

# COUNTY OF VENTURA



## SEWER SYSTEM MANAGEMENT PLAN

### 2025 Update

(updates required every 6 years, at a minimum)

District/CSA	Sanitary Sewer System Waste Discharge ID #
Ventura County Waterworks District No. 1 (Moorpark)	4SSO10471
Ventura County Waterworks District No. 16 (Piru)	4SSO10500
County Service Area No. 29 (North Coast)	4SSO11375
County Service Area No. 30 (Nyeland Acres)	4SSO11371
County Service Area No. 34 (El Rio)	4SSO11364
Camarillo Utility Enterprise (Camarillo Airport)	4SSO11369

REVIEWED AND APPROVED BY:

A handwritten signature in blue ink, appearing to read "G. Strakaluse".

Gregg Strakaluse  
Legally Responsible Official  
Director, Public Works Agency

October 17, 2025

Date Signed

PREPARED BY:



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# SSMP CHANGE LOG

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

# SSMP CHANGE LOG

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



Ventura County Waterworks Districts  
Attn: Gregg Strakaluse  
Legally Responsible Official (LRO)  
6767 Spring Road  
Moorpark, CA 93020

Dear Mr. Gregg Strakaluse:

We are pleased to present the new 2025 Sewer System Management Plan (SSMP) Update developed in partnership with Districts' management. The 2025 SSMP Update meets and exceeds compliance with the reissued statewide Waste Discharge Requirements (WDR, State Water Resources Control 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 Districts are doing to demonstrate full compliance with the Reissued WDR. Attachment A of the Reissued WDR (page A-4), states "A sewer system management plan is a living document an Enrollee develops and implements to effectively manage its sanitary sewer system (s) in accordance with this General Order." This requires the Districts to periodically review and update the SSMP as necessary until its next 6-year SSMP Update is completed.

To support these ongoing review and update requirements, this document includes a sample change log that may be used as a reference if a system is not already in place. We encourage you to share this example with all relevant team members responsible for implementing or documenting SSMP revisions, to help ensure consistency, transparency, and continued compliance.

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

Sincerely,

A handwritten signature in black ink that reads 'Jim Fischer'.

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

**TABLE OF CONTENTS**

INTRODUCTION.....	1
SSMP Organization .....	2
Abbreviations and Acronyms.....	3
1. GOAL AND INTRODUCTION .....	4
1.1. Regulatory Context .....	4
1.2. SSMP Update Schedule.....	5
1.3. Sewer System Asset Overview .....	8
Specifications 5.2 – SSMP Development and Implementation .....	12
Specifications 5.7 – Allocation of Resources .....	13
Provisions 6.1 – Enforcement Provisions .....	14
Provisions 6.3 – Sewer System Management Plan Availability .....	15
2. ORGANIZATION .....	16
2.1. Organizational Staffing Responsibilities.....	19
2.2. Chain of Communication for Reporting Spills.....	20
3. LEGAL AUTHORITY .....	22
4. OPERATION AND MAINTENANCE PROGRAM .....	25
4.1. Updated Map of Sewer System .....	25
4.2. Preventive Operation and Maintenance Activities.....	27
4.3. Training .....	30
4.4. Equipment Inventory .....	32
Specifications 5.19 – Operations and Maintenance .....	34
5. DESIGN AND PERFORMANCE PROVISIONS.....	36
5.1. Updated Design Criteria/Construction Standards/Specifications.....	36
5.2. Procedures and Standards.....	37
6. SPILL EMERGENCY RESPONSE PLAN .....	38
7. SEWER PIPE BLOCKAGE PROGRAM .....	40
8. SYSTEM EVALUATION, CAPACITY ASSURANCE, CAPITAL IMPROVEMENTS.....	43
8.1. System Evaluation and Condition Assessment .....	43
8.2. Capacity Assessment and Design Criteria .....	46
8.3. Prioritization of Corrective Action .....	48
8.4. Capital Improvement Plan .....	49
9. MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS.....	51
10. INTERNAL AUDITS .....	53
11. COMMUNICATION PROGRAM .....	55
LIST OF APPENDICIES .....	57

LIST OF FIGURES

---

Figure 1 – Vicinity Map of Districts .....	9
Figure 2 – Chain of Communication for Reporting Spills .....	20

LIST OF TABLES

---

Table 1 – Abbreviations and Acronyms .....	3
Table 2 – District Sewer Connection Flow Classifications and Connections Data .....	9
Table 3 – Implementation Responsibilities.....	17
Table 4 – Responsible Position Contact Information.....	18

## Introduction

This Sewer System Management Plan (SSMP) or “Plan” has been prepared for Ventura County Waterworks Districts (Districts) 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).

The Districts provided all details, information, and institutional insights for preparation of the SSMP. The document has been developed as required by the WDR to meet the size, scale, and complexity of the District’s sewer systems, serving as a “living document” used as a tool for managing and operating the District's sanitary sewer systems. The Districts operate and maintain six (6) separate sanitary sewer systems within Ventura County.

Prior to this update, each District had developed individualized SSMP’s for each District. This SSMP is developed into one single document including information general to all six (6) of the sewer systems. Unique and specific information for individual sewer 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 each District sewer systems, work programs, and efforts to reduce spills.

The Districts are required to update this SSMP, at a minimum, every six (6) 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. District 1 was required to enroll by August 2, 2009, CSA 34 was required to enroll by May 2, 2010, and the remaining systems, District 16, CSA 29, CSA 30 and the Camarillo Utility Enterprise (CUE) were required to enroll by August 2, 2010.

The Ventura County Board of Supervisors, sitting as the Board of the Waterworks Districts, will approve the SSMP, based on the earliest due date and the District LRO will upload it to the CIWQS database and certify, as required. If any significant changes to the SSMP are made after the Waterworks District Board approval prior to uploading to CIWQS, the LRO will document the changes in the SSMP Change Log, present the SSMP to the 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. See Table A below for a list of all applicable SSMP Update due dates for all sewer systems.

The 2024 Sewer System Management Plan Guidance Manual published by the Bay Area Clean Water Agencies (BACWA) was utilized as a model for development of the Master document to harmonize formatting/content and incorporate recommended suggested guidance wherever possible.



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

## Abbreviations and Acronyms

BMP	Best Management Practices
CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CIPP	Cured in Place Pipe
CIWQS	California Integrated Water Quality System (State Water Board Online Spill Database)
CMMS	Computerized Maintenance Management System
CSA	County Service Area
CUE	Camarillo Utility Enterprise
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
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 ( <u>Order No. 2022-0103-DWQ</u> )
SWRCB	State Water Resources Control Board
WDID	Waste Discharge ID Number (CIWQS)

*Table 1 – Abbreviations and Acronyms*

## 1. Goal and Introduction

### WDR REQUIREMENTS

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[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:”*

### 1.1. Regulatory Context

#### WDR REQUIREMENTS

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[Att. D-1.1 \(pg. D-2\)](#)

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

#### COMPLIANCE

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The Districts are committed to fully implementing the WDR<sup>1</sup> which includes addressing all requirements by integrating a wide range of programs specifically designed for ensuring the integrity and efficiency of the Districts’ sanitary sewer collection systems. Moreover, the Districts are dedicated to maintaining the collection systems 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 inspection and maintenance, and source control, just to name a few. Work programs are described in more detail in Specifications 5.19- Operation and Maintenance, of this SSMP.

By prioritizing proactive measures and taking a comprehensive approach, the Districts 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

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N/A

#### IMPLEMENTATION PLAN/SCHEDULE

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N/A

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<sup>1</sup> State Water Resources Control Board, *Statewide Waster Discharge requirements, General Order for Sanitary Sewer Systems*

## 1.2. SSMP Update Schedule

### WDR REQUIREMENTS

#### [Att. D-1.2 \(pg. D-3\)](#)

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

### COMPLIANCE

The District 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 County’s six Districts are:

District <sup>2</sup>	WDID	SSMP Update <sup>3</sup>	SSMP Audit
District 1	4SSO10471	8/2/2031	8/2/2027
District 16	4SSO10500	8/2/2026	8/2/2028
CSA 29	4SSO11375	8/2/2026	8/2/2028
CSA 30	4SSO11371	8/2/2026	8/2/2028
CSA 34	4SSO11364	5/2/2026	5/2/2028
Camarillo Utility Enterprise (CUE)	4SSO11369	8/2/2026	8/2/2028

The SSMP Update and Audit schedules for each system are included in Appendix 1. These schedules can also be found by clicking the link above and entering a District WDID in the Online Tool.

Notable maintenance milestones include optimization of preventative measures including a 10-year gravity main inspection cycle, 7-year gravity main cleaning cycle, targeted cleaning of Hot Spots and weekly lift stations inspections, and capital improvement projects/schedules, all of which are monitored continuously throughout the 6-year SSMP update cycle.

### EFFECTIVENESS

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

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

<sup>2</sup> Use the link above by entering the District WDID into the Lookup Tool to verify Due Dates

<sup>3</sup> Audits are due 6 months after the end of the audit period. For example: An audit period that ends on 8/2/27 means the audit is due to be uploaded to CIWQS on February 2, 2028.

## IMPLEMENTATION PLAN/SCHEDULE

Refer to this Implementation Schedule for District 1

No.	Plan	Schedule	Responsible Party		
			Dir	Dep Dir	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	X
1.2.7	Prepare for next SSMP Update	Begin 2/2/2031	X	X	X
1.2.8	Board Approval deadline for SSMP Update*	By 8/2/2031	X	X	

Refer to this Implementation Schedule for CSA 34

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

Refer to this Implementation Schedule for District 16, CSA 29, CSA 30, and CUE

No.	Plan	Schedule	Responsible Party		
			Dir	Dep Dir	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	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	X
1.2.8	Board Approval deadline for SSMP Update*	By 5/2/2032	X	X	

### 1.3. Sewer System Asset Overview

#### WDR REQUIREMENTS

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##### 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

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All Districts are located in Ventura County. Information about the six (6) sewer systems is included in the table below.

System	Gravity Main Miles	No. of Pump Stations	Force Main Miles	No. of Siphons	No. of Storm Water Diversion Structures	No. of Step System Units	Population
District 1	107	4	4	0	0	0	35,781
CSA 34	17	1	1	0	0	0	4,403
CSA 30	15	1	0.5	0	0	0	895
CSA 29	0	5	10	0	0	179	810
District 16	9	2	1	0	0	0	2,283
CUE	5	2	1	0	0	0	1,240

### Vicinity Map of Districts

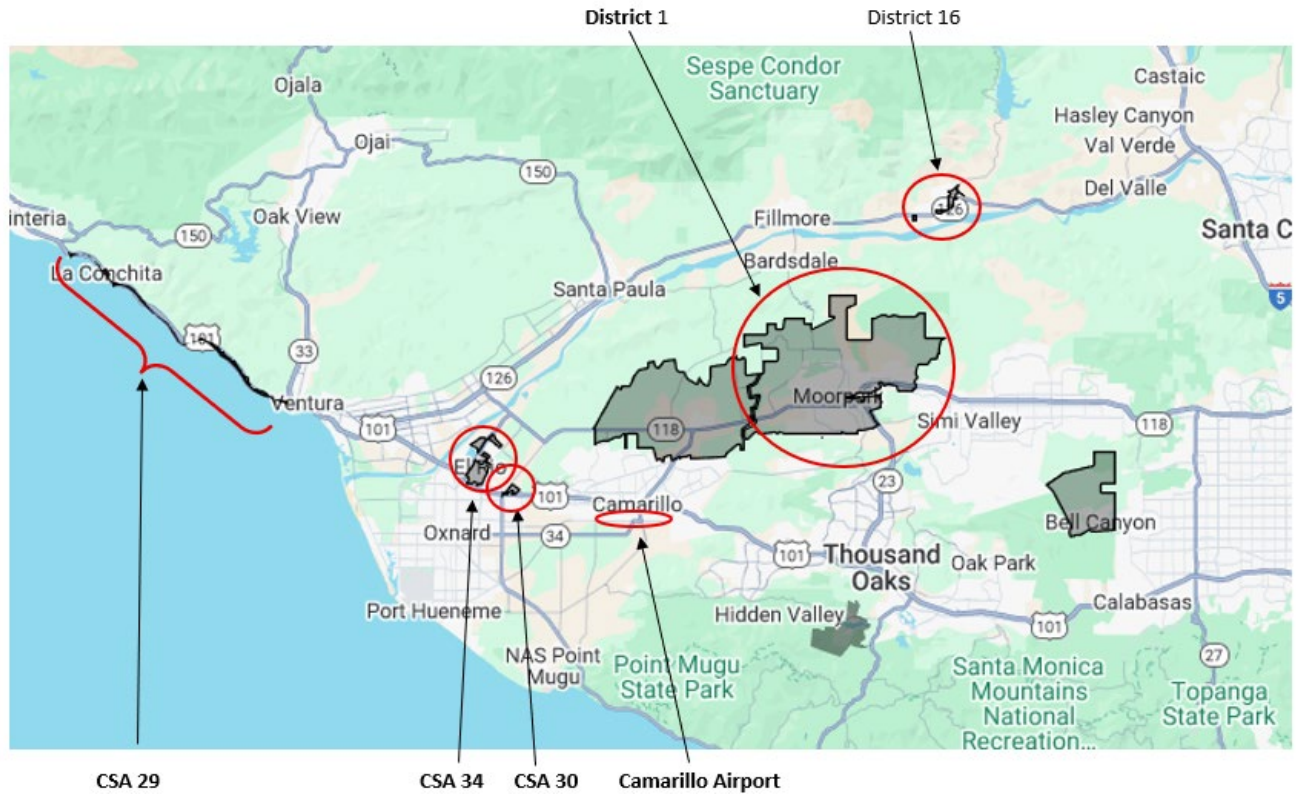


Figure 1 – Vicinity Map of Districts

The Districts utilize Cityworks for its computerized Maintenance Management System (CMMS) that includes scheduling, work orders and asset management.

Generally, laterals within the County Service areas are privately owned. The Districts do own laterals, both upper and lower, that serve District-owned buildings that connect to District-owned collection system facilities.

District	% of Connections
District 1	Residential 96%, Commercial 2%, Industrial 1%, Institutional 1%
CSA 34	Residential 94%, Commercial 5%, Industrial 0%, Institutional 1%
CSA 30	Residential 94%, Commercial 6%, Industrial 0%, Institutional 0%
CSA 29	Residential 86%, Commercial 14%, Industrial 0%, Institutional 1%
District 16	Residential 90%, Commercial 9%, Industrial 0%, Institutional 1%
CUE	Residential 0%, Commercial 29%, Industrial 0%, Institutional 71%

Table 2 – District Sewer Connection Flow Classifications and Connections Data



Overall, the Districts are in good position to operate and manage the six sewer systems and do encounter challenges presented by service area conditions. Staff has identified three challenges:

1. District 1 has a 21-inch trunk line that runs adjacent to railroad tracks on the eastern part of the sewer system. It presents an access challenge, as the railroad tracks are elevated and restrict access to the sewer trunk line. Portions of the trunk sewer are not accessible by vehicles and equipment. In addition, due to safety concerns, District staff must coordinate in advance with the railroad to cross the tracks and perform work. The proximity of the Arroyo creek further exacerbates the access issue, as the trunk line runs between the railroad tracks and the creek.
2. CSA 29 has STEP systems that require considerably more resources to operate relative to other system assets. STEP systems are pressure systems where sewage from one or more buildings is received in holding tanks where the solids are separated from the liquid waste, and the liquid waste is pumped through the low-pressure system to a higher elevation into the main lift stations and subsequently pumped into the force main system and ultimately delivered to the City of Ventura's collection system for treatment. The STEP systems are high maintenance assets that have a high failure rate relative to other sewer assets resulting in more reactive maintenance activities. In addition, allowable sulfide limits are frequently exceeded due the reaction time of the solids in the tanks. Many of the connections to the STEP systems are short-term rentals, campgrounds and RV parks, allowing the solids to stay in the tank for long periods, which requires the removal of the solids more frequently, requiring extra resources.
3. The Camarillo Airport (CUE) has high groundwater tables, which leads to increased infiltration and challenges performing excavation repairs, as the water-saturated soil is more difficult to establish a protective system.

The Districts maintain up-to-date system maps. See Element 4.1 - Updated Map of Sanitary Sewer System for more detail.

## EFFECTIVENESS

The Districts utilize 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	Dep Dir	Sup
1.3.1	Review Districts-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	Verify Maps Updates have been completed	Monthly		X	X

## RESILIENCE

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Resilience is addressed in Element 1 by:

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

## APPENDIX 1 INCLUSIONS

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- [None ]

## Specifications 5.2 – SSMP Development and Implementation

### WDR REQUIREMENTS

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#### Specification. 5.2 (pg. 18)

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

### COMPLIANCE

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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 Order. The SSMP addresses management, operations and maintenance procedures specific to the Districts’ collection system. The Districts maintain a proactive O&M program to operate its system and identify defects, which are then prioritized for repair, replacement, rehabilitation, or placed on modified maintenance schedules. (See Elements 4 and 8 and Specifications 5.19 of this SSMP for more detail).

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

## Specifications 5.7 – Allocation of Resources

### WDR REQUIREMENTS

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#### [Spec. 5.7 \(pg. 22\)](#)

*“The Agency shall comply with the following requirements:*

- *Establish and maintain a means to manage all necessary revenues and expenditures related to the sanitary sewer system; and*
- *Allocate the necessary resources to its sewer system management program for: (a) compliance with this General Order, (b) full implementation of its updated SSMP, (c) system operation, maintenance, and repair, and (d) spill responses.”*

### COMPLIANCE

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The Districts maintain various revenue sources to maintain financial stability, meet its operational needs and manage all necessary expenditures to operate its sewer system. Sources of revenue include:

- Service charges collected from individuals and businesses connected to the collection systems.
  - To be expended on operations and maintenance.
- Impact fees or Connection Fees
  - To be expended on capital improvement projects.

The District is currently evaluating the need for more staff to operate the six (6) sewer systems. The overall service area is large, and staff spend considerable time in route to the different systems. CSA 29 has 179 STEP systems and requires a lot of resources to operate and maintain. STEP systems are high-maintenance assets that often require reactive maintenance due to the nature of STEP systems.

The 2021-2014 SSMP Audit revealed the need for additional resources to effectively operate the six sewer systems. The District is evaluating the need for an additional staffing to enhance maintenance efforts and a hydro-vac for gravity main cleaning to help meet established goals for proper maintenance of the systems.

## Provisions 6.1 – Enforcement Provisions

### WDR REQUIREMENTS

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#### [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

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

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#### [Provisions 6.3 \(pg. 31\)](#)

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

### COMPLIANCE

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The District has uploaded this SSMP to the CIWQS database for each of the six (6) sewer systems and publishes it on its website. In addition, the SSMP is available for public review at the District office, by appointment, during regular business hours. ]

## 2. Organization

### WDR REQUIREMENTS

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

### COMPLIANCE

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The above items are addressed in order below:

Districts’ Legally Responsible Officials (LRO) are listed below:

- Gregg Strakaluse, Director, Public Works Agency, 805-654-2073
- Paul Chan, Director, Director, Water and Sanitation Department, 805-378-3030
- Arturo Aseo, Deputy Director, Water and Sanitation Department, 805-378-3015

All meet the requirements set forth in Specifications 5.1 of the WDR. |

## IMPLEMENTATION RESPONSIBILITIES

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

Table 3 – Implementation Responsibilities



## RESPONSIBLE POSITION CONTACT INFORMATION

Responsible Position Contact Information	Phone	Email
Director, Water & Sanitation	805-378-3030	<a href="mailto:Paul.Chan@venturacounty.gov">Paul.Chan@venturacounty.gov</a>
Deputy Director, Water & Sanitation	805-378-3015	<a href="mailto:Arturo.Aseo@venturacounty.gov">Arturo.Aseo@venturacounty.gov</a>
Senior Engineering Manager	805-378-3026	<a href="mailto:Homer.Arredondo@venturacounty.gov">Homer.Arredondo@venturacounty.gov</a>
Wastewater Service Superintendent	805-378-3080	<a href="mailto:Johnny.guardiola@venturacounty.gov">Johnny.guardiola@venturacounty.gov</a>
Laboratory Manager	805-378-3089	<a href="mailto:Jordan.Corkery@venturacounty.gov">Jordan.Corkery@venturacounty.gov</a>

Table 4 – Responsible Position Contact Information

## 2.1. Organizational Staffing Responsibilities

### Director, Water and Sanitation

Under general guidance of the Public Works Agency Director and Assistant Director, serves as the Director of Water and Sanitation Department with responsibility for developing and meeting the mission and vision of the Department. The Director is responsible for all operational, fiscal, technical, and administrative functions related to the treatment plant, conveyance system, and related facilities.

### Accounting Manager

Plans, organizes, leads and continuously improves the activities and operations of the Fiscal Division of Public Works Agency, including accounting information systems and overall customer service, coordinating assigned activities with other departments and outside agencies to provide advice and direction on the PWA's financial condition.

### Wastewater Service Superintendent

Oversees and leads the activities of wastewater treatment, pump stations, conveyance system; ensures safe and compliant operation of conveyance and treatment processes; oversees the effective functioning of the Operations Division; prepares and manages division budget; trains, mentors, and manages staff. supervises and participates in the conduct of complicated engineering, operations and maintenance planning, design, and investigation activities connected with the maintenance, operation, expansion and refurbishment of a system of sanitary treatment and conveyance facilities.

### Senior Engineering Manager

Plans, organizes, directs and manages the Engineering Division; has overall responsibility for the Land Development and Capital Improvement Program; coordinate assigned activities and programs with Water, Wastewater and Reclaimed Water Divisions.

### Engineering Manager, Development

Manages, plans, coordinates, and reviews and approves new development plans. Ensures compliant designs of all with all regulatory requirements, policies and procedures.

### Wastewater Service Supervisor

Is responsible for planning, organizing, supervising, reviewing, and evaluating the day-to-day work of assigned personnel. The Wastewater Service Supervisor is accountable for O&M Wastewater Division goals and objectives.

### Senior Wastewater Service Worker

Is responsible for executing the day-to-day work and operations and assists junior personnel. The Senior Wastewater Service Worker is accountable for O&M Wastewater Section goals and objectives.

## 2.2. Chain of Communication for Reporting Spills

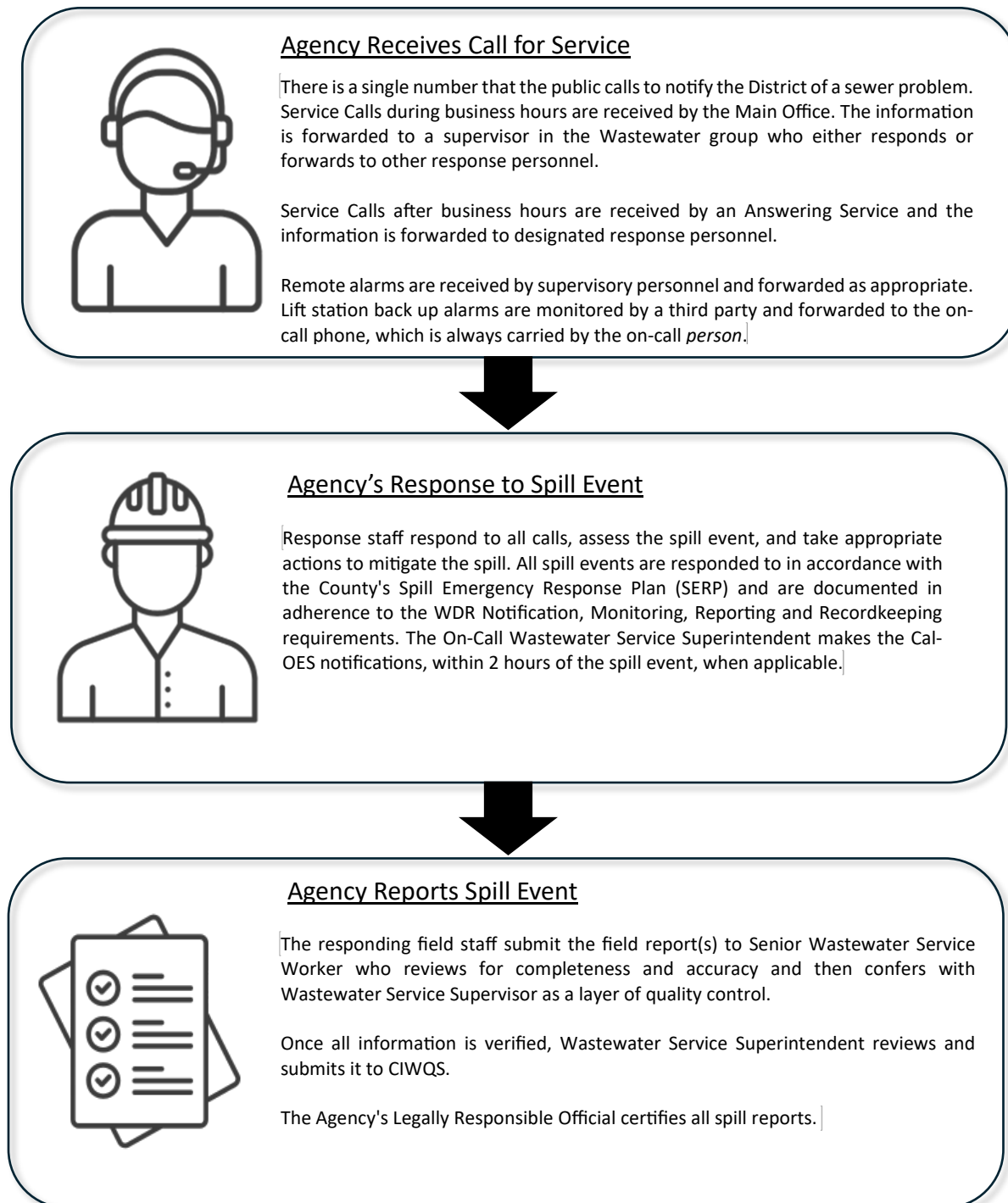


Figure 2 – Chain of Communication for Reporting Spills

## EFFECTIVENESS

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

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

## IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			Dir	Dep. Dir	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 in Element 2 by:

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

## APPENDIX 2 INCLUSIONS

- [None ]

### 3. Legal Authority

#### WDR REQUIREMENTS

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##### 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

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The above items are addressed below: [Rules and Regulations \(CUE\)](#)

##### Authority to Prevent Illicit Discharges

- Ventura County [Rules and Regulations](#) address discharges to the sewer systems for Districts 1 and 16, Sections 8-B-7, 8-C-2, 8-C-3, and 8-C-4, and 8-C-5.
- Ventura County Rules and Regulations as established in [Ordinance 4341](#) address discharges to the sewer systems for CSA 29, CSA 30, and CSA 34, Section 6-1 through 6-8.
- Ventura County [Rules and Regulations \(CUE\)](#) address discharges to the Camarillo Utility Enterprise (CUE), Rule 7-G-3, 7-G-4, and 7-G-6

##### Collaborate with Storm Drain Operators

The County’s Watershed Protection, like Water and Sanitation, is a department within the Public Works Agency. As such, the Public Works Agency operates both the sewer and storm utilities and sewer collections staff have de facto authority to access storm drain systems to capture, retrieve and clean sewage as a result of a sewage spill.

The Districts’ sewer facilities are located within the unincorporated areas of cities of Piru, Camarillo, Oxnard, and Ventura, as well as within the City of Moorpark and unincorporated areas of Moorpark. Historically, storm drains within these jurisdictions have been accessed by Districts personnel, as needed, and cleaned after spill events that caused sewage to discharge into the storm drain system. The Districts notify the County of Ventura Environmental Health Division and the applicable cities of the event, and whichever entity has the jurisdiction (County or City) will generally do a post-spill event inspection of the storm drain facilities. The Districts will pursue more formal agreements with these cities in the future.

Proper Design and Construction

- Ventura County's authority to require proper design and construction of sewer facilities for Districts 1 and 16 is included in [Rules and Regulations](#), Sections 7-B-13, 7-B-14, 7-B-15, 7-B-18, and 7-D-6.
- Ventura County's authority to require proper design and construction of sewer facilities for CSA 29, CSA 30, and CSA 34 is included in Rules and Regulations as established in [Ordinance 4341](#), Section 9 – Design Criteria.
- Ventura County's authority to require proper design and construction of sewer facilities for the Camarillo Utility Enterprise (CUE) is included in [Rules and Regulations \(CUE\)](#), Sections 7-B-1 through 7-B-6, Sections 7-H-1 through 7-H-11

Ensure Access (Ventura County does not own any portion of the lateral but is responsible for inspection.)

- Ventura County's authority to ensure access to sewer facilities for maintenance, repair and inspection Districts 1 and 16 is included in [Rules and Regulations](#), Sections 1-G-31 and 8-B-3.
- Ventura County's authority to require access to sewer facilities for maintenance, repair and inspection for CSA 29, CSA 30, and CSA 34 is included in Rules and Regulations as established in [Ordinance 4341](#), Section 11-10.
- Ventura County's authority to require access to sewer facilities for maintenance, repair and inspection for the Camarillo Utility Enterprise (CUE) is included in [Rules and Regulations \(CUE\)](#), Sections 4-7, and 4-8

Enforce Violations

- Ventura County's authority to enforce violations of the Rules and regulations for Districts 1 and 16 is provided in Rules and Regulations, Sections 7-C-2, 7-C-4, 8-H-2, 8-H-3 and Section 55334 of the California State Water Code.
- Ventura County's authority to enforce violations of the Rules and Regulations as established in Ordinance 4341 for CSA 29, CSA 30, and CSA 34 is included in Ordinance 4341,
- Ventura County's authority to enforce violations of the Rules and Regulations for the Camarillo Utility Enterprise (CUE) is included in [Rules and Regulations \(CUE\)](#), Sections 13-1 and 13-2.

