CENTRAL SAN

CENTRAL CONTRA COSTA SANITARY DISTRICT

SPILL EMERGENCY RESPONSE PLAN

WDID # 2SSO10105

EFFECTIVE DATE: February, 2007
REVISION 1 DATE: August, 2014
REVISION 2 DATE: February, 2017
REVISION 3 DATE: October, 2020
REVISION 4 DATE: April 2021
REVISION 5 DATE: June 1, 2023

Approved and Accepted:

Paul Seitz 5/31/23

Paul Seitz, P.E., LRO, CWEA Grade 4 – Collection System Maintenance
Collections System Operations Division Manager

1101-23

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1. CHANGE LOG

Date	Description	Pages	Responsible Person
Feb. 2007	Plan Effective Date	All	William Brennan
Aug. 2014	Major Revision	All	Paul Seitz
Apr. 2017	Minor Updates	All	Paul Seitz
Oct. 2020	Minor Updates - CRW	9	Paul Seitz
Apr. 2021	Minor Updates • Volume estimation photos • Updated flow chart to include EBMUD contact information	14, 27-36	Paul Seitz
June 1, 2023	Major revision • WQ 2022-0103-DWQ Waste Discharge Requirements	All	Paul Seitz

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2. INTRODUCTION

A. Purpose and Policy

Purpose: The purpose of this plan is to ensure that Central Contra Costa Sanitary District (CentralSan) personnel follow established guidelines in responding to, containing, cleaning, and decontaminating sanitary sewer spills and backups that may occur within CentralSan's service area to safeguard public health and the environment. This plan is a companion document to Element 6 of CentralSan's Sewer System Management Plan (SSMP).

Policy: CentralSan employees are required to report all wastewater spills found and to take the appropriate action to secure the wastewater spill area, relieve the cause of the spill, and ensure that the affected area is cleaned as soon as possible to minimize health hazards to the public and to protect the environment.

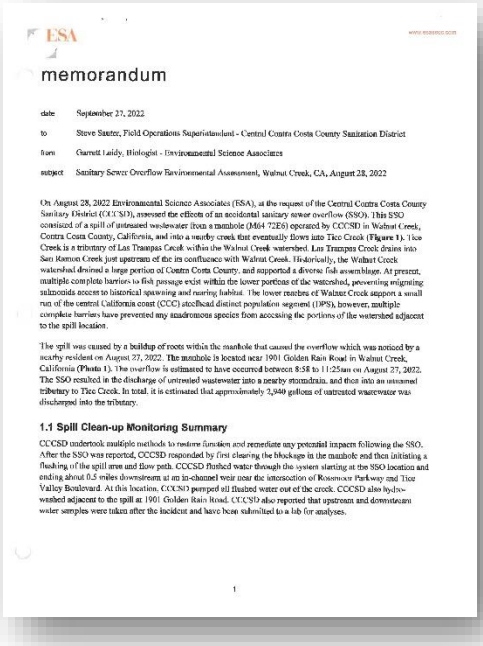
CentralSan's goal is to respond to sanitary sewer spills immediately following notification. CentralSan will follow reporting procedures regarding spills set forth by the San Francisco Bay Regional Water Quality Control Board (RWQCB) and the State Water Resources Control Board (SWRCB).

Sanitary Sewer Spill Response Policy

1. CentralSan's goals upon receiving notification of a Spill are to:
    - Respond as soon as possible (within 20 minutes during working hours, within 40 minutes after hours);
    - Protect public health, the environment, and property;
    - Prevent the discharge of untreated or partially untreated wastewater to Waters of the State to the extent possible;
    - Prevent, to the extent possible, the creation of a nuisance as defined in CWC Section 13050(m); and
    - Restore affected areas to normal as soon as practicable.
2. CentralSan strives to operate, manage and maintain all parts of the publicly owed Sanitary Sewer System in a manner that will prevent spills and mitigate the impact of the spills that do occur.
3. CentralSan responds to all spill's on a Risk Basis, regardless of the size or location of the spill. High-risk areas shall include, but not be limited to:
    a. the proximity of the spill to sensitive populations, specifically public and private schools, parks, and recreational areas, as well as high-density commercial and residential locales
    b. discharges to surface waters, especially during the recreational season from May to September

c. any other location which poses an imminent and substantial endangerment to the public health or the environment

4. This Plan is designed to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated or partially treated wastewater to the Waters of the State and to minimize or correct any adverse impact on the environment resulting from a spill.
5. CentralSan staff is required to report all spills reported or discovered to CentralSan management.
6. CentralSan is required to take appropriate actions to secure the impacted area, relieve the cause of the spill, and ensure the affected area is cleaned as soon as possible to minimize health hazards to the public and protect the environment. If there is any reasonable risk that the public may come into contact with sewage, CentralSan will post and maintain appropriate notification signs and place barricades and other traffic control devices to keep vehicle and pedestrian traffic away from contact with sewage.
7. CentralSan collects water quality samples for **ALL** Category 1 Spills. The Field Superintendent or a Field Supervisor will collect, transport, and submit water quality samples for analysis to Central San's Laboratory at our Treatment Plant in Martinez, California. Samples are taken at or near where the spill reaches the surface water (entry point), approximately 100 feet upstream and downstream of the entry point. The samples are collected as soon as the blockage has been cleared, or if additional staff is available. Completing the sampling activities is in concurrence with clearing the blockage. The samples are analyzed for ammonia, total coliform, fecal coliform, enterococcus, and e-coli. Additional follow-up samples are recommended to confirm the extent that the impact reverts to baseline levels. If signs were posted, follow-up samples are performed to determine if the posting of warning signs should be discontinued. Collaboration with the Office of Emergency Services, Fish and Wildlife, and the County Health Department shall continue until closures have been removed.
8. In addition to sampling **ALL** Category 1 Spills, CentralSan has elected and hired a Biologist to review the clean-up and provide any further remediation recommendations. The biologist is required to perform his inspection within 48 hours of the notification of a Category 1 spill. Once the biologist has completed their inspection, a report is submitted to CentralSan documenting the clean-up, remedial actions, and any impacts to the receiving waters. The biologist report is then attached to the Category 1 spill report and records.



ESA

memorandum

date September 27, 2022

to Steve Sauter, Field Operations Superintendent - Central Contra Costa County Sanitation District

from Garrett Laidy, Biologist - Environmental Science Associates

subject Sanitary Sewer Overflow Environmental Assessment, Walnut Creek, CA, August 28, 2022

On August 28, 2022 Environmental Science Associates (ESA), at the request of the Central Contra Costa County Sanitary District (CCCSD), assessed the effects of an accidental sanitary sewer overflow (SSO). This SSO consisted of a spill of untreated wastewater from a manhole (M64 72E6) operated by CCCSD in Walnut Creek, Contra Costa County, California, and into a nearby creek that eventually flows into Tice Creek (**Figure 1**). Tice Creek is a tributary of Las Trampas Creek within the Walnut Creek watershed. Las Trampas Creek drains into San Ramon Creek just upstream of the its confluence with Walnut Creek. Historically, the Walnut Creek watershed drained a large portion of Contra Costa County, and supported a diverse fish assemblage. At present, multiple complete barriers to fish passage exist within the lower portions of the watershed, preventing migrating salmonids access to historical spawning and rearing habitat. The lower reaches of Walnut Creek support a small run of the central California coast (CCC) steelhead distinct population segment (DPS), however, multiple complete barriers have prevented any anadromous species from accessing the portions of the watershed adjacent to the spill location.

The spill was caused by a buildup of roots within the manhole that caused the overflow which was noticed by a nearby resident on August 27, 2022. The manhole is located near 1901 Golden Rain Road in Walnut Creek, California (**Photo 1**). The overflow is estimated to have occurred between 8:58 to 11:25am on August 27, 2022. The SSO resulted in the discharge of untreated wastewater into a nearby stormdrain, and then into an unnamed tributary to Tice Creek. In total, it is estimated that approximately 2,940 gallons of untreated wastewater was discharged into the tributary.

1.1 Spill Clean-up Monitoring Summary

CCCSD undertook multiple methods to restore function and remediate any potential impacts following the SSO. After the SSO was reported, CCCSD responded by first clearing the blockage in the manhole and then initiating a flushing of the spill area and flow path. CCCSD flushed water through the system starting at the SSO location and ending about 0.5 miles downstream at an in-channel weir near the intersection of Rossmoor Parkway and Tice Valley Boulevard. At this location, CCCSD pumped all flushed water out of the creek. CCCSD also hydro-washed adjacent to the spill at 1901 Golden Rain Road. CCCSD also reported that upstream and downstream water samples were taken after the incident and have been submitted to a lab for analyses.

Authority: (See Appendices B – E)

- Health & Safety Code Sections 5410 - 5416
- Fish and Game Code Sections 5650 - 5656
- California Water Code Section 13271
- SWRCB Order Number WQ 2022-0103-DWQ

B. Prohibitions

Prohibitions as outlined in Order Number WQ 2022-0103-DWQ Statewide Waste Discharge Requirements (WDR), Sections 4.1, 4.2 and 4.3.

- **Discharge of Sewage from a Sanitary Sewer System**

  Any discharge from a sanitary sewer system that has the potential to discharge to surface waters of the State is prohibited unless it is promptly cleaned up and reported as required in this General Order.

- **Discharge of Sewage to Waters of the State**

  Any discharge from a sanitary sewer system, discharged directly or indirectly through a drainage conveyance system or other route, to waters of the State is prohibited.

- **Discharge of Sewage Creating a Nuisance**

  Any discharge from a sanitary sewer system that creates a nuisance or condition of pollution as defined in Water Code section 13050(m) is prohibited.

3. REQUIREMENTS

A. Spill Emergency Response Plan Requirements

The Spill Emergency Response Plan (SERP) requirements are included in the Statewide Waste Discharge Requirements for Sewer Systems – Order WQ 2022-0103-DWQ (WDR), dated December 6, 2022.

Section 5.12, page 23 of the WDR specifically states:

Spill Emergency Response Plan and Remedial Actions

For Existing Enrollees (with regulatory coverage under Order 2006-0003-DWQ):

Within six (6) months of the Adoption Date of this General Order, the Enrollee shall update and implement its Spill Emergency Response Plan, per Attachment D, section 6 (Spill Emergency Response Plan) of this General Order.**(Continuation of Regulatory Coverage has been confirmed by SWRCB per letter dated April 5, 2023).**

For New Enrollees:

Within six (6) months of the Application for Enrollment approval date, the Enrollee shall develop and implement a Spill Emergency Response Plan, per Attachment D, section 6 (Spill Emergency Response Plan) of this General Order.

The Enrollee shall certify, in its Annual Report, that its Spill Emergency Response Plan is up to date.

The Spill Emergency Response Plan shall include measures to protect public health and the environment. The Enrollee shall respond to spills from its system(s) in a timely manner that minimizes water quality impacts and nuisance by:

- Immediately stopping the spill and preventing/minimizing a discharge to waters of the State;
- Intercepting sewage flows to prevent/minimize spill volume discharged into waters of the State;
- Thoroughly recovering, cleaning up and disposing of sewage and wash down water; and
- Cleaning publicly accessible areas while preventing toxic discharges to waters of the State.

CentralSan had existing regulatory coverage under Order 2006-0003-DWQ and is subject to the abovementioned requirements. The WDR is dated December 6, 2022, and therefore CentralSan must update and submit our revised SERP by June 5, 2022.

Additionally, the WDR requires that the SERP be updated and implemented per Attachment D, section 6 (Spill Emergency Response Plan). Attachment D, section 6 specifically states:

ATTACHMENT D - SECTION 6. SPILL EMERGENCY RESPONSE PLAN

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

- Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner; **(See Section 3A-E, 4D, 5C)**
- 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; **(See Section 3A-E)**
- Comply with the notification, monitoring and reporting requirements of this General Order, State law and regulations, and applicable Regional Water Board Orders; **(See Section 3A-E)**
- Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained; **(See Section 7B)**
- Address emergency system operations, traffic control and other necessary response activities; **(See Section 5C, 8A, 11)**
- Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system; **(See Section 4E)**
- Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State; **(See Section 5C)**
- Remove sewage from the drainage conveyance system; **(See Section 5C)**
- Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters; **(See Section 5C)**
- Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery; **(See Section 5C)**
- Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event; **(See Section 5C)**
- Conduct post-spill assessments of spill response activities; **(Review All Spills, Stoppages, and Failed QA/QC at Biweekly Operations Meeting. Document findings on the Spills and Stoppages Analysis Spreadsheet)**

Printed: 05/31/23

Spills and Stoppages Analysis Spreadsheet
CY 2023

Overflows	2	Total Gal	3,140	CAT 1	1	Total Gal	425
Stoppages	4						

PM + or - 45 months	Contractor or vandlism
Roots in MH	Roots under permainer
Caloulated cell	

	Date	Event ID	Street / City	U/S MH	D/S MH	Length	OF	Stop	Gals	Gals Returned	Cause	Size/Mati	PM Freq	Last cleaned	months past	Crew Ldr	Inspection Comments	Ops Mtg Recommended Action	Status
1	01/05/23		Mt. Diablo Blvd / Laf	72B3-M56	72B3-M55	377		1			RP	8-VCP	RD-3	10/06/22	3	Walker	RP-287'	Remain on RD-3	complete
2	01/14/23	547127	Spring Rd / Orinda	69E6-M84	69E6-M14	167	1		425	0	RP	8-PVC	HF-84	06/03/20	29	Sarras	RP-2'	Sched to HF-24	complete
3	02/12/23		Miner Rd / Orinda	69E2-M9	69E2-M5	318		1			OP	6-VCP	RD-12	06/13/22	8	Nwansi	OP=Clay Pipe-41'	Remain on RD-12	complete
4	02/28/23	886843	Meier Rd / PH	46E3-M50	46E3-M49	265	1		2,715	100	GP	6-VAR	HS-12	06/08/22	9	Sarras	GP-89'	Sched to HS-6	complete
5	03/15/23		Candelero Dr / WC	49D4-M107	49D4-M105	78		1			OP	8-CIP	HF-84	07/30/15	92	Crouch	OP=RAGS-71'	Remain on HF-84	complete
6	04/25/23		N Peardale / Laf	71C2-M60	71C2-M52	265		1			RP	8-CIP	HF-84	06/15/15	94	Harbaugh	RP-140'		
7															0				
8															0				
9															0				
10															0				
11															0				
12															0				

