the force mains to prevent damage by others during underground construction.

Air relief valves are inspected and maintained monthly. This includes the 16-inch and 18-inch force mains from the Aptos Esplanade Pump Station to the transition structure in Park Avenue and the 36-inch transmission line from the DA Porath Facility to the City of Santa Cruz POTW. The 36-inch force main in SCCSD is unable to be cleaned due to an aging valve. A valve replacement project is planned for Spring 2026.

Sanitation Operations continues to develop a program to assess the condition of the force mains. The main transmission line from the DA Porath Facility to the City of Santa Cruz POTW was evaluated in 2015 and planning to inspect in 2026 using a comprehensive approach which included a Close-Interval-Survey, electromagnetic internal inspections looking for broken bar wraps and steel cylinder corrosion, air pocket/leak detection surveys and hydraulic analysis. Additionally, a structural analysis was conducted, including a three-dimensional, nonlinear finite element analysis to determine the performance thresholds in light of any damage that was found.

Odor Control

SCCSD contracts a service provider for supply and equipment used to control odor causing sulfides in the sewer collection system. The odor control system includes five Vapor Links to alert staff of areas with high sulfide readings and staff are able to remotely adjust chemical feed to reduce odors. The odor control system also uses carbon media and mechanical devices to control odors. See Appendix 4-A, Figure 4.1 for SCCSD odor control map.

Non-Routine Maintenance

Non-routine maintenance activities include investigation and response to any complaints regarding a manhole overflow, missing or shifted manhole covers, manhole covers that are excessively noisy, residential plumbing issues, pump station malfunction, unexpected sewer odor, etc. Sewer complaints are investigated, and appropriate actions are taken to resolve the source of the problem. The information is tracked in the Lucity™ data management system. Work orders are generated for all tasks including inspections, repairs, and spills. All complaint records are kept in Lucity™ including complaints that did not result in a spill.

Rehabilitation and Replacement Plan

The Districts/CSAs' Rehabilitation and Replacement Programs are driven by the condition of the sewer system assets. The condition of the gravity sewers is established using CCTV inspection. The condition of the pump stations is established during annual facility inspections and routine preventative maintenance activities.

The CCTV inspection results are based on the PACP standards: structural and maintenance defects are logged according to location and assigned a severity grade of 1 to 5 (1 indicates a minor defect and 5 indicates defects that are most significant and where failure is imminent). Future CCTV inspection frequencies may change based on the structural conditions identified during previous inspections.

The results of CCTV inspections (PACP ratings) will be integrated into the SCCSD's Autodesk's InfoWorks ICM (ICM) software, which combines sewer asset data (year installed, material, size, etc.), geographic mapping (biotic resources, waterways, etc.), CCTV inspection video data (including NASSCO PACP pipe scores), operation tasks including hydro-jetting, root control, SmartCovers monitoring (37 monitors) and spill data and other information. ICM provides a visual representation of where assets are requiring rehabilitation and replacement, but it is also used to prioritize projects based on the "Likelihood of Failure" and "Consequence of Failure" analyses. The information from ICM combined with information about known capacity deficiencies as identified by Carollo Engineer's 2019 Inflow and Infiltration Study, current system operational issues, and upcoming development projects is used to prioritize projects.

The SCCSD's Capital Improvement Plan (CIP) is updated yearly and identifies planned projects for the next five years. The projects include sewer main and pump station rehabilitation and upgrades. The current CIP is on the SCCSD's website, under About Us at: https://sccsd.wpcomstaging.com/about-us/

As stated earlier, pump station condition will be evaluated during periodic facility inspections and routine preventative maintenance.

Force main condition will be based on the future force main condition assessment program.

The sewer system projects that are included in the Five-Year Capital Improvement Programs for the Districts/CSAs can be found on the County of Santa Cruz Public Works Department at: https://www.dpw.co.santa-cruz.ca.us/Home/SewerWater.aspx

The Department of Community Development & Infrastructure Public Works Division, Sanitation Engineering is responsible for compiling condition and maintenance information for use in preparing and updating the Districts/CSAs' Five-Year Capital Improvement Program. Identified projects will be placed in priority order and included in the CIP.

The funds that support the CIP come from the Districts/CSAs separate Sewer Funds. The Sewer Funds are enterprise funds for each Districts/CSAs that include revenues from sewer service charges, connection fees, and interest. The fees that provide the revenues are periodically reviewed and set based on current operating costs and identified capital improvement needs.

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

Design Criteria

Sanitary Sewer System Design Criteria are specified in the SCCSD Code 7.04.140 (Plans, Specifications, and Construction).

When new sewers and sewage pump stations are proposed in the SCCSD service area, they are designed, constructed, tested and inspected in accordance with published standards and project-specific specifications. Sewer rehabilitation and repair projects are normally designed by the County's Community of Development and Infrastructure department. If a project design warrants expertise beyond that of County staff, or if County staff has too great a workload to take on additional work, a qualified engineering consulting firm is hired.

EFFECTIVENESS

The SCCSD 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		
			Dir	Eng	Sup
5.1.1	Ensure all project plans are approved in accordance with the SCCSD/FCSD/DCSD/CSA'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

New sewers and sewage pump stations are required to be designed, constructed, tested, and inspected in accordance with the County's published standards SCCSD Code 7.04.140 (Plans, Specifications, and Construction).

SCCSD Code 7.04.140 (Plans, Specifications, and Construction) and project-specific specifications prepared by a licensed Civil Engineer. Construction inspectors assure that the standards are followed throughout construction and the design engineer inspects the final product for compliance with the design documents. Any equipment installed is tested per the specifications. Project acceptance is not issued until all inspections are complete and the work has been found to be acceptable.

EFFECTIVENESS

The SCCSD 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 SCCSD stay abreast of industry design standards and technical advances in the industry?

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			Dir	Eng	Sup
5.2.1	Verify inspection procedures are adequate and consistent with current standards of practice	2017 (10-year cycle)			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

RESILIENCE

Resilience is addressed for Element 5 by:

- Performing near-continuous construction inspections of assets being installed
- Staying abreast of industry trends and standards.
- Performing warranty inspections of newly installed or repaired assets to evaluate design and installation practices.
- Performing post-project inspections prior to project acceptance.
- Evaluating asset condition/performance over time and adjusting specifications for future installations as needed to increase asset performance and longevity.

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 inter agency 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 Districts/CSAs' Spill Emergency Response Plan (SERP) is a stand-alone document that contains all the key elements necessary for an appropriate Spill response: notification, emergency incident response, reporting, and impact mitigation. The current plan, prepared by 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 biannually. A copy of the SERP is available for viewing at the D.A. Porath Facility, 2750 Lode Street, Santa Cruz, CA 95062 upon request.

EFFECTIVENESS

The SCCSD 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		
			Dir	Eng	Sup
6.1	Perform SERP training including practice drills.	Bi-annually		X	X
6.2	Review Post Spill Assessments to ensure adherence and to indemnify any trends that should be addressed	Quarterly		X	X

RESILIENCE

Resilience is addressed for Element 6 by:

- Ensuring 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/CSA 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

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

This section of the SSMP presents the Districts/CSAs' approach to preventing FOG-related spills.

Public Outreach and Source Control Program Description

Currently, the public outreach program contains several elements designed to help educate the public about FOG issues. The bilingual "Think Before You Flush" pamphlet is distributed in residential areas that are consistently having problems. This mailer details what is not appropriate to send down residential sinks, and why these issues are important. The "Think Before You Flush" pamphlet details explicitly what causes FOG problems, how to reduce

FOG loads on the sewer lines, and why it is important to eliminate FOG from sewer lines. Additional public outreach materials include bilingual (Spanish and English) residential door hangers that are distributed to residential areas where sewer maintenance workers and repeat spills indicate there are FOG problems in sewer lines. As with the "Think Before You Flush" pamphlet, the door hangers identify the problems associated with FOG and how these problems can be mitigated. The door-hangers alert residents that the SCCSD/CSA is experiencing problems in the surrounding sewer lines due to grease.

Twice a year the Districts/CSAs publish an educational grease advertisement in several local papers to reduce residential sources of grease in the sanitary sewer. The advertisement is published before Thanksgiving and Christmas in order to reduce problems associated with grease from holiday foods. The ad details ways in which people can reduce FOG in sewers and properly dispose of cooking grease.

The Districts/CSAs partnered with the Monterey Regional Water Control SCCSD to develop a television commercial that conveys the importance of keeping fats, oils and grease out of the sewers. The commercial is aired annually during the holiday season on public broadcasting channel.

The Districts/CSAs also utilize Facebook, Instagram and X to provide outreach and education to the public.

Every year in April, the Districts/CSAs plan and participate in Earth Day Santa Cruz. The event provides an opportunity to educate children and the community about proper use of residential sewers. The event is attended by an average of 3,000-4,000 people each year. Activities for children were developed for the event where kids decorate their own grease can take home and put in the freezer to store cooking grease. The District provides a branded, reusable lid to cover the can.

More information about Earth Day is located at: SC Earth Day. Due to the COVID 19 pandemic and other factors, Earth Day Santa Cruz did not take place from 2020-2022 but resumed annually in 2023.The Districts/CSAs have a FOG Source Control Program that is administered, along with the Pretreatment Program, by the Environmental Compliance Unit (ECU). The FOG Source Control Program has been in place since 1977. There are approximately 301 food service establishments that have FOG control devices in the Districts/CSAs.

All commercial businesses are inspected annually or more if needed. Thirty-day flush schedules are implemented in areas that have higher grease loadings in the lines to mitigate issues in the sewer mains. The sewer line maintenance crew regularly meets with the ECU to discuss the problematic lines in the Districts/CSAs. Based on that information, the ECU inspectors will investigate the sources of the grease problems and perform repeated FOG inspections to educate businesses on preventive measures and best management practices.

Pipe Blocking Substances

When Sanitation Operations crews collect pipe blocking substances during routine and reactive maintenance activities, typically via hydro-vac operations, they are hauled to the landfill. Crews empty the hydro-vac debris tanks as needed.

All FOG that accumulates in grease traps and grease interceptors are pumped out and hauled by private haulers hired by the owners of the commercial establishments. The haulers have two locations locally where they can legally dispose of the grease.

Legal Authority

The authority for District/CSAs to prohibit discharges into the sewer system is provided in Table 7 below.

Fog Legal Authority		
District	**Code Section**	**Code Section Title**
SCCSD	7.04.310	Prohibited Wastes Designated
	7.04.340	Preliminary Treatment Facilities
	7.04.380	Inspection of Sewer Facilities on Private Premises
DCSD	4.04.410	Types of Wastes Prohibited
	4.04.430	Preliminary Treatment Facilities-Minimum Requirements
	4.04.520	Right of Entry for Inspection
FCSD	3.04.430	Types of Wastes Prohibited
	3.04.490	Preliminary Treatment Facilities-Minimum Requirements
	3.04.540	Right of Entry for Inspection
CSA	7.39.020	Ordinances adopted by reference SCCSD Title 7 Use of Sewers

Table 7 – District/CSD Legal Authority for FOG

Requirements for Grease Control Devices

Online links for addressing each of these requirements are provided below are provided below:

- SCCSD Code 7.04.340
- Davenport Sanitation County Code section 3.04.490
- Freedom Sanitation County Code section 3.04.490
- County of Santa Cruz CSAs Code, SCCSD Title 7, Use of Sewers (adopted by reference)

Authority to Inspection Grease Producing Facilities

The authority for District/CSDs to prohibit discharges the sewer system is provided Table 7 above.

FOG locations and Inspections

The Districts/CSAs identify portions of collection systems it maintains subject to excessive grease and other pipe blocking substances. High frequency maintenance schedules have been established to maintain flows in these pipes. For more detail see Specifications 5.19 of this document.

Implementation of Source Control Measures

Significant effort has been focused on reducing sewage spills caused by FOG. All commercial businesses are inspected annually or more if needed. The Districts/CSAs' Sewer Use Ordinances are nearly identical, and each provides the legal authority to implement a FOG Control Program. Districts/CSAs' codes require all FSEs to have a grease removal device (GRD). GRDs must meet sizing requirements and design criteria set forth by the Districts/CSAs. All GRDs must be maintained according to a pump schedule specified by the District Engineer.

Invoices and manifests of pumping must be sent to the ECU as proof of maintenance. The maximum allowable pump schedule is every 180 days but is more commonly 90-120 days. The sections of codes that gives the Districts/CSAs' legal authority to require GRDs and conduct inspections is presented in Table 7 above.

All inspections are unannounced. Inspectors use Lucity™ software to query the facilities that are due for inspections. Some facilities will receive multiple inspections if corrective actions are required. In an effort to further the Districts/CSAs' sustainability goals, the ECU utilizes tablets in order to make inspections a paperless process. The tablets sync inspection data in real-time to the database. During the annual inspections, all GRDs and drains are visually inspected to see if grease and/or solids are being allowed to enter the sanitary sewer system. Additionally, pump records are reviewed to ensure that FSEs are complying with the Districts/CSAs' Codes.

Sanitation Operations uses Lucity™ to filter and sort all problems and stoppages associated with grease.

Staff uses the data to identify and track hotspots in order to implement the appropriate source control measures, ranging from public outreach in residential areas to inspection and monitoring of FOG producing facilities and their pretreatment devices. This also results in the field crews changing maintenance schedules for lines impacted by FOG situations.

Enforcement Response Plan

The ECU staff has developed an Enforcement Response Plan in accordance with Federal Pretreatment guidelines that details timelines and enforcement actions that are specifically aimed at FOG compliance issues and violations. The Districts/CSAs are prepared to bring repetitive non-compliant dischargers before the Board of Directors/Board of Supervisors for the appropriate assessment of monetary penalties. The ERP is included in the sewer use ordinances and is available at the Sanitation page of the County of Santa Cruz Public Works website: https://dpw.co.santa-cruz.ca.us/Home/SewerWater.aspx

Residential

The residential FOG outreach program consists of advertising in local newspapers and mailers, as well as door hangers used in areas where known grease problems exist. The focus of the program is to educate residents and small businesses on the proper disposal of FOG and about the consequences of discharging grease and other harmful wastes into the sewer. All of the pollution prevention public outreach information is available on the sanitation page of the County of Santa Cruz Public Works Website: https://dpw.co.santa-cruz.ca.us/Home/SewerWater.aspx

Commercial Pretreatment

Inspectors educate businesses operating in Santa Cruz County on process-specific pollution prevention and waste minimization opportunities. Best Management Practices (BMPs) requirements for FSEs include installing screens on all sink drains used for dishwashing, eliminating the use of grease interceptor/trap additives, eliminating the use of garbage disposal units, scraping all plates prior to the primary rinse, and proper storage of used deep-fryer oil.

Districts/CSAs' staff developed a bilingual Best Environmental Practices for Restaurants pamphlet that details the appropriate ways to reduce FOG in sewer laterals and municipal sewer lines. It also details proper janitorial cleaning methods, the differences between interior and exterior GRDs and their maintenance requirements.

- English: BMPs for Restaurants 093329-830
- Spanish: Prácticas Clave para el Medio Ambiente

Green Business Program

Commercial outreach has also taken the form of the Monterey Bay Green Business Program. Goals of the green business program include promoting pollution prevention, waste minimization, and implementation of best management practices that go above and beyond the regulatory standards.

The program began certifying restaurants in July of 2004. A significant portion of the program for restaurants, hotels, and plumbers is dedicated to minimizing fats, oils, and grease into the sanitary sewer system.

Several new jurisdictions joined the program in 2008, including San Benito County, several areas in Monterey County, and the City of Santa Cruz.

A Task Force consisting of multimedia regulators (stormwater, air, hazardous materials, as well as wastewater) and several non-profit organizations formed in 2004 continues to meet every quarter to coordinate the program.

FOG Evaluation

The sewer line maintenance crew regularly meets with the ECU to discuss existing and new grease hotspots in the Districts/CSAs. Based on that information, the ECU investigates the sources of the grease problems and performs repeat inspections. FSE inspections are conducted by the ECU staff throughout the year. Significant effort is aimed at reducing grease related to spills and stormwater pollution caused by FSEs. In addition, ECU staff review architectural plan sets for new FSEs to ensure implementation of Sewer Use Ordinance requirements for grease control devices in each of the Districts/CSAs.

Staffing

One Environmental Programs Coordinator and two Pretreatment Program Specialists staff the Pretreatment Program, which includes the FOG Source Control Program. All three employees are required to be certified Environmental Compliance Inspectors under the California Water Environment Association Technical Certification Program. The County and the Districts consider.

Commercial FOG Disposal

Districts/CSAs believe that there is adequate disposal sites for the FOG generated within its service areas. Listed below are the names and locations of the disposal sites.

As described above, Districts/CSAs participate in the FOG outreach and the Green Business Program in order to reduce FOG in sewers. In addition to this program, there are a variety of options available for commercial FOG disposal:

The City of Santa Cruz POTW has a disposal facility for FOG from commercial GRDs or traps. This facility has the capacity to handle FOG generated in both the City and Districts/CSAs. The FOG is blended with the sludge generated from treatment processes and then put through a digestion system that recovers methane produced from the breakdown of the sludge. This in turn helps to generate the electrical power needed to run the treatment facility.

The wastewater treatment plant located in the City of Watsonville has a similar FOG disposal facility and energy co-generation program.

Additional disposal facilities (for deep fryer-type cooking oil only) are available to residents at the Household Hazardous Waste disposal facilities in Ben Lomond, Buena Vista, and City of Santa Cruz landfills.

Facilities that accept cooking oil from commercial sources are located at the County landfill sites.

Commercial And Residential Fog Disposal Sites:

City of Santa Cruz POTW
110 California Street Santa Cruz, CA 95060
Phone number: 831-420-6050

City of Watsonville WWTP
500 Clearwater Lane
Watsonville, CA 95076
Phone number: 831-768-3170
City of Watsonville Mobile Waste Haulers

Buena Vista Landfill (Residential)
1231 Buena Vista Drive
Watsonville, CA 95076
Phone number: 831-454-2430
Household Hazardous Waste Program

Ben Lomond Transfer Station
9835 Newell Creek Road Ben Lomond, CA
Phone number: 831-454-2430
(See the Buena Vista Landfill website: Ben Lomond Transfer Station for details)

EFFECTIVENESS

The SCCSD 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 SCCSD 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		
			Dir	Eng	Sup
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 Plan must include procedures to:

- *Evaluate the sanitary sewer system assets utilizing the best practices and technologies available.*
- *Identify and justify the amount (percentage) of its system for its condition to be assessed each year.*
- *Prioritize the condition assessment of system areas that:*
  - *Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies.*
  - *Are located in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas.*
  - *Are within the vicinity of a receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List.*
- *Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection 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 below:

a. The assessment of a collection system involves evaluating every component of the managed collection system, including pipelines, manholes, and pump stations. It is of key importance to regularly perform asset condition assessments to initially establish a condition baseline and to monitor condition changes over time.

   CCTV inspection equipment is used to video inspect the gravity sewer mains and 37 SmartCovers monitor the flow levels in manholes at critical parts of the system. Schedules for maintenance and inspection of gravity pipes and inspections of pump stations are performance based. This is made possible by maintaining historic records of inspection and maintenance activities and institutional knowledge.

   Visual inspections of manholes made, photos are taken, and deficiencies are noted on a checklist.

   Visual inspections are performed on aerial creek crossings after any significant storm or after long- duration rain events to ensure the integrity of the pipes, piers or supports and for evidence of bank erosion.

b. Currently, the SCCSD CCTV return interval for inspecting all sewer systems is once every 6 years. The entire system has been inspected multiple times and staff monitors pipe performance. Structural defects are a higher priority and are addressed in a prioritized manner.

   Smaller diameter pipes (6” to 12”), with no known performance issues are cleaned at least twice between inspection cycles. Larger diameter pipes, which are far less suspectable to blockages are cleaned at least once between inspection cycles. Pipes with known performance issues are maintained on high frequency schedules. Staff believes this interval to be adequate based on the District/CSAs low spill rate and a flat spill trend line in.

   The County takes an adaptive approach and continuously monitors and evaluates pipe performance and assessment schedules to determine the optimal assessment intervals.

c. The condition assessments of a sewer pipelines and manholes produce information regarding the deficiencies of those facilities. The CCTV inspections are input into the County’s GraniteNet database which logs the data and produces reports scoring each noted defect using the National Association of Sewer Service Companies (NASSCO) rating system. These scores are one factor used to prioritize rehabilitation and/or replacement of the pipelines. The manhole inspection data is used to prioritize rehabilitation and/or replacement of those assets.

d. The County is implementing a new asset management software from Autodesk called Info360. This software can take information from inspections entered in Lucity™ and GraniteNet and use risk analysis to prioritize work. The risk analysis will take into account the consequence of a potential. failure, considering things like proximity to streams, environmentally sensitive areas, etc. These analyses will be used for future Capital Improvement Plan development.

e. The SCCSD is not aware of any exiting of sewage from its system. However, it is recognized that where there are areas of infiltration, should the water tables drop below the pipe itself, there's the potential, even though unlikely in most cases, for exfiltration. Infiltration defects have been assigned a higher risk factor and are prioritized accordingly.

f. Inspection and assessment activities are documented in the Lucity™. All collected data is used for the purpose of documenting maintenance efforts, evaluating system performance, and making maintenance and corrective action decisions today and into the future.

g. The County has determined that the collection system is currently impacted by the following challenges due to climate change:

- Wildfires affecting pump station assets (with historic impacts experienced in CSA #7)
- Sea Level Rise (King Tides)

The County will continue monitoring these areas and evaluate other potential challenges throughout this SSMP update cycle until the next SSMP is due in 2027.

EFFECTIVENESS

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

- Has the County 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		
			Dir	Eng	Sup
8.1.1	Review/evaluate enforcement and inspection findings and implement changes as necessary.	Annually		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

The above requirements are addressed below:

In 2019, the Santa Cruz County Sanitation District's engineering consultant, Carollo Engineers, completed a Flow Monitoring and I&I Mitigation Program Development (I&I Report). The program/report was based on a flow study using 24 flow meters distributed throughout SCCSD. Measured flow data was calibrated and input into the SCCSD's sewer flow model. Locations where the model shows spills, or flow that does not stay within the limits set in the design criteria was noted, and projects were preliminarily scoped. Since the model contains assumptions (potential exaggerated pipe roughness, application of inflow and infiltration measured at one meter, applied to that entire flow basin, etc.), SCCSD has not seen spills based on large storm flows as predicted in the conservative model.

Additional flow meters have been installed over various periods since 2019. These flow meters provided updated data after key rehabilitation projects were completed that targeted I&I and increased capacity of the system. The new flow data was combined with past modeling data, and a new flow model was prepared by Carollo Engineers in 2025. SCCSD continues to use the model to identify lines that may be susceptible to spills as the Capital Improvement Plan is developed.

The Sanitary Sewer System Capacity Evaluation and Assurance Plan finalized in 2007 by MWH identified a portion of Freedom County Sanitation District's sewer trunkline in Green Valley Road as being undersized. The pipe was

upsized in the 2021 completed Freedom Sewer Rehabilitation – replacing or rehabilitating over 8,000 linear feet of sewer pipes was completed in 2024. The second phase was completed in 2024 (approximately 10,000 linear feet). These projects serve to reduced I&I and freed up capacity in the lines.

In SCCSD where we have pipe capacity issues, we use the I&I Report and the flow model to scope projects to remedy capacity issues. Besides looking at the capacity of sewer pipelines, SCCSD is evaluating pump station capacity and making upgrades to serve new developments.

In 2024 sewer pipeline work was completed and pump station wet well work began that will correct the capacity issues of the trunk line and pump station serving the Rodeo Creek sewer basin. A sewer connection moratorium had been in place to prevent more flow from being added to the system. However, with these improvements, the moratorium has been lifted.

Currently, SCCSD has a project in the design phase that will correct the capacity issues of the trunk line and pump station serving the Rodeo Creek sewer basin. A sewer connection moratorium has been in place to prevent more flow from being added to the system. With the completed project, the reduction in I&I, the larger pipes installed in the southern reaches, and the auxiliary wet well-constructed at the pump station will allow the moratorium to be lifted.

Another project SCCSD has in design is a project to move sewer manholes out of a low-lying drainage area. This serves to reduce inflow flowing into the top of the manholes, replace pipe with a better-sealed system, and also prevents spills. This is typical of the type of capital projects planned and constructed throughout our Districts and CSAs. The reductions in I&I reduce sewer flows and keep our systems operating at or below capacity even as new developments come online. All new developments with significant flows are only allowed to be permitted after a flow analysis by staff is completed on the system.

EFFECTIVENESS

The County 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		
			Dir	Eng	Sup
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
8.2.2	Identify and monitor flood-prone areas susceptible to erosion from rain events	After each significant rain event		X	X
8.2.3	Monitor flows in each basin and update the hydraulic model	Per Engineering Department schedule		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 above requirements are addressed below:

A condition assessment of a sewer pipeline and manholes produce information regarding the deficiencies of those facilities. To prioritize the deficiencies, the County uses a Computerized Maintenance Management System (CMMS) called Lucity™ and database management system called GraniteNet. Each portion of the sewer pipe between two manholes is identified by its upstream and downstream manhole numbers. As information is entered from televised (CCTV) logs of sewer pipelines and manholes, the CMMS uses national condition ratings to determine the severity of the deficiency or deficiencies. The information from Lucity™ and GraniteNet are fed into an asset management software (Info360), where risk analysis can be performed. The CMMS is queried to prioritize the deficiencies using national standards.

EFFECTIVENESS

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

- Has the County adhered to its system evaluation/condition assessment schedule?
- Has the County 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		
			Dir	Eng	Sup
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 Inter agency coordination with other impacted utility agencies."*

COMPLIANCE

The above requirements are addressed below:

A Capital Improvement Program (CIP) is developed annually and identifies projects planned to begin in the next five years. One factor in determining which projects to include in the CIP are those pipes that are at risk of overflowing. For all Districts and CSAs these would be pipes that Sanitation Operations has identified as having spills in the past, or pipes known to have flow with less than 3 feet of freeboard.

The CIPs for the Districts and CSAs identify improvements to pump stations as well as the collection system.

Planning and implementing redundancy in pumping capacity, increasing storage, and planning for emergency bypasses are typical types of projects included in the CIPs. The CIPs include implementation schedules, budgets, and identify sources of funding.

The County has the following regular schedule to address the recommended sewer improvements:

- Throughout the year County assesses collected inspection data, planned development data, spill data (if any), and operational issues to develop a list of system needs.
- Flow modeling is analyzed, and new flow data is collected as needed to accurately assess system upgrade needs.
- Annually a 5-year CIP is compiled for SCCSD, and a 5-year CIP is compiled for the County which includes planned projects for the other sewer Districts and the CSAs.
- The 2025-2029 CIP for SCCSD is located on the District's website under "About Us" at the following link: https://sccsd.wpcomstaging.com/about-us/
- The County's 2025-2030 CIP for the other Districts and CSAs is located here: Capital Improvement Program

EFFECTIVENESS

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

- Has the County's capital improvement plans schedule been adhered to?

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			GM	CSM	Coach
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

RESILIENCE

Resilience is addressed for Element 8 by:

- Annually each CIP is reviewed by Engineering and Operations to assure that progress is being made on planned projects and that new projects identified throughout the year are added to the CIPs.

APPENDIX 8 INCLUSIONS

- None

9. MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

WDR REQUIREMENTS

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

"The SCCSD 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 Districts/CSAs maintain 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 SCCSD staff to make sound decisions and prioritize activities when dealing with the routine and the unexpected.

b. Monitoring of the Districts/CSA'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 Districts/CSAs assess the success of maintenance and operation activities by ensuring activities are being performed as expected, by monitoring actual outcomes compared to intended outcomes, as well as monitoring spill trends.

d. The Districts/CSAs are 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 Districts/CSAs monitor 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 Districts/CSAs to be adaptive and capitalize on lessons learned.

EFFECTIVENESS

The SCCSD 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		
			Dir	Eng	Sup
9.1	Assess work programs to ensure outcomes are as intended	Annually		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 SCCSD 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 SCCSD completed its last audit in February 2025 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 Districts/CSAs 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 Districts/CSAs are executing the SSMP as stated.

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

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

Resilience Indicators have been developed for each element, and they serve to demonstrate how resilience is built into the SSMP and inspection, maintenance and spill response activities (see Appendix 12).

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

EFFECTIVENESS

The SCCSD 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		
			Dir	Eng	Sup
10.1	Schedule audits in advance of due dates to ensure adequate time to complete. SCCSD 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

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

- 10.1. 2021-2024 SSMP Audit

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

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

There are several opportunities for stakeholders and the public to participate and provide input into the development and update of the SCCSD SSMP. During its initial development stage, as with each SSMP Audit and update of the SSMP, the SSMP and related documents are presented to the SCCSD Board for review and acceptance. As previously noted, SSMP Audits are performed every two years and re-certification and acceptance of updated SSMPs are required every five years. In addition to the extensive initial development process, to date there have been five updates and re-certifications of the SSMP that have been presented to the Board.

Prior to each Board Meeting, these documents are included in Board Agenda packet which are readily available for review on the SCCSD/FCSD/DCSD/CSA's website. The SSMP is posted on the SCCSD/FCSD/DCSD/CSA's website, which provides the public several ways to contact the SCCSD, via the "Contact Us" feature.

The SCCSD does not currently have satellite systems.

The County's Department of Public Works posted the SSMP on its website to inform interested members of the public of its development and implementation of the SSMP. The notice is:

> *"Santa Cruz County has developed and is implementing a Sewer System Management Plan (SSMP) pursuant to State Water Resources Control Board Order 2006-003, Statewide General Discharge Requirements of Sanitary Sewer Systems. The goal of the SSMP is to minimize the frequency and severity of sanitary sewer overflows spills. The SSMP covers the management, planning, design, and operation and maintenance of the County's sanitary sewer systems. Interested parties can contact the sanitation operations manager, Beatriz Barranco at 831-477-3907 for additional information."*

The electronic spill data, as well as information regarding regulatory actions, is available at: http://www.waterboards.ca.gov/ciwqs/publicreports.html

Communicating Sanitary Sewer System Performance

The County of Santa Cruz Department of Public Works placed a notice on its website, under the Sewer and Water Home page, that the sanitary sewer performance information is available at the CIWQS public access website: https://www.dpw.santacruzcounty.us/Home/SewerWater.aspx

The Districts/CSAs report their performance annually, using the parameters listed in Section 9 of the SSMP – Monitoring, Measurement, and Program Modification, at a regularly scheduled meeting of their District Boards. The annual report will cover a calendar year. The reports will be presented by March 31 of the following year.

The Environmental Compliance Unit has an ongoing public outreach program. In addition to the informational brochures and videos posted on the Public Works website, Facebook, and Instagram pages, the Environmental Compliance Unit participates in Earth Day Santa Cruz every year (with the exception of 2020 - 2022 due to the COVID 19 pandemic) and dedicates much of the booth activities and outreach to FOG awareness and proper use of sanitary sewers. Additionally, the ECU distributes door hangers, mailers, and informational pamphlets about proper FOG disposal and problems with non-dispersible wipes in areas of concern.

When a spill has occurred in a residential neighborhood, crews meet with residents to discuss the event. Door hangers are distributed to residents that are not home during the event. The ECU will follow up when the spill is the result of a private lateral blockage. Informational pamphlets are distributed, and a letter is sent to the responsible parties informing them of their requirements to maintain their sanitary sewer system. The spill Alert door hanger is included in Appendix 11-A.

The District Boards and County Board of Supervisors agendas and meeting schedules are listed on the County of Santa Cruz Website: https://santacruzcountyca.iqm2.com/citizens/default.aspx?

A list of sanitation projects are listed on the Community Development & Infrastructure Public Works Division procurement portal, OpenGov at: https://procurement.opengov.com/portal/santacruzcounty .

The CIP for SCCSD is located on the District's website under About Us: https://sccsd.wpcomstaging.com/ about-us/

The CIP for the Districts/CSA's is at County of Santa Cruz Public Works Department at: https:// www.dpw.co.santa-cruz.ca.us/Home/SewerWater.aspx

Communication with Satellite Sanitary Sewer Systems

There are no satellite sanitary sewer systems.

EFFECTIVENESS

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

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

IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			Dir	Eng	Sup
11.1	Ensure the Board of Directors approves the SSMP per schedule	Every 6 years		X	X
11.2	Ensure the SSMP is posted on the SCCSD 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

RESILIENCE

Resilience is addressed for Element 11 by:

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

APPENDIX 11 INCLUSIONS

- None

LIST OF APPENDICES

APPENDIX 1	• 1.1 Districts/CSA Sewer System Vicinity Maps • 1.2 Districts/CSA Sewer System SSMP Audit and Update Schedules
APPENDIX 2	• None
APPENDIX 3	• 3.1 Table of District/CSA Legal Authority Codes
APPENDIX 4	• None
APPENDIX 5	• None
APPENDIX 6	• None
APPENDIX 7	• None
APPENDIX 8	• None
APPENDIX 9	• None
APPENDIX 10	• 10.1 2021-2024 SSMP Audit
APPENDIX 11	• None
APPENDIX 12	• 12.1. SSMP Effectiveness Assessment Worksheet