Easement Accessibility

- Ventura County's authority to ensure easement accessibility is provided for Districts 1 and 16 is provided in Rules and Regulations, Section 9-D-3, 10-D-13, 10-G-25, 10-G-26, 10-G-27
- Ventura County's authority to ensure easement accessibility to sewer facilities for CSA 29, CSA 30, and CSA 34 is included in Rules and Regulations as established in Ordinance 4341, Section 9-13.
- Ventura County's authority to ensure easement accessibility to sewer facilities for the Camarillo Utility Enterprise (CUE) is included in Rules and Regulations (CUE), Sections 8-C-6, 8-C-7, 8-C-8, and 8-C-9.

EFFECTIVENESS

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

- Are the Districts ordinances and standards adequate for fulfilling the SSMP Plan legal requirements?
- Do the Districts 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	Dep Dir	Sup
3.1	Review Ordinance(s) 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 in Element 3 by:

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

## APPENDIX 3 INCLUSIONS

- None

## 4. Operation and Maintenance Program

### WDR REQUIREMENTS

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[Att. D-4 \(pg. D-4\)](#)

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

### 4.1. Updated Map of Sewer System

#### WDR REQUIREMENTS

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[Att. D-4.1 \(pg. D-4\)](#)

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

#### COMPLIANCE

---

The Districts, through a computer based Geographic Information System (GIS), have maps of each of the six sewer systems covered by this SSMP. The maps show all gravity pipelines, manholes, pumping facilities, and pressure pipelines (force mains), and STEP systems the Districts maintain.

Map updates are made when new facilities are approved and accepted by the Districts. The Districts have a procedure for updating maps when mapping errors or omissions are discovered by field staff. Field staff notify supervisory staff of findings and supervisory staff verify findings and then forward information to IT staff to update the maps. Record drawings (As-builts) are also available to field staff through the GIS/CityWorks.

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

#### EFFECTIVENESS

---

The Districts utilize 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	Dep Dir	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-4.2 (pgs. D-4/D-5)

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

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

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

### COMPLIANCE

---

The purpose of a work order system is to program and track all required inspection and maintenance activities within the collection system to help proactively prevent blockages/operational problems or spills.

The Districts’ goal is to clean the systems on a three-year interval – one-third of the system is cleaned every year. The Districts recognize that the industry standard for cleaning and CCTV pipe inspections is once every 7-years. A successful program for the Districts will be measured by performing cleanings and inspections within the range between goal and industry standard. Hot Spots are cleaned quarterly. Operators refer to the electronic system maps that are color coded indicating when a pipe is due to be cleaned. This is based on the “Last Cleaned” date and the prescribed cleaning cycle. A senior operator reviews the maps in advance of the cleaning work to help map out the lines for the field operators.

The Districts staff is working to develop a CCTV inspection schedule in the same manner.

Manholes are inspected by the cleaning crews on the same schedule as the cleaning schedule. In addition, sewer trunk lines are walked, and the alignment is visually inspected twice per year, and manholes are inspected at these times. It is important to note that major storm events (such as a 50-year Storm Event) will cause staff to inspect field conditions more frequently. As those events, or more significant storm events occur, additional inspections will be facilitated.

Easements are periodically inspected, and maintenance is scheduled as needed. More involved maintenance tasks are performed by contracted services.

All work is documented in work orders in the Cityworks CMMS. |

### EFFECTIVENESS

---

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

- Are the Districts’ maintenance, operations, and engineering work orders periodically audited for accuracy and completeness?
- Do the Districts 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	Dep Dir	Sup
4.2.1	Monitor “Past Due” work orders to ensure critical work is being completed	Quarterly		X	X
4.2.2	Review scheduled PM’s to ensure the prescribed schedule remains appropriate.	Annually		X	X

## 4.3. Training

### WDR REQUIREMENTS

---

#### Att. D-4.3 (pg. D-5)

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

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

### COMPLIANCE

---

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

Staff involved in responding to customer service calls, including sewage spills, receive annual training on the County’s Spill Emergency Response Plan. This training is part classroom and part hands-on exercises and drills for responding to spill events and includes containment, restoring flow, spill volume, volume recovered, spill start time estimations, clean up and completing the spill event data collection forms.

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

- Immediately notify the District staff of any sewage spill they encounter.
- Make attempts to contain the spill
- Take photos of the:
  - Spilling structure
  - The affected area
  - 10-second video of spilling structure
- Cordon off the area to keep the public safe; and
- Remain onsite until District staff arrives and relieves them.

This language is included in service agreements and discussed during pre-job meetings. |

### EFFECTIVENESS

---

The District 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	Dep Dir	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-4.4 \(pg. D-5\)](#)

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

### COMPLIANCE

---

The Districts maintain a host of equipment and spare parts for both routine maintenance and for contingency or emergency operations and has identified spare parts and components considered to be critical for the operation of pump stations and gravity sewers.

The parts and equipment can be categorized as follows:

- Parts needed for sewer pipe maintenance and repair.
- Parts needed for sewer pump station maintenance and repair.
- Equipment needed to maintain both sewer lines and sewage pump stations.

Pipe maintenance parts consist primarily of a supply of pipe in various sizes and types and a supply of couplers and clamps to connect them together.

Sewage pump station parts consist of components to repair most mechanical parts in the station. They can be, but are not limited to:

- Spare pumps (at least one for each station and some are cross compatible)
- Floats and switches
- Electric controls
- Alarms and SCADA parts

The Districts' pump stations have built-in redundancy. All stations have more than one pump and each is designed where one pump can manage dry weather flows. The second pump is designed to run when flows surpass the first pump's capabilities.

All pump stations are equipped with a bypass manifold on the force mains. This allows staff to maintain flows using a portable pump when scheduled maintenance and reactive maintenance is being performed. This feature also allows the Districts to maintain a smaller inventory of critical spare parts because the flows can be maintained even if there is a complete station failure.

### EFFECTIVENESS

---

The Districts utilize 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?
- Have the Districts experienced any equipment failure that inhibited a spill response?

## IMPLEMENTATION PLAN/SCHEDULE

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

## RESILIENCE

Resilience is addressed in Element 4 by:

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

## APPENDIX 4 INCLUSIONS

- None



## Specifications 5.19 – Operations and Maintenance

### WDR REQUIREMENTS

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#### Specification. 5.19 (pg. 27)

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

### COMPLIANCE

---

A summary of the current Preventative Operation and Maintenance Programs for the six sewer systems. Specific activities and frequencies for system maintenance are adjusted based on prioritized needs observed in the system over time. The Districts provide adequate operation and maintenance of wastewater collection system facilities including collection system pipelines, manholes, and lift stations. Maintenance activities for each component are briefly described below.

#### Visual Inspections

Pipeline alignment inspection procedures include documented semi-annual surface inspection to detect problems such as construction-related damages and leaks or failures. These inspections cover trunk lines and stream crossings.

#### Gravity Main CCTV Inspection

A visual CCTV inspection identifies sections of the system where structural deficiencies or deterioration are present. Sewer system pipelines are inspected internally using CCTV when they are built, and problem areas are inspected after that time.

#### Gravity Main Cleaning

The Districts strive to clean and inspect approximately 33 percent of the collection system each year (goal), meaning that the District’s goal is for the entire gravity sewer collection system to be cleaned approximately every three years. Industry standards are greater than the three-year cycle goal and the Districts expect to achieve compliance by falling within the goal and industry standard. The goal is set for Districts staff to strive to achieve to demonstrate superiority in the industry. While the industry standard is acceptable, the District strives to overachieve. In addition, the Districts cleans hot spots quarterly. Cleaning crews collect and evaluate cleaning findings for each line segment cleaned. This information is used to evaluate pipe performance and to adjust cleaning intervals, if needed. Cleaning crews monitors and document what is found (debris, roots, grease, etc.) during the cleaning process. Approximately 50% of the cleaning is performed by Districts staff and 50% by contracted services.

#### Manhole Inspection

Manhole inspection procedures include visually inspecting the frame condition and checking for offsets or misalignments, checking for evidence of surcharge and infiltration and/or inflow, checking for evidence of corrosive damage, checking for accumulations of grease, debris, or grit, and checking flow characteristics. The Districts’ current manhole maintenance is commonly completed during the cleaning of pipelines. Manholes located in the roadway are inspected for settlement and subsidence around the outside of the manhole.

The Districts inspect approximately 33 percent of manholes annually to provide an overall evaluation of manhole condition. Manholes with noted deficiencies and corrosive damage are inspected annually to

actively monitor condition. Other manhole inspections are completed as needed in response to a flow inconsistency or other indicators in the collection system.

### Lift Station Inspection and Maintenance

The Districts have a program of scheduled inspections and maintenance for all of the lift stations that they operate and maintain. Written site-specific standard maintenance procedures are in place for each lift station. Inspection and preventive maintenance activities are regularly scheduled. Lift station inspection and maintenance activities are scheduled weekly and when alarms trigger inspections and service. The lift stations are checked for general conditions including odors, building condition and security, electrical component condition, alarm and remote monitoring system condition, and evidence of leakage.

### Repair Work

If the condition of a sewer asset is found to be compromised, the following repair, rehabilitation, and/or replacement options are considered:

### Gravity Mains

- Spot Repair: If the pipeline is structurally sound, the hydraulic capacity is sufficient, and the problem is isolated, the pipeline may be cleaned, open cut repaired or replaced, grouted, or rubber sealed with stainless-steel mechanical bands.
- Rehabilitation: Rehabilitation may be used to improve the hydraulic capacity and/or improve the structural integrity of the pipeline. Rehabilitation options may include use of slip-lining, cured-in-place pipe (CIPP), fold-and-form lining, segmental lining or on-line replacement. The preferred rehabilitation option is selected based on economic considerations and the specific circumstances of the proposed pipeline rehabilitation.
- Replacement: Pipeline replacement may be used when the integrity of the pipe is severely compromised and/or increased hydraulic capacity or relocation of the pipeline alignment is needed. The methods that may be used include open cut excavation, pipe bursting, or pipe reaming. The preferred replacement option is selected based on economic considerations and the specific circumstances that may select a specific replacement method.

### Manholes

- Rehabilitation options for a deteriorated or deteriorating manhole include reset or replacement of the manhole frame and cover, replacement of the manhole frame seal, grouting, coating, lining or complete open-cut manhole replacement.

## 5. Design and Performance Provisions

### 5.1. Updated Design Criteria/Construction Standards/Specifications

#### WDR REQUIREMENTS

##### Attachment D-5.1 (pg. D-5)

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

#### COMPLIANCE

When new sewers and sewage pump stations are proposed in the six Districts’ sewage collection systems, they are designed, constructed, tested and inspected in accordance with published standards. This applies to newly constructed facilities and repaired or rehabilitated facilities. The Districts have developed standards for the design and construction of projects related to the sanitary sewer system. The latest version of the following documents contain the various standards and are listed in order of precedence from high to low:

- Ventura County Waterworks [Rules and Regulations Districts 1 and 16](#)
- Ventura County Waterworks CSA’s Rule and Regulations, [Ordinance 4341](#)
- Ventura County Waterworks [Rules and Regulations CUE](#)

The following apply to Districts, CSA’s and CUE:

- Ventura County Waterworks [Standard Drawings](#)
- Ventura County Water and Sanitation [Approved Materials](#)
- Ventura County [Sewerage Manual](#)
- Standard Plans and Specifications for Public Works Construction [Greenbook](#) (Link is to Website only)

#### EFFECTIVENESS

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

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

#### IMPLEMENTATION PLAN/SCHEDULE

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

## 5.2. Procedures and Standards

### WDR REQUIREMENTS

#### [Attachment D-5.2 \(pg. D-5\)](#)

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

### COMPLIANCE

New, repaired and rehabilitated sewer facilities in the Districts’ six sewage collection systems, are tested and inspected in accordance with the following standards.

- Ventura County [Rules and Regulations Districts 1 and 16](#), Sections 9-B-15, 10-B-4, 10-B-18, 10-F-1, and 10-G-12.
- Ventura County Waterworks Rule and Regulations, [Ordinance 4341](#), CSA’s Section 4-7.
- Ventura County Waterworks [Rules and Regulations CUE](#), Section 2-G-8

### EFFECTIVENESS

The Districts utilize 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 Agency 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	2025 (3-year cycle) 7 <sup>th</sup> Edition of Public Works Inspectors Manual (Published by BNi Building News)		X	
5.2.2	Verify design standards and hydraulic model previously completed are adequate and consistent with current standards of practice.	2025 (3-year cycle) 2023 (Design Standards)		X	

### RESILIENCE

Resilience is addressed in Element 5 by:

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

### APPENDIX 5 INCLUSIONS

- None

## 6. Spill Emergency Response Plan

### WDR REQUIREMENTS

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#### Attachment D-6 (pg. D-6)

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

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

### COMPLIANCE

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The Districts have an agreement with Fischer Compliance to update their Spill Emergency Response Plan (SERP). It is anticipated it will be completed by end of October 2025, and staff have received training in July 2025. The (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, and meets the requirements of the WDR. A copy of the SERP will be made available upon request. ]

## EFFECTIVENESS

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

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

## IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			Dir	Dep Dir	Sup
6.1	Perform SERP training including practice drills.	Annually		X	X
6.2	Review Post Spill Assessments to ensure adherence with the SERP and to identify any trends that should be addressed.	Annually		X	X

## RESILIENCE

Resilience is addressed in Element 6 by:

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

## APPENDIX 6 INCLUSIONS

- None

## 7. Sewer Pipe Blockage Program

### WDR REQUIREMENTS

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#### Attachment D-7 (pg. D-7)

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

*The procedures must include, at minimum:*

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

### COMPLIANCE

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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. There are approximately 110 Food Service Establishments (FSE) in District 1 and one FSE in CSA 29.

Only District 1 has a formal FOG program. District 16, CSA 29, CSA 30, CSA 34, and the Camarillo Utility Enterprise (CUE) do not have grease producing businesses. Any grease that accumulates in the collection system pipes and pump station wet wells, is managed through targeted maintenance. Therefore, the County has only developed a commercial FOG program for District 1. It should be noted, the one FSE (Hotel) in CSA 29 is periodically inspected.

#### Public Education and Outreach

The Districts do not have a formal public outreach program to promote best kitchen practices and proper disposal of pipe blocking substances like non-dispersible wipes, rags, debris, etc. The Districts are developing informative doorhangers and brochures to help educate the public of FOG disposal and pipe disposal of other pipe blocking substances. The Public Works Agency recently hired a Public Information Officer, who will be active in future efforts to educate the public.

Disposal of Pipe Blocking Substances

When Districts maintenance crews collect pipe blocking substances during routine and reactive maintenance activities, typically via hydro-vac operations, they are brought to the Moorpark Water Reclamation Facility for disposal. Crews empty the hydro-vac debris tanks daily and as needed.

All FOG that accumulates in grease traps and grease interceptors is pumped out and hauled by private haulers hired by the owners of the commercial establishments. The haulers are required to properly dispose of the grease at appropriate facilities.

Prohibit Discharges

- Ventura County [Rules and Regulations](#) address discharges to the sewer systems for Districts 1 and 16, Sections 8-B-7, 8-C-2, 8-C-3, and 8-C-4, and 8-C-5.
- Ventura County Rules and Regulations as established in [Ordinance 4341](#) address discharges to the sewer systems for CSA 29, CSA 30, and CSA 34, Section 6-1 through 6-8.
- Ventura County [Rules and Regulations \(CUE\)](#) address discharges to the Camarillo Utility Enterprise (CUE), Rule 7-G-3, 7-G-4, and 7-G-6

Grease Disposal Device Requirements

- Ventura County's authority to require grease control devices for FOG producing facilities is provided in [Rules and Regulations](#), 8-D-4, 8-D-6, 8-D-8, 8-D-9, and 8-D-10.

Authority To Inspect

- Ventura County's authority to inspect grease producing facilities is provided in Ventura County [Rules and Regulations](#), 8-B-3

Identification of FOG in System

The Districts have identified portions of its collection system 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

- Currently Laboratory Services, Source Control & Permit Compliance (Lab) is responsible for the commercial FOG program. This is a recent transition from operations.
- Currently, the FOG program is implemented for District 1, Moorpark.
- Fog Program Summary:
  - It is estimated there are 110 FSEs in District 1. District 1 keeps track of new businesses by receiving monthly emails from the City of Moorpark regarding new business licenses issued.
  - The District's goal is to inspect FSE at least once a year. Currently, the District does not have software to track the program and compliance, but it is currently in conversation with vendors for this purpose.
  - Lab has three (3) full time lab technicians that split time between lab work, FOG, and pretreatment, who perform both visual and sludge judge inspections. If the interceptor >25%, a pump out is required within 7 business days – the FSE is required to provide written evidence of work completed, including findings. Currently, the default pumping interval is 90 days. Schedules are shortened, as needed.
  - The Engineering Division is in charge of construction requirements. When the Engineering Division receives permit requests for new construction, they will consult with Lab to ensure proper sizing of the grease trap and proper installation.



- District 1 is in the process of developing SOPs and improving documentation with the intent of developing a more robust program and expand the program to the other Districts.
- [Fats, Oils, Grease Program Brochure](#)

## EFFECTIVENESS

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

- Have there been any blockages/spills from any identified problem area?
- Is the District receiving feedback on public outreach efforts?
- Are the debris and other sewage solids collected during cleaning activities being disposed of appropriately?
- Have there been spills due to excessive fats, oil, grease, roots, or non-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	Dep Dir	Lab Mgr
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 in Element 7 by:

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

## APPENDIX 7 INCLUSIONS

- None

## 8. System Evaluation, Capacity Assurance, Capital Improvements

### WDR REQUIREMENTS

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#### [Attachment D-8 \(pg. D-\)](#)

*“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

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#### [Attachment D-8.1 \(pgs. D-7/D-8\)](#)

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

## COMPLIANCE

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The above requirements are addressed below:

### Evaluate Sewer Assets

The assessment of a collection system involves every component of the Districts' 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.

The Districts use CCTV inspection equipment to inspect and evaluate gravity mains, SmartCovers® and I&I sensors to monitor pipe performance in select areas of the system, visual inspections of manholes and lift stations. Easement maintenance is performed on an as-needed basis.

### Justify Condition Assessment Interval

The Districts do not have records indicating all gravity pipelines have been CCTV inspected. Currently, CCTV inspections are performed when issues arise. The County endeavors to inspect all systems in a 3-year period and then review findings, evaluate pipe performance, and establish an optimal condition assessment interval for each system.

### Prioritize The Condition Assessment

The District uses its CMMS to schedule preventative maintenance, capture preventative and reactive maintenance operations, and track performance and level of effort required to operate and maintain sewer system assets. Data collected assists with determining the schedule for a proactive rehabilitation, repair and/or replacement of deteriorating wastewater collection system asset(s). This data is overlain on a GIS base map of the sewer system to quickly identify and visualize problem areas; communicate conditions and needs to District policy makers and management; and prioritize maintenance activities, urgent and emergency repairs, and short-term and long-term solutions.

CSA 29 requires a significant amount of resources to properly operate due to the high maintenance STEP systems and the proximity to the ocean. Issues that arise are immediately attended to.

District 1 has pipelines that are adjacent to Arroyo Creek where failures would hold a high environmental consequence. The pipe alignments are routinely walked and visually inspected.

Pump stations have many parts such as pumps, motors, floats, controllers, alarms, and structures and each has a different life span. Each individual pump station, therefore, has its own list of regular maintenance and periodic rehabilitation and/or replacement to keep it operating at all times.

### Access System Conditions

Typical methods to evaluate system assets are CCTV inspections and visual inspections. Once a condition assessment of all or a portion of a sewer system has been completed, identified deficiencies are prioritized, short- and long-term rehabilitation and replacement measures determined, and a time schedule for such work can be developed. Each of the six sewer systems are different and, therefore, the work and the time schedule will be different.

### Exiting of Sewage

The Districts are not aware of any exiting of sewage from their sewer systems. However, it is recognized that where there are areas of infiltration, should the water tables drop below the pipe, there's the potential, even though unlikely in most cases, for exfiltration. Significant infiltration defects or any indication of exfiltration will be prioritized appropriately.

Documentation and Recordkeeping

Inspection and assessment activities are documented in the Districts' CMMS. 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.

Climate Change Impacts

The Districts have identified two portions of its collection system that may be susceptible to climate change impacts.

CSA 29 consists of coastal communities. The County has a force main that runs down the coast in close proximity to the water. If sea level were to rise, the force main could potentially be exposed and erode over time, causing failure. CSA 29 will monitor for sea level rise with the intent to anticipate changes and have time to react and prevent any system failures.

District 1 has a trunk line that runs parallel to and is in close proximity to Arroyo Creek. Severe and/or prolonged rain events can cause the creek to rise causing flooding and erosion. Portions of the trunk line have been armoured to prevent erosion and water level monitoring devices have been installed at various places in the system to monitor the trunk line flows, which serve to provide early detection of a pipe failure. The embankments of the arroyo have also been riprapped providing additional layer of protection from erosion.

**EFFECTIVENESS**

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

- Have the Districts maintained its schedule for inspecting the sewer assets listed below 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?

**IMPLEMENTATION PLAN/SCHEDULE**

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

## 8.2. Capacity Assessment and Design Criteria

### WDR REQUIREMENTS

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#### Attachment D-8.2 (pgs. D-8/D-9)

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

- *Dry-weather peak flow conditions that cause or contributes to spill events;*
- *The appropriate design storm(s) or wet weather events that causes or contributes to spill events.*
- *The capacity of key system components; and*
- *Identify the major sources that contribute to the peak flows associated with sewer spills.*
- *The capacity assessment must consider:*
- *Data from existing system condition assessments, system inspections, system audits, spill history, and other available information;*
- *Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;*
- *Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change;*
- *Increases of erosive forces in canyons and streams near underground and above-ground system components due to larger and/or higher-intensity storm events;*
- *Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events; and*
- *Necessary redundancy in pumping and storage capacities.”*

### COMPLIANCE

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The Districts do not have current valid Master Plan for any of the collection systems. However, the Districts have determined that the systems are operating adequately except for the identified hot spots and the existing CIP projects. Any significant new development is required to conduct a sewer hydraulic study to determine if the system is adequate to support the additional flows. Any short comings are rectified by the developer. ]

### EFFECTIVENESS

---

The Districts utilize 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	Dep Dir	Sup
8.2.1	Monitor/evaluate significant rain events to see if they exceed the design storm in the hydraulic model.	Each significant rain event		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

### 8.3. Prioritization of Corrective Action

#### WDR REQUIREMENTS

##### [Attachment D-8.3 \(pg. D-9\)](#)

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

#### COMPLIANCE

A condition assessment of a sewer pipeline or manhole produces information regarding the deficiencies of those facilities. To prioritize the deficiencies, the Districts use Cityworks Computerized Maintenance Management System (CMMS).

The Districts do not currently have a short-term rehabilitation plan as it is still in the process of hiring an Engineering Manager (Planning/Asset Management) responsible for planning and asset management who will develop short-term and long-term rehabilitation plans. If sections of the sewer systems are identified where failure is imminent, a contractor will be retained and repairs will be initiated as soon as possible (short-term priority). Less severe deficiencies will be monitored and included in the Capital Improvement Program for rehabilitation in the future (long-term priority). Illicit connections will be eliminated as soon as possible to reduce potential storm water infiltration. Significant sources of infiltration will be a high priority for repair.

#### EFFECTIVENESS

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

- Have the Districts adhered to its system evaluation/condition assessment schedule?
- Have the Districts 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	Dep Dir	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

#### [Attachment D-8.4 \(pg. D-9\)](#)

*“The capital improvement plan must include the following items:*

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

### COMPLIANCE

The [Water and Sanitation Capital Improvement Plan 2026-2030](#), includes Projects, Funding and a schedule for completion.

The Capital Improvement Plan (CIP) is reviewed and updated annually based on identified needs. System deficiencies are noted during routine operation, maintenance, or inspection procedures. The CIP lists all capital improvement projects scheduled for implementation during the following 5 years.

Priorities and project schedules may be adjusted based on a variety of reasons including technical and financial considerations and new or changing needs resulting in changes to project objectives and scope. CIP projects will be completed as system conditions warrant, and funding opportunities are identified.

Operations and Engineering staff meet regularly to discuss and coordinate efforts in the planning, development and construction of capital improvement projects.

### EFFECTIVENESS

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

- Have the Districts’ capital improvement plan schedule been adhered to?

### IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			Dir	Eng	Sup
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	X
8.4.2	For schedules that are not followed, justify and document the reason.	Each Delayed Project	X	X	X



## RESILIENCE

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Resilience is addressed in Element 8 by:

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

## APPENDIX 8 INCLUSIONS

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- [None ]

## 9. Monitoring, Measurement, and Program Modifications

### WDR REQUIREMENTS

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#### [Attachment D-9 \(pg. D-9\)](#)

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

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

### COMPLIANCE

---

The above requirements are addressed below:

- The Districts maintain 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 Districts’ staff to make sound decisions and prioritize activities when dealing with the routine and the unexpected.
- Monitoring of the SSMP focuses on each element in terms of its implementation and effectiveness. The SSMP has been designed to include key performance indicators for each element, which are used to measure effectiveness. In addition, implementation responsibilities are included for each element to help ensure the SSMP is being implemented as intended.
- The Districts 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.
- The Districts 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 (6) years, the SSMP should be considered as a dynamic document and may require updating on a more frequent basis. Routine changes to administrative information, notwithstanding, minor changes will likely be required to address improvements identified through the SSMP Audit or through modifications required as conditions change.
- The Districts monitor spill trends, at a minimum every three (3) years during required audits, utilizing the CMMS database, inspection records and CIWQS data. These resources are helpful in planning and programming work, and adjusting as needed, enabling the Districts to be adaptive and capitalize on lessons learned.

## EFFECTIVENESS

The Districts utilize 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	Dep Dir	Sup
9.1	Assess work programs to ensure outcomes are as intended.	Annually	X	X	X
9.2	Prepare updates to work programs and the SSMP based on assessments.	As Needed	X	X	X
9.3	Monitor and evaluate spill trends. Document efforts.	Annually	X	X	X

## RESILIENCE

Resilience is addressed in Element 9 by:

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

## APPENDIX 9 INCLUSIONS

- None

## 10. Internal Audits

### WDR REQUIREMENTS

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#### [Attachment D-10 \(pg. D-10\)](#)

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

### COMPLIANCE

---

District 1 completed its last SSMP audit in January 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 District will comply with the requirements of each Element. The audit review includes an evaluation to determine if compliance has been met.

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

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

Resilience indicators have been developed for each element. These indicators serve to demonstrate how resilience is built into the SSMP and inspection, maintenance and spill response activities. Any deficiencies discovered through the audit process are noted and a plan and schedule to implement corrective measures are established.

### EFFECTIVENESS

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The Districts utilize 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	Dep Dir	Sup
10.1	Schedule audits in advance of due dates to ensure adequate time to complete. Districts have 6 months to complete the audit from the end of the audit period.	Beginning at end of audit period	X	X	X
10.2	Ensure a plan and schedule is developed to address deficiencies.	Once the Audit is completed	X	X	X

## RESILIENCE

Resilience is addressed in Element 10 by:

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

## APPENDIX 10 INCLUSIONS

- None

## 11. Communication Program

### WDR REQUIREMENTS

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#### Attachment D-11 (pg. D-10)

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

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

### COMPLIANCE

---

When the Districts experience 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 Districts experience a spill that may require closure of public areas or enter a source of drinking 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 Districts will follow the advice of higher authorities, such as the local environmental health department and other regulatory authorities. The Public Works Agency has a Public Information Officer who can be utilized when needed.

There are several opportunities for stakeholders and the public to participate and provide input into the development and update of the SSMP. During its initial development stage, as with each SSMP update the SSMP and related documents are presented to the County Board of Supervisors review and approval. SSMP updates are now required every six (6) years.

Prior to each Board of Supervisor’s Meeting, these documents are included in Agenda packet which are readily available for review on the County’s website. In addition, the SSMP is posted on the County’s website, which provides the public a “Contact Us” feature for convenience.

Note: The Districts do not currently have satellite systems. |

### EFFECTIVENESS

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

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

## IMPLEMENTATION PLAN/SCHEDULE

No.	Plan	Schedule	Responsible Party		
			Dir	Dep Dir	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 Agency website and the link functions properly.	Annually	X	X	
11.3	Ensure Sewage Spill Warning signs are readily available to communicate with the public when necessary	Annually	X	X	X

## RESILIENCE

Resilience is addressed in Element 11 by:

- Use the SSMP as a tool to communicate to the public how the Districts are 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 Districts.

## APPENDIX 11 INCLUSIONS

- None

## LIST OF APPENDICIES

<b>APPENDIX 1</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 2</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 3</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 4</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 5</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 6</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 7</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 8</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 9</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 10</b>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>APPENDIX 11</b>	<ul style="list-style-type: none"> <li>None</li> </ul>





**BOARD MINUTES  
BOARD OF SUPERVISORS, COUNTY OF VENTURA, STATE OF CALIFORNIA**

**SUPERVISORS MATT LAVERE, JEFF GORELL,  
KELLY LONG, JANICE S. PARVIN AND VIANEY LOPEZ  
November 18, 2025 at 8:30 a.m.**

**CONSENT – PUBLIC WORKS AGENCY – WATERWORKS DISTRICTS – Approval of the 2025 Sewer System Management Plan (SSMP) for Ventura County Waterworks District No. 1 (Moorpark), Ventura County Waterworks District No. 16 (Piru), Camarillo Utility Enterprise (Camarillo Airport), County Service Area No. 29 (North Coast), County Service Area No. 30 (Nyeland Acres) and County Service Area No. 34 (El Rio); Authorization for the Public Works Agency, Water and Sanitation Department Director (Director) to Certify and Upload the SSMP to the California Integrated Water Quality System Online Database; and Authorization for the Director to Make Limited Amendments to the SSMP; Supervisorial District Nos. 1, 3, and 4.**

- (X) All Board members are present.
- (X) Upon motion of Supervisor Parvin, seconded by Supervisor Gorell, and duly carried, the Board hereby approves the recommendation(s) as stated in the respective Board letters for Consent Items 9-19, 21-50 and 77.

By: \_\_\_\_\_

Mia Martinez  
Chief Deputy Clerk of the Board