

# Guide for Developing and Updating of Sewer System Management Plans



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Please note: This document has been formatted for screen reader accessibility, and as such, acronyms commonly used in the industry are not used in this document, with exceptions in rare instances for emphasis.

However, in keeping with the common use of acronyms in conversations and discussions, a list of acronyms is included in **Appendix 7**.

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## Introduction and Frequently Asked Questions

### Is the Manual a Guidance Document or Is It an Enforcement Tool?

- This question was raised during the development of the manual because - like the Vehicle Code - the manual can be interpreted as both an educational tool as well as an enforcement device, depending on the end user's point-of-view and business purposes.

The authors and reviewers elected to adopt a style and tone in the language in the manual that stresses education and learning. This will help guide the end user towards achieving the Water Board's strategic goal of having agencies operate in a process of continuous improvement.

### What are the differences with 2006 and 2022 Waste Discharge Requirements?

- Both Waste Discharge Requirements (WDRs) require all publicly-owned sewer agencies with >1 mile of sewer pipes to enroll for coverage. For a copy of the Order, visit the [enroll for regulatory coverage website](#).
- The 2022 WDR (referred to throughout this manual as the "Reissued WDR") has additional changes and new requirements.
- This manual focuses on the key requirements of the Reissued WDR to facilitate agencies in developing and updating their Sewer System Management Plans.
- A summary of the key differences between the 2006 and 2022 WDRs is provided in Appendix 1. In addition, Appendix 3 contains archived State Water Board staff presentations on the 2022 WDR that were developed in April 2023.

### What Do Agencies Need to Do to Help Stay in Compliance?

- Visit the [State Water Board's Spill Reduction website](#) to stay current and review the all the latest regulatory compliance information.
- Attend – and document – staff completion of available industry training.
- Maintain a Sewer System Management Plan Change Log for documenting all agency Sewer System Management Plan modifications for the Reissued WDR (see Appendix 2).
- Review all key compliance deadlines for the Reissued WDR (see checklist included in Appendix 2 as an example) to help reduce agency violations for missing deadlines.

### Why Was the Manual Developed?

- To provide a "blueprint" for assisting small/medium-sized collection system owners and operators to comply with the State Water Resources Control Board (SWRCB) General Reissued Waste Discharge Requirements for Sanitary Sewer Systems ("Reissued WDR", [Order No. 2022-0103-DWQ](#)).
- The Reissued WDR became effective on June 5, 2023 and replaced the 2006 WDR (Order No. 2006-003-DWQ and its Monitoring and Reporting Program, Order No. 2013-0058-EXEC).

## What Size Sewer Agency Is the Manual Intended For?

- Although the manual will be useful to any size agency, it was carefully designed to match the size, scale, and complexity of small/medium-sized sewer systems to help facilitate practical use by all levels of agency personnel responsible for developing, updating, and implementing a Sewer System Management Plan.
- Suggested strategies for compliance with the WDR appear in the document but due to the various sizes or complexities of sanitary sewer systems, compliance strategies will vary greatly.

## Why Do Collection System Managers and Operators Need this Version of the Manual?

- It replaces the previous (2015) version of the guidance manual and reflects the increased complexity and specificity of the newly reissued WDR.

Note, however, the [2015 version](#) of this manual is still available for reference. Many recommendations from the [2015 version](#) have been incorporated into this manual including a summary of recommendations distilled from the document (see Appendix 4).

- It offers a more practical approach to developing a Sewer System Management Plan than the 2015 version by providing a step-by-step method to specifically meet the requirements of the Reissued WDR.
- This updated manual helps operators comprehensively demonstrate compliance, implementation, and effectiveness of their Sewer System Management programs.

## How Was the Manual Developed?

- A point-by-point technical review of the Reissued WDR was completed by industry subject matter experts to help distill the WDR content into the manual to help agencies expedite compliance, implementation, and improve effectiveness of Sewer System Management Plans.
- Over 300 individual collection system agency managers/operators were surveyed to ascertain opinions about the [2015 version](#) and solicit additional input and guidance for development of this manual.

## What Does the Manual Do?

- Provides guidance aimed at small/medium sized collection system agencies required to comply with the requirements of the Reissued WDR.
- Refines, updates, and provides additional tools for helping Legally Responsible Officials and Data Submitters, managers, supervisors, and field operators overcome challenges with the increased depth and complexity of the Reissued WDR (compared to original WDR, [Order 2006-003-DWQ](#) and its accompanying Monitoring and Reporting Program, Order No. [2013-0058-EXEC](#), both now rescinded).

## What Doesn't the Manual Do?

- Replace legal review/assurances or shielding of an agency against potential enforcement including Clean Water Act litigation.
- Substitute responsibility of an agency to complete/adopt a fully compliant Sewer System Management Plan.
- Provide a “One Size Fits All” document or checklist substitute.

## Strategies and Where to Start

Key strategies for making the best use of the Manual include:

- Have a clear understanding of the overall concepts/changes to the Revised WDR. The Revised WDR contains new requirements and expectations of agencies. Agencies must adapt to the Reissued WDR requirements.
- The manual's style has a step-by-step “How To Do It” approach, different than the [2015 version](#), which provided general guidance in narrative form.
- Put together a Sewer System Management Plan team made up of your agency's Operations and Engineering staff to get the best input into the document. Both Operations and Engineering have WDR requirements to fulfill that cross over disciplines.



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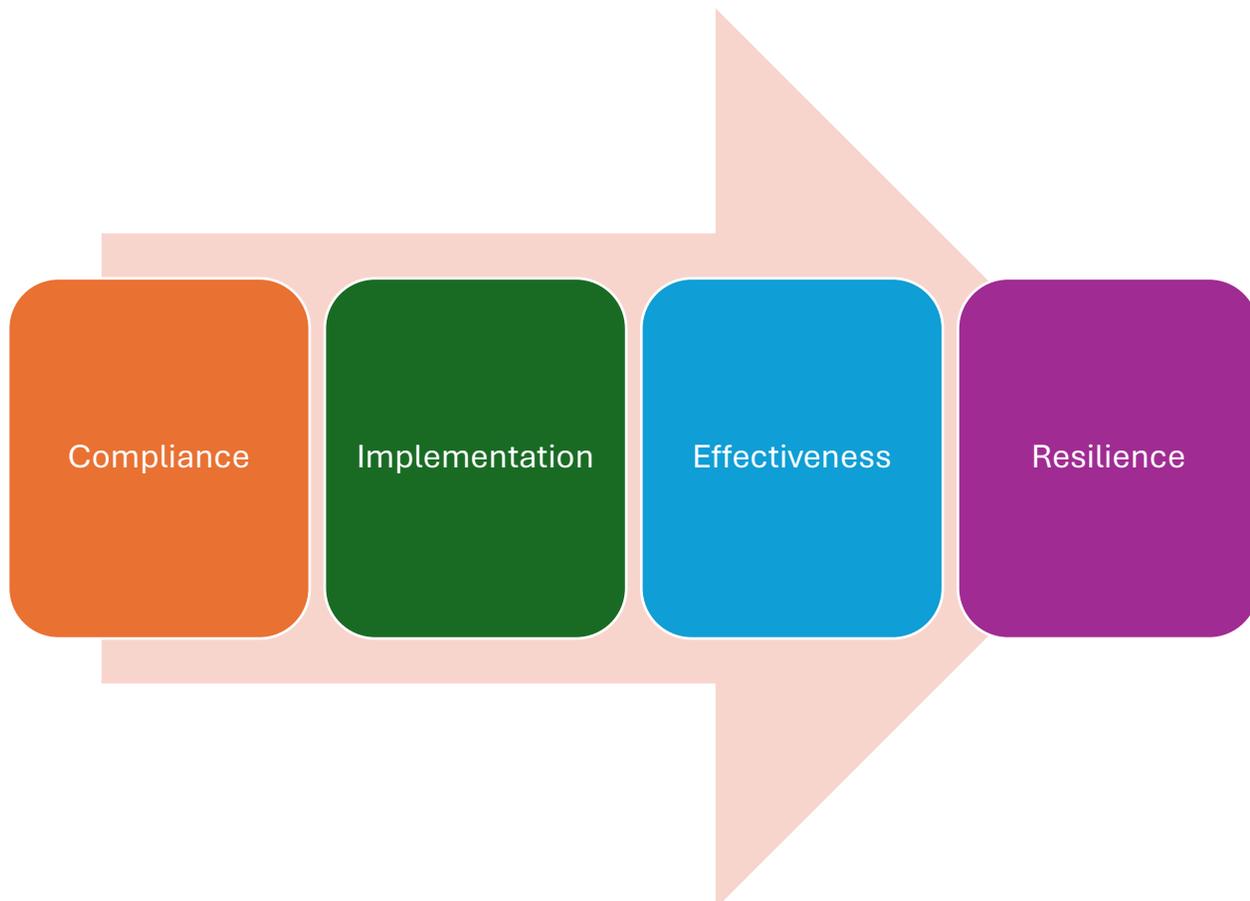
## Document Structure

The information in this User manual is divided into multiple sections that correspond to the WDR requirements in Attachment D, Sewer System Management Plan-Required Elements.

Each element discussed in the manual is broken into the following sections:

- Requirements – concise description summarizing applicable WDR requirements.
- Compliance – guidance for helping agency demonstrate compliance.
- Implementation – guidance for supporting actions to be performed/developed to meet compliance of main/sub-elements.
- Effectiveness – guidance for utilizing Key Performance Indicators for measuring targets, showing how agency plans and processes are working and how effective they are for achieving desired results.
- Resilience – guidance to further bolstering programs to avoid violations, reduce spills, and sustain scrutiny by outside regulators.
- Common Violations – typical noncompliance issues identified during Sewer System Management Plan audits.

**Figure 1 – Visualization for Sewer System Management Plan Compliance, Implementation, Effectiveness, and Resilience**



## Regulatory Background

- The Reissued WDR requires public, private, or other non-governmental entities approved for regulatory coverage by the State Water Board (referred to as “Enrollees”) to develop a Sewer System Management Plan (see Figure 2 below).
- Sewer System Management Plans, at a minimum, must be audited (by agency staff or outside consultants) at least every three (3) years and updated every six (6) years, according to the Water Board’s regulatory schedule.
- The agency’s Sewer System Management Plan must be approved and adopted by a local governing board at a public meeting.
- The Reissued WDR requires the Sewer System Management Plan to be uploaded to the California Integrated Water Quality System (CIWQS) Sanitary Sewer System database and certified by the agency Legally Responsible Official.

### 2006 WDR

- To provide a consistent, statewide regulatory approach to address sewage spills, the State Water Resources Control Board (State Water Board) adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003 (SSS WDRs), on May 2, 2006.
- All public agencies that own or operate a sanitary sewer system, which is comprised of more than one mile of pipes or sewer lines that convey wastewater to a publicly owned treatment facility, were required to apply for coverage under the Order.
  - The 2006 WDR was rescinded in 2022 when the reissued version was adopted.

### 2022 WDR

- The “Reissued WDR” (Order No. 2022-0103-DWQ) was adopted on December 6, 2022 and became effective on June 5, 2023.
- The Reissued WDR updates many aspects of the 16-year-old Order and includes a number of new requirements for Sewer System Management Plans. For more detailed information about the differences between the 2006 and the Reissued WDR, see Appendix 1.
- A list of the key Sewer System Management Plan requirements (inclusive of related WDR “Attachments” and “Specifications”) is shown below.

**Figure 2 – Sewer System Management Plan Requirements (Reissued WDR)**

***ELEMENT 1: Goal & Intro***

- Attachment D, Section 1 (Goal/Intro), Specifications 5.2 (Develop/Implement Sewer System Management Plan)

***ELEMENT 2: Organization***

- Attachment D, Section 2 (Org.), Specifications. 5.1 (Designation of LRO and Data Submitter(s))

***ELEMENT 3: Legal Authority***

- Attachment D, Section 3 (Legal Authority)

***ELEMENT 4: Operations and Maintenance Program***

- Attachment D, Section 4 (O/M, Training/Drills), Specifications: 5.7 (Necessary Resources), 5.19 (Proper O/M)

***ELEMENT 5: Design and Performance Provisions***

- Attachment D, Section 5 (Design/Performance)

***ELEMENT 6: Spill Emergency Response Plan***

- Attachment D, Section 6 (Spill Emergency Response Plan), Specifications 5.12 (SERP/Remedial Actions)
- Attachment E-1 (Notification, Monitoring, Reporting, Recordkeeping)

***ELEMENT 7: Sewer Pipe Blockage Control Program***

- Attachment D, Section 7 (Pipe Blockage Control Program)

***ELEMENT 8: System Evaluation, Capacity Assurance, Capital Improvements***

- Attachment D, Section 8 (System Evaluation, Capacity Assurance, Capital Improvements)
- Specifications 5.6 (System Resilience)
- Specifications 5.10 (System Capacity)

***ELEMENT 9: Monitoring, Measurement, Program Modifications***

- Attachment D, Section 9 (Monitoring, Measurement, Program Modifications)
- Specifications 5.11 (System Performance Analysis)

***ELEMENT 10: Internal Audits***

- Attachment D, Section 10 (Internal Audits)

***ELEMENT 11: Communication***

- Attachment D, Section 11 (Communication Program)

## Background

A Sewer System Management Plan is developed specifically for the size and complexity of an agency's sewer system. The Sewer System Management Plan is, in essence, a declaration of how the agency will operate and maintain their collection system.

The Water Board requires that the Sewer System Management Plan be evaluated for compliance, implementation and effectiveness while addressing system resilience. To properly manage the Sewer System Management Plan, these concepts must be considered when developing each element. **Set yourself up for success.**

**Compliance** is the act of meeting regulations. This is the starting point for Sewer System Management Plan development, as all the requirements in the individual elements must be incorporated and addressed. As agencies begin to develop their new Sewer System Management Plan, there will be cases where new procedures, work plans, and ordinances will need to be developed or updated to meet the requirements. Compliance is the most fundamental aspect in the development of the Sewer System Management Plan. As a reminder, Attachment D specifies *"The Enrollee's development, update, and implementation of a Sewer System Management Plan addressing the requirements of this Attachment is an enforceable component of this General Order."*

**Implementation** is the actions or steps taken to accomplish tasks, goals, and objectives. There needs to be a plan and schedule to carry out these actions. A plan without a goal is just a wish and a plan that is not implemented is just an idea. To implement a plan, a goal, level of effort, resources, and timeline need to be determined.

**Effectiveness** is the degree to which something is successful in producing a desired result. There must be a procedure or method to measure effectiveness so the degree to which something is effective can be determined. A requirement of an internal audit (Element 10) is to measure the effectiveness of each Sewer System Management Plan element.

**A Key Performance Indicator (KPI)** is a measurable target that indicates how plans and processes are working in terms of obtaining desired results. KPIs provide focus for strategic and operational improvements, create an analytical basis for decision making, and help place attention on what matters most.

### Key Performance Indicator example:

Goal: Develop a hydraulic model that determines pipe capacity requirements for current system and future (a 30-year buildout is used here strictly for this example).

Examples of Key Performance Indicators:

- Number of capacity-related spills or surcharge conditions during the period?
- Has the system responded to rain events as indicated by the hydraulic model?
- Have there been any changes to zoning designations (residential, commercial, industrial)?
- Rain event trends: Have there been changes in rain event occurrences, intensity, and duration?
- Water conservation: Do change(s) require modifications to our model assumptions?

These Key Performance Indicators will help to determine the extent to which the hydraulic model is effective.

**Resilience** is the ability to recover from or adjust to adversity or change and grow from disruptions. It is also quickly recovering from system failures. Resilience can be built through planning, preparing for, mitigating, and adapting to changing conditions. Examples of Resilience include:

- **Bypass ports on force mains.** If a pump station fails completely, a portable pump can bypass the station using the force main for discharge.
- **Emergency generators for pump stations.** Backup generators ensure continuous operations during power failure events.
- **Training.** A competent workforce will get the job done better, reducing the chance for failures. Training helps to ensure more staff are available for emergencies and have practiced and adapted training to real-work spill events.
- **Safety Program.** A robust safety program helps ensure staff are available when needed.
- **Public Outreach.** Providing information on kitchen best practices and what not to flush reduces the likelihood that pipe blocking items are discharged to the sewer system.
- **Mutual Aid Assistance.** Agreements and coordination with neighboring agencies for assistance during spill events.
- **Conduct a vulnerability assessment.** Performing regular vulnerability assessments helps to identify, prioritize, and put proper resources where/when needed. Assessing your local Regional Water Board Basin Plan and/or beneficial use designations is another great practice (visit the [State/Regional Water Board website](#) for links to your local regional water board for more details).
- **Adaptive Management.** Agencies must include an “Adaptive Management” section as part of Element 9 (see Monitoring, Measurement, and Program Modifications on page D-9 of Reissued WDR) that addresses the implementation effectiveness and steps for necessary improvements.

Examples of Resilience Indicators:

- The number of occasions that an imminent spill had been discovered through routine maintenance activities.
- The number of occasions containment was implemented prior to a sewage discharge to surface waters.
- The number of occasions that overflow storage capacity was utilized to prevent a spill.
- The number of occasions when an alarm was received, and staff were able to act and prevent a spill.
- The number of occasions staff found a better way of doing something and making improvements to existing procedures.
- Adapting and being prepared for the consequences of more intense rain events.
  - Securing or fortifying assets subject to flooding or erosion, fortifying creek crossings, proactive easement inspection and maintenance (Refer to Attachment 8.1 of the Reissued WDR for more specific examples which should be considered by your agency for developing measures for adapting to climate change.)

Identifying resilience that is built into your agency’s system, programs and procedures will help to adapt to what you have and develop a robust system to reduce the likelihood of a spill.

As your agency develops its Sewer System Management Plan in accordance with the Reissued WDR requirements, compliance, implementation, effectiveness, and resilience need to be considered as each element is addressed throughout the document.

### **The Connection between Compliance, Implementation, Effectiveness, and Resilience.**

When developing a Sewer System Management Plan, an agency must describe how their plan will address each element. This is the agency's declaration or statement of what they will do to comply with each element. When this plan is carried out, and implemented as described, and, if the desired results are realized, then the plan is effective. If safeguards are put in place to prevent or mitigate failures, omissions, and oversights, then there is a level of resilience built-in to the Plan.

#### Compliance-Implementation-Effectiveness-Resilience Example:

**Sewer System Management Plan, Attachment D, 4.4 – Equipment Inventory**, *An inventory of sewer system equipment, including the identification of critical replacement and spare parts.*

Compliance: Agency maintains a list of all equipment utilized for operation and maintenance of the collection system and has identified critical replacement and spare parts.

Implementation: Agency has a procedure that requires equipment to be routinely inspected and maintained in good working order and spare parts, including critical spare parts, are replaced when used. Agency reviews the equipment and replacement/spare parts inventory (example, semi-annually) to ensure all necessary equipment is available and replacement and critical spare parts are in stock.  
Implementation Plan/Schedule:

- Review by June 1 of each year.
- Review by December 2 of each year
- Annually evaluate Element Compliance plan against actual actions taken.

#### Effectiveness: (Examples of Key Performance Indicators)

- Has the agency experienced occasions when a part was needed, but not available?
- Has the agency experienced occasions when a needed part was not included as a "critical spare part" in the agency's inventory?
- Has the agency experienced occasions when equipment failed and could not be used when needed?

#### Resilience:

- Does the agency have a QA/QC process for ensuring semi-annual reviews to ensure inventory is accurate?
- Does the agency have Standard Operating Procedures (SOP) for maintaining equipment and critical/spare parts inventory that can be properly operated by staff?
- Does the agency have more than one staff member capable of performing the reviews?
- Are all critical spare parts properly accessible, labeled, and readily available (either in-house or secured via outside contract)? Do agency staff know where items are located and can quickly and efficiently deploy critical spare parts when necessary to eliminate/reduce spills?

For each element and related sub element of the Sewer System Management Plan, the four concepts above should be addressed.

### Enforcement Considerations

The Agency's Legally Responsible Officials, managers, and governing boards should review and be aware of potential liabilities for noncompliance with the Reissued WDR. An excellent practice is to review enforcement language outlined in **Specifications 5.17 and 5.18** (page 27) and **Provisions 6** (pages 27-31) of the Reissued WDR. In addition, agencies should keep abreast of the latest Water Board enforcement penalty actions within their respective service areas ([see California Integrated Water Quality System Administrative Civil Liability ACL Report](#)) and also review example enforcement for improving understanding about the enforcement process and potential ramifications for noncompliance (see examples below).

- Region 1: North Coast Regional Water Board [example enforcement](#)
- Region 2: San Francisco Bay Regional Water Board [example enforcement](#)
- Region 3: Central Coast Regional Water Board [example enforcement](#)
- Region 4: Los Angeles Regional Water Board [example enforcement](#)
- Region 5: Central Valley Regional Water Board [example enforcement](#)
- Region 6: Lahontan Regional Water Board<sup>1</sup> [example enforcement](#)
- Region 7: Colorado River Regional Water Board [example enforcement](#)
- Region 8: Santa Ana Regional Water Board [example enforcement](#)
- Region 9 San Diego Regional Water Board [example enforcement](#)

In addition, agencies should also review the most current version of the [Water Board Enforcement Policy](#) for improving understanding about the specific factors considered by State/Regional Water Boards in assessing civil liabilities with [formal enforcement Orders](#). The Enforcement Policy has changed since 2010 which could affect penalty actions due to these changes. The most recent Policy was changed in 2017 (affecting some of the examples above). As of June 2024, the State Water Board has proposed additional changes to the Policy. Visit the State Water Board's Office of Enforcement [Water Quality Enforcement Policy Amendments](#) | for the latest Policy.

One final recommendation is to always be aware of any additional requirement(s) established by your local Regional Water Quality Control Board. For example, all collection system agencies within the San Diego Regional Water Board area are required to report private lateral sewage discharges they become aware of, that equal or exceed 1,000 gallons; result in a discharge to a drainage channel and/or surface water, and/or discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system....must be reported to the Regional Board ([see Order No. R9-2007-0005 for details](#)).

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<sup>1</sup> See Settlement Agreement [R6V-2020-0001](#) for final enforcement action (signed 2/14/2020), which included specific adjustments to alleged violations and final penalty amount for numerous sewage discharges and Sewer System Management Plan- deficiencies.

## Element 1 – Goal And Introduction

### REQUIREMENTS<sup>2</sup>

*“The goal of the Sewer System Management Plan (Plan) is to provide a plan and schedule to:”:*

- *“Properly manage, operate, and maintain all parts of the Enrollee’s sanitary sewer system(s),”*
- *“Reduce and prevent spills,”*
- *“Contain and mitigate spills that do occur.”*

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

### 1.1. Regulatory Context

### REQUIREMENTS<sup>1</sup>

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

### COMPLIANCE

Guidance 1.1.1: To comply with this requirement, an agency may want to state some goals for the collection system. Example goals could include:

- Properly manage, operate, and maintain the wastewater collection system.
- Proactively reduce infiltration/inflow.
- Minimize the frequency of sanitary sewer spills.
- Mitigate the impact of spills.
- Identify team members who developed the Sewer System Management Plan.

The Reissued WDR requires the Sewer System Management Plan at a minimum to be updated every 6 years as specified in Specifications 5.5 and Attachment D of the Reissued WDR ([see State Water Board online tool for checking your agency Sewer System Management Plan and Audit due dates](#)).

An agency could also consider the following additional best practices:

- Update individual element(s) of its Sewer System Management Plan as necessary between deadlines specified by the Reissued WDR. Specific examples could include:
  - Changes to staffing/responsibilities listed in Element 2 (Organization)
  - Document/showcase new improvements to work programs (Elements, 4 and 8) including but not limited to upgrades to maintenance schedules, technologies, practices, capital improvement programs, standard operating procedures, training, etc.

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<sup>2</sup> See Attachment D, Section1 of [Reissued WDR](#) (page D-2).

- Help the agency prepare and complete required Sewer System Management Plan Audits required every 3 years ([see State Water Board online tool](#)).

Develop a plan and schedule that includes the following:

- List the required due date for your current Sewer System Management Plan (the one being updated).
- List the required due date for your next Sewer System Management Plan.
- List when your agency plans to conduct your next Sewer System Management Plan Audit, including start and finish dates.
- List the due date for submitting your next Sewer System Management Plan Audit to CIWQS.
- Provide a general description of the agency sewer system management program.
- Provide a general description of how the agency will implement the sewer system management program.
- Provide a general description of how the agency will update the sewer system management program.

## IMPLEMENTATION

Guidance 1.1.2: For implementing this Sewer System Management Plan sub-element, an agency can consider the following:

- Identify the team members that developed the Sewer System Management Plan. List positions and roles/responsibilities for its review, development, implementation, and updating.
- Addresses all 11 required elements required for full compliance with the Reissued WDR. If your agency has decided certain elements are not applicable, then provide a justification for any element not completed.
- Include a statement confirming the agency has a process in place for ensuring its Sewer System Management Plan will be fully implemented as written.
- Include a statement confirming that the agency will conduct periodic review(s) of its entire Sewer System Management Plan for ensuring continuous compliance, implementation, and striving to improve effectiveness of all elements.
- Develop a plan/schedule:
  - Annually review previous Sewer System Management Plan audit findings, including making efforts to ensure your local governing board is fully aware of all significant program shortcomings (projects, funding, budgets, etc.) that require their approval.
  - Check next Sewer System Management Plan audit due date and Sewer System Management Plan update ([see State Water Board online tool](#)).
  - Review Key Performance Indicators for each element; adjust element content and update the Sewer System Management Plan Change Log as necessary prior to completion of next audit.
  - Update this element whenever:
    - Significant work/program or organizational changes are made.

- After Sewer System Management Plan audits are completed.
- Anytime the SEWER SYSTEM MANAGEMENT PLAN Implementation Team has a change of members/responsibilities.
  - When Sewer System Management Plan audits are completed and significant changes are identified, a plan, schedule, and person responsible should be developed and implemented for each Sewer System Management Plan element (see examples throughout this document provided in each Element).
  - When audit deficiencies are discovered through the audit process.

## EFFECTIVENESS

Guidance 1.1.4: To measure effectiveness, an agency should develop Key Performance Indicators, asking questions such as:

- Has the schedule for conducting audits been adhered to?
- Has the schedule for updating the Sewer System Management Plan been adhered to?
- Are the established milestones being monitored?
- Is the sewer system management program description up to date (the description may need to be updated due to a significant change in the way an agency operates, change in service area, etc)?
- Does agency have the appropriate staff with its implementation team?

## 1.2. Sewer System Management Plan Update Schedule

### REQUIREMENTS<sup>3</sup>

*“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

Guidance 1.2.1: To comply with this requirement, an agency should consider that the following information be included:

- List the legal due date for your current Sewer System Management Plan (the one being updated).
- List of the legal due date for your next Sewer System Management Plan Update.
- List of when your agency plans to conduct your next Sewer System Management Plan audit, including start and finish dates.
- List of the due date (and period covered) for submitting your next Sewer System Management Plan audit to the California Integrated Water Quality System (CIWQS). Visit the State Water Board website [“lookup tool”](#) for more details.
- List of significant milestones of spill prevention activities.
- Include actions that will be conducted during the six-year Sewer System Management Plan update cycle. Examples: a list of the date of milestones addressing prevention of sewer spills, such as:
  - Date flow monitoring will be conducted.
  - Date CCTV inspection cycle will be completed.
  - Date lift/pump station, force main conveyance system will be assessed/rehabilitated.
  - Date that capital improvement project will commence.
  - Date new equipment was/will be purchased.

### IMPLEMENTATION

Guidance 1.2.2: For implementing this Sewer System Management Plan sub-element, an agency can consider the following:

- Periodically review and update its Sewer System Management Plan whenever:
  - Significant work/procedures/programs/organizational changes are made.
  - Sewer System Management Plan audits are completed

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<sup>3</sup> See Attachment D, Section 1.2 of the [Reissued WDR](#) (page D-3)

- Sewer System Management Plan audits are completed, and significant changes and/or deficiencies are identified.
- Milestones or significant changes or events are triggered; they must be identified and included for addressing ongoing spill prevention measures.

## EFFECTIVENESS

Guidance 1.2.3: To measure effectiveness, an agency should develop Key Performance Indicators, such as:

- Have audits been performed on schedule? Measured by review of completion dates for audits against required timelines.
- Has the Sewer System Management Plan been approved by the governing board on schedule (every six years)?
  - Measured by review of historic local governing body adoption dates against required timelines.
- Are established sewer program milestones being monitored?

## 1.3. Sewer System Asset Overview

### REQUIREMENTS<sup>4</sup>

*“The Agency Sewer System Management Plan must have an Introduction section to provide a description of the Agency-owned assets and service area including but not limited to:”*

- *Location, including county(ies).*
- *Service area boundary (see specific requirements contained in Specifications 5.14 and Attachment E1, requiring an electronic Sanitary Sewer System Service Area Boundary Map submitted to CIWQS).*
- *Population and community served.*
- *System size, including total length in miles, length of gravity mainlines, length of pressurized (force) mains, and number of pump stations and siphons.*
- *Structures diverting stormwater to the sewer system.*
- *Data management systems.*
- *Sewer system ownership and operation responsibilities between Enrollee and private entities for upper and lower sewer laterals.*
- *Estimated number or percent of residential, commercial, and industrial service connections.*
- *Unique service boundary conditions and challenge(s).*
- *Reference to the Enrollee’s up to-date map of its sanitary sewer system, as required in section 4.1 (Updated Map of Sanitary Sewer System) of this Attachment.”*

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<sup>4</sup> See Attachment D, Section 1.3 of [Reissued WDR](#) (page D-3)

## COMPLIANCE

Guidance 1.3.1: To comply with this requirement, an agency can consider the following:

The Agency should list and/or describe:

- System sewer assets (included in Attachment D, Section 1.3 of the Reissued WDR)
- Service area including terrain and any unique geological features or other characteristics that are challenging like mountainous, desert, inaccessible areas and surface water crossings, etc. and other conditions that present challenges.
- Statement confirming system maps are up to date.

## IMPLEMENTATION

Guidance 1.3.2: To facilitate implementation of this Sewer System Management Plan sub-element, an agency can consider the following:

- Develop a standardized method for collecting data to ensure consistency from year-to-year.
- Establish a schedule for data review.
- Assign review tasks to a responsible person(s) for ensuring completion.

## EFFECTIVENESS

Guidance 1.3.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- Are the system maps up to date?
- Are asset data kept in the computerized maintenance management system, GIS, etc., and are up to date?
- Are updates to the maps performed in a timely manner?

## Supplemental Guidance – Element 1

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

- Standard operating procedure to provide guidance when collecting and managing asset data.
- QA/QC process to ensure information is correct, calendar dates/deadlines for reminders to avoid missing deadlines or violating WDR requirements.
- Training for all appropriate agency staff to ensure more than one staff member can collect and manage data.

### ADDITIONAL RELATED SEWER SYSTEM MANAGEMENT PLAN REQUIREMENTS

In addition to the above guidance, an agency should also consider addressing the following related “Specifications” requirements in the Reissued WDR:

- Specifications 5.2 (pages 18-19): “Sewer System Management Plan Development and Implementation”
- Specifications 5.7 (page 22): “Allocation of Resources”
- Provisions 6.1 (pages 27-35): “Enforcement Provisions”
- Provisions 6.3 (page 31): “Sewer System Management Plan Availability”

#### ADDITIONAL GUIDANCE

- See Appendix 4

#### COMMON WDR VIOLATIONS

To help reduce potential violations for noncompliance, an agency should avoid the following common violations:

- ✓ Failure to identify appropriate goals.
- ✓ Failure to establish necessary funding, staffing, capital resources for sewer program.
- ✓ Failure to update Sewer System Management Plan sub-elements.
- ✓ Failure to maintain Sewer System Management Plan Change Log.
- ✓ Failure to establish process to ensure public has access/input to Sewer System Management Plan
- ✓ Failure to complete appropriate Sewer System Management Plan audits.
- ✓ Failure to measure effectiveness and progress.
- ✓ Failure to develop and implement procedures for updating sewer maps.
- ✓ Failure to provide appropriate narrative descriptions describing procedures for prioritization of system repairs and maintenance to prevent spills.
- ✓ Failure to describe technologies and practices to reduce spills.

## Element 2 – Organization

### REQUIREMENTS<sup>5</sup>

*“The Plan must identify organizational staffing responsible and integral for implementing the local Sewer System Management Plan through an organizational chart of other similar narrative documentation that includes:*

- *The name of the Legally Responsible Official as required in section 5.1 (Designation of a Legally Responsible Official) of this General Order.*
- *The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific Sewer System Management Plan elements.*
- *Organizational lines of authority.*
- *Chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. (For example, county health officer, county environmental health agency, and State Office of Emergency Services).”*

### COMPLIANCE

Guidance 2.1: To comply with this requirement, an agency can consider the following:

List or describe:

- Name(s) of Legally Responsible Official(s) (LRO) and Data Submitters specified in the Plan. As a reminder, Specifications 5.1 requires that the LRO must have the authority to ensure compliance with the provisions of the General Order and make managerial decisions regarding the operation of the sanitary sewer system. The LRO must have direct authority over individuals that have necessary qualifications, such as a recognized degree or certificate in sanitary sewer system operations and maintenance or professional training and experience in sewer system management. In addition, the LRO must be authorized to make major capital improvement recommendations.
- Position Titles/Contact Information. The agency should list all position titles that have the authority and responsibility for the Plan implementation. The contacts should include positions, titles and contact information for management, administrative, and maintenance staff responsible for implementing Sewer System Management Plan elements.
- Organizational lines of authority. The element should identify lines of authority through an organization chart or similar document or a narrative explanation.
- Chain of communication for reporting spills from receipt of complaint or other information, including the person responsible by the agency 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.)

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<sup>5</sup> See Attachment D, Element 2 of [Reissued WDR](#) (page D-3)

- This information is located in Element 6, Spill Emergency Response Plan, so the information is only located in one place within the Sewer System Management Plan.

## IMPLEMENTATION

Guidance 2.2: To facilitate implementation, an agency can consider the following:

- Periodically review and ensure that:
  - The name(s) of Legally Responsible Official(s) are up to date in the Plan and CIWQS.
  - The position title(s), having authority and responsibility for implementation of the various Sewer System Management Plan elements, are up to date.
  - The organizational lines of authority can be demonstrated via an organization chart or by narrative description
  - Description of LRO(s) possession of professional training and/or collection system experience or (or the subordinates of Legally Responsible Officials) do not satisfy minimum requirements (see Specifications 5.1).
  - Description of the chain of communication for spills from receipt of a call reporting a spill to spill report certification is being adhered to.
  - Organizational lines of authority are up to date.

## EFFECTIVENESS

Guidance 2.3: To facilitate measuring effectiveness, an agency should develop a process of documenting Key Performance Indicators, by answering questions such as:

- Have there been instances when a service call for a spill was not properly routed to response personnel?
- Were all spill response activities documented and forwarded to the LRO?
- Have there been any changes in assigned responsibilities for implementing the Sewer System Management Plan, and if changes are made, was noted in the Sewer System Management Plan Change Log?
- Is there a process in place to ensure all contact information remains up to date?
- Is there a process in place to ensure the organizational chart is up to date?
- Are service calls being properly routed to appropriate personnel?

## Supplemental Guidance – Element 2

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

- Ensuring that more than one person is capable and responsible for specific duties for Sewer System Management Plan implementation, e.g., back-up personnel.
- Designation of more than one LRO to help ensure full and continuous coverage of duties.
- Ensuring that more than one staff member can implement and be responsible for specific Sewer System Management Plan elements.
- Periodically review contact information to ensure it is up to date.

### ADDITIONAL RELATED SEWER SYSTEM MANAGEMENT PLAN REQUIREMENTS

In addition to the above guidance, an agency should also consider addressing the following related “Specifications” requirements in the Reissued WDR:

- **Specifications 5.1 (“Designation of a Legally Responsible Official)**

### ADDITIONAL GUIDANCE

- See Appendix 4

### COMMON WDR VIOLATIONS

To help reduce potential violations for noncompliance, an agency should avoid the following common violations:

- ✓ Failure to designate a qualified Legally Responsible Official with appropriate training and experience.
- ✓ Failure to establish and update all related necessary responsible staff and lines of authority.
- ✓ Failure to establish and update agency chain of communication for reporting spills.
- ✓ Failure to reflect changes in the Sewer System Management Plan Change Log.

## Element 3 – Legal Authority

### REQUIREMENTS<sup>6</sup>

*“The Agency Sewer System Management Plan must include copies or an electronic link to the Enrollee’s current sewer system use ordinances, service agreements and/or other legally binding procedures to demonstrate the Enrollee possesses the necessary legal authority.”*

- *“Prevent illicit discharges into its sanitary sewer system from inflow and infiltration (I&I); unauthorized stormwater; chemical dumping; unauthorized debris; roots; fats, oils, and grease; and trash, including rags and other debris that 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 violation(s) of ordinances, service agreements, or other legally binding procedures.”*
- *“Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.”*

### COMPLIANCE

Guidance 3.1: To comply with this requirement, an agency can consider the following:

- Confirm and reference ordinances, codes, service agreements, and procedures for meeting each legal authority requirement.
  - Consider providing specific citations for each requirement.

### IMPLEMENTATION

Guidance 3.2: To facilitate implementation, an agency can consider the following:

- Monitor for occasions when the ordinance/code failed to address issues as intended.
- Ensure any agreements are up to date.
- Ensure ordinance/codes/service agreements are available to staff for reference when needed.
- Establish and implement a procedure for updating ordinances, codes, and agreements when deficiencies are discovered by staff.

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<sup>6</sup> See Attachment D, Section 3 of [Reissued WDR](#) (page D-4)

## EFFECTIVENESS

**Guidance 3.3:** To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

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

## Supplemental Guidance – Element 3

### RESILIENCE

- To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:
  - Monitoring performance of ordinances, codes, and agreements for deficiencies and omissions.
  - Performing periodic reviews of ordinances, codes, and service agreements to ensure they are up to date.
  - Staying abreast of industry trends and local ordinances that may affect operations.
  - Reviewing codes and ordinances periodically.

### ADDITIONAL GUIDANCE

- See Appendix 4

### COMMON WDR VIOLATIONS

To help reduce potential noncompliance, an agency should avoid the following common violations:

- ✓ Failure to establish proper agency codes, standards, legal agreements, including but not limited to failure to exercise necessary fats, oils, and grease (FOG) control authority for regulating discharges from Food Service Establishments (FSEs), multifamily housing, and residential homes.
- ✓ Failure to ensure necessary legal authority for accessing flood control channels and easements for ensuring adequate access for spill response and cleanup operations within service area.
- ✓ Failure to periodically review agency codes, standards, legal agreements, and procedures for ensuring conformance to requirements.

## Element 4 – Operations and Maintenance Program

### 4.1 Updated Map of Sewer System

#### REQUIREMENTS<sup>7</sup>

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

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

#### COMPLIANCE

Guidance 4.1.1: To comply with this requirement, an agency can consider the following:

Ensuring the following:

- Availability of up-to-date sewer system maps that include:
  - All current infrastructure assets owned and operated by the agency (gravity mains, manholes, pump stations, pressure pipes (a.k.a. force mains), valves, and stormwater conveyance systems within sewer system service area boundary, etc.
  - Details for pipe diameters, and direction of flows be included on maps (a legend is should be provided on maps for symbol clarity).
  - If your agency is not the owner of the stormwater conveyance system, make every effort to obtain the maps, preferably in a format that is compatible with yours.
    - Any format will do.
    - If you are not able to obtain stormwater conveyance system maps, document your efforts to demonstrate your diligence.
- Ensure sewer maps contain all known drinking water facility intakes (required information to be reported for all Category 1 and 2 spills – see Attachment E1, sections 3.1.2 and 3.2.2)

#### IMPLEMENTATION

Guidance 4.1.2: To facilitate implementation, an agency can consider the following:

- Establishing procedure(s) for ensuring all maps are up to date.
- Monitoring occasions where maps were inaccurate.
- Establishing formal procedure for maintaining and keeping maps current including:
  - A written Standard Operating Procedure that details the steps to update the maps,

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<sup>7</sup> See Attachment D, Section 4.1 of [Reissued WDR](#) (page D-4)

- Procedures for field personnel who, upon discovering an error/omission, complete updates in a specified timeframe (e.g., map updates will be completed 20 days, after the initial submittal requesting proposed change(s)),
- A quality assurance process to verify changes are complete and accurate, and
- Identification of all responsible person(s) for ensuring maps are current.
- Establish procedure for providing access to the maps for the State and Regional Water Boards by:
  - Posting maps on agency website (if applicable and does not violate agency policy).
  - Maintaining maps in digital format that can be delivered electronically via remote link (e.g., Dropbox) or e-mailed to the requester.
  - Providing paper copies via mail or parcel service if requested.

## EFFECTIVENESS

Guidance 4.1.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, that answer questions such as:

- 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 book updates (e.g. exposed pipe, siphons, ARVs, surface water, etc)?

### **Electronic Sanitary Sewer System Service Area Boundary Map**

The Boundary Map is not required under Element 4, but is a related one-time requirement.

see Attachment E1, section 3.8 on page E1-17 and Specifications 5.14

For existing enrollees, between July 1, 2025 and December 31, 2025, *“the Legally Responsible Official shall submit, to the State Water Board, geospatial data detailing the locations of the Enrollee’s sanitary sewer system service area boundary, per the required content and specifications in section 3.8 (Electronic Sanitary Sewer System Service Area Boundary Map) of Attachment E1 of this General Order, for each system identified by a WDID number. An Enrollee of a disadvantaged community that may need assistance developing an electronic map to comply with this requirement, may contact State Water Board staff for assistance at [SanitarySewer@waterboards.ca.gov](mailto:SanitarySewer@waterboards.ca.gov).”*

## 4.2 Preventive Operation and Maintenance Activities

### REQUIREMENTS<sup>8</sup>

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

*The scheduling system must include:*

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

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

### COMPLIANCE

Guidance 4.2.1: To comply with this requirement, an agency can consider the following:

- The preventive operation and maintenance activities will vary from agency to agency. It is up to the agency to determine which activities are appropriate for the size, complexity, and condition of their system.
- Utilize data collection systems (methods or tools) that gather and store data. Examples can include (but are not limited to):
  - Computerized Maintenance Management System (CMMS) which collects detailed information that can be reported and analyzed in a systematic manner,
  - Inspection Management software (such as software used for CCTV inspection defect coding, allows for data collection and manipulation),
  - Computer spreadsheets that can capture, display, and manipulate data,
  - Paper records, such as forms and logs, allow for detailed data collection (note: may require extensive labor to be analyzed).

Note: Paper data collected can certainly be analyzed but it can be a labor-intensive endeavor when there is a large amount of data.

Note: Data needs to be collected in a manner so that it can be used to plan, inform, improve decision-making, and monitor and predict trends.

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<sup>8</sup> See Attachment D, Section 4.2 of [Reissued WDR](#) (page D-4)

## IMPLEMENTATION

Guidance 4.2.2: To facilitate implementation, an agency can consider the following:

- Development of a Data Collection System and a schedule, an agency can consider these two examples:
- **EXAMPLE: Data Collection System:** Development of a Plan and Schedule. A plan is a detailed proposal for doing or achieving something. A Schedule is a timeline, to complete tasks. The WDR requires agencies to have a plan and schedule for completing inspection and maintenance activities, including high-frequency inspections and maintenance activities of known problem areas (including all sewer assets including gravity/force main conveyance systems, lift/pump stations, siphons, etc. specific to agency).
  - **EXAMPLE: Plan:** [Agency] owns one CCTV van and dedicates two field staff to pipe inspection operations. The inspection process begins at the top of the collection system and progresses downstream, in a systematic manner through established maintenance zones, until the cycle is complete.
  - **EXAMPLE: Schedule:** The goal is to complete the entire cycle in a 4-year period.

Establish a Data Collection System and Schedule for each of the agency's core maintenance and inspection activities covering all key sewer assets, and periodically evaluate them for effectiveness and adjusted, if needed.

## EFFECTIVENESS

Guidance 4.2.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- Are the agency maintenance, operations, engineering work orders periodically reviewed for accuracy and completeness?
- Does the agency 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?
  - If not is the reason justified and documented?
- Are inspections of pipes, manholes, lift/pump stations, force main conveyance system(s) being completed as scheduled?
- Does the agency have a proactive root control program?
- Does the agency have a system for developing/tracking historical performance/results?
- A list of suggested operation and maintenance O/M information including work program descriptions and /guidance for supporting development/updating of this element is included is in Appendix 5.

## 4.3 Training

### REQUIREMENTS<sup>9</sup>

*“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

Guidance 4.3.1: To comply with this requirement, an agency can consider the following:

- Ensure a training program is in place that meets all above requirements.

### IMPLEMENTATION

Guidance 4.3.2: To facilitate implementation, an agency can consider the following:

- The amount and type of training provided may vary depending on job classification or responsibility. Each agency needs to decide the level of training for their personnel.
- The skills of emergency response personnel can become rusty performing spill response tasks because (generally) there are not a lot of spills to respond to.

Therefore, as a rule, training should be provided more frequently (and documented in a training procedure or guideline) for procedures and tasks that are done infrequently and have a high consequence of failure.

The more often employees participate in training, drills, and exercises, the more likely it will be that everyone remembers what to do in case of an emergency. Therefore, the Training Plan should define the schedule for the training program.

- An effective training program includes a demonstrated ability and/or knowledge component.
- Suggested training program outlines:
  - Spill Response Personnel:
    - General Reissued WDR overview
    - Spill Emergency Response Plan, including:
      - Methods and strategies for estimating spill volume and volume recovered.
      - Methods and strategies for estimating spill start time and end time.

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<sup>9</sup> See Attachment D, Section 4.3 of [Reissued WDR](#) (page D-5)

- Drills, to simulate spill response activities (including training for service providers; some agencies require service providers to be trained as part of their contracting process).
  - Pertinent definitions (see Reissued WDR, Attachment A)
  - Spill categories.
  - Notification requirements (Cal-OES).
  - Monitoring requirements for spill location and spread and receiving water sampling.
  - Spill response documentation, including photo documentation.
- Data Submitters:
    - General Reissued WDR overview.
    - Attachment E1 – Notification, Monitoring, Reporting and Recordkeeping.
    - Reporting timelines
    - Data Entry for California Integrated Water Quality System (CIWQS)
  - Legally Responsible Officials (LROs)
    - General Reissued WDR, with focus on:
      - Prohibitions
      - Specifications
      - Attachment A – Definitions
      - Attachment D – Sewer System Management Plan (Sewer System Management Plan)
        - With attention on Spill Emergency Response Plan
      - Attachment E1 – Notification, Monitoring, Reporting and Recordkeeping.
      - Data Entry for California Integrated Water Quality System (CIWQS)

***NOTE:*** Staff should also be trained on all core competencies they perform, such as CCTV inspections, Hydro-Cleaning, lift station maintenance, including current available industry standards for inspection such as standards by the [National Association of Sewer Service Companies, NASSCO.](#)

## EFFECTIVENESS

**Guidance 4.3.3:** To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- Has all training been completed as scheduled?
- Have consistent records of training and attendance been consistently documented and maintained?
- Have all staff demonstrated ability and knowledge after each training event?

- Have contractors received, at a minimum, direction for:
  - Reporting spills (including process for spill notifications)
  - Implementing containment
  - Securing the site

## 4.4 Equipment Inventory

### REQUIREMENTS<sup>10</sup>

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

### COMPLIANCE

Guidance 4.4.1: To comply with this requirement, an agency can consider the following:

- Maintaining an inventory log that includes:
  - All equipment used in the maintenance, operation, and spill response for the collection system.
  - All spare parts needed for repair of assets.
    - Identify and include critical spare parts.
      - Items that *would cause the system or activities to shutdown if they failed.*
- Ensuring the locations of inventory items are well-known by the staff and are readily accessible.

### IMPLEMENTATION

Guidance 4.4.2: To facilitate implementation, an agency can consider the following:

- Develop an equipment inventory including all equipment used for maintenance, inspections, and emergency response procedures. This can be done utilizing a database, spreadsheet, or paper form.
- Periodic auditing of the agency’s inventory to ensure it is up to date.
  - Always document these efforts and include:
    - The name of the person (or outside consultant) performing/assisting with the inventory audit,
    - The date the audit was performed (and specified audit period),
    - Any change and documentation made to the spare/critical parts list and update(s) to Sewer System Management Plan Change Log.
- A critical spare part can be defined as anything that will shut down equipment or processes if it fails. Critical spare parts are a key component to an inventory that will reduce the impact of a failure.

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<sup>10</sup> See Attachment D, Section 4.4 of [Reissued WDR](#) (page D-5)

- EXAMPLES: transducers, floats or other control switches for lift/pump stations, radio, or power supplies for SCADA systems, fuses, and relays, pipe, and fittings for quick responses to gravity and force main failure, spare pump(s), including any specialty tool that equipment or process relies on.
- When developing this list, consider any emergency response equipment that is relied upon, such as:
  - Emergency response (e.g., bypass pump, portable generator, etc.), including providing appropriate contact number(s) if relying on mutual aid assistance from another agency(ies) or outside contractor(s).
- Critical spare parts should be clearly labeled, and personnel should be aware of their location and have access to facilitate a timely response.

#### EFFECTIVENESS

Guidance 4.4.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

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

## Supplemental Information – Element 4

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

- Develop an SOP for updating maps when errors are discovered.
- Develop and use forms (paper or electronic) for data collection to help ensure all pertinent information is consistently collected.
- Periodically evaluate inspection cycle intervals to help ensure they are optimized.
- Require staff to demonstrate ability and/or knowledge for all training activities.
- Monitor equipment and critical spare parts usage for and trends.

### ADDITIONAL RELATED SEWER SYSTEM MANAGEMENT PLAN REQUIREMENTS

In addition to the above guidance, an agency should also consider addressing the following related “Specifications” requirements in the Reissued WDR:

- **Specifications 5.19 (“Proper Operations and Maintenance”)**

### ADDITIONAL GUIDANCE

- See Appendix 4

### OPERATIONS/MAINTENANCE SUPPLEMENT

- See Appendix 5

### COMMON WDR VIOLATIONS

To help reduce potential violations for noncompliance, an agency should avoid the following common violations:

- ✓ Failure to establish process to ensure sewer maps are up to date.
- ✓ Failure to establish and review required maintenance program activities (CCTV, inspections, etc.)
- ✓ Failure to establish adequate training program for staff and contractors.
- ✓ Failure to establish equipment inventory including identification of critical spare part(s), including failure to update Sewer System Management Plan Change Log.
- ✓ Failure to change/adapt operations/maintenance program based on actual results/experience.

## Element 5 – Design and Performance Provisions

### 5.1 Updated Design Criteria and Construction Standards

#### REQUIREMENTS<sup>11</sup>

*“The Plan must include the following items as appropriate and applicable to the Enrollee’s system”.*

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

#### COMPLIANCE

Guidance 5.1.1: To comply with this requirement, an agency should consider ensuring:

- Confirm the agency has design standards and specifications.
- Periodically review existing agency design criteria, and construction standards and specifications to ensure industry best practices are considered.
- Confirm design standards address hydraulic capacity for both pipes and pump stations.

#### IMPLEMENTATION

Guidance 5.1.2: To facilitate implementation, an agency can consider the following:

- **Monitoring methods:** Establishing a red-lined copy of the agency’s standards with input from suggestions made by end-users (e.g., staff, contractors, engineers, and planners). Take note of any instances where the standards did not produce the best result.
- Requiring and reviewing warranty inspections to ensure outcomes were as intended.
- Staying abreast of industry best practices.
- **Review plan:** A good practice is to establish a review plan for the routine/periodic review which includes staff responsible for utilizing standards, specifications, and inspections. This is the time to address changes that have been suggested since the last update. Note: if an egregious error or omission is discovered, it should be addressed in a timely manner without delay.
- **Updating:** Updates should be documented, and a revision number and date should be maintained on the document. The prior version(s) should be collected, and the updated version should be distributed.

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<sup>11</sup> See Attachment D, Section 5.1 of [Reissued WDR](#) (page D-5)

- If portions of the collection system are experiencing surcharging during rain events, they should be evaluated and compared to what is expected.

#### EFFECTIVENESS

Guidance 5.1-3: To facilitate measuring effectiveness, an agency could develop Key Performance Indicators, such as:

- EXAMPLE: Does the agency implement its current design and construction standards, specifications, and inspection procedures? Measured by annual review of design and construction standards, specifications, and inspection procedures to ensure conformance to requirements.

## 5.2 Procedures and Standards

#### REQUIREMENTS<sup>12</sup>

*“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

Guidance 5.2.1: To comply with this requirement, an agency can consider the following:

- Ensure agency has procedures and standards for inspection and testing of newly constructed facilities and repaired and rehabilitated facilities.

#### IMPLEMENTATION

Guidance 5.2.2:

- It is recommended that inspectors be trained in the standards and inspection procedures and be qualified by a person with the requisite experience.

To facilitate implementation, an agency can consider the following:

- Review inspections records to ensure adherence to standards and specifications.
- Establish and implement a process for staying abreast of industry standards.

#### EFFECTIVENESS

Guidance 5.2.3: To comply with this requirement, an agency can consider the following:

Develop Key Performance Indicators, such as:

- Does the agency have a procedure for review of its standards and procedures?
- Were any design or installation deficiencies found during warranty inspections?
- Are hydraulic model findings included in the design process?

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<sup>12</sup> See Attachment D, Section 5.2 of [Reissued WDR](#) (page D-5)

- Does the agency stay abreast of industry design standards and technical advances in the industry?
- Are there procedures in place for when deviation from standard procedures and/or specs, testing, etc. is necessary?

## Supplemental Information – Element 5

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

- 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.

### ADDITIONAL RELATED SEWER SYSTEM MANAGEMENT PLAN REQUIREMENTS

In addition to the above guidance, an agency should also consider addressing the following related “Specifications” requirements in the Reissued WDR:

- **Specifications 5.19 (“Proper Operations and Maintenance”)**

### ADDITIONAL GUIDANCE (RECOMMENDATIONS FROM 2015 SEWER SYSTEM MANAGEMENT PLAN MANUAL)

- See Appendix 4

### COMMON WDR VIOLATIONS

To help reduce potential violations for noncompliance, an agency should avoid the following common violations:

- ✓ Failure to establish, implement, and maintain appropriate sewer standards and procedures for inspections, and testing.
- ✓ Failure to enforce instances of noncompliance.
- ✓ Failure to document and substantiate deviations from standards and procedures.

## Element 6 – Spill Emergency Response Plan

### REQUIREMENTS<sup>13</sup>

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

- *“Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner.”*
- *“Notify other 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.”*
- *“Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.”*

### COMPLIANCE

Guidance 6.1: To comply with this requirement, an agency can consider the following:

- Develop a Spill Emergency Response Plan and ensure the Spill Emergency Response Plan includes, at a minimum, procedures to address the requirements above,

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<sup>13</sup> See Attachment D. Section 6 of [Reissued WDR](#) (page D-6)

## IMPLEMENTATION

Guidance 6.2: To facilitate implementation, an agency can consider the following:

- Establish realistic response time goals and monitor emergency response performance. Develop a call-list for all appropriate contacts and ensure it is readily available to response staff.
- Periodically review contact information to ensure it is up to date.
- Ensure staff are familiar with Attachment E1 of the General Order.
- Provide training of the Spill Emergency Response Plan at least annually.
- Develop a training program for contractors that (at a minimum) includes requiring immediate notification to agency, providing direction for containment and recovery, for securing the spill site and protecting the public, and requiring contractors stay on site until agency response personnel arrive.
- Develop a plan to coordinate spill event activities with other agencies and support services, if applicable. Hold periodic meetings (with appropriate external agencies and/or mutual assistance partners) to ensure continuity of operations.
- Identify opportunities to establish mutual assistance agreements (formal/informal) with other agencies and periodically conduct drills to ensure availability.
- Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system. Ensure first response vehicles have some containment devices readily available for use upon arrival at the spill site. Ensure additional containment devices can be transported to the spill site in a timely manner. Train on containment and perform drills to ensure staff is competent.
- Recover as much of the spill as is possible and return to sewer system or other appropriate facility
- Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State. Make efforts to keep the spill footprint as small as possible. Cordon off the spill site to prevent people from getting into the area.
- Coordinate with law enforcement and/or fire department for assistance in large volume traffic areas or areas where there is risk to public health, if appropriate.
- Upon discovery of sewage discharge to a drainage conveyance system, locate an access point downstream of the entry point and block it to prevent discharge to surface waters. This may not be feasible during rain events. Use a hydro-vac to clean and retrieve sewage from the drainage conveyance system. For agencies that do not own a hydro-vac, consider using on-call emergency service agreements to support response efforts. As an alternate to the method described above, plug the first dry drainage conveyance system access point, or the last access point prior to discharge to the environment, flush with fresh water from the spill entry point, and pump the flush water from the plugged manhole back to the sewer system. Coordinate/communicate with drainage conveyance system owner for cleaning operations direction.

- Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters. For hard surfaces, broom, power wash or flush with fresh water, vacuum retrieve and return the water to the sewer system or dispose of it at a treatment plant or other appropriate facility. For soil or landscaped surfaces, clean and retrieve as much as practical, dilute the area with fresh water, and treat with disinfectant (ensure disinfectant is approved by local governing authority including local Regional Water Quality Control Board in advance; a best practice is after dilution/appropriate disinfection, waste material must be removed and cannot be left at the site to prevent it from becoming runoff).
- Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery. Use on-call services to assist with containment, if applicable. Use mutual aid agreements with neighboring agencies, if applicable. Use vacuum retrieval equipment, if available.
- Consider using level sensing technology to monitor flow conditions and receive advanced warning of surcharging conditions, preventing the spill and related containment efforts.
- Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event.
  - Before spills – Meet with drainage conveyance system owner to develop a plan for cleaning and sewage retrieval.
  - During spills – Implement the plan. Contact drainage conveyance system owner if circumstances are not addressed in the plan.
  - After spills – Perform periodic post-incident debriefs to evaluate effectiveness and make changes to the plan if necessary.
- Conduct post-spill assessments of spill response activities. Involve (at the least) staff that played a role in the response. Evaluate each spill event for adherence to the Spill Emergency Response Plan and for effectiveness. An example could be evaluating how well agency staff performed with spill recovery and cleanup operations for the event.
- Document and report spill events as required in this General Order. Develop data collection forms that include not only the fields in the California Integrated Water Quality System (CIWQS) database, but also data that supports assumptions and estimations. Ensure appropriate staff are familiar with reporting timelines and trained in data submitting, as required by the Reissued WDR.
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed. Review all Post-spill evaluations for trends and instances when the procedures did not produce the desired results. Ensure all contacts and contact information is up to date. Ensure any changes made are implemented. Maintain Sewer System Management Plan Change Log.
- Evaluate the need for adapting change management techniques based on review of spill events/results.

## EFFECTIVENESS

Guidance 6.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- **EXAMPLE:** Does the agency implement an effective Spill Emergency Response Plan? Measured by quarterly review, training/practice drills, and completion of field data collection forms for conforming with Attachment E1 requirements of the Reissued WDR. Measured by checking to ensure Post-Spill Assessment (and any necessary change management techniques if necessary) are being completed for every spill event.

## Supplemental Information - Element 6

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

- Provide training on a regular basis for all spill response staff. Training should include:
  - Determining spill start time and end time.
  - Determining spill volume and volume recovered (also required in Element 4).
  - Data collection (forms)
  - Containment, recovery and clean up (including training/drills, refer to Element 4).
  - CIWQS data submitting.
- Develop a training plan for service providers.
- Periodically review post-spill assessments for trends and identify areas for improvement.

### ADDITIONAL RELATED SEWER SYSTEM MANAGEMENT PLAN REQUIREMENTS

In addition to the above guidance, an agency should also consider addressing the following related “Specifications” requirements in the Reissued WDR:

- **Specifications 5.13 (“Notification, Monitoring, Reporting, Record Keeping Requirements”)**

### ADDITIONAL GUIDANCE

- See Appendix 4

### COMMON WDR VIOLATIONS

To help reduce potential violations for noncompliance, an agency should avoid the following common violations:

- ✓ Failure to develop and adapt a Spill Emergency Response Plan that meets all requirements.
- ✓ Failure to test/evaluate emergency procedures including deploying contracted services where necessary.
- ✓ Failure to adequately recover wastewater following a spill event.
- ✓ Failure to ensure supply of adequate critical/identified spare parts/equipment prior to spills.

- ✓ Failure to properly notify appropriate outside agencies/officials.
- ✓ Failure to conduct training/drills/skilled volume estimations for operators required in Attachment D.4.3
- ✓ Failure to maintain Spill Emergency Response Plan (annually) and note change in the Sewer System Management Plan Change Log.

## Element 7 – Sewer Pipe Blockage Control Program

### REQUIREMENTS<sup>14</sup>

*“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 prohibits discharges to the system and identifies measures to prevent spills and blockages.*
- *Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, best management practices requirements, recordkeeping and reporting requirements.*
- *Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the fats, oils, and grease ordinance.*
- *An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning schedule for each section; and*
- *Implementation of source control measures for all sources of fats, oils, and grease reaching the sanitary sewer system for each section identified above.”*

### COMPLIANCE

Guidance 7.1: To comply with this requirement, an agency can consider the following:

- Ensuring the agency has a pipe blockage control program (including necessary legal/enforcement authority) that addresses the system’s most common blockage-causing defects, such as roots, fats/oils/grease, wipes, etc.
- Schedules are kept for maintenance activities, such as gravity main cleaning, lateral cleaning/rodding, pump station maintenance, etc.
- Schedules are kept for inspection activities, such as grease interceptors, food service establishments, CCTV of gravity pipes, manholes, pump stations, etc.
- Monitoring findings from cleaning operations
- Enforcing maintenance requirements

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<sup>14</sup> See Attachment D, Section 7 of [Reissued WDR](#) (page D-7)

## IMPLEMENTATION

Guidance 7.2: To facilitate implementation, an agency can consider the following:

- An implementation plan and schedule for a public education and outreach program that promotes proper disposal of pipe-blocking substances:
  - Include door hangers, flyers, bill stuffers, newsletters, etc. with agency message.
  - Place agency message on its website.
  - Have a presence at community events to convey agency message.
  - Establish a schedule that lists the events, actions, and timelines.
- 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.
  - Utilizing hydro-vac vacuum retrieval to return water to the sewer system; dispose of debris at a treatment plant or appropriate facility. For agencies that do not own a hydro-vac, consider contracted services.
- A plan for handling grease
  - Review of the agency's legal authority that:
    - Prohibits discharges of fats, oil and grease to the system and identifies measures to prevent spills and blockages.
    - Prohibits illicit discharges; ensure agency ordinance or code address illicit discharges.
    - Ensures requirements in place for grease handling:
      - Installation of grease removal devices (such as traps or interceptors).
      - Design standards for the removal devices.
      - Maintenance requirements along with best management practices requirements.
      - Recordkeeping and reporting requirements.
      - If source control is performed by another agency or company, ensure all requirements are met.
  - Inspection of grease producing facilities:
    - Establishing/confirming the agency's grease enforcement authority.
    - Establishing whether the agency has sufficient staff to inspect and enforce the fats, oils, and grease ordinance.
  - Identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishing a cleaning schedule for each section where required.

- Implementation of source control measures for all sources of fats, oils, and grease reaching the sanitary sewer system for each section identified above.
- Review of gravity pipe inspection records to identify portions of the collection system experiencing grease build up or other pipe blocking defects.
- Estimate appropriate maintenance intervals.
- Once the intervals are established, when the line segment comes due for cleaning, a CCTV inspection is performed to determine if the section needs to be cleaned.
- Based on the CCTV inspection results, adjust the interval, if necessary, until the optimal interval is determined. Manhole monitoring devices can be used to monitor the flow through the upstream manhole of a problem line segment, which will help establish the optimal interval.

If the problem is related to a discharge from the food service establishment or other grease-discharging business, follow agency source control procedures to rectify the problem.

- Identify measures to prevent spills and blockages:
  - Identify problem areas in agency collection system, generally accomplished by CCTV inspection.
  - Establish appropriate maintenance and inspections intervals that allows for identification of problems and implementation of preventive measures. This is a challenging endeavor, and you can use your agency spill record to drive the maintenance interval.  
Generally speaking, a downward trending spill rate for maintenance defects would indicate an appropriate maintenance interval. Focus should be on portions of the collection system where the consequence of failure is high (e.g., high volume gravity mains and lift/pump stations).
  - Ensure the agency public outreach programs address pipe blocking items.

## EFFECTIVENESS

Guidance 7.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- Have there been any blockages/spills from any identified problem area?
- Is the agency receiving feedback on public outreach efforts?
- Is the debris and other sewage solids collected during cleaning activities being disposed of appropriately?
- Does the agency have a plan and schedule for inspection of grease producing facilities (and is schedule appropriate or require amendments)? Was the schedule adhered to?
- Have there been spills due to excessive fats, oil, grease, roots, or non-dispersible wipes discovered in the sewer system?

- Are there repeat offenders among FSEs? Are enforcement trends decreasing?
- Are Source Control staff included in the plan check process? Does the agency have a process to check/measure to ensure appropriate department(s) is/are provided the opportunity to engage in plan checks, including source control and collection system staff?

## Supplemental Information – Element 7

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

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

### ADDITIONAL GUIDANCE

- See Appendix 4

### COMMON WDR VIOLATIONS

To help reduce potential violations for noncompliance, an agency should avoid the following common violations:

- ✓ Failure to identify appropriate needs for pipe blockage program.
- ✓ Failure to ensure adequate pipe blockage control enforcement authority.
- ✓ Failure to enforce requirements for instances of noncompliance.

## Element 8 – System Evaluation, Capacity Assurance, Capital Improvements

### REQUIREMENTS

*“The Plan must include procedures and activities for*

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

### 8.1. System Evaluation and Condition Assessment

#### REQUIREMENTS

*“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 (check with your local Regional Water Quality Control Board for their latest lists).*
- *Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection methods.*
- *Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State.*
- *Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities,*
- *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

Guidance 8.1.1: To comply with this requirement, an agency can consider the following:

- Perform and document systematic inspections on all gravity pipes, manholes and lift/pump stations (including sub-assets of lift/pump stations), including force mains/ siphons, etc.
  - Include historic inspection records when performing the evaluation.
- To justify amount of system evaluated each year:
  - Evaluate past performance.  
Spill trends (trending up may indicate the inspection cycle is too long; trending down may indicate the appropriate interval).
  - Evaluate maintenance and repair efforts.  
Maintenance and repair trends (trending up may indicate asset performance is declining; trending down may indicate asset performance is stable or improving).
  - Evaluate the age of the system. Older assets tend to need more attention. Newly constructed or rehabilitated assets tend to need less attention. Use information detailed above (and more, if available) to provide an answer to the question “How do you know the return cycle is appropriate for your system?”
- Perform a system-wide vulnerability assessment to determine risk (the likelihood of failure and the consequence of failure)
- Prioritize condition assessment based on risk.
  - Identify high-risk assets, such as high flow volumes, locations near surface water or environmentally sensitive areas.
  - Locations in areas with restricted or seasonal access.
  - Locations with history of failure(s).
  - Rank and prioritize projects based on assigned risk value.
  - Develop a likelihood/consequence matrix for the agency’s system.

## IMPLEMENTATION

Guidance 8.1.2: To facilitate implementation, an agency can consider the following:

- Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system that can reasonably be expected to discharge into a water of the State.
- Identify the portions of the collection system with evidence of infiltration. If ground water is infiltrating the pipe, when the water table recedes, it is possible for sewage to exfiltrate (see section 3.24 of Reissued WDR for more information on exfiltration).
- Identify the portions of the collection system with evidence of breaks, cracks, and failing joints.
- Identify the portions of the collection system near surface water or environmentally sensitive areas. If the pipe is in good condition, without any of the above listed defects, the likelihood of exfiltration is very low.

## EFFECTIVENESS

Guidance 8.1.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- **EXAMPLE:** Has the agency assessed the collection system capacity-related problems? Measured by annual review of all inspection data (CCTV) including spill events where there was evidence of capacity issues, including periodic reviews of visual manhole inspection and flow/level sensor data during wet weather events.
- **EXAMPLE:** Has the agency reviewed/assessed lift/pump station inspection and condition assessment, air release valves (if applicable), force main conveyance system (if applicable) including alignment inspections/route walks?

## 8.2. Capacity Assessment and Design Criteria

### REQUIREMENTS<sup>15</sup>

*"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 contribute 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.
- Identify the major sources that contribute to the peak flows associated with sewer spills.

*The capacity assessment must consider:*

- *Data from existing system condition assessments, system inspections, system audits, spill history, and other available information.*
- *Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions.*
- *Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change.*
- *Increases of erosive forces in canyons and streams near underground and aboveground system components due to larger and/or higher-intensity storm events.*
- *Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events; and*
- *Necessary redundancy in pumping and storage capacities."*

### COMPLIANCE

Guidance 8.2.1: To comply with this requirement, an agency can consider the following:

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<sup>15</sup> See Attachment D, Section 8.2 of [Reissued WDR](#) (pages D-8 and D-9)

- Establish plans to abate major sources that contribute to the peak flows associated with sewer spills. This may include inflow and infiltration (I&I) and illicit connections/discharges (e.g., storm drain connected to the system).

Guidance 8.2.2: To comply with this requirement, an agency should:

- Look at the changes that have occurred and evaluate the collection system assuming the trends will continue. Consider how these potential issues will impact your collection system. This includes evaluating areas experiencing increased erosive forces and recommend potential mitigation strategies.
- Evaluate available technologies and strategies including redundancy with pumping, backup power generation, storage and other equipment deemed appropriate by the agency.
- Establish a timeline for completion of asset analysis.
  - Some endeavors may be challenging and costly. Timelines need to be established to address issues before they become problems.
  - A funding program will have to be formulated/developed and implemented.

Guidance 8.2.3: To comply with this requirement, an agency should consider the following:

- Pipes are sized to convey sewer flows today and into the future, based on factors such as historic and current flow rates zoning designations and anticipated buildout of development projects. In addition to these known and projected flows, the sewer system will receive storm water and ground water via inflow and infiltration.
- The pipe needs to allow for the additional flows. Below are considerations to determine the appropriate capacity.
  - Dry-weather peak flow conditions that cause or contribute to spill events. Is the system experiencing hydraulic deficiencies during dry weather peak flows?
  - The appropriate design storm(s) or wet weather events that causes or contributes to spill events. The design storm is a computerized event that is used to determine how the pipes will perform when storm flows are added to model. If the model suggests the pipes are appropriately sized and system surcharging occurs during storm events, then the selected design storm should be re-evaluated. Each agency is responsible to determine the appropriate design storm for their system.
  - The capacity of key system components. Key system component components include such things as large volume trunk or interceptor lines, large volume pump stations, facilities near surface waters, and retention basin(s) to handle peak flows.

## IMPLEMENTATION

Guidance 8.2.4: To facilitate implementation, an agency can consider the following:

- Develop and implement a system evaluation procedure to address all the above requirements.

## EFFECTIVENESS

Guidance 8.2.5: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- **EXAMPLE:** Develop a hydraulic model that determines pipe capacity requirements for current system and future (30-year buildout used for this example only).
  - Number of capacity-related spills or surcharge condition during the audit period?
  - Has the system responded to rain events as indicated by the hydraulic model?
  - Has there been any changes to zoning designations (residential, commercial, industrial)?
  - Rain event trends: Has there been changes in rain event occurrences, intensity, and duration?
  - Has the system experienced more inflow/infiltration than predicted/expected that may require an update to existing flow data/studies to consider abatement of new sources?

## 8.3. Prioritization of Corrective Actions

### REQUIREMENTS<sup>16</sup>

*“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

Guidance 8.3.1: To comply with this requirement, an agency can consider the following:

- Develop and implement a system corrective action procedure to address all the above requirements.

### IMPLEMENTATION

Guidance 8.3.2: To facilitate implementation, an agency can consider the following:

- Utilize all available data for prioritizing corrective actions considering severity/consequences of potential spills relying on data obtained in sub-element 8.1-8.2 above.
- Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities. Documentation may include CCTV records, manhole inspection records, lift/pump station inspection records, hydraulic model updates.

## EFFECTIVENESS

Guidance 8.3.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- **EXAMPLE:** Has the agency adhered to its system evaluation/condition assessment efforts? Measured by annual review and update of system inspections/evaluations procedures.

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<sup>16</sup> See Attachment D, Section 8.3 of [Reissued WDR](#) (page D-9)

- EXAMPLE: Has the agency adhered to its prioritization/corrective actions for sewer repair and capacity improvement projects? Measured by annual review and agency prioritization/corrective actions procedures.

## 8.4 Capital Improvement Plan

### REQUIREMENTS<sup>17</sup>

*“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.*
- *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

Guidance 8.4.1: To comply with this requirement, an agency can consider the following:

- Develop and implement a system capital improvement plan to address all the above requirements.

### IMPLEMENTATION

Guidance 8.4.2: To facilitate implementation, an agency can consider developing the following:

- Develop a capital improvement plan that lays out financing and timing for projects within both the short-term (within the next 2-3 years) and long-term (within the next 5-10 years).
- Joint coordination between operation and maintenance staff should be ensured depending on the agency, including coordination between engineering staff, consultants, and operations staff during all phases of planning, design, and construction for all capital improvement projects, Interagency coordination with other impacted utility agencies.
- For portions of the system with defects and/or capacity issues identified in sections 8.1-8.3 above, develop a capital improvement plan (CIP) and/or a repair and replace (R&R) plan to address all defects and/or capacity issues.
- Capital project schedules should be included, along with anticipated completion dates for all portions of the capital improvement program. Timelines can and should be adjusted based on changing priorities. However, reasons for deviation from the plan should be documented.
- Internal and external project funding sources must be identified for each project (refer to Attachment D, Section 8.4). Funding for large, unexpected projects can be a burden on budgets and reserves. Having foresight and resourcing money today for tomorrow’s project is key to the timely completion of the project.
- Holding regular coordination meetings that include all providers and stakeholders helps to keep the project on track and resolve issues that may arise in a timely manner.

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<sup>17</sup> See Attachment D, Section 8.4 of [Reissued WDR](#) (page D-9)

## EFFECTIVENESS

**Guidance 8.4.3:** To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- **EXAMPLE:** Has the agency's capital improvement plan been adhered to?
- Is there an annual review of the Capital Improvement Plan by all necessary individuals including both Engineering and Operations?

## Supplemental Information – Element 8

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

### ADDITIONAL RELATED SEWER SYSTEM MANAGEMENT PLAN REQUIREMENTS

In addition to the above guidance, an agency should also consider addressing the following related "Specifications" requirements in the Reissued WDR:

- **Specifications 5.6 ("System Resilience")**
- **Specifications 5.10 ("System Capacity")**

### ADDITIONAL GUIDANCE

- See Appendix 4

### COMMON WDR VIOLATIONS

To help reduce potential violations for noncompliance, an agency should avoid the following common violations:

- ✓ Failure to develop and implement system evaluation, capacity assurance, and capital improvement programs.
- ✓ Failure to identify sections holding high degree of environmental consequences if vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies.
- ✓ Failure to identify system sections located in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas.
- ✓ Failure to identify assets within the vicinity of receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List.
- ✓ Failure to develop and implement capital improvement plan (CIP) for necessary sewer system repairs and improvements (short term and long-term).
- ✓ Failure to include input from field staff regarding known system problems.
- ✓ Failure to document changes and reason(s) for changes in Sewer System Management Plan Change Log.

## Element 9 – Monitoring, Measurement, Program Modifications

### REQUIREMENTS<sup>18</sup>

*“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

Guidance 9.1: To comply with this requirement, an agency can consider the following:

- Develop an adaptive management program to address implementation and assess effectiveness of system operations and performance.
- Address findings from most recent audit.
- Implement an Adaptive Management process that facilitates decision making in the face of uncertainty.
- Maintain relevant system performance and spill information at all levels of the sewer program in a way that can be practically evaluated.
- Monitor historic spill and system performance trends.
- Monitor work program effectiveness and adapt or adjust as necessary, document changes in most recent agency internal audit.
- The Agency must incorporate the findings from its most recent audit. This includes specific actions, steps, projects, and schedules for addressing necessary improvements needed, including planned commitments before the next agency audits and Sewer System Management Plan updates are due.

### IMPLEMENTATION

Guidance 9.2: To facilitate implementation, an agency can consider the following:

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<sup>18</sup> See Attachment D, Section 9 of [Reissued WDR](#) (page D-9)

- Maintaining relevant information and historical presentation, including audit findings, to establish and prioritize activities.
  - Systematic collection of data and storage of data in a manner that it is readily available for analysis is paramount. Storing data in a database is optimal for reporting and data analysis. Storing the data on paper in large volume is cumbersome and difficult to analyze.
- Monitoring the implementation and measuring the effectiveness of each plan element.
- This can be accomplished by:
  - Developing Key Performance Indicators for all Plan elements to help measure effectiveness.
  - Periodic Sewer System Management Plan review meetings to ensure that the plan is being carried out, ensuring staff specified in Element 2 are included/documentated in reviews.
  - Graphing historical system performance and spill performance results to assist with evaluating effectiveness (and comply with Attachment D, Section 9).
- Assessing the success of the preventive operation and maintenance activities.

Measuring actual outcomes against intended outcomes can be facilitated by annual review of the Sewer System Management Plan goals and objectives. (Caution – An agency’s goal could be to reduce spills, and one of the objectives to accomplish the goal is to inspect (CCTV) 20% of the system each year. Hitting the mark inspecting 20% of the system may not be the right measure if the objective of inspecting (CCTV) 20% of the system is not appropriate based on an increase in an agency’s spill rate.)

- Updating Plan procedures and activities, as appropriate, based on results of monitoring and performance evaluations.
- The Sewer System Management Plan is required in Attachment D to be a “living document,” which means it is continually edited and updated (and edits maintained/included in the Change Log). Periodic review is the key. Periodic Sewer System Management Plan review meetings are recommended for ensuring the Plan is being implemented and carried out.
- Identifying and illustrating spill trends, including spill frequency, locations, and estimated volumes. As previously stated, maintaining data in a manner that can be reviewed and evaluated makes the data more valuable ([see Specifications 5.11, Agency Spill Performance Report](#)).
- If an Enrollee has jurisdiction over any portion of sewer laterals, tables, or graphs can separate the lateral spills from mainline spills to normalize data and allow for more accurate comparisons with other Enrollees Common Violations (from the [2015 Guidance Manual](#))

## EFFECTIVENESS

Guidance 9.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

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

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

## Supplemental Information – Element 9

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

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

### ADDITIONAL RELATED SEWER SYSTEM MANAGEMENT PLAN REQUIREMENTS

In addition to the above guidance, an agency should also consider addressing the following related “Specifications” requirements in the Reissued WDR:

- **Specifications 5.11 (“System Performance Analysis”)**

### ADDITIONAL GUIDANCE

- See Appendix 4

### COMMON WDR VIOLATIONS

To help reduce potential violations for noncompliance, an agency should avoid the following common violations:

- ✓ Failure to collect/maintain and evaluate relevant data for monitoring, measuring, and assessing preventive maintenance program effectiveness.
- ✓ Failure to update/modify agency Sewer System Management Plan based on results from internal audits and evaluate/adapt data required for this element.
- ✓ Failure to document changes in Sewer System Management Plan Change Log.

## Element 10 – Internal Audits

### REQUIREMENTS<sup>19</sup>

*“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.”*

- Specifications 5.4 (Sewer System Management Plan Audits”)

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

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

### COMPLIANCE

Guidance 10.1: To comply with this requirement, an agency can consider the following:

- Consider the size and complexity of an agency’s collection system in crafting the scope of its audits.
  - Audits can be performed by agency staff or by utilizing consultants.
    - If performed in-house, consider utilizing staff from different departments to help ensure objectivity.
- Ensure the audit addresses compliance, implementation, and effectiveness of all elements of the Sewer System Management Plan.

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<sup>19</sup> See Attachment D, Section 10 of [Reissued WDR](#) (page D-10)

- **Compliance:** (The act of meeting regulations) This Ensure all elements and sub-elements are addressed. Full compliance is the goal.
- **Implementation:** (Putting the Plan into effect): To properly implement the plan, the agency should be performing as described in the plan. In other words, the agency must “do what they say they would do.”
- **Effectiveness:** (The degree to which the desired result was achieved). Each element, and in some cases the sub elements in the Sewer System Management Plan needs to be evaluated for effectiveness. Key Performance Indicators (KPIs) and historical performance results should be utilized to address effectiveness.

## IMPLEMENTATION

Guidance 10.2: To facilitate implementation, an agency can consider the following:

- At a minimum, an audit must evaluate the agency’s compliance, Sewer System management implementation, and its effectiveness in preventing spills.
- Identify Sewer System Management Plan deficiencies in addressing ongoing (meaning spill continue to occur) spills and discharges to waters of the State. If established goals are not being met and outcomes are not as intended, then the Sewer System Management Plan is deficient, at least in part.
- Once the audit findings have been determined, distribute findings to operations staff; allow ample time for review; and hold a meeting to discuss and document outcomes of discussion.
- Include findings, recommended corrective actions, input from collection system operations staff, and a proposed schedule to address identified deficiencies.

Identify necessary modifications to the Sewer System Management Plan to correct deficiencies.

- The Enrollee submits a complete audit report in CIWQS that includes:
  - Agency Sewer System Management Plan audit findings and recommended corrective actions. Findings and recommended corrective actions should be formalized in a table or report.
  - A statement that sewer system operators’ input on the audit findings has been considered.

## EFFECTIVENESS

Guidance 10.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- 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?
- Were all past Sewer System Management Plan internal audit findings and schedules met and incorporated into Sewer System Management Plan update?
- Was the Sewer System Management Plan Change Log regularly maintained, as necessary?

## Supplemental Information – Element 10

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

- Periodically evaluate key performance indicators to assess effectiveness of each Plan element.
- Evaluate previous audit to ensure deficiencies have been rectified.
- Calendar the audit due dates and complete the audit on time.
- Prepare for announced/unannounced compliance inspections by regulators and be proactive with preparing all required audits by completing the State Water Board Pre-Inspection Questionnaire (see Appendix 6). Agencies wishing to be proactive by viewing an example Water Board inspection report assessing compliance against the Reissued WDR can find a publicly-available example [here](#). As an additional reminder, agencies need to plan ahead and be diligent to avoid violations for failure to complete Pre-Inspection Questionnaires (if requested by the Water Boards) or complete Audits on time. Attachment E1 (section 3.10) requires an agency to update CIWQS and notify its Regional Water Board if an Audit is not completed as required by the Reissued WDR.

### ADDITIONAL RELATED SEWER SYSTEM MANAGEMENT PLAN REQUIREMENTS

In addition to the above guidance, an agency should also consider addressing the following related “Specifications” requirements in the Reissued WDR:

- **Specifications 5.4 (“Sewer System Management Plan Audits”)**

### ADDITIONAL GUIDANCE

- See Appendix 4

### COMMON WDR VIOLATIONS

To help reduce potential violations, an agency should avoid the following common violations:

- ✓ Failure to conduct routine Sewer System Management Plan audits at a minimum frequency of every three years.
- ✓ Failure to measure Sewer System Management Plan element effectiveness (a simple checklist will not fulfill this obligation). (For specific examples of self-audit compliance/noncompliance, visit the following link: [https://bacwa.org/wp-content/uploads/2011/12/BACWA\\_SSMP-Audits\\_OE\\_ppt-12-08-11.pdf](https://bacwa.org/wp-content/uploads/2011/12/BACWA_SSMP-Audits_OE_ppt-12-08-11.pdf))
- ✓ Failure to implement identified deficiencies/recommendations and commit to new enhancements via a plan/schedule (short and long-term).
- ✓ Failure to upload and certify the audit report in CIWQS, notify the appropriate Regional Water Board for instances where Audits were not performed, or timelines met, or certify/upload an Audit Report as required.

## Element 11 – Communication Program

### REQUIREMENTS<sup>20</sup>

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

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

### COMPLIANCE

Guidance 11.1: To comply with this requirement, an agency can consider the following:

- Developing communication procedures to ensure adequate public communication for sewage spills that resulted in closure of public areas or impacted drinking water sources, and during the Plan development, implementation, and updates.
- Developing communication procedures to ensure adequate communication with system owners/operators connecting to the agency’s collection system for related operations, maintenance, and capital improvement activities.

### IMPLEMENTATION

Guidance 11.2: To facilitate implementation, an agency can consider the following:

- Communicating with the public for spills and discharges resulting in closures of public areas or that enter a drinking water source.
  - Post signs informing people to remain out of the affected area, agency name and contact information should be included.
  - Cordon off the affected area to the extent feasible.
  - If the risk to public health is high, station personnel to ensure nobody enters the affected area.
  - Communicate with the public, as needed.
- There are various ways to communicate with the public. All agencies provide notice for board or council meetings. When the Sewer System Management Plan is updated and approved by the governing entity, there will be an opportunity for public comment.
- Public outreach is an opportunity to communicate with the public (including property owners, contractors, plumbers, and food service establishments) about consumer items that contribute to pipe blocking and the importance of immediate notification to agency for sewer problems. Include information on such things as: kitchen best practices, what not to flush, sewer problem notification procedures (“Call Us First.”)

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<sup>20</sup> See Attachment D, Section 11 of [Reissued WDR](#) (page D-10)

- Post the Sewer System Management Plan on the agency website and invite comment. Issue newsletters or mailers informing the public anytime an action is taken, it is a public record.
- Satellite agencies and privately-owned systems that discharge to your system must be aware of your agency sewer use requirements. The agency sewer use code or ordinance should be distributed to satellite and private discharges. Agencies should hold periodic meetings (e.g., annually) to discuss any issues and ensure compliance as a discharger, including review of necessary emergency response procedures for responding to and mitigating spills.
- There are times when the service charge rates must be increased, which can cause adverse reactions from the agency's customers and can sometimes result in poorly received publicity. The Sewer System Management Plan can be a tool to explain and demonstrate what is involved in operating a sewage collection system.

### EFFECTIVENESS

Guidance 11.3: To facilitate measuring effectiveness, an agency should develop Key Performance Indicators, such as:

- Does the agency place all Sewer System Management Plan action items on the agenda for regular counsel/board meetings?
- Does the agency have signage, or other means, readily available to notify the public of environmental or public risk factors related to a sewage spill?
- Does the agency regularly communicate/document interactions with other systems connected to an agency's sewer system?
  - Does communication include emergency response contact information, pre-storm preparations, mutual aid agreements, etc.?
- Was the public afforded the opportunity to provide input as the program was being implemented?
- Does the agency perform outreach to residential customers?

## Supplemental Information – Element 11

### RESILIENCE

To provide resilience for this element, an agency should consider identifying or developing resilience indicators, such as:

- Use the Sewer System Management Plan as a tool to communicate with the public how the agency is managing the system.
- Maintain a consistent presence with the public in the service area by attending community events or issuing periodic newsletters or other communications to the public.
- Make it clear and easy for the public to contact the agency and review the Sewer System Management Plan and appropriate supporting documents.

### ADDITIONAL GUIDANCE

- See Appendix 4

### COMMON WDR VIOLATIONS

To help reduce potential violations for noncompliance, an agency should avoid the following common violations:

- ✓ Failure to develop and implement a public communication program, especially during emergencies.
- ✓ Failure to solicit input on Sewer System Management Plan content.
- ✓ Failure to communicate with owners/operators of sewer system(s) connected to the agency's sewer system.
- ✓ Failure to document how communications were performed.
- ✓ Failure to regulatory communicate and document communications with stormwater conveyance system owners within agency service area.

## **LIST OF APPENDICIES**

- APPENDIX 1 – Key Regulatory Changes for Sewer System Management Plan Development
- APPENDIX 2 – Change Log/Annual Compliance Checklist
- APPENDIX 3 – State Water Board Staff Presentations on 2022 WDR
- APPENDIX 4 – 2015 Sewer System Management Plan Manual Summary
- APPENDIX 5 – Operations and Maintenance Program Supplement
- APPENDIX 6 – State Water Board Pre-Inspection Questionnaire (version 4)
- APPENDIX 7 – References and Common Industry Acronyms

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

2006 WDR (rescinded)	2022 WDR (current)	2022 Changes	Summary of Key 2022 WDR Changes
1. Goal <a href="#">Provision D.13(i)</a>	1. Goal and Introduction <a href="#">Att. D-6, Spec. 5.2</a>	Many	<ul style="list-style-type: none"> <li>• Implementation of SSMP as “living document.”</li> <li>• Enforcement of development, update, and implementation.</li> <li>• Narratives for regulatory context, assets, updated sewer map(s).</li> </ul>
2. Organization <a href="#">Provision D.13(ii)</a>	2. Organization <a href="#">Attachment D-6, Spec. 5.1</a>	Few	<ul style="list-style-type: none"> <li>• Name of Legally Responsible Official.</li> <li>• Enhanced details on LRO training and experience requirements.</li> </ul>
3. Legal Authority <a href="#">Provision D.13 (iii)</a>	3. Legal Authority <a href="#">Attachment D-6</a>	Few	<ul style="list-style-type: none"> <li>• Collaboration with storm drain agencies; easement accessibility agreements.</li> </ul>
4. O/M Program <a href="#">Provision D.13 (iv)</a>	4. O/M Program <a href="#">Attachment D-6</a>	Many	<ul style="list-style-type: none"> <li>• Procedures for maintaining/providing Water Board access to sewer map(s)</li> <li>• Enhanced training/WDR, drills/skilled vol. est., CIWQS reporting; scheduling system in place.</li> </ul>
5. Design and Performance Provisions <a href="#">Provision D.13 (v)</a>	5. Design and Performance Provisions <a href="#">Attachment D-6</a>	Few	<ul style="list-style-type: none"> <li>• Few changes.</li> </ul>
6. Overflow Emergency Response Plan <a href="#">Provision D.13 (vi)</a>	6. Spill Emergency Response Plan <a href="#">Attachment D-6</a>	Many	<ul style="list-style-type: none"> <li>• Numerous upgrades to notification, monitoring, reporting, record keeping, definitions.</li> <li>• Staff/contractor requirements for implementation, removing/cleaning sewage from drainage conveyance systems not impacting beneficial uses/receiving waters.</li> <li>• Coordination/collaboration with storm drain agencies (prior, during, after) spills.</li> <li>• Post-spill assessments, annual assessment, implement containment tech/practices.</li> <li>• Requires annual certification in Annual Report that plan is up-do-date.</li> </ul>
7. Fats, Oils, and Grease Control Program <a href="#">Provision D.13 (vii)</a>	7. Sewer Pipe Blockage Control Program <a href="#">Attachment D-6</a>	Few	<ul style="list-style-type: none"> <li>• Plan/schedule for pipe-blocking substances.</li> <li>• Commercial controls/authority to inspect, “hot spot” program, source controls.</li> </ul>
8. System Evaluation and Capacity Assurance Plan <a href="#">Provision D.13 (viii)</a>	8. System Evaluation, Capacity Assurance, and Capital Improvements <a href="#">Attachment D-6</a>	Many	<ul style="list-style-type: none"> <li>• Implementation of capital improvements.</li> <li>• Identify/justify and prioritize specific system areas (high env. consequences/areas, new surface waters, steep terrain, high groundwater, near surface waters), exfiltration, recordkeeping enhancements, assets vulnerable to climate impacts.</li> <li>• More information for capacity assessments, inspections, audits.</li> <li>• Capacity of flood-prone systems subject to inflow/infiltration.</li> <li>• Increases in erosive forces, pumping redundancy, prioritization of corrective actions.</li> </ul>

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

2006 WDR (rescinded)	2022 WDR (current)	2022 Changes	Summary of Key 2022 WDR Changes
			<ul style="list-style-type: none"> <li>Enhanced coordination (operations/maintenance/engineering, other utilities).</li> </ul>
9. Monitoring, Measurement, and Program Modifications <a href="#">Provision D.13 (ix)</a>	9. Monitoring, Measurement, and Program Modifications <a href="#">Attachment D-6</a>	Few	<ul style="list-style-type: none"> <li>Adaptive management/implementation effectiveness (Key Performance Indicators)</li> <li>Update plan procedures/activities based on monitoring/performance evaluations.</li> </ul>
10. SSMP Audits	10. Internal Audits <a href="#">Attachment D-6</a>	Few	<ul style="list-style-type: none"> <li>Completed every 3 years (vs. every 2 years), input from operators, and cert/upload/LRO.</li> </ul>
11. Communication Program <a href="#">Provision D.13 (xi)</a>	11. Communication Program <a href="#">Attachment D-6</a>	Few	<ul style="list-style-type: none"> <li>Enhanced communications procedures (public/owners/operators connected to sewers).</li> </ul>

2006 WDR (rescinded)	2022 WDR (current)	2022 Changes	Summary of Key 2022 WDR Changes
Legally Responsible Official	Designation of LRO Spec. 5.1 (pg. 18)	Major	<ul style="list-style-type: none"> <li>Legally Responsible Official must have authority to ensure compliance, authority over management of the entire sewer system, and authorized to make managerial decisions governing operations, capital improvements, and ensuring long-term environmental compliance.</li> <li>Legally Responsible Official must possess recognized degree/certificate for O/M of sewer systems and/or professional training and experience demonstrated through extensive knowledge, training, and experience.</li> </ul>
SSMP Development and Implementation <a href="#">Provision D.11 (pg. 9)</a>	SSMP Development and Implementation <a href="#">Spec. 5.2 (pgs. 18-19)</a>	Major	<ul style="list-style-type: none"> <li>Agencies must develop and implement an SSMP (ensuring adequate funding/management, matching size, scale and complexity, procedures for management, operation, maintenance, prioritization of system repairs and maintenance, implementation of current standard industry practices through available equipment, technologies, and strategies)."</li> </ul>
Certification of System Management Plan + Updates <a href="#">Provision D.14 (pg. 15)</a>	Certification of SSMP and Updates <a href="#">Spec. 5.3 (pg. 19)</a>	Major	<ul style="list-style-type: none"> <li>Legally Responsible Official must certify/upload SSMPs to CIWQS.</li> </ul>
SSMP Internal Audits <a href="#">Provision D.13(x) (pg. 14)</a>	SSMP Development and Update <a href="#">Spec. 5.4 (pgs. 19-20)</a>	Minor	<ul style="list-style-type: none"> <li>Audits of SSMPs <u>every 3 years</u> (vs. every 2 years under 2006 WDR).</li> <li>Within 6 months after the end of the required 3- year Audit period, the agency Legally Responsible Official shall submit the Audit report into the online CIWQS database per requirements of section 3.10 of Attachment E1 of the Reissued WDR). Audit reports will only be viewable publicly in CIWQS by Water Board staff.</li> <li>Audits must : 1) be sized/scaled to system, 2) evaluate implementation and effectiveness of SSMP in preventing spills, 3) identify necessary modifications to SSMP for correcting deficiencies, and 4) include a proposed schedule for correcting</li> </ul>

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

2006 WDR (rescinded)	2022 WDR (current)	2022 Changes	Summary of Key 2022 WDR Changes
			deficiencies.
SSMP Updates <a href="#">Provision D.14 (pg. 15)</a>	Six-Year SSMP Update <a href="#">Spec. 5.5 (pgs. 21)</a>	Minor	<ul style="list-style-type: none"> <li>Agencies must update their SSMPs and include a summary of revisions based on Audit findings <u>every 6 years</u> (vs. every 5 years under 2006 WDR).</li> </ul>
N/A	System Resilience <a href="#">Spec 5.6 (pg. 22)</a>	N/A	<ul style="list-style-type: none"> <li>Agencies must include and implement system-specific procedures to proactively prioritize O/M, condition assessments, and repair/rehabilitation.</li> </ul>
Notif, Monit, Report., Records <a href="#">2013-0058-EXEC</a>	Notif, Monit, Report., Records <a href="#">Attachment E1</a>	Major	<ul style="list-style-type: none"> <li>Numerous changes throughout; adds one new spill category (Category 4); new reporting requirements for systems with enrollee-owned laterals.</li> </ul>
Collection System Questionnaire	Annual Report	Minor	<ul style="list-style-type: none"> <li>Streamlined (fewer) reporting fields; requires uploading of spill performance charts; includes options for adding comments and/or attaching doc(s) to elaborate on answers.</li> </ul>
N/A	Sanitary Sewer System Service Area Boundary Map	Major	<ul style="list-style-type: none"> <li>New requirements (Specifications 5.14) for uploading an electronic boundary map (required between July1 to Dec 31, 2025, for all continuing enrollees).</li> </ul>
N/A	Pre-Insp. Questionnaire	Major	<ul style="list-style-type: none"> <li>Requires agencies to provide pre-inspection information to State and Regional Water Board staff through the completion of a Questionnaire (see Provisions 6.4.2).</li> </ul>



## ANNUAL COMPLIANCE CHECKLIST (Reissued WDR)

Target Date	Due Date	Action Items (CY2024-2025)	Completion Date
Jan 2024	Due FEB 1, 2024	Cat 4 / Non-Cat 1 Laterals Spills (<50 gallons)	<input type="checkbox"/> _____
March 2024	Due APRIL 1, 2024	SERP (review/update prior to completing Annual Report)	<input type="checkbox"/> _____
March 2024	Due APRIL 1, 2024	Annual Report (draft/final/ upload by LRO)	<input type="checkbox"/> _____
May 2024	Due JUNE 5, 2024	SERP (annual review/assess effectiveness/update)	<input type="checkbox"/> _____
2024	Check SWRCB Website with WDID	SSMP 3-Year Audit (initiate audit/draft report)	<input type="checkbox"/> _____
2024/2025	Check SWRCB Website with WDID	SSMP 3-Year Audit (final report/certify/upload by LRO)	<input type="checkbox"/> _____
2025/2026	Check SWRCB Website with WDID	2025 SSMP Update (initiate review/draft new SSMP)	<input type="checkbox"/> _____
2025/2026	Check SWRCB Website with WDID	2025 SSMP Update (final report/certify/upload by LRO)	<input type="checkbox"/> _____
Jan 2025	Due FEB 1, 2025	Cat 4 / non-Cat 1 Laterals Spills (<50 gallons)	<input type="checkbox"/> _____
March 2025	Due APRIL 1, 2025	SERP (review/update prior to completing Annual Report)	<input type="checkbox"/> _____
March 2025	Due APRIL 1 2025	Annual Report (draft/final/ upload by LRO)	<input type="checkbox"/> _____
May 2025	Due JUNE 5, 2025	SERP Annual Review/assess effectiveness/update	<input type="checkbox"/> _____
July 2025 – Dec 2025	Due DEC 31, 2025 (continuing enrollees)	Electronic Sanitary Sewer System Service Area Boundary Map	<input type="checkbox"/> _____

# *Newly-Reissued* Statewide Sanitary Sewer Systems General Order *Effective June 5, 2023*

Diana Messina, P.E., Regulatory Manager  
State Water Resources Control Board

April 26, 2023 Roseville Training Event



Statewide Sanitary Sewer Systems General Order

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## *Today's Regulatory Presentations*

*Initial 15 minutes – Address information overload*



### December 2022

- The State Water Board reissued the Statewide Sanitary Sewer Systems General Order in its entirety
- Order becomes effective on June 5, 2023
  - *Everything is not due on June 5th*
- Walk-thru Upcoming Compliance Items for Existing Enrollees
  - Due prior to June 5, 2023
- Overview of Longer-term Compliance

*Sit back, listen, ask questions, provide your examples.  
Copy of presentation will be made available to all attendees*



Statewide Sanitary Sewer Systems General Order

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## Today's Regulatory Presentations

### Later Presentation Get into the weeds with needed clarification



- **“Regulatory Basics”**
- **Overview of the Reissued Order**
  - To understand the high-level changes and increased enforceability
  - To understand the Order Organization - Identifying Critical Sections
- **Why the Spill Emergency Response Plan is a Short-term compliance item?**
- **Examine approaches to the expanded Legally Responsible Official Designation**
- **Open Question and Answer Forum**

*Sit back, listen, ask questions, provide your examples.  
Copy of presentation will be made available to all attendees*



Statewide Sanitary Sewer Systems General Order

## Short-Term Compliance Due Dates For Existing Enrollees



<b>April 5 – June 4, 2023</b> (60-day window)	Item 1: Electronic Continuation of Regulatory Coverage to Reissued Order	Current Legally Responsible Official Certifies in California Integrated Water Quality System (CIWQS)
<b>June 5, 2023</b>	Reissued Order is In Effect 2006 and 2013 Orders are rescinded	
<b>Due by June 5, 2023</b>	Item 2: Existing SSMP must be uploaded into CIWQS Item 3: Spill Emergency Response Plan must be updated for implementation Item 4: All Spill Reporting per Reissued Order Item 5: Legally Responsible Official per Reissued Order	



Statewide Sanitary Sewer Systems General Order

## Short Term Compliance

April 5 – June 4, 2023



### Item #1: Electronic Continuation of Regulatory Coverage to Reissued Order

**IMPORTANT!!!**

90 and 60-day Notices issued to all LROs in CIWQS records

Staff available today to assist an LRO in continuing coverage today!

Please spread the word to other agencies!

If missed:

- Full loss of regulatory coverage starting June 5th until a full application package is submitted and approved
- Potential enforcement for no coverage
  - (Note – compliance records are now electronic)

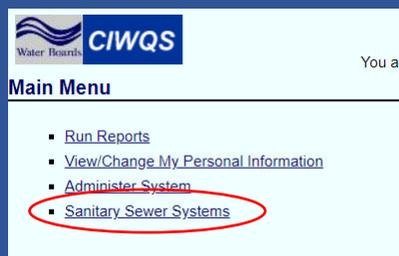


5

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## To Certify Continuation of Existing Regulatory Coverage (Available since April 5th in CIWQS)

Current Legally Responsible Official logs into established CIWQS account



6

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## To Certify Continuation of Existing Regulatory Coverage (Available since April 5th in CIWQS)

- [Collection System Annual Report](#)   
Pertinent information regarding your collection system.
- [Sewer System Management Plan Update](#)   
Certify Sewer System Management Plan completion
- [Reporting New Spill](#)   
Submit Individual Spill Reports.
- [Reporting New Private Lateral Sewage Discharge](#)   
Submit Individual Private Lateral Sewage Discharge Reports.

Continuation of Existing Regulatory Coverage Certification  
(must be completed by June 4, 2023)

7

7

## To Certify Continuation of Existing Regulatory Coverage

Regional Board:    
 Agency:    
 Sanitary Sewer System:    
 WQID:  

Name:	SSS Multiple
Title:	Legally Responsible Official
Email:	sss@nester.gov
As the designated Legally Responsible Official, I certify under penalty of perjury under the laws of the State of California that to the best of my knowledge and belief:	
<input type="checkbox"/> 1) The sanitary sewer system I officially represent, listed above, is continuing regulatory coverage from Order 2006-0003-DWQ to Order 2022-0103-DWQ, and 2) The information submitted in this Continuation of Existing Regulatory Coverage form is <a href="#">true, accurate and complete</a> . I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.	
<a href="#">Sanitary Sewer Systems General Order 2022-0103-DWQ</a>	
In what city did you meet your spouse/significant other?	<input type="text"/>
Please enter your password:	<input type="password"/>

[Multiple Users](#) [System Admin](#) [System Information](#)

Data Submitter Name(s)	CWQS User ID	Email Address	Phone Number	Agency	Sanitary Sewer System Name
Last Sewer System Management Plan Required Update Due Date : 2019-08-02      Last Annual Report (previously called Collection System Questionnaire) Updated : 2022-01-26 Next Sewer System Management Plan Update Due Date : 2025-08-02      Next Annual Report Due Date : 2024-04-01					

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## Confirmation Message and Email Continuation of Existing Regulatory Coverage

- [Collection System Annual Report](#)   
Pertinent information regarding your collection system.
- [Sewer System Management Plan Update](#)   
Certify Sewer System Management Plan completion
- [Reporting New Spill](#)   
Submit Individual Spill Reports.
- [Reporting New Private Lateral Sewage Discharge](#)   
Submit Individual Private Lateral Sewage Discharge Reports.

2023-04-26 10:07:45 [LRO Name] certified that the [Enrollee Name] is continuing regulatory coverage from General Order 2006-0003-DWQ to General Order 2022-0103-DWQ

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## Short Term Compliance by June 5, 2023

Item #2: Existing Sewer System Management Plan (aka SSMP)  
must be uploaded into CIWQS

(If files size too big – insert link to online SSMP)



10

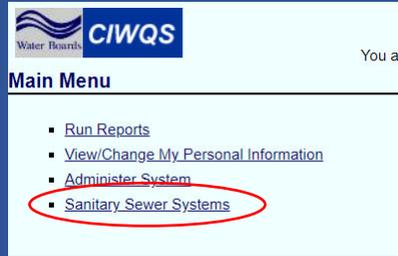
10



# Uploading Existing Sewer System Management Plan

Available since April 5th in CIWQS

Current Legally Responsible Official logs into established CIWQS account



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# Upload Existing Sewer System Management Plan documents

Available since April 5th in CIWQS

 A screenshot of the CIWQS web application interface. On the left side, there is a list of menu items:
 

- Collection System Annual Report [?] - Pertinent information regarding your collection system.
- Sewer System Management Plan Update [?] - Certify Sewer System Management Plan completion
- Reporting New Spill [?] - Submit Individual Spill Reports.
- Reporting New Private Lateral Sewage Discharge [?] - Submit Individual Private Lateral Sewage Discharge Reports.

 On the right side, there is a notification box with a red border containing the following text:
 

2023-04-26 10:07:45 [LRO Name] certified that the [Enrollee Name] is continuing regulatory coverage from General Order 2006-0003-DWQ to General Order 2022-0103-DWQ

Existing Sewer System Management Plan Upload  
(must be completed by June 4, 2023)

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# Upload Existing Sewer System Management Plan documents

**Sanitary Sewer Systems General Order – Sewer System Management Plan (Plan)**

Regional Board: Region 8 - Santa Ana  
 Agency: Cucamonga Valley Water District  
 Sanitary Sewer System: Cucamonga Valley WD CS  
 WDID: 8SSO11383

**Upload Sewer System Management Plan (multiple documents may be uploaded)**

File Name *	Document Type *	Date of Document * [?]	File Description *
<input type="button" value="Choose File"/> No file chosen			
<input type="button" value="Add New Row"/>			

*Select "Upload", do not select "Update"*

If the electronic document format or size capacity prevents the electronic upload of the Plan, insert an electronic link to the Plan posted on the Enrollee's website.

Plan URL: [https://www.cvwwater.com/DocumentCenter/View/3926/CVWD\\_SSMP\\_2020upd4](https://www.cvwwater.com/DocumentCenter/View/3926/CVWD_SSMP_2020upd4)

Plan Upload Date: 04/25/2023

Plan Uploaded by: Robert Koczko

Plan Upload Note: Two previous documents uploaded

In what city did you meet your spouse/significant other? [?]

Password Verification: \*

(Check the box below to certify)

I certify under penalty of perjury under the laws of the State of California that to the best of my knowledge and belief, the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

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## Short Term Compliance by June 5, 2023

Item #3: Spill Emergency Response Plan must be updated and implemented

*(Not required to be submitted to CIWQS)*

CALIFORNIA WATER BOARDS  
State Water Resources Control Board

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## Short Term Compliance by June 5, 2023



Item #4: Legally Responsible Official Designation in CIWQS per expanded qualifications in reissued Order

### *Questions for Audience*

*How many LROs here today?*

*How many LROs have viewed if they meet expanded qualifications in reissued Order?*

*How many enrollees here have concern that they will not be able to comply with the new LRO qualifications?*



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## Longer Term Compliance

*(preparation is key)*



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## Preparing for Longer-Term Compliance

February 1, 2024  April 1, 2024	Annual Reporting of Cat 4 and Lateral Spills  First Annual Report Submittal with 10-year performance graph	<ul style="list-style-type: none"> <li>• Annual Report replaces existing Questionnaire</li> </ul>
2024 or 2025	End of Audit Period  Audit Reports due 6 months later	<ul style="list-style-type: none"> <li>• Audit to identify gaps in SSMP</li> <li>• Audit Report to be Uploaded into CIWQS</li> </ul>
July – Dec 2025  2025 or 2026	Service Area Boundary Map  Sewer System Management Plan Update	Both to be uploaded into CIWQS  Updated Plan w/ additional system-specific elements required in Attachment E



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## More Details

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In next presentation



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*Diving Deeper Into the  
Newly-Reissued*  
**Statewide Sanitary Sewer Systems  
General Order**  
*Effective June 5, 2023*

Welcome back!  
Diana Messina, P.E., Regulatory Manager  
State Water Resources Control Board



April 26, 2023 Roseville Training Event

Statewide Sanitary Sewer Systems General Order

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*This Presentations*  
*Get into the weeds with needed clarification*

- **“Regulatory Basics”**
- **Overview of the Reissued Order**
  - High-level changes and increased enforceability
  - Navigating through the Order - Identifying Critical Sections
- **Why Spill Emergency Response Plan is a critical Short-term compliance item?**
- **The expanded Legally Responsible Official Designation**
- **Open Question and Answer Forum**



*Sit back, listen, ask questions, provide your examples.  
Copy of presentation will be made available to all attendees*



Statewide Sanitary Sewer Systems General Order

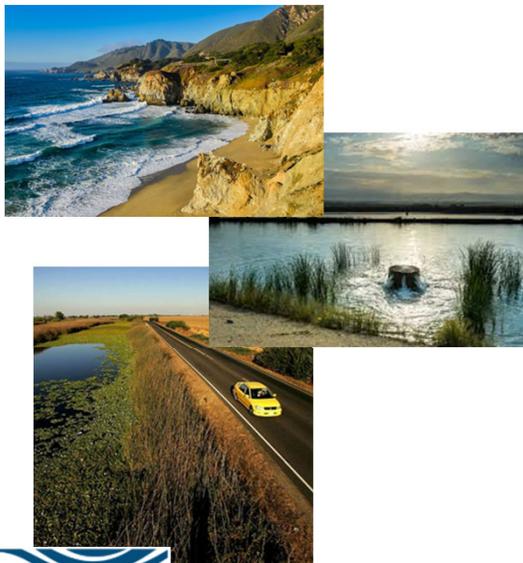
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## Regulatory Basics

- The Clean Water Act*
- The California Water Code*
- The State Water Resources Control Board*
- The Nine Regional Water Quality Control Boards*



Federal

## The 1972 Clean Water Act (CWA)

1972 - Congress enacted the Clean Water Act

- *The primary federal law governing water quality*
- *To address pollution in the nation's waters and tributaries.*
- *Prohibits discharge of pollutants to a waters of the United States except as authorized by an NPDES permit*




# What is a Water of the United States?

A surface waterbody with deemed national importance to the United States:

- Oceans, rivers, streams, lakes, creeks, marshes, wetlands, vernal pools, etc.
- Considered "jurisdictional" under the Clean Water Act
- In the regulatory jurisdiction of the United States Army Corps of Engineers (USACE)



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# Is a Dry Waterbody a Water of the United States?

Yes. A waterbody that is deemed a water of the U.S. is a water of the U.S. whether or not surface flow exists (surface and subsurface flow)



Many surface waters are hydrologically connected to shallow groundwater

Groundwater feeds surface water when levels are high

Surface water flows feed groundwater when groundwater levels are low

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More examples of Waters (waterbodies) of the United States, regardless of visible flow

Federal

CALIFORNIA WATER BOARDS

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## California Water Code (WC)

**State**

*State regulations that regulates pollution discharges to our Waters of the State.*

Surface waters

- Pacific Ocean
- Rivers, streams and creeks
- Manmade infrastructure conveying natural flows,
- Vernal pools, marshes and wetlands,
- Washes and Sloughs
- Lagoons and Estuaries
- Other

Waters of the U.S. (federal surface waters) are a subset of Waters of the State

Groundwater

Statewide Sanitary Sewer Systems General Order

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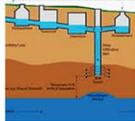
26




### How would a sewage spill enter groundwater?

1. Through engineered infrastructure specifically designed to maximize infiltration of stormwater






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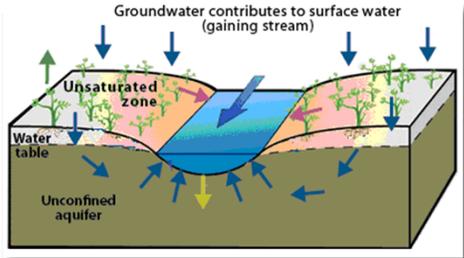
27

### How would a sewage spill enter groundwater?

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2. Through a hydrologically connected surface water body

- A gaining stream
- A losing stream



Groundwater contributes to surface water (gaining stream)

The diagram shows a cross-section of the ground with an 'Unconfined aquifer' and an 'Unsaturation zone'. A 'Water table' is indicated. Blue arrows show water flowing from the aquifer into a stream, while red arrows show water flowing from the stream into the aquifer.



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## What are the State Water Resources Control Board and Nine Regional Water Quality Control Boards




**10 Governor-appointed Boards established by the Water Code**

The State Water Board

- Regulates statewide water quality, water rights and drinking water

The Nine Regional Water Boards

- Regulate water quality within own region (primary watershed)
- Enforce State Water Board statewide Orders




Statewide Sanitary Sewer Systems General Order

## Nine Regional Water Quality Control Boards

- Nine Regional Water Boards
  - Regulate water quality within own region (primary watershed)
  - Enforce Statewide Orders and their Regional Water Board Orders
    - Per 2017 State Water Board Enforcement Policy




Statewide Sanitary Sewer Systems General Order

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## How are Sewage Spills Regulated? *Per Water Code Authority*



- State Water Board adopts statewide Waste Discharge Requirements (WDRs or General Order)
- Nine Regional Water Boards enforce the statewide Order

- In 2006

STATE ~~WATER RESOURCES CONTROL~~ BOARD  
 ORDER NO. 2006-0003-DWQ  
 STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

*Item 8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.*


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## How are Sewage Spills Regulated? *Per Water Code Authority*



- In 2008

- In 2013

STATE OF CALIFORNIA  
 STATE WATER RESOURCES CONTROL BOARD  
 ORDER NO. WQ 2008-0002-EXEC  
 ADOPTING AMENDED MONITORING AND REPORTING REQUIREMENTS FOR STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

STATE OF CALIFORNIA  
~~WATER RESOURCES CONTROL~~ BOARD  
 ORDER NO. WQ 2013-0058-EXEC  
 AMENDING MONITORING AND REPORTING PROGRAM FOR STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

*Item 10. Based on over six years of implementation of the SSS WDRs, the State Water Board concludes that the February 20, 2008 MRP must be updated to better advance the SSO Reduction Program objectives, assess compliance, and enforce the requirements of the SSS WDRs.*


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## State Water Board Reissued the Statewide Order Regulating Sewage Spills



- Dec 2022

STATE WATER RESOURCES CONTROL BOARD  
1001 I Street, Sacramento, California 95814  
ORDER WQ 2022-0103-DWQ  
STATEWIDE WASTE DISCHARGE REQUIREMENTS  
GENERAL ORDER FOR SANITARY SEWER SYSTEMS

### Section 3. Findings addressing, at minimum:

- Water Code Authority to protect waters of the State and their beneficial uses
- Need for Proactive System Management
- Protection of our Drinking Water Supply
- Climate Change Impacts on Infrastructure and Regulatory Programs
- Human Right to Water for all Californians
- Open and accessible data



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## Reissued Statewide Waste Discharge Requirements (General Order)



- Dec 2022

STATE WATER RESOURCES CONTROL BOARD  
1001 I Street, Sacramento, California 95814  
ORDER WQ 2022-0103-DWQ  
STATEWIDE WASTE DISCHARGE REQUIREMENTS  
GENERAL ORDER FOR SANITARY SEWER SYSTEMS

### *Continues Existing Regulatory Structure of 2006 Order*

- Effective on June 5, 2023
- 2006 and 2013 Orders currently still in effect
- On June 5, 2023:
  - The 2006 and 2013 Orders are rescinded (no longer in effect)
  - Re-issued Order supersedes the 2006 and 2013 Orders



Statewide Sanitary Sewer Systems General Order

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## Reissued Statewide Waste Discharge Requirements (General Order)

The reissued Order is not a new Order:

- Continues regulating the same type of public systems plus private systems, as applicable
- Updates the 17-year-old statewide Order to:
  - Clarifies existing Water Code authority:
    - Addresses spills to waters of the State (surface and groundwater)
    - Addresses climate change impacts on a system-specific level
  - Reduces some spill reporting frequencies
  - Extend audit and planning periods



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## 16-year Evolution: 2006 - 2022



### Focus of 2006 Order

- Clean Water Act
  - Spills to waters of the United States
- Spill Reports
- Development of a Sewer System Management Plan (SSMP)

### Expanded Focus of Reissued Order

- Clean Water Act **and Water Code**
  - Spills to waters of the **States** (includes waters of the U.S.)
- Spill Reports
- Development **and effective implementation** of SSMP
- **Emphasize on "system-specific"**
- **Long-term system resiliency**
- **Adaptability of utility management to address changing impacts**



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## Enhanced Enforceability

Reissued Order requires:

- Full electronic reporting into CIWQS
  - Spill Reports
  - Audit Reports
  - Sewer System Management Plans
- Enhanced Legally Responsible Official qualifications
- Enhanced Penalty of Perjury clause in CIWQS when electronically submitting reports

STATE WATER RESOURCES CONTROL BOARD  
 1001 I Street, Sacramento, California 95814  
 ORDER WQ 2022-0103-DWG  
 STATEWIDE WASTE DISCHARGE REQUIREMENTS  
 GENERAL ORDER FOR SANITARY SEWER SYSTEMS

*Regional Boards will have  
 electronic CIWQS reports of  
 non-compliance*

*Goal – public transparency of sewer system compliance*



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## High-level Order Changes



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High-level  
*Administrative  
Changes*  
in  
Re-Issued Order

- Structure of Order – One document
- Streamlined transfer of existing Enrollee enrollment
- Expanded scope for regulating privately-owned systems (Regional Boards discretion)
  - Clarification for federally-owned facilities
- Enhanced qualifications for Legally Responsible Official
  - To certify compliance with entire Order



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High-level  
*Regulatory  
Changes*  
in  
Re-Issued Order

- Clarified definition of “Spill”
 

*A discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow, operational failure, and/or infrastructure failure.*
- Clarified prohibition of sewage to a surface water unless properly cleaned up and reported
- Prohibition of sewage to waters of the State (Full implementation of Water Code compared to only waters of the U.S.)



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## Additional SSMP Elements

3

**High-level  
System  
Management  
Changes  
in  
Re-Issued Order**

- Emphasis on:
  - Implementation of effective SSMP
  - Effective Emergency Spill Responses to minimize sewage to waters of the State
  - Examination of system-specific climate change impacts to proactively address causes of future spills
  - Problem system areas identified by condition assessment data and previous spill information
  - Further source control for wipes, rags, debris and other causes of blockage
- Prioritization of capital improvement projects based on data from condition assessments, past spills, etc.

*Note – SSMP Element subjects did not change  
SSMPs do not need to be re-written*



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**High-level  
Notification  
and  
Monitoring  
Changes  
in  
Re-Issued Order**

- 2-hour CA Office of Emergency Service notification of Category 1 and 2 Spills (>1000 gallons)
- Water quality monitoring within 18 hours of knowledge of spill
- Enhanced data collection of spill observations
- Clarified receiving water monitoring for >50,000 gallon spills to surface waters
- Use of Environmental Laboratory Accreditation Program (ELAP)-certified lab for sample analysis



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High-level  
*Reporting  
Changes*  
in  
Re-Issued Order

- Full electronic reporting in CA Integrated Water Quality System (CIWQS) for compliance determination
  - Existing Sanitary Sewer Management Plan
  - Individual spill reports
  - Future Audit Reports
  - Sewer System Management Plan Updates
- Reduced reporting frequency of small spills and of spills from agency-maintained laterals
- Annual Report (in place of questionnaire)
  - Includes system-specific spill performance graphs for Enrollee to report system performance
- Longer periods between audits and sewer system management plan updates



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## *General Order Organization*

### *Identifying Critical Sections*



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# General Order Organization

Informational

Sections for information and clarification only

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5. Specifications .....	18
6. Provisions.....	27
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Attachment B – Application for Enrollment .....	B-1
Attachment C - Notice of Termination.....	C-1
Attachment D – Sewer System Management Plan – Required Elements .....	D-1
Attachment E1 – Notification, Monitoring, Reporting and Recordkeeping Requirements.....	E1-1
Attachment E2 – Summary of Notification, Monitoring and Reporting Requirements.....	E2-1
Attachment F – Regional Water Quality Control Board Contact Information .....	F-1

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# General Order Organization

Critical sections containing compliance requirements for Enrollees

Important to understand and implement

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*For clarification of terms*

*For quick reference*

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## Let's look at Section 4. Spill Prohibitions

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## Section 4. Prohibitions

- 4.1. Any sewage discharge that has the potential to discharge to surface waters unless promptly cleaned up and reported.



### Not all spills violate a Prohibition

An effective Spill Emergency Response and coordination with storm drainage agency:

- May capture and cleans up entire spill –
  - Eliminating a violation of prohibition
  - Eliminating basis for 3<sup>rd</sup> party CWA lawsuit
- May minimize amount of sewage to receiving water
  - Potential reduction in monitoring and enforcement



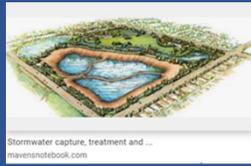
Note – a municipal storm conveyance system is (typically) not a surface water

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## Section 4. Prohibitions

4.2. Any sewage discharge directly or indirectly through a drainage conveyance system or other route, to waters of the State.



Importance of coordination with local storm drainage agency:

- Know where your spill is going
  - Spills to dedicated groundwater recharge is not a violation of Prohibition 4.1
  - Avoid erroneous report of spill as a federal violation
  - Eliminate potential basis for 3<sup>rd</sup> party CWA lawsuit

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## Section 4. Prohibitions

4.3. Any sewage discharge that creates a nuisance or condition of pollution.



See definition in Attachment A

**Nuisance:** For the purpose of this General Order, a nuisance, as defined in Water Code section 13050(m), is anything that meets all of the following requirements:

- Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property...;
- Affects at the same time an entire community or neighborhood, or any considerable number of persons...;
- Occurs during, or as a result of, the treatment or disposal of wastes.

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# Overview of Section 5. Specifications

## Table of Contents

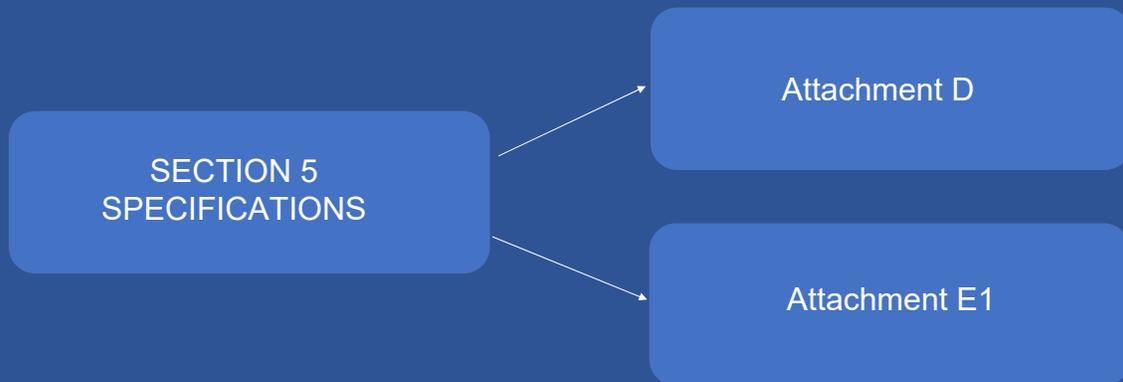
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# Section 5 – Provides all Requirements Attachments D and E1 - Provide Requirement Details



*Be very familiar with these sections*

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Statewide Sanitary Sewer Systems General Order

*Quick Overview of*  
**Section 5. Specifications**

- 5.1 & 5.8: Designation of a Legally Responsible Official and Data Submitters
- 5.2 - 5.5: Sewer System Management Plan and Audit requirements
- 5.6: System Resilience
- 5.7: Allocation of Resources
- 5.9: Reporting Certification under penalty of perjury
- 5.10: System Capacity
- 5.11: System Performance Analysis (running 10-year)
- 5.12.: Spill Emergency Response Plan and Remedial Actions
- 5.13: Spill-specific Notification, Monitoring, Reporting and Recordkeeping Requirements (including Spill Categories)
- 5.14: Electronic Boundary Map
- 5.15 - 16: Voluntary Reporting
- 5.17-10: Other

**IMPORTANT!!!**  
*Implementation is "system-specific" (find/count)*

## Be familiar with Updated Spill Categories in Section 5.13.

### Category 1

Any volume of sewage that discharges to:

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

### Category 2

A spill of 1,000 gallons or greater that does not discharge to a surface water.

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## Updated Spill Categories in Section 5.13., continued

*(Existing Category 3 separated for reduced reporting of small spills)*

### 2006 Order

#### Category 3

A spill of less than 1000 gallons, that does not discharge to a surface water.

### Reissued Order (2022-0103-DWQ)

#### Category 3

A spill equal to or greater than 50 gallons, and less than 1000 gallons, that does not discharge to a surface water.

#### Category 4

A spill of less than 50 gallons that does not discharge to a surface water.

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## Notifications, Monitoring, Reporting and Recordkeeping Requirements

- Attachment E1: Contains all detailed requirements per Categories  
*(fully replaces 2013 Order)*
- Attachment E2: Summary of Spill-specific Requirements
- *Five Tables for Quick Reference - with section reference to Attachment E1*

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## Back to Short-Term Compliance Due Dates

### Upcoming Compliance Dates for Existing Enrollees

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Statewide Sanitary Sewer Systems General Order

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## Focus on Short-Term Compliance



<p><b>April 5 – June 4, 2023</b> (60-day window)</p>	<p>✓ Item 1: Electronic Continuation of Regulatory Coverage to Reissued Order</p>	<p>Current Legally Responsible Official Certifies in CIWQS</p>
<p><b>June 5, 2023</b></p>	<p>Reissued Order is In Effect 2006 and 2013 Orders are rescinded</p>	
<p><b>Due by June 5, 2023</b></p>	<p>✓ Item 2: Existing SSMP must be uploaded into CIWQS Item 3: Spill Emergency Response Plan must be updated for implementation Item 4: All Spill Reporting into CIWQS per Reissued Order, Attachment E1 Item 5: Legally Responsible Official per Reissued Order</p>	



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## Short Term Compliance by June 5, 2023



Item #3: Spill Emergency Response Plan must be updated and implemented

*(Not required to be submitted to State Water Board)*



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## Spill Emergency Response Plan



Must be updated annually to address for prompt detection and response to spills

- Notification of primary responders, regulatory agencies and affected entities
- Coordination with storm drain agencies and other utility agencies
  - Spill containment to prevent/minimize discharge to waters of the State
  - Appropriate clean up per drainage agency standards (and per NPDES permit)

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## Spill Emergency Response Plan



Must address:

- Notification to CalOES, as applicable
- Spill clean up and documentation
- Monitoring and reporting requirements per Spill Category (Attachment E1)
- Collection of spill information for prevention of future spills
- Post-spill assessment of spill response activities
- Other – See Section 6 of Attachment D

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## Why Emergency Response Plan must be Updated Now (although a part of the SSMP)

- A quick effective response:
  - Can prevent a violation of one or more prohibitions
  - Will reduce spill volume to surface waters
  - May prevent sampling requirements
- Local utility agency coordination is a must-have
  - Immediate access to drainage conveyance system
  - Advanced coordination provides immediate action to block and clean up spill
  - Knowing if drainage leads to groundwater infiltration or retention prevents erroneously Category 1 spill reporting
- Documentation provides defense from a 3rd party lawsuit
  - Sewage discharges to groundwater are not a federal violation
- Have an Environmental Laboratory Accreditation Program (ELAP) laboratory



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## Short Term Compliance by June 5, 2023



### Item #4: Legally Responsible Official Designation in CIWQS

#### Attachment A: Definitions

*A Legally Responsible Official is an official representative, designated by the Enrollee, with authority to sign and certify submitted information and documents required by this General Order.*

- Spill Reports -
- Annual Reports (showing system performance) -
- Audit Reports -
- Sewer System Management Plans -



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## Section 5.1: Legally Responsible Official Designation

The Legally Responsible Official must:

- Have the authority to ensure Enrollee complies with the Order
- Serve as the duly authorized representative



The Legally Responsible Official must:

- Have responsibility over management of the Enrollee's entire sanitary sewer system
- Be authorized to make managerial decisions that govern the operation of the system
  - Including implicit or explicit duty of making major capital improvement recommendations to ensure long-term compliance
- Have direct authority over individuals that:
  - Possess a degree or certificate related to operations and maintenance of sanitary sewer systems, and/or
  - Have professional training and experience related to the management of sanitary sewer systems



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## Why the Expansion of the Legally Responsible Official Qualifications

### Expanded LRO Qualifications

- Have responsibility over management of the Enrollee's entire sanitary sewer system
- Be authorized to make managerial decisions that govern the operation of the system
  - Including making capital improvement recommendations for long-term compliance
- Have direct authority over degreed, certified, experienced, trained system personnel

### Expanded Focus of Reissued Order (beyond spill reporting)

- Development **and effective implementation** of SSMP
- **Long-term system resiliency**
- **Adaptability of utility management to address changing impacts**
- **Emphasize on "system-specific"**

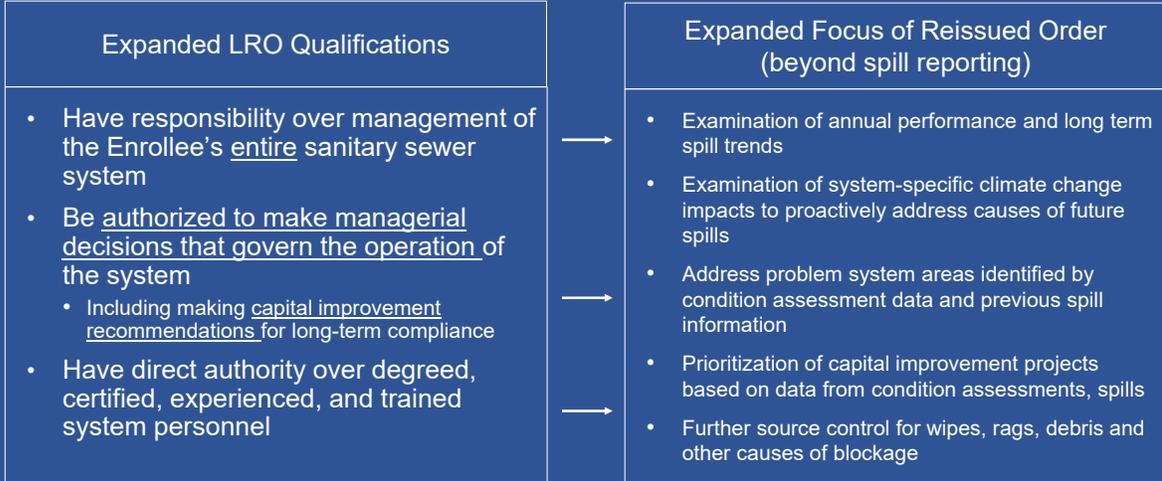


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# Why the Expansion of the Legally Responsible Official Qualifications

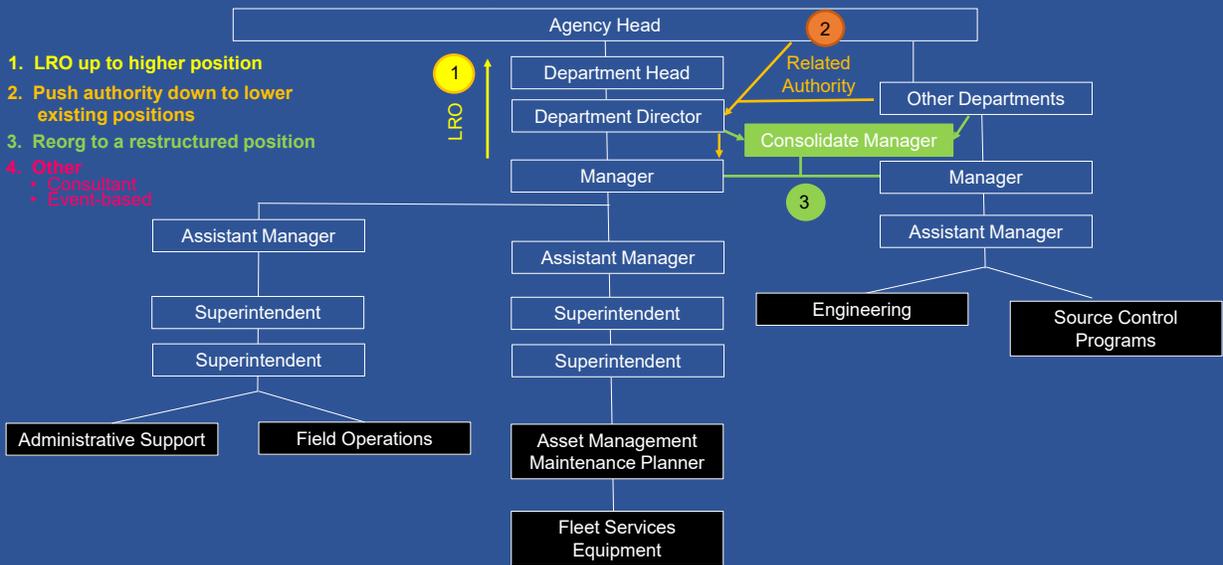
*In Greater Detail*



# Examining Potential [Regulation-driven] Options for Legally Responsible Official Designation

*Example Organizational Chart for Discussion Purposes*

- LRO up to higher position**
- Push authority down to lower existing positions**
- Reorg to a restructured position**
- Other**
  - Consultant
  - Event-based





## Longer Term Compliance

*(preparation needed for upcoming due dates)*



## Longer-Term Compliance

February 1, 2024 April 1, 2024	Annual Reporting of Cat 4 and Lateral Spills First Annual Report Submittal	Annual Report replaces Questionnaire
2024 or 2025	End of Audit Period Audit Reports due 6 months later	<ul style="list-style-type: none"> <li>• Audit to identify gaps in SSMP</li> <li>• Audit Report to be Uploaded into CIWQS</li> </ul>
2025 or 2026 July – Dec 2025	Sewer System Management Plan Update Service Area Boundary Map	<ul style="list-style-type: none"> <li>• Updated Plan w/ additional system-specific elements required in Attachment E</li> <li>• Both to be uploaded into CIWQS</li> </ul>



## Plan Audit Due Dates for Existing Enrollees

Population that Served as Basis for Initial SSMP Due Date	Required Plan Audit Due Dates per Order 2006-0003-DWQ						End of current 3-year Audit period*
> 100,000	5/2/2011	5/2/2013	5/2/2015	5/2/2017	5/2/2019	5/2/2021	5/2/2024
100,000 to 10,000	8/2/2011	8/2/2013	8/2/2015	8/2/2017	8/2/2019	8/2/2021	8/2/2024
10,000 to 2,500	5/2/2012	5/2/2014	5/2/2016	5/2/2018	5/2/2020	5/2/2022	5/2/2025
< 2,500	8/2/2012	8/2/2014	8/2/2016	8/2/2018	8/2/2020	8/2/2022	8/2/2025

\* The Audit Report is due within six months after the end of the required 3-year audit period.

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## Sewer System Management Plan Update Due Dates for Existing Enrollees

Population that Served as Basis for Initial SSMP Due Date	Original Required Plan Due Date	Required Plan Update Due Date	Required Plan Update Due Date	Upcoming (6-year) Plan Update Due Date
> 100,000	5/2/2009	5/2/2014	5/2/2019	5/2/2025
100,000 to 10,000	8/2/2009	8/2/2014	8/2/2019	8/2/2025
10,000 to 2,500	5/2/2010	5/2/2015	5/2/2020	5/2/2026
< 2,500	8/2/2010	8/2/2015	8/2/2020	8/2/2026

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# Sewer System Management Plan Crosswalk

Attachment D of General Order

Enrollee-specific Audit (2024 or 2025) to identify gaps for Plan Update (2025 or 2026)

Existing General Order	Reissued General Order
1. Goal	1. Sewer System Management Plan Goal and Introduction
2. Organization	2. Organization
3. Legal Authority	3. Legal Authority
4. Operations and Maintenance Program	4. Operation and Maintenance Program
5. Design and Performance Goals	5. Design and Performance Provisions
6. Overflow Emergency Response Plan	6. Spill Emergency Response Plan
7. Fats, Oils, and Grease (FOG) Control Program	7. Sewer Pipe Blockage Control Program
8. System Evaluation and Capacity Assurance Plan	8. System Evaluation, Capacity Assurance and Capital Improvements
9. Monitoring, Measurement, and Program Modifications	9. Monitoring, Measurement and Program Modifications
10. Sewer System Management Plan (SSMP) Program Audits	10. Internal Audits
11. Communication Program	11. Communication Program

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# Electronic Service Area Boundary Map

To be submitted between July – Dec 2025



- Detailing the boundary of the Enrollee’s service area
- Mapping specifications on State Water Board program webpage by June 5, 2023
- The Legally Responsible Official shall submit the geospatial data:
  - Starting July 1, 2025, and no later than December 31, 2025

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## Training and Customer Assistance taking place statewide...



- Water Board staff will continue to assist in professional training of regulations:
  - California Water Environment Association
    - Develop and deliver cost-effective interactive online trainings
  - Order implementation workshops
- Looking to Consultants and Industry associations to
  - Develop guidance documents
  - Conduct Order implementation training events
  - Assist Enrollees to stay in ongoing compliance

Statewide Sanitary Sewer Systems General Order

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# Thank you

Waterboards California  
[https://www.waterboards.ca.gov/water\\_issues/programs/ssol/](https://www.waterboards.ca.gov/water_issues/programs/ssol/)

SanitarySewer@waterboards.ca.gov

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### **ELEMENT 1 (Goal)**

*“An Enrollee should develop a single comprehensive goal or several broad goals that reflect the Enrollee’s commitment to all aspects of the sanitary sewer system and are unique to the infrastructure and performance of the Enrollee. These Goals should speak directly to the enhanced performance and protection of the environment from the effects of SPILLS. These goals should reflect the Enrollee’s operating philosophy, should be implementable, and should be supported by the monitoring and measurement metrics included in Element 9 of the SSMP. Generally, Enrollees should select one or more goals appropriate to the Enrollee, which it considers to be adequate to meet the regulatory requirements of the SSS WDR.”*

### **ELEMENT 2 (Organization)**

*“The intent of the Organization element is to identify persons, by name, responsible for implementing the SSMP, responding to SPILL events, and meeting the SPILL reporting requirements, including drafting, and certifying reports and providing other information required by the CIWQS Online Database.”*

### **ELEMENT 3 (Legal Authority)**

*“An Enrollee can use its applicable legal authority to require system users and customers to meet performance standards, maintain user-owned assets such as laterals, and pay penalties for non-compliance with Enrollee regulations. The legal authority can also be used to specify what assets are the responsibility of the Enrollee or private users and customers, and to specify the amount and process for issuing penalties for violations of the Enrollee ordinances and agreements. The specific type of legal authority available to Enrollees varies significantly depending on the legal designation of the Enrollee - for example, sanitary district, wastewater district, utility district, general purpose city, charter city - since State law differs for these various entities.”*

### **ELEMENT 4 (Operations and Maintenance)**

- *“An Enrollee should carefully evaluate the information to be included in the SSMP to assure that they are following those processes or procedures, and that they are not creating responsibilities that the field crew or office staff is not capable of achieving.*
- *Maintain up-to-date maps i) Field crews can be consulted and asked to note errors or discrepancies*
- *Describe operation and maintenance activities of staff and outside service contractors*
- *Describe schedules at a high level for regular maintenance and more frequent cleaning (“hot spots”)*
- *Document/schedule regular inspections with utilization of data driving O/M and capital activities*
- *Identify and prioritize system deficiencies and implement system for ratings/rankings with focus on system vulnerabilities and risks*
- *Implement “Short Term” and “Long Term” actions*
- *Include Capital Improvement Plan and funding for the future*
- *Provide training for staff and contractors on a regular basis*
- *Keep equipment/replacement part inventories and ID critical parts/inventories/ensure up-to-date”*

**ELEMENT 5 (Design and Performance Provisions)**

- *“Adopt design and construction standards for all collection system infrastructure elements including pipelines, manholes, pump stations, siphons, air relief valves, etc.*
- *Ensure through plan checking, inspections, and testing that all new and rehabilitated sewer projects are designed and built to standard specifications.*
- *For each new sewer project, a properly designed set of sewer plans, consistent with the standard specifications, are then submitted to an Enrollee for review and approval.*
- *Construction standards provide detail necessary for a sewer contractor to properly construct a new sewer, a lift station, or to rehabilitate existing assets.*
- *Once sewer projects are designed properly and contractor has approved construction plans/specs, the Enrollee ensures project is properly constructed before acceptance of O/M responsibilities.*
- *Construction approval is performed by an inspector visiting the construction site to ensure work is done properly including written records and final acceptance/authorization.”*

**ELEMENT 6 (Overflow Emergency Response Plan)**

- *“Enrollees should have internal notification procedures so response and mitigation efforts to minimize the effects of the SPILL are completed in a timely manner.*
- *Enrollees should adequately address various types of overflows and to perform reasonable SPILL response activities to contain the overflow and to minimize the impact to the environment.*
- *Enrollees should adequately train their employees to understand and follow the OERP. The training should include emergency operations, such as traffic and crowd control as well as procedures for volume estimation and SPILL start time determinations. Periodic field drills and exercises should be considered to assure that field crews practice under actual conditions especially where agencies have very few or no spills.*

**ELEMENT 7 (Fats, Oils, and Grease Control Program)**

- *Outreach program in place*
- *Disposal methods (have locations for all FOG facilities)*
- *Legal authority in place*
- *Requirements to install grease removal devices in place*
- *Inspection and enforcement authority in place*
- *Collection system maintenance/related practices to minimize FOG*
- *Source control program to minimize FOG into collection system*

**ELEMENT 8 (System Evaluation and Capacity Assurance Program)**

- *Implement Master planning procedures*
- *Describe the techniques used for evaluating capacity in all infrastructure for spills due to in pipes, pump stations or other appurtenances*
- *Describe current infrastructure design criteria including system design storm, peaking factors for pipe and pump station design, impacts of I/I on the system*
- *Describe capacity Enhancement Measures*
- *Describe an appropriate schedule for projects prepared in CIP*

**ELEMENT 9 (Monitoring, Measurement, and Program Modifications)**

- *Discuss how an Enrollee maintains relevant information and data related to SSMP activities, monitors the implementation of SSMP Elements, and measures the effectiveness of its SSMP Elements.*
- *Develop system for assessing preventive maintenance (“PM”) program effectiveness and potential modifications to program elements*
- *Collection of meaningful data*
- *Relevant performance indicators indicating success or failure for meeting established goals should be selected/tracked on a regular basis*
- *If an Enrollee has jurisdiction over any portion of sewer laterals, tables or graphs can separate the lateral spills from mainline spills to normalize data for allow for more accurate comparisons with other Enrollees*

**ELEMENT 10 (Sewer System Management Plan Audits)**

- *Once the audit is complete, the Enrollee must prepare an audit report. MRP Section E requires that audit reports be kept on file for a minimum of five (5) years and be made available to SWRCB or RWQCB staff upon request. These audit reports could be appended to the SSMP in a separate appendix.*
- *The purpose of the audit is to evaluate the effectiveness of the SSMP and its Elements and to determine the compliance of the Enrollee with the SSMP requirements. The audit must identify any deficiencies in the SSMP, and any corrective actions taken or to be taken.*
- *The Enrollee should consider the purpose of the internal audit before conducting the evaluation. As previously stated, the core purpose of the audit is to evaluate the effectiveness of the SSMP and demonstrate compliance with the SSMP requirements. However, it may be beneficial for the*
- *Enrollee to demonstrate its successes in achieving goals or other benchmarks that the Enrollee may establish.*
- *Some Enrollees may consider conducting additional informal evaluations of their collection systems and operations that would not be included as part of the audit. Consult with legal counsel on what information discovered during an audit needs to be a part of the audit report.*

Appendix 4 (2015 Sewer System Management Plan Manual Summary)

(Element 10 continued)

- *The SSMP audit may be used as a tool to aid the Enrollee in evaluating the performance of its system and operations. The audit may also be used to ensure the Enrollee's practices are consistent with the SSMP (including its references and SOPs).*
- *An Enrollee can utilize the audit process to conduct several other program evaluations. Examples of these evaluations include review of CIWQS system data to assure conformance with Enrollee's other records; SPILL files and records contained therein for conformance with recordkeeping requirements, and completion of the latest version of the SWRCB's Collection System Questionnaire annually. Conducting program evaluations during the audit process can aid the Enrollee in preparing for a field inspection or locating needed information and responding to a SWRCB or RWQCB request for information in a timely manner.*
- *The SSS WDR requires an SSMP audit report to be developed. Enrollees may want to consult with legal counsel to determine what information resulting from the internal audit evaluation is confidential and how the results of that evaluation should be presented in the SSMP audit report. Because Section J of the SSS WDR states that all reports shall be certified by the LRO, the Enrollee should consider this requirement in relation to the audit report. These audit reports can also be attached as an Appendix to the SSMP or be easily locatable on the Enrollee's website.*
- *SWRCB and RWQCB staff utilize SSMP audit reports during inspections to determine compliance with the SSS WDR, the adequacy of the system operations and management, and the level of effort taken by the Enrollee in reducing SPILLS. They also use this information to prioritize which Enrollees they may inspect, to identify key areas to focus on for enforcement actions, and to determine the need for future regulatory changes. How the information is conveyed in the audit report may affect the level of scrutiny the Enrollee receives.*

**ELEMENT 11 (Communication)**

- *Numerous ways exist to communicate with the public, including the following that could be considered by Enrollees:*
- *Quarterly newsletters*
- *Enrollee website*
- *Board/City Council Meetings*
- *Flyers in billings to satellite agencies*
- *Flyers in billings to the ratepayers/customers*
- *During Public Outreach events*
- *During crew interactions with the public*
- *Creating an Advisory Council for citizens to share information with the public.*
- *While some large Enrollees have communications officers, this is not required. However, it is recommended that a person should be designated as the Enrollee's spokesperson when media inquiries are made, particularly in times of emergency (e.g., during a large SPILL event).*

## Appendix 5 (Operations-Maintenance Program Supplement)

The SSMP must include measures to prevent discharges to the environment by ensuring the Agency 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.

**Cleaning Program:** The purpose of a sewer cleaning program is to clean line segments for proactively preventing blockages/operational problems or spills. Agencies should evaluate, design, and implement systematic a cleaning program based on its site-specific needs for proactively preventing blockages, operational problems or spills. This must also include critical areas requiring more frequent cleanings (“hot spot” locations). The Agency must ensure it has a sufficient program in place to comply with this requirement.

**Pipeline Inspection Program:** The purpose of a sewer pipeline inspection program (CCTV) is to inspect all gravity sewer pipelines within the sewer system on a routine basis for assessing/documenting pipe conditions to help identify areas needing attention to proactively prevent blockages/operational problems or spills. An agency should develop and implement a systematic pipeline inspection program based on site-specific needs to comply with this requirement.

**Manhole Inspection Program:** The purpose of a manhole inspection program is to ensure viability of access to all collection system assets for preventive maintenance and emergency responses to proactively help prevent blockages/operational problems or spills. The Agency should consider and implement a systematic approach to comply with this requirement.

**Lift/Pump Station Inspection Program:** The purpose of a sewer lift station inspection program is to routinely inspect the Agency’s station (including sub-assets at stations) for ensuring ongoing reliability for continuously and effectively conveying sewage flows to a wastewater treatment plant to help proactively prevent operational failures and spills. The Agency should determine its inspection frequency and operational checklists for performing and analyzing station data for proper operations, documenting pump run times, and inspecting the sites for any issues of concern noted by operations staff.

**Pipe Repair Program:** The purpose of the pipe repair program is to complete spot repairs within the collection system to help proactively prevent blockages/operational problems or spills. The Agency should have a program for documenting and scheduling ongoing repairs and may wish to contract-out larger jobs requiring more complex equipment and supplemental support for the agency.

**Easement Maintenance Program:** The purpose of an easement maintenance program is to maintain year-round access to all sewer assets within easement areas for maintenance, repair, and emergency access. The Agency should develop a system-wide program for ensuring all easement areas are inspected/maintained for always facilitating efficient access.

**Monitoring:** The Agency should strongly consider implementing available technologies for continuous monitoring of sewer flows/levels in the system where deemed necessary for proactively preventing blockages, operational problems, or spills.

## Appendix 5 (Operations-Maintenance Program Supplement)

**Air Release Valve Program:** The purpose of air release valve maintenance programs is to ensure the proper function and reliability of air release valves within a system. Regular inspection and maintenance helps identify and address issues before they lead to valve failure, which could disrupt system operation or result in a spill. Properly maintained valves operate more efficiently, allowing for effective release of air and optimal performance of the system.

**Root Control:** The purpose of a root control program is to proactively mitigate problems with roots before they can cause blockages, damage to pipes, backups, overflows, leaks, and disruptions to sewer services. Roots thrive in the sewer atmosphere because it provides an ideal environment for their growth. Additionally, limited green space in urban areas has caused roots to seek water and nutrients at greater depths, leading them to invade sewer pipes. With the onset of watering restrictions and drought across the state, sewer systems provide a consistent water source and nutrients, making it an attractive environment for roots to grow and thrive. Addressing root intrusion in sewer systems demands a proactive and comprehensive approach by an agency for mitigating potential damages and disruptions they can cause. By identifying root-prone areas, understanding root trends, and implementing effective mitigation strategies such as preventive measures, mechanical and chemical treatments, and regular maintenance schedules, agencies can safeguard sewer systems from blockages, backups, and environmental hazards. Furthermore, providing adequate education and training ensures that operators are equipped with the knowledge and skills necessary to execute these strategies safely and efficiently. Through diligent management and collaboration (including appropriate inspection/testing of new sewers), agencies can effectively control root intrusion and maintain the functionality and longevity of sewer infrastructure, thereby protecting public health and the environment.

**Fats, Oils, and Grease Control:** Sewer system control for Fats, Oils, and Grease are crucial for sewer agencies due to its risks, such as blockages, spills, and environmental harm. Therefore, implementing a comprehensive FOG control program is vital to maintain infrastructure integrity, prevent failures, and safeguard community health. Developing a comprehensive FOG Control Program begins with these critical points:

- *Legal Authority* – Legal authority is crucial for a Fats Oils and Grease (FOG) control program in sewers for several reasons. Legal authority allows the establishment of regulations and standards governing the disposal of fats, oils, and grease by Food Service Establishments (FSEs) and residents. These regulations are achieved through a FOG Ordinance in the Agency or District's Municipal Code. These regulations clarify acceptable practices and consequences for non-compliance, ensuring uniformity and fairness in enforcement. Additionally, legal authority empowers agencies to inspect and monitor compliance, enforce penalties for violations, and implement corrective measures when necessary. Ultimately, legal authority provides the framework and tools needed to effectively manage fog in sewers, protect public health, prevent environmental pollution, and maintain the integrity of sewer systems.
- *Design and Construction Standards* – Design and construction standards are crucial for an effective fats, oils, and grease (FOG) control program. Adherence to agency

## Appendix 5 (Operations-Maintenance Program Supplement)

standards ensures that grease removal devices are adequately sized, properly sloped, and have been approved by the agency for use in their system. In addition, the Design and Construction standards should include provisions for installation, inspection, and the testing criteria required for acceptance into the agency's system. By incorporating FOG control measures into sewer design and construction standards, agencies can proactively address FOG-related issues, protect public health, and preserve the functionality of their sewer infrastructure.

- *Evaluating and Permitting* – The purpose of a waste discharge permit for food service establishments is to regulate and monitor the discharge of wastewater, mainly wastewater containing fats, oils, and grease (FOG), into the sewer system. Understanding the FSE and its potential impacts on the agency's sewer system begins with assessing the FSE, the equipment in its food prep area, and the grease removal device installed. The initial assessment also allows the agency to gather contact information and all agency-required data to populate its recordkeeping database before issuing a permit to the FSE. By obtaining a waste discharge permit, FSEs agree to comply with regulations to control FOG and other contaminants in their wastewater. The permit also serves as a mechanism for sewer agencies to monitor and enforce compliance with its FOG Ordinance. Agencies may conduct inspections, sampling, and audits to ensure that food service establishments meet their permits' terms and take appropriate measures to prevent FOG-related issues such as sewer blockages and overflows.
- *Inspection, Monitoring, and Enforcement* – Sewer agencies use inspections to verify proper maintenance and servicing of grease removal devices in food service establishments and adherence to discharge permit requirements. Regular inspections promote awareness of FOG control among restaurant owners and staff, fostering a culture of compliance and accountability. By consistently monitoring grease removal devices, sewer agencies can track their performance and ensure they are maintained and serviced as required. Proper maintenance and servicing prevent FOG from entering the sewer system, causing blockages and sewer spills. By taking enforcement actions, the agency effectively communicates to the FSE the importance of preventing FOG from entering the sewer system and the consequences of non-compliance. Furthermore, educational outreach can complement the sewer agency's monitoring and enforcement efforts by informing FSEs about the significance of FOG control and offering guidance on best management practices. The combination of inspection, monitoring, and enforcement enables sewer agencies to decrease FOG in their sewer system effectively.
- *Collection and Disposal* – Proper collection, storage, and disposal of FOG generated by FSEs. Sewer agencies should describe in their FOG ordinance prohibitions their requirements for proper storage and disposal of yellow grease from kitchen deep fryers and automatic grease removal devices. The FOG ordinance should prohibit FSEs from disposing of waste cooking oil into the public sewer or storm drain. Instead, all cooking oil waste must be collected and stored correctly in receptacles such as rendering bins, barrels, or drums for recycling or other acceptable disposal methods
- *Kitchen Best Management Practices (Kitchen BMPs)*– Kitchen BMPs are practices that FSEs can follow, which significantly reduce the amount of FOG discharged. The practices are relatively easy to implement and require little to no cost. All FSEs shall

## Appendix 5 (Operations-Maintenance Program Supplement)

implement BMPs acceptable to the sewer agency in their operations. Part of the permit is the requirement that every FSE trains its employees on proper methods of FOG disposal. The training should include the implementation of BMPs. Each facility should maintain a record or log showing who received training and have this available for review by the sewer agency. Examples of typical BMPs that an FSE can implement are explaining that FOG is a problem when washed down the drains, scraping and dry wiping of plates and utensils before washing, and proper disposal of cooking oil and grease. As a best practice, FSEs should post BMPs and educational materials in conspicuous locations throughout their facility.

- *Education and Public Outreach* – For several reasons, public education and outreach are crucial for a successful fats, oils, and grease control program. Most residents don't realize the impact of improper disposal of materials into the sewer systems. Education raises awareness about the problem and the importance of proper disposal, changing behavior patterns with simple actions they can take to prevent FOG from entering the sewer system. Involving the community in FOG control efforts fosters a sense of responsibility and ownership over local sewer infrastructure. Engaged communities are more likely to participate in FOG control programs and support related initiatives. Educating the public about regulations regarding FOG disposal helps ensure compliance because when residents understand the reasons behind the rules, they are more likely to adhere to them. Preventing FOG-related sewer blockages and spills through education can lead to significant cost savings for sewer agencies regarding maintenance, repairs, and clean-up efforts. Overall, public education and outreach play a vital role in raising awareness, changing behavior, fostering community engagement, ensuring compliance, protecting the environment, and promoting the sustainability of FOG control programs.
- *Recordkeeping* – With comprehensive recordkeeping, sewer agencies can monitor FSE compliance with FOG ordinances and identify those needing guidance or enforcement. Valuable data on FOG-related problems, such as the maintenance frequency of grease removal devices, sewer blockages caused by FOG, and the effectiveness of outreach campaigns, can be obtained through recordkeeping. Recordkeeping helps sewer agencies evaluate the success of their FOG program and find ways to enhance it. Additionally, maintaining precise records acts as legal documentation in situations involving disputes or enforcement actions related to FOG compliance. These records are crucial for demonstrating due diligence and defending regulatory decisions, as they provide evidence of compliance efforts, inspection findings, enforcement actions and communications with FSEs



SEWER COLLECTION SYSTEM  
**PRE-INSPECTION QUESTIONNAIRE**  
Version 4.0

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## PART 1 — DESCRIPTION

This Sewer Collection System Pre-Inspection Questionnaire (Questionnaire) includes questions specific to the requirements in the Sanitary Sewer System Waste Discharge Requirements Water Quality Order No. 2022-0103-DWQ (hereafter SSS WDRs).

All the questions in this Questionnaire must be answered by the Enrollee, per Provision 6.4.2 of the SSS WDRs, to demonstrate how the agency is complying with the SSS WDRs.

## PART 2 — INSTRUCTIONS

1. Complete all questions in the Questionnaire.
2. Have the Legally Responsible Official (LRO) sign the last page of this Questionnaire.
3. Electronically submit the Questionnaire by the deadline and to the contacts outlined in the Notice of Inspection.

## PART 3 — REQUIRED INFORMATION

### 1. DOCUMENTATION

Please ensure that all required documentation is uploaded to the California Integrated Water Quality System (CIWQS) database as required by the SSS WDRs. These documents include the most up to date Sewer System Management Plan (SSMP), SSMP audits, updated annual report, sanitary sewer overflow (SSO) reporting information, and so forth.

### 2. NARRATIVE

- 2.1. Please provide a narrative description of efforts taken to reduce sanitary sewer overflows (SSOs).
- 2.2. Please provide a narrative description of your rehabilitation and replacement plan identifying and prioritizing system deficiencies, and short- and long-term actions addressing deficiencies.
- 2.3. In response to question 2.2, please provide all sewer system rehabilitatin and replacement records for the past three (30 years).

### 3. SEWER SYSTEM ASSETS

#### General System Information

- 3.1. Collection System Waste Discharge ID number (WDID) and Collection System Name:
- 3.2. Collection System Main Point(s) of Contact (name, title, address, email, and telephone number):
- 3.3. What is the approximate size of the service area served by the sewer collection system for your agency, in square miles?
- 3.4. Please describe the terrain within your agency's sewer service area (Mountainous, Hilly, Flat, Valley, etc.)?
- 3.5. Please specify what percentage of the collection system's flow comes from residential, commercial, industrial, and institutional sources.
- 3.6. What is the total mile of easements within your sanitary sewer system?
- 3.7. What is your total gravity sewer system cleaning production in miles/year?
- 3.8. What is your total force main and other pressure systems cleaning production in miles/year?
- 3.9. How many air relief valves (ARVs) are located throughout the sewer collection system?
- 3.10. How many siphons are located throughout the sewer collection system?
- 3.11. Does your agency have any permanently installed flow monitor(s) in the collection system?
- 3.12. If yes to question 3.11 above, please specify the total number of monitor(s) installed.

- 3.13. Does your agency own any separately enrolled collection systems?
- 3.14. If yes to question 3.13, which collection system(s) does your agency own?
  - i. Collection System name(s):
  - ii. Collection System WDID(s):
- 3.15. Do any upstream collection systems discharge into this collection system?
- 3.16. If yes to question 3.15, which collection system(s) discharge into this collection system?
  - i. Upstream Collection System name(s):
  - ii. Upstream Collection System WDID(s):

#### Pumping Facility Assets

- 3.17. Has your agency conducted a risk assessment for each pumping station?
- 3.18. How many of these assets have redundant pipelines installed?
- 3.19. How many pump stations have dedicated emergency stand-by power generators located onsite?
- 3.20. Has your agency developed written standard and emergency operating procedures for major sewer assets covering power and/or pumping failure(s) to minimize SSOs?
- 3.21. Has your agency identified critical spare parts for each asset?
- 3.22. For question 3.21, does your agency maintain the spare parts identified for each asset?
- 3.23. How many facilities are located within 100 feet of a surface water, creek, or drainage channel?
- 3.24. How many are located within 20 feet of a storm drain inlet?
- 3.25. How many pump stations are equipped with audible and/or visual alarms located in public view to expedite notification to your agency in the event of an SSO?
- 3.26. How many pump stations are equipped with an Auto Dialer Alarm System(s) for detecting pump failure and/or high wet well levels?
- 3.27. How many pump stations have a supervisory, control and data acquisition system (SCADA) installed and operational?
- 3.28. For question 3.27, how many can be remotely operated?
- 3.29. How many pump stations display emergency notification signage, including agency contact information, in public view to expedite notification to your agency in the event of an SSO?
- 3.30. Does your agency implement vandalism control efforts to discourage unauthorized access and/or vandalism to these assets?
- 3.31. How many pump stations have built-in pumping bypass capability for emergency use?
- 3.32. How many pump stations have electrical power connections installed to allow for the use of portable emergency generators?

#### Force Main Sewer Assets

- 3.33. How many sewer force mains are owned by your agency?
- 3.34. For the assets in question 3.33, has your agency conducted a risk assessment for each asset?

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## 4. FINANCIAL INFORMATION

#### Funding Sources and Revenues

- 4.1. Does your agency utilize an Enterprise Fund for services provided to the public?
- 4.2. If yes to question 4.1, what is the estimated annual revenue generated from this fund?
- 4.3. If no to 4.1, what is the current balance of funds available for your sewer system?

- 4.4. Please provide a brief description of all sewer collection system funding source(s) (e.g., sewer user fees, annual budget allocation, property taxes, etc.).
  - 4.5. What is your agency's current average monthly household user fee for sewage collection only?
  - 4.6. For question 4.5 above, specify the last date that sewer fees were increased by your local governing board.
  - 4.7. Has your local governing board approved any future sewer use fee increase(s)?
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## 5. LOCAL SEWER USE ORDINANCE

**Skip to Section 5 if no Ordinance.**

- 5.1. Does the Ordinance give your agency the authority to inspect grease producing facilities?
  - 5.2. Does the Ordinance provide your agency with proper authority to issue notices of violation (NOVs)?
  - 5.3. If yes to question 5.2, how many NOVs has your agency issued in the past 3 years?
  - 5.4. Does the Ordinance provide your agency with proper authority to issue enforcement penalties for violators?
  - 5.5. If yes to question 5.4, how many enforcement penalties has your agency issued in the past 3 years?
  - 5.6. Does the Ordinance provide your agency with the proper authority to ban connections and/or disconnect services for violators?
  - 5.7. If yes to question 5.6, how many actions has your agency taken in the past 3 years?
  - 5.8. Does the Ordinance provide your agency with the authority to limit future development and/or building?
  - 5.9. If yes to question 5.8, how many actions has your agency taken in the past 3 years?
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## 6. CAPITAL IMPROVEMENT PLAN

- 6.1. How long is the CIP planned out for (e.g., 5 years, 10 years, etc.)?
  - 6.2. How are emergency repairs prioritized?
  - 6.3. If not included in the CIP, please provide a breakdown of what money is being spent on (e.g., pipeline replacements, pump station upgrades, etc.).
  - 6.4. What is the projected date of your next CIP update?
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## 7. OPERATIONS AND MAINTENANCE PROGRAM

### Computerized Maintenance Management System (CMMS)

- 7.1. Does your agency use a CMMS to generate work orders and track sewer maintenance, operations, and management information?
- 7.2. If yes to question 7.1, is CMMS data used for ongoing strategies to eliminate/reduce SSOs?
- 7.3. If yes to question 7.1, is the CMMS data used to evaluate cleaning production rates?
- 7.4. If yes to question 7.1, does your agency use the CMMS information to provide data for tracking system trends, problems and/or performance?
- 7.5. If no to question 7.1, does your agency have a different method in place to provide data for tracking system trends, problems and/or performance?

### Inspections, Operations, and Management Activities

- 7.6. What is the total number of focused problem areas ("hot spots") located throughout the collection system?

- 7.7. What percentage of all gravity sewers under your agency's responsibility have been visually inspected with Closed-Circuit Television (CCTV) to date?
- 7.8. Specify most recent date of completion for answer listed in 6.7 above.
- 7.9. What percentage of CCTV video listed in answer 6.7 above has been reviewed and ranked?
- 7.10. What is your agency's planned CCTV inspection production scheduled for the next fiscal year (miles)?
- 7.11. What is your agency's planned total gravity sewer collection system cleaning production in the next fiscal year (miles)?
- 7.12. Does your agency have a method in use for reviewing and analyzing force main sewers and their components?
- 7.13. Does your agency have a program to inspect and maintain air relief valves (ARVs)?
- 7.14. How many ARVs are not accessible for inspection/maintenance?
- 7.15. What was the total number of ARVs exercised and cleaned in the previous fiscal year?
- 7.16. What is the total number of ARVs planned to be exercised and cleaned in the next fiscal year?
- 7.17. What is the total number of public access points (manholes, lamp holes, rod holes, etc.) inspected in the previous fiscal year?
- 7.18. What is the total number of public access points (manholes, lamp holes, rod holes, etc.) scheduled to be inspected in the next fiscal year?
- 7.19. Does your agency visually inspect pipeline routes at least annually; after major storms, earthquakes, or other events that could damage these assets; to check for sink holes or leaks along force main(s)?
- 7.20. How many above ground crossings (if applicable) were inspected in the previous fiscal year?
- 7.21. How many siphons (if applicable) were inspected in the previous fiscal year?
- 7.22. Does your agency have a process to identify areas subject to excess hydrogen sulfide corrosion?
- 7.23. Does your agency have a formal pipe grading process in place to identify pipe discontinuities?
- 7.24. Does your agency require video (CCTV) inspections before and after cleaning to measure the effectiveness of these activities?
- 7.25. Does your agency video (CCTV) inspect pipes after all SSO(s)?
- 7.26. Does your agency conduct smoke, dye, or other tests to check for illicit connections?
- 7.27. If yes to question 7.26, how many miles of sewer system were tested in the previous fiscal year?
- 7.28. Does your agency have formal agreements in place to increase resources through established mutual assistance agreements with other agencies/contractors for wet weather episodes or for SSO response activities?
- 7.29. Does your agency have a program in place to identify areas with inflow and infiltration (I/I)?
- 7.30. If yes to question 7.29, estimate the total number of miles identified by this program. [# or Unknown]
- 7.31. Does your agency have an active root control program in place?
- 7.32. If yes to question 7.31, please list the type(s) of control efforts in place (e.g., chemical, mechanical, etc.).
- 7.33. If your agency uses chemical(s) for root control, please list chemical(s) used.

#### Fats, Oils and Grease

- 7.34. Does your agency have a commercial FOG program in place?
- 7.35. If no to question 7.34, has your agency justified in its SSMP why a FOG program is not needed?
- 7.36. If yes to question 7.34, does your agency have a FOG Ordinance separate from the sewer use ordinance?
- 7.37. If yes to question 7.34, approximately how many food service establishments (FSEs) such as restaurants, schools, hospitals, jails, and convalescent homes are subject to FOG control.
- 7.38. If yes to question 7.34, what is the total number of FSE permits issued for FOG control?

- 7.39. If yes to question 7.34, what is the total number of FSE FOG inspectors?
- 7.40. If yes to question 7.34, how many FSE FOG inspections were conducted in the previous fiscal year?
- 7.41. If yes to question 7.34, how many FSE FOG enforcement action(s) were initiated in the previous fiscal year?
- 7.42. If yes to question 7.34, how many FSE FOG inspections are planned for the next fiscal year?
- 7.43. Does your agency have a residential FOG program in place?

**Sewer Contract Services**

- 7.44. Does your agency retain contract service(s) for sewer collection system maintenance, operations, and/or management?
- 7.45. If yes to question 7.44, for services, please provide some basic information about these services in the table below:

Contractor Name	Description (cleaning, root control, repairs, etc.)	Frequency of Contract	Budget (annual \$)

**8. SSO EMERGENCY RESPONSE PROGRAM**

- 8.1. Does your agency’s SSO Emergency Response Plan incorporate procedures for pump stations/force main sewers?
- 8.2. Does your agency have a dispatcher(s) within your agency to handle, dispatch and document incoming complaints from your sewer system customers?
- 8.3. Does your agency have standard operating procedures (SOPs) in place to test and document, at least once per year, the performance of its after-hours emergency notification system(s)?
- 8.4. Does your agency provide and document any scenario based SSO emergency response simulation training for collections staff at least on an annual basis to ensure staff are properly trained and prepared in the event of an SSO?
- 8.5. If yes to 8.4, does this training include practical exercises including researching SSO start times and calculating the SSO volume spilled and recovered?
- 8.6. Do your emergency operating procedures (EOPs) include requirements to determine the impact of an SSO, including accelerated or additional environmental monitoring?

**9. COLLECTIONS STAFFING AND TRAINING**

- 9.1. What is the total number of dedicated sewer maintenance crews in place at your agency?
- 9.2. For question 9.1, how many staff are typically in each maintenance crew?
- 9.3. Does your agency require collections staff to review the SSS WDRs and the agency’s SSMP at least annually?
- 9.4. Does your agency provide initial and recurrent training to appropriate staff regarding your agency’s SSO Emergency Response Plan and O&M programs?
- 9.5. If yes to 9.4, what is the total number of individuals trained in the previous fiscal year?
- 9.6. For contracted sewer services, do your contracting specifications contain specific language requiring initial and recurrent training of contractor staff regarding your agency’s SSO Emergency Response Plan and O&M programs?

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## 10. MAJOR EQUIPMENT INVENTORY

- 10.1. How many combination truck(s) (hydro flush/vacuum models) are owned and/or leased by your agency?
- 10.2. How many hydro flusher(s) are owned and/or leased by your agency?
- 10.3. How many mechanical rodder(s) are owned and/or leased by your agency?
- 10.4. How many video (CCTV) inspection system(s) are owned and/or leased by your agency?
- 10.5. How many utility truck(s) are owned and/or leased by your agency?
- 10.6. How many portable sewage pump(s) are owned and/or leased by your agency?
- 10.7. How many portable generator(s) are owned and/or leased by your agency?
- 10.8. Does your agency own equipment designed to block the storm drain system (e.g., sandbags, waddles, absorbent socks, etc.), in an emergency, to prevent untreated or partially treated wastewater from reaching surface waters?

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## 11. EXTERNAL COMMUNICATIONS PROGRAM

- 11.1. Does your agency have a program in place for communicating with and receiving input from the public regarding the development, implementation, and performance of its SSMP?
- 11.2. Does your agency have a program in place for communicating with upstream or downstream satellite sewer system(s) connected to its collection system?

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## 12. NOTIFICATION, REPORTING, AND RECORD KEEPING

- 12.1. Does your agency maintain a list and description of all sewer-related complaints from customers for the past 5 years, including calls received after normal working hours?
- 12.2. If yes to question 12.1, does this include information for privately owned sewer laterals?
- 12.3. How many complaints were received in the previous fiscal year?
- 12.4. How many complaints were responded to?
- 12.5. Does your agency have a quality assurance/quality control (QA/QC) procedure in place for review of technical information collected by field staff prior to certification of the SSO report(s) in the Water Board's online reporting system (CIWQS) by the Legally Responsible Official(s)?
- 12.6. Does your agency require crews to take photos of all SSOs?
- 12.7. Does your agency have a procedure(s) in place for collecting field information to assist in determining the actual SSO start time?
- 12.8. Does your agency use SOPs to estimate SSO volume spilled, recovered, and not recovered, including estimation of cleanup water used?
- 12.9. Does your agency regularly update initial reports given to the California Emergency Management Agency, local health department, and Regional Board as information develops regarding SSOs requiring notification?

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## 13. SSO REDUCTION PERFORMANCE AND MONITORING PROGRAM

- 13.1. Does your agency have a process in place to collect data to monitor performance of its SSMP and efforts in reducing SSOs?
- 13.2. If yes to question 13.1, does your agency use the data collected to update SSMP program elements?

- 13.3. Does your agency generate SSO reduction performance metric(s) for its collection system for use in future planning?
- 13.4. Does your agency hold post-SSO briefings with collections staff, management and others involved, to evaluate root cause of SSOs and document service changes necessary to be prepared in responding to SSOs in the future?
- 13.5. Does your agency pursue investigation of upstream satellite(s) or potential illicit dischargers as part of the SSO cause determination process?
- 13.6. Does your agency adjust sewer collection system cleaning interval(s) for problem areas based on review and analysis of each past SSO?
- 13.7. How many of the SSOs over the past 12 months were preventable through more proactive maintenance?
- 13.8. How many of the SSOs over the past 5 years occurred at repeat locations?

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**14. DECLARATION**

*I, \_\_\_\_\_, the approved Legally Responsible Official (LRO) of collection system (name and Waste Discharge ID#) \_\_\_\_\_ certify under penalty of law that based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information in this Pre-Inspection Questionnaire (Version 4.0) is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine or imprisonment, for knowing violations.*

\_\_\_\_\_  
**Legally Responsible Official Signature**

\_\_\_\_\_  
**Date**

## Appendix 7 (References and Common Industry Acronyms)

### REFERENCES

- |  |  |   |
|--|--|---|
| 1. SWRCB website   | Online resource  | <a href="#">Guidance documents, training videos</a>   |
| 2. SWRCB online spill reduction library                                      | Online resource  | <a href="#">SWRCB Spill Reduction Library</a>   |
| 3. SSMP Development Guide  | Online resource  | <a href="#">SSMP supporting guidance and recommendations</a>  |
| 4. <a href="#">CSUS Office of Water Programs</a>                             | Widely-distributed industry Standard publications and online courses | Training resources covering collection system administration, management, operations; best practice recommendations for managers and staff  |
| 5. <a href="#">BMP SSO Reduction Strategies</a>                              | Widely-distributed industry Standard publication                     | Spill reduction strategies covering key work programs for managers/operators at smaller systems.  |
| 6. <a href="#">California Water Environment Association (CWEA)</a>           | Industry training and resources                                      | Dedicated Sanitary Sewer WDR webpage/resources  |
| 7. <a href="#">DKF Solutions Group</a><br><a href="#">Fischer Compliance</a> | Reissued WDR Training Resources                                      | Extensive resources for Legally Responsible Officials (LROs), Managers, Supervisors, Data Submitters, and Field Operators (online classes, in-person workshops, customized agency trainings, publications). |

## Appendix 7 (References and Common Industry Acronyms)

### **COMMON INDUSTRY ACRONYMS**

BMP	Best Management Practices
CIWQS	<a href="#">California Integrated Water Quality System</a>
CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CIPP	Cured in Place Pipe
CIWQS	California Integrated Water Quality System (State Water Board Online Spill Database)
CMMS	Computerized Maintenance Management System
EPA	US Environmental Protection Agency
FOG	Fats, Oils and Grease
FSE	Food Service Establishment
GCD	Grease Control Device
GIS	Geographic Information System
GM	General Manager
I & I	Inflow and Infiltration
LRO	Legally Responsible Official
MRP	Monitoring and Reporting Program
NPDES	National Pollutant Discharge Elimination System
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SERP	Overflow Emergency Response Plan
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
WDR	<a href="#">Waste Discharge Requirements (General Wastewater Discharge Requirements, "Reissued WDR" issued by the State Water Board, Order No. 2022-0103-DWQ)</a>
SWRCB	<a href="#">State Water Resources Control Board</a> (Statewide Spill Reduction Program Management)
WDID	Waste Discharge ID Number