- Document and report spill events as required in this General Order; and **(See Section 5C, Library, CityWorks)**
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed. **(See Section 7A and tracked in regulatory calendar)**

In addition to the new requirements outlined in the WDR for the SERP, there has been a large change in the Notification, Monitoring, and Reporting requirements for Spills. These changes are summarized in Attachment E1 – Notification, Monitoring and Reporting, and Record Keeping Requirements of the WDR. (See Appendix B)

Below are Tables E2-1 through E2-5 that specifically state the requirements for Notification, Monitoring, and Reporting Spills.

B. Spill Category 1: Spill to Surface Waters

Spill Requirement	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters: Notify the California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	• Conduct spill-specific monitoring; • Conduct water quality sampling of the receiving water within **18 hours** of initial knowledge of spill of 50,000 gallons or greater to surface waters.	(Section 2 of Attachment E1)
Reporting	• Submit Draft Spill Report **within three (3) business days** of the Enrollee's knowledge of the spill; • Submit Certified Spill Report **within 15 calendar days** of the spill end date; • Submit Technical Report **within 45 calendar days** after the spill end date for a Category 1 spill in which **50,000 gallons or greater** discharged to surface waters; and • Submit Amended Spill Report **within 90 calendar days** after the spill end date.	(Section 3.1 of Attachment E1)

C. Spill Category 2: Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State: Notify California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• Submit Draft Spill Report **within three (3) business days** of the Enrollee's knowledge of the spill; • Submit Certified Spill Report **within 15 calendar days** of the spill end date; and • Submit Amended Spill Report **within 90 calendar days** after the spill end date.	(Section 3.2 of Attachment E1

D. Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within **30 calendars days** after the end of the month in which the spills occur; and • Submit Amended Spill Reports **within 90 calendar days** after the Certified Spill Report due date.	(Section 3.3 and 3.5 of Attachment E1)

E. Spill Category 4: Spills Less Than 50 Gallons That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred. • Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur.	(Section 3.4, 3.6, 3.7 and 4.4 of Attachment E1)

F. Enrollee Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a spill of 1,000 gallons or greater, from an enrollee-owned and/or operated lateral, discharging or threatening to discharge to waters of the State: Notify California Office of Emergency Services and obtain a notification control number. Not applicable to a spill of less than 1,000 gallons.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	Conduct visual monitoring.	(Section 2 of Attachment E1)
Reporting	• Upload and certify a report, in an acceptable digital format, of all lateral spills (that do not discharge to a surface water) to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. • Report a lateral spill of any volume that discharges to a surface water as a Category 1 spill.	(Sections 3.6, 3.7 and 4.4 of Attachment E1)

4. PROCEDURES

A. Customer Relations and Communication Tips

Customer Relations

Employees must communicate effectively with CentralSan customers, especially when there are spills. How we communicate – on the phone, in writing, or in person – is how we are perceived. Good communication with customers results in greater confidence in our ability to address their problems satisfactorily. There will be less chance of having a customer prolong the claims process and less opportunity that a customer will exaggerate the damage done to their property.

As a representative of CentralSan, you will occasionally have to deal with an irate customer. A sewer spill is a stressful event, and even a reasonable person can become irate if they perceive us as indifferent, uncaring, unresponsive, or incompetent.

Although sometimes difficult, effective management of a spill situation is critical. If it is not well managed, the situation can end up in a costly, prolonged process with the customer. We want the customer to feel assured that we are responsive and that our top priority is the customer's best interest.

Communication Tips

- Give the customer ample time to explain the situation or to vent. Show interest in what the customer has to say, no matter how often you've heard it before or how well you understand the problem.
- As soon as possible, let the customer know that you will determine if the source of the sewer spill is in the main and, if it is, that you will have it corrected as quickly as you can.
- Acknowledge the customer's concerns. For example, if the customer seems angry or worried about property damage, you could say something like, "I understand you're concerned about the possible damage to your property, but a professional clean-up crew can restore the area, and if it is determined that CentralSan is at fault, the property owner has the right to file a claim for any reasonable repairs or losses resulting from this incident."
- Express understanding and empathy for any inconvenience caused by the incident but do not admit fault.
- As much as possible, keep the customer informed on what is being done and what will be done to correct the problem.
- Keep focused on getting the job done in a very professional manner. Don't wander from the problem with too much unnecessary small talk with the customer.
- Do not find fault or lay blame on anyone.

B. How to Clear a Stoppage With a Rodder

Follow All Required Safety Procedures

* All Employees Shall Have and Use All Appropriate PPE
* All Necessary Traffic Controls Shall be in Place
* Follow all Safety Directive Requirements (Air Monitoring, Respiratory Protection etc.)

↓

Identify the location of the stoppage.

- ☐ Locate spilling manhole or rodding inlet. Isolate plugged portion by finding non-standing manholes connected to standing manholes.
- ☐ Take photos of the spilling structure and spill area, then notify your supervisor.
- ☐ Set up on appropriate manhole. Usually this is downstream of the blockage. Depending on location, geography, safety or other concerns, it may be necessary to set up on the upstream manhole.

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Rodding

- ☐ Attach an undersized auger to the rod (i. e. 4” auger for a 6” line) and lower into the line.
- ☐ Rotate the auger and work through the plug, back and forth, until you can push all the way through the line.
- ☐ Run up to the next structure, pull up the rope and pull straight back without spinning to cut out more of the plug while retracting the rod and auger.
- ☐ Once the line is open and you have sewage blow-down into the manhole, change to a cutter blade to re-clean the line and remove the rest of the debris.

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Follow Up

- ☐ Once the spill has stopped, use approved methods for estimating total spill volume and amount of spill returned to the collection system where applicable. Attach photos to estimate.
- ☐ Complete the Spill/Stoppage Response Form. Attach copies of maps, GPS Coordinates, spill estimates, photos and line maintenance history to the form. Submit these items to your supervisor by the start of the next workday.
- ☐ CCTV line within two days for all Sanitary Sewer Spills and Stoppages.

C. How to Clear a Stoppage With a Hydroflusher

Follow All Required Safety Procedures

* All Employees Shall Have and Use All Appropriate PPE
* All Necessary Traffic Controls Shall be in Place
* Follow all Safety Directive Requirements (Air Monitoring, Respiratory Protection etc.)

Identify the location of the stoppage.
☐ Take photos of the spilling structure and spill area, then notify your supervisor.
☐ Position vehicle/sewer cleaning equipment at the downstream manhole from blockage. *- On steep lines where the downstream manholes are less than 5 feet deep, take necessary precautions to prevent spills at downstream manholes. Use sandbags or other methods to form a containment barricade near the downstream manhole.*
☐ Position the water jetter over the first empty manhole below the plug.
☐ Attach a leader hose of another color to the regular hose. This serves as a benchmark for insertion and retrieval and can prevent the hose from exiting the pipe prematurely, potentially causing injury.
☐ Select a penetrating nozzle with a small angle (i. e. 15 degrees) for plugs.
☐ Install a nozzle extension between the end of the hose and the nozzle to prevent the nozzle and hose from turning up a service lateral. *- If using a ROLLER GUIDE, lower it into the manhole and lock it into place.* *- If using a TIGER TAIL, insert the jet hose through it and tie the device in place to stabilize it.*
☐ Lower the hose, nozzle extension and nozzle into the manhole and into the pipe invert. *- If using a ROLLER GUIDE, insert the hose as far as possible (but AT LEAST 3 FEET) into the pipe before using the lower roller guide and engaging the water pressure.*

Hydroflushing
☐ Run the line with just enough pressure to reach the plug. When you reach the plug the hose should stop.
☐ Adjust the water pressure to the level appropriate for the type of plug, pipe and situation. - Check maintenance records for prior notices about property owner toilets bubbling or spilling from over-pressurized lines. If this is a concern, use a lower pressure to prevent backups.
☐ If the hose does not advance, pull back on it and then let go. Repeat the steps until the hose breaks through the plug.
☐ If the hose breaks through and the line is still plugged, run the hose until you hit another plug, then repeat the steps again.
☐ Clear the plug by working from the lower end to the higher end of the flow. - Always jet the line a few feet at a time, returning the debris to the manhole. Remove debris so further plugs are not created downstream.
☐ Once you hear or see the rush of water, turn off the pressure until the water level drops in the line.
☐ Once the flow is back to normal, run the hose up to the next manhole to ensure that the line is free of all plugs and then pull the hose back. Check the upstream manholes to make sure the line is running.
☐ Always rewind the jet hose with the water pressure on to avoid flattening the hose.
☐ Always turn off the water pressure once you see the leader hose. Failure to do so may result in serious injury.

Follow Up
□ Once the spill has stopped, use approved methods for estimating total spill volume and amount of spill returned to the collection system where applicable. Attach photos to estimate.
□ Complete the Spill/Stoppage Response Form. Attach copies of maps, GPS Coordinates, spill estimates, photos and line maintenance history to the form. Submit these items to your supervisor by the start of the next workday. □ CCTV line within two days for all Sanitary Sewer Spills and Stoppages.

D. Spill Response Tactics

The following chart is intended as a guide to generate ideas about responding to sewer spills. Each indicated response tactic might not be appropriate for a given sewer spill. Always choose the tactic that best meets the circumstances at the time and the resources available. Protecting our employees, the public, and environmental health should always be considered when responding to a sewer spill.

	SPILL Cause										
Possible Solutions	Capacity due to gradient	Capacity due to undersized line	Capacity due to surcharged system	Collapse	Debris in Manhole	Debris in Line	Grease	Miscellaneous Plug	Roots	Pump Station Failure	Power Failure
Hydro Jet				✓		✓	✓	✓	✓		
Rodder				✓		✓	✓	✓	✓		
Vacuum Truck	✓	✓		✓	✓	✓	✓	✓	✓		
TV Van						✓	✓	✓	✓		
Backhoe *				✓							
Hand Tools					✓						
Bypass Piping	✓	✓		✓				✓	✓		
Bypass Pumping	✓	✓		✓				✓	✓	✓	✓
Manhole Entry **					✓						
Storage Tanks or Set Up Ponds	✓	✓	✓								
USA Request *				✓							
Backup Generators										✓	✓

* USA Requests: (800) 227-2600

** Confined Space Entry Procedures are required

E. Spill Containment Procedures

The spill must be contained. Containment becomes more complicated if the spill reaches the storm drain system or a drainage channel since the spill can rapidly contaminate receiving waters such as creeks, streams, rivers, and other bodies of water. During dry weather, the storm drain system can be used to store the spill if it can be plugged downstream or if the downstream storm drain pump station can be deactivated.

Options for Containing the Spill

Spill onto Ground:

- □ Place rubber mats at the catch basin or inlet
- □ Place sand bags in the gutter and around catch basin or inlet
- □ Use plastic sheeting to prevent the flow from advancing toward storm drain and culverts
- □ Dig an earthen trench or build a berm to create a pond

Spill into Building:

- □ Evacuate affected people if necessary
- □ Remove backwater relief valve from the cleanout as soon as possible to reduce flow into the building
- □ Use sand bags and plastic sheeting as necessary
- □ Avoid electrical shock by turning power off if outlets or other energized equipment is wet or sitting in water

Spill into Storm Drain or Drainage Channel:

- □ Trace the spill in the storm drain system to it's downstream end point
- □ Plug all affected storm system outlets and coordinate with appropriate personnel to implement a containment strategy
- □ Turn off storm water pump station

Required Equipment

Spills onto Ground or into Buildings:

□ Rubber Mats	□ Absorbent Materials	□ Bypass Pumps and Pipe/Hose
□ Sand Bags	□ Plastic Sheeting	□ Vacuum Truck

Spills into Storm Drain or Drainage Channel:

□ Plugs	□ Vacuum Truck
□ Bypass Pump	□ Sand Bags

Spills at a Pump Station:

□ Bypass Pump/Hoses	□ Emergency Generator

F. Post-Spill Sampling and Posting Procedure

1. Get Field Sampling Kits from the yard and fill the coolers with ice from the warehouse.

2. Determine the point where the spill entered the waterway. Photograph this location. Be sure to include a reference point in the photo.

3. Don appropriate PPE for sampling activities.

4. Sampling Notes:

- Collect all samples against the direction of water flow.
- First take a reference sample: move 100' upstream of the spill entry point into the waterway.
- Take another sample at the spill entry point into the waterway.
- Take another sample at least 100' downstream of the spill entry point into the waterway.
- If the spill went through a drainage conveyance system, collect a sample at the entry point of the drainage conveyance system (DCS-001)
- Photograph evidence of any dead fish or other aquatic life loss.

5. Sampling Procedure:

a) Collect samples well away from the bank, preferably at a point where the water is visibly flowing.

b) **Bottle 1 & 2 & sacrificial sample collection vessel: e.Coli & Coliform/Enterococcus Sample** (3-290mL plastic with sodium thiosulfate)

- Remove the seal and cap from the sacrificial sterile sampling container. This container will be used to fill bottles 1 and 2.
- Remove the seal from bottle 1 just prior to collecting the sample. A chemical has been added to the sample container. Leave the chemical in the bottle and do not rinse.
- Remove the cap immediately before collecting each sample.
- Do not allow the inside of the cap to touch anything.
- Collect the sample using the sacrificial steril container and fill bottle 1 to the 250mL line and immediately replace the cap.
- Label the bottle with the site ID and time/date of collection and fill out COC
- Repeat for Bottle 2

c) **Bottles 3a & 3b: Ammonia Sample** (290mL plastic with sodium thiosulfate & 250mL plastic with Sulfuric Acid)

- First fill bottle 3a (using the sacrificial sample bottle from step b) with sample (bottle 3a contains sodium thiosulfate to dechlorinate the sample, do not rinse the container)
- Second pour the contents of bottle 3a into bottle 3b (bottle 3b contains Sulfuric Acid to preserve the sample, do not rinse the container and observe safe handling with Acid)
- Label Bottle 3b with the site ID and time/date of collection and fill out COC

d) **Bottles 4 & 5: CBOD Samples** (2-1L plastic, unpreserved)

- Remove the cap immediately before collecting each sample.
- Do not allow the inside of the cap to touch anything
- Fill both bottles and immediately replace the cap
- Label the bottles with the site ID and time/date of collection and fill out COC

e) Label the samples with their location and note the date and time collected.

f) Place the samples in the cooler.

g) Photograph the sample location. Be sure to include a reference point in the photo.

6. Complete the Chain of Custody form from the Sampling Kit (see example on the following page).

7. Immediately contact Central San lab to advise them that the following samples require processing:
Enterococcus/Coliform/e.Coli – Holding Time = <6 hours

8. Take coolers containing the samples and completed Chain of Custody form to the lab.

9. Post warning signs as directed by the County Environmental Health Department.

10. Repeat Ammonia (Hach) sampling until the results of two consecutive set of samples indicate normal levels.

11. Remove warning signs and lift restrictions, if applicable.

Field Sampling Kit Inventory

☐ Cooler with ice (4 ea)
☐ Safety Glasses
☐ Latex Gloves
☐ Digital/Disposable Camera
☐ Chain of Custody Binder
☐ Chain of Custody Form
☐ 30 sample bottle labels
☐ Waterproof pen (e.g. Sharpie)
☐ Sacrificial bottle for sampling (290mL sterile plastic), 1 per cooler
☐ Bottle 1 & 2 (Enterococcus/Coliform & e.coli Samples) (290 ml sterile plastic bottle), 1 set of 2 per cooler
☐ Bottles 3a & 3b (Ammonia Sample) bottles (290mL dechlorination bottle & 250mL plastic w/H2SO4), 1 set of 2 per cooler
☐ Bottles 4 & 5 (CBOD Samples) bottles, (2 per cooler)

G. Methods for Determining Flow Volume

1. General Reference

SMART Sewer Overflow Volume Estimation Workbook

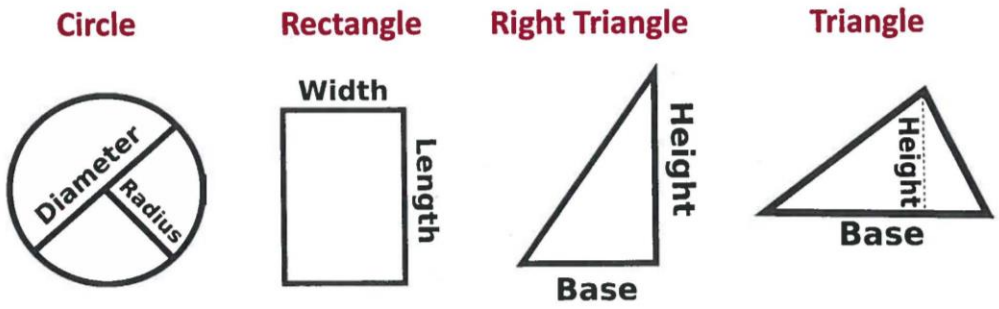
General Reference
Page 1 of 2

Abbreviations and Symbols:

gal	gallons
gpm	gallons per minute
mgd	millions of gallons per day
in	inch
ft	foot
ft^2	square foot
ft^3	cubic foot
min	minute
sec	second
cfs	cubic feet per second
d	diameter
r	radius = 1/2 diameter
π	pi ≈ 3.14

+	add
-	subtract
x	multiply
÷	divide
=	equal
≈	approximately equal
%	percent
CCTV	sewer inspection camera
EDU	Equivalent dwelling unit. A dwelling unit is a single-family home. Commercial buildings may count as more or less than a single dwelling unit.

Diagrams:



Conversions:

Convert FROM	Convert TO	Formula
hours	minutes	hours x 60 = minutes
days	minutes	days x 1440 = minutes
inches	feet	inches ÷ 12 = feet
feet	inches	feet x 12 = inches
square inches	square feet	$in^2 \div 144 = ft^2$
square feet	square inches	$ft^2 \times 144 - in^2$
cubic inches	cubic feet	$in^3 \div 1728 = ft^3$
cubic feet	cubic inches	$ft^3 \times 1728 = in^3$
cubic feet	gallons	$ft^3 \times 7.48$ = gallons

Convert Inches to Feet	
Inches	Feet
1/8"	0.01'
1/4"	0.02'
3/8"	0.01'
1/2"	0.04'
5/8"	0.05'
3/4"	0.06'
7/8"	0.07'
1"	0.08'
2"	0.17'
3"	0.25'
4"	0.33
5"	0.42'
6"	0.50'
7"	0.58'
8"	0.67'
9"	0.75'
10"	0.83'
11"	0.92'
12"	1.00'

Computations:

Computation	Formula/Guide
Area: Two-dimensional measurement represented in square feet.	Square/rectangle: Area = Length x Width Circle: Area = πr^2 (where $\pi \approx 3.14$ and r = radius = ½ diameter) Triangle: Area = ½ (Base x Height)
Volume: Three-dimensional measurement represented in cubic feet.	Rectangle/square footprint: Volume = Length x Width x Depth Circle footprint (cylinder): Volume = πr^2 x Depth (where $\pi \approx 3.14$ and r = radius = ½ diameter) Triangle footprint: Volume = ½ (Base x Height) x Depth
Depth: Contained or "Ponded" Sewage	Measure actual depth of standing sewage whenever possible. When depth varies, measure several representative sample points and determine the average. Add the depth of the sample points and then divide that total by the number of sample points. If the depth is not measurable because it is only a wet stain, use the following depths: • Depth of a wet stain on concrete surface: 0.0026' (1/32") • Depth of a wet stain on asphalt surface: 0.0013' (1/64")

2. Start Time Determination

Form #_____

Start Time Determination Worksheet

Spill Date: _____ Location: _____

Accurate start time determination is an essential part of spill volume estimation. Depending on the flow rate, being even one minute off can have a huge impact on the volume estimation. Be as precise as possible. Do not round to quarter hour increments. Start time must be based on all available information (interviews with neighbors, emergency responders, etc.)

What time was the agency notified of the spill? _____ ☐ AM ☐ PM

Who notified the agency? _____

Did they indicate what time they noticed the spill? ☐ YES ☐ NO If yes, what time? _____ ☐ AM ☐ PM

Who at the agency received the notification? _____

What time did the crew arrive at the site of the spill? _____ ☐ AM ☐ PM

Who was interviewed regarding the start time of the spill? Include their name, contact information, and the statement they provided:

Name	Contact Information	Statement

Describe in detail how you determined the start time for this particular spill:

Spill Start Date: _____ **Spill Start Time:** _____ ☐ AM ☐ PM

Spill End Date: _____ **Spill End Time:** _____ ☐ AM ☐ PM

Spill Duration: _____ minutes

_____ x 60 = _____
# of hours minutes

_____ x 1440 = _____
# of days minutes

This form completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

3. Method Selection Guide

SMART Sewer Overflow Volume Estimation Workbook

Method Selection Guide

Use this table to help determine which method(s) to use to estimate the volume of each particular spill. It may be necessary to use more than one method in order to accurately estimate the spill volume.

Whenever possible, use at least two methods to calculate each spill volume.

Increasing level of difficulty

Method	Guidelines
Eyeball Estimation	• Useful for initial estimate • Useful for smaller spills (less than 200 gallons) • Requires documented hands-on training to practice visual estimation • Difficult to apply consistently among different crew members • Is difficult to defend, so use only if other methods are not feasible, or use in conjunction with other methods • Photographic evidence is critical using this method
Drop Bucket Estimation	• Use this method only for small spills where the entire flow stream can be captured in a bucket
Duration and Flow Rate: Photo Comparison	• Effective where spill is flowing freely and not ponding • Useful when area and depth are difficult to measure
Upstream Connections	• Effective for spills affecting only a small portion of the collection system • Can be applied consistently by crews/staff • Must have a reliable volume per household or Equivalent Dwelling Unit • Can be difficult to apply to large portions of the system with mixed use (residential, commercial, industrial)
Area/Volume: Ponded Sewage	• Effective on dry surfaces where limits of the spill footprint can be determined • Use only when the spill is contained • Not effective during rain events and, in some cases, hot weather
Area/Volume: Sewage Contained in Storm Drain System	• Use only when the spill is contained in the storm drain system
Area/Volume: Sewage Contained in a Roadway Gutter	• Use only when the spill is contained in a roadway gutter
Flow Calculation Worksheet	• Typically can only be used if sewage level in manhole is at or below the pipe • Only utilizes one sample of the flow and cannot account for fluctuations • Can only be used if manhole channel is uniform in shape. (Cast-in-place channels are not necessarily uniform.)
Lower Lateral Estimator	• Requires documentation of diurnal flow patterns • Requires documentation for determining Equivalent Dwelling Units (EDUs) for commercial and industrial buildings • Effective when a spill affects landscaped areas, dirt, fields or any surface that tends to absorb the spill
Lift Station Estimation	• Requires SCADA data *(Can be used combined with flow monitoring data from this or another agency if SCADA not available.)* • Works best on larger spills
Duration and Flow Rate: Rate Tables—Manhole Cover in Place	• Effective where spill is flowing freely and not ponding • Useful when area and depth are difficult to measure
Duration and Flow Rate: Rate Tables—Manhole Cover Removed	• Effective where spill is flowing freely and not ponding • Useful when area and depth are difficult to measure
Duration and Flow Rate: Rate Tables—Flow out of Manhole Vent or Pick Hole	• Effective where spill is flowing freely and not ponding • Useful when area and depth are difficult to measure
Portable Flow Monitoring Equipment	• Requires portable flow monitoring equipment • Can only be performed post-event • Rain events can be accounted for if flow data is combined with rain gauge data

4. Eyeball Estimation Method

Form #_____

Eyeball Estimation Method Worksheet

Use this method only for small spills of less than 200 gallons.

Spill Date: _____ Location: _____

STEP 1: Position yourself so that you have a vantage point where you can see the entire spill.

STEP 2: Imagine one or more buckets or barrels of water tipped over. Depending on the size of the spill, select a bucket or barrel size as a frame of reference. It may be necessary to use more than one bucket/barrel size.

STEP 3: Estimate how many of each size bucket or barrel it would take to make an equivalent spill. Enter those numbers in Column A of the row in the table below that corresponds to the bucket/barrel sizes you are using as a frame of reference.

STEP 4: Multiply the number in Column A by the multiplier in Column B. Enter the result in Column C.

	A	B	C
Size of bucket(s) or barrel(s)	How many of this size?	Multiplier	Estimated Spill Volume (gallons)[1]
1 gallon water jug		x 1 gallons	
5 gallon bucket		x 5 gallons	
32 gallon trash can		x 32 gallons	
55 gallon drum		x 55 gallons	
Other: _____ gallons		x _____ gallons	
		Estimated Spill Volume:	

STEP 5: Is rainfall a factor in the spill? ☐ Yes ☐ No
If yes, what volume of the observed spill volume do you estimate is rainfall? _____ gallons
If yes, describe how you determined the amount of rainfall in the observed spill?

STEP 6: Calculate the estimated spill volume by subtracting the rainfall from the spill volume:

_____ gallons - _____ gallons = _____ gallons
Estimated Spill Volume Rainfall **Total Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No
- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

5. Drop Bucket Estimation Method

Form #_____

Drop Bucket Estimation Method Worksheet

Use this method only for small spills where the entire flow stream can be captured in a bucket.

Spill Date: _____ Location: _____

STEP 1: Place a bucket under the flow stream. Volume of bucket: _____ gallons

STEP 2: Time how many minutes it takes to fill the bucket: _____ minutes

Convert seconds to minutes if necessary:

_____ ÷ 60 = _____

seconds minutes (round to 2 decimals)

STEP 3: Divide the volume of the bucket by the time it took to fill the bucket. This equals the flow rate in gallons per minute.

_____ gallons ÷ _____ minutes = _____ gallons/minute (gpm)

Volume of Bucket Time to Fill Bucket Flow Rate

STEP 4: Complete the **Start Time Estimation Worksheet** to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:

Spill Start Date: _____ Spill Start Time: _____ ☐ AM ☐ PM

Spill End Date: _____ Spill End Time: _____ ☐ AM ☐ PM

Spill Duration: _____ minutes

STEP 5: Multiply the flow rate times the duration of the spill to calculate the total estimated spill volume.

_____ gpm x _____ minutes = _____ gallons

Flow Rate Flow Duration **Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

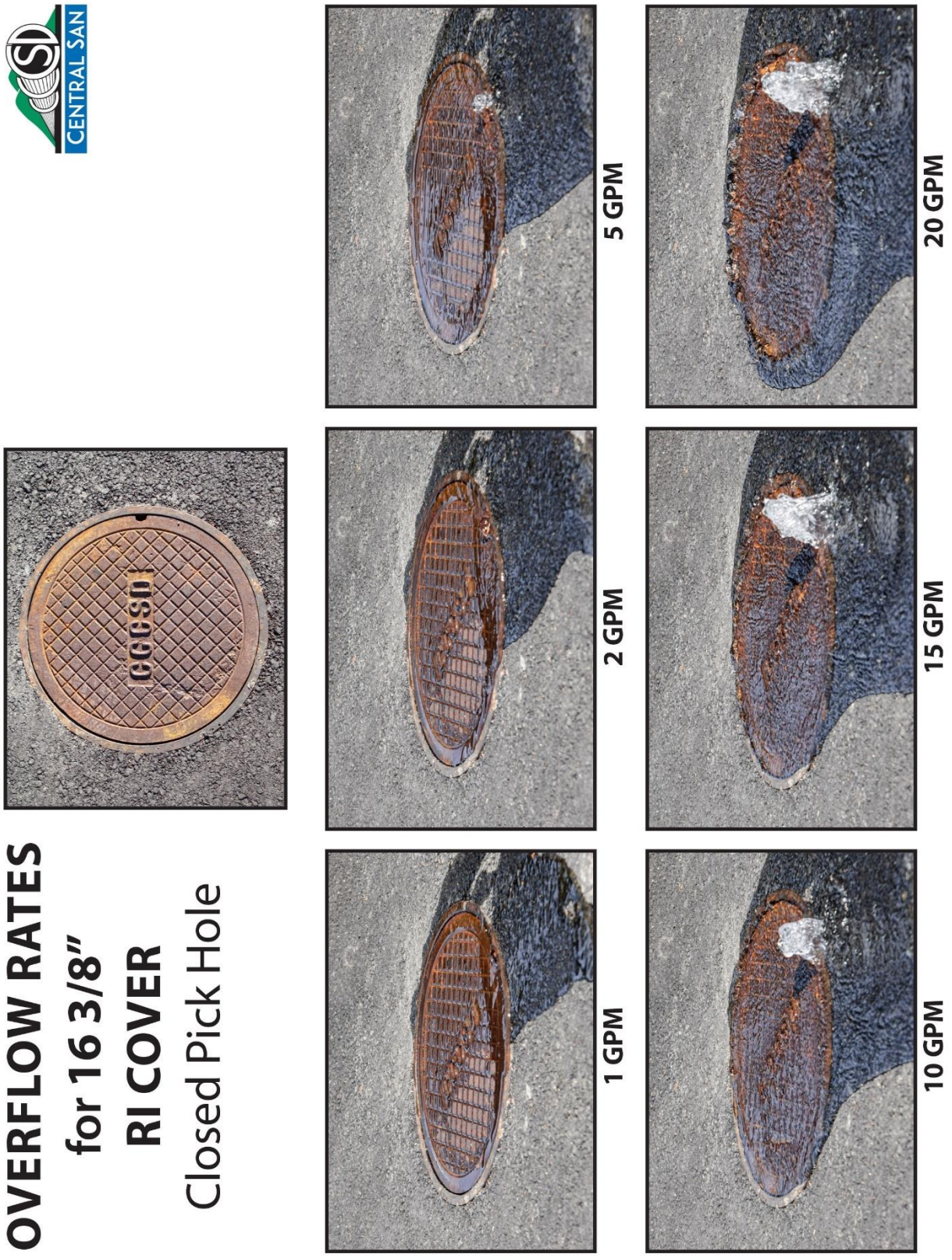
Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

6. Duration and Flow Rate: Photo Comparison



25 GPM

30 GPM

50 GPM

75 GPM

100 GPM

125 GPM

150 GPM

175 GPM

200 GPM

3001A-7/20

OVERFLOW RATES for 25 1/4" NEW STYLE COVER

Open Pick Hole

CENTRAL SAN

1 GPM

2 GPM

5 GPM

10 GPM

15 GPM

20 GPM

25 GPM

30 GPM

50 GPM

75 GPM

100 GPM

125 GPM

150 GPM

175 GPM

200 GPM

3001D-7/20

OVERFLOW RATES for 25 1/4" NEW STYLE COVER

Closed Pick Hole

1 GPM

2 GPM

5 GPM

10 GPM

15 GPM

20 GPM

25 GPM

30 GPM

50 GPM

75 GPM

100 GPM

125 GPM

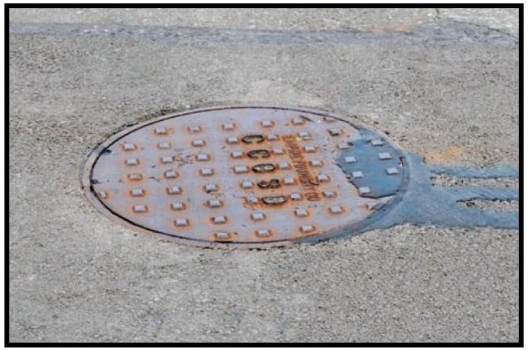
150 GPM

175 GPM

200 GPM

3001D-7/20

OVERFLOW RATES for 27 3/4" OLD STYLE COVER



1 GPM

2 GPM

5 GPM

10 GPM

15 GPM

20 GPM

25 GPM

30 GPM

50 GPM

75 GPM

100 GPM

125 GPM

150 GPM

175 GPM

200 GPM

3001C-7/12

OVERFLOW RATES for Private Lateral OPD

1 GPM

2 GPM

5 GPM

10 GPM

15 GPM

20 GPM

25 GPM

30 GPM

50 GPM

OVERFLOW RATES
for
Private Lateral OPD
below grade

1 GPM

2 GPM

5 GPM

10 GPM

15 GPM

20 GPM

25 GPM

30 GPM

50 GPM

3001E-7/20

7. Upstream Connections Method

Form #_____

Upstream Connections Method Worksheet

Spill Date: _____ Location: _____

STEP 1: Determine the number of upstream connections via sewer utility map: _____
What is the reference for determining how many lots are served by this portion of the collection system (e.g., Grid Map Book page reference): _____

STEP 2: Identify the minimum and maximum water usage for the area in which the spill occurred (i.e., install flow meter). Minimum Water Usage: _____gallons per minute

Maximum Water Usage: _____gallons per minute

How were these flow rates determined? _____

_____

STEP 3: Complete the **Start Time Estimation Worksheet** to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:

Spill Start Date: _____ Spill Start Time: _____ □ AM □ PM

Spill End Date: _____ Spill End Time: _____ □ AM □ PM

Spill Duration: _____ minutes

STEP 4: Make calculation, using the information from Steps 1, 2 and 3 above.

_____ (# upstream connections) x _____ gallons per minute (minimum water usage) x _____ minutes (duration of spill) = _____ gallons (min. estimated flow volume)

_____ (# upstream connections) x _____ gallons per minute (maximum water usage) x _____ minutes (duration of spill) = _____ gallons (max. estimated flow volume)

STEP 5: Describe any factors that would skew the estimate more toward the minimum or maximum rate:

STEP 6: Determine the estimated spill volume by taking the calculated minimum and maximum as well as other factors into consideration: _____ gallons

Estimated Spill Volume

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

8. Area/Volume Method: Ponded Sewage

Form #_____

Area/Volume Method Worksheet: Ponded Sewage *(Page 1 of 2)*

Spill Date: _____ Location: _____

STEP 1: Describe spill area surface: □Asphalt □Concrete □Dirt □Landscape □Inside Building
□Other: _____

STEP 2: Draw/sketch the outline (footprint) of the spill. Then break the footprint down into recognizable shapes. Refer to the example on the **Area/Volume Method: Ponded Sewage Reference Page 1.**

STEP 3: Calculate the area of the footprint. Complete the table below for each shape identified in Step 2. If two shapes overlap, select one of the two shapes and estimate the percentage of that shape that does not overlap. Enter that percentage in the % Not Overlapping column. This will ensure that the overlap area is only counted once. Refer to the example on the Area/Volume Method: Ponded Sewage Reference Page 1.

Rectangles	Length	X	Width	X	% Not Overlapping	=	Area
	ft	X	ft	X	%	=	ft²
	ft	X	ft	X	%	=	ft²
	ft	X	ft	X	%	=	ft²

Triangles	Base	X	Height	Multiplier	X	% Not Overlapping	=	Area
	ft	X	ft	÷ 2	X	%	=	ft²
	ft	X	ft	÷ 2	X	%	=	ft²
	ft	X	ft	÷ 2	X	%	=	ft²

Circles	π	X	Radius	X	Radius	X	% Not Overlapping	=	Area
	3.14	X	ft	X	ft	X	%	=	ft²
	3.14	X	ft	X	ft	X	%	=	ft²
	3.14	X	ft	X	ft	X	%	=	ft²

Total Spill Area (sum of all three tables above): _____ ft²

STEP 4: Calculate the volume of the spill that **was NOT absorbed** into the ground. If the entire spill was absorbed, skip to Step 5.

a. If the spill is of varying depths, take several measurements at different depths and find the average.

_____ inches ÷ _____ = _____ inches ÷ 12 = _____ feet
sum of measurements | # of measurements | average depth in inches | average depth in feet of ponded sewage

b. Calculate spill volume of ponded sewage in cubic feet by multiplying the Total Spill Area in Step 3 by the average depth calculated in Step 4a. Convert from cubic feet to gallons by multiplying by 7.48.

_____ ft² x _____ ft = _____ ft³ x 7.48 gal = _____ gallons
spill area (Step 3) | average depth (Step 4a) | spill volume in cubic feet | estimated volume of ponded sewage

GO TO PAGE 2

Form #_____

Area/Volume Method Worksheet: Ponded Sewage *(Page 2 of 2)*

STEP 5: Calculate the volume of the spill that **was absorbed** into the ground. If only a wet stain is observed, use the guidelines from the **Area/Volume Method: Ponded Sewage Reference Page 1** for the average depth instead of performing the calculations in Steps 5a and 5b below.

a. In order to perform this calculation, you must first determine the water content in the soil using the method described on **Area/Volume Method: Ponded Sewage Reference Page 2**:

Volume of known quantity of water:	V_1 = _____ gallons
Area of wetted footprint:	A = _____ ft^2
Average Depth of Wet Soil:	D = _____ ft
Volume of Wet Soil in Feet = A x D	V_2 = _____ ft^3
Convert cubic feet to gallons = V_2 x 7.48	V_3 = _____ gallons
Calculate water content in soil $V_1 \div V_3$ x 100	Water Content = _____ %

b. Calculate the depth of the actual sewage spill that was absorbed into the ground. First, measure the depth of the wet soil in several locations within the wetted area of the sewage spill. Determine the average depth of the wet soil by taking several measurements at different depths and finding the average. Convert the measurement to feet:

_____ inches ÷ _____ = _____ inches ÷ 12 = _____ feet
sum of measurements | # of measurements | average depth in inches | average depth in feet

c. Calculate volume of the spill that was absorbed into the ground in cubic feet by multiplying the Total Spill Area from Step 3 by the average depth calculated in Step 5b. Then convert from cubic feet to gallons by multiplying by 7.48. Then multiply by the water content percentage determined in Step 5a.

_____ ft^2 ÷ _____ ft = _____ ft^3 x 7.48 gal x _____ % = _____ gallons
spill area (Step 3) | average depth (Step 5b) | spill volume in cubic feet | water content (Step 5a) | estimated volume of absorbed sewage

STEP 6: Add the volume not absorbed (Step 4) plus the volume absorbed (Step 5) to get the total estimated volume:

_____ gallons + _____ gallons = _____ gallons
volume not absorbed | volume absorbed | **Total Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

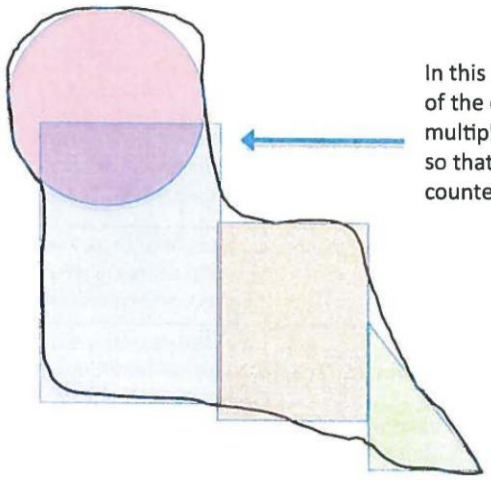
Area/Volume Method: Ponded Sewage Reference

Miscellaneous computations:

Computation	Formula/Guide
To convert inches to feet	Divide the inches by 12 or use the chart on the bottom right of this page.
Volume of one cubic foot	7.48 gallons of water
Area: Two-dimensional measurement represented in square feet.	Square/rectangle: Area = Length x Width Circle: Area = πr^2 (where $\pi \approx 3.14$ and r = radius = ½ diameter) Triangle: Area = ½ (Base x Height)
Volume: Three-dimensional measurement represented in cubic feet.	Rectangle/square footprint: Volume = Length x Width x Depth Circle footprint (cylinder): Volume = πr^2 x Depth (where $\pi \approx 3.14$ and r = radius = ½ diameter) Triangle footprint: Volume = ½ (Base x Height) x Depth
Depth: Contained or "Ponded" sewage	Measure actual depth of standing sewage whenever possible. When depth varies, measure several representative sample points and determine the average. Add the depth of the sample points and then divide that total by the number of sample points. If the depth is not measurable because it is only a wet stain, use the following depths: • Depth of a wet stain on concrete surface: 0.0026' (1/32") • Depth of a wet stain on asphalt surface: 0.0013' (1/64")

Example of how to draw/sketch the outline (footprint) of the spill for Step 2:

1. Sketch the outline of the spill (black line).
2. Break the sketch down into recognizable shapes (circles, squares, etc.) as well as you can.



In this example, after the volume of the circle is determined, multiply it by approximately 65% so that the overlap area isn't counted twice.

Convert Inches to Feet

Inches	Feet
1/8"	0.01'
1/4"	0.02'
3/8"	0.01'
1/2"	0.04'
5/8"	0.05'
3/4"	0.06'
7/8"	0.07'
1"	0.08'
2"	0.17'
3"	0.25'
4"	0.33
5"	0.42'
6"	0.50'
7"	0.58'
8"	0.67'
9"	0.75'
10"	0.83'
11"	0.92'
12"	1.00'

Example of how to determine the water content in wetted soil, measured as a percentage.

By determining the water content in the soil when a known quantity of water is used, it will be possible to estimate the sewage content in the soil where the actual spill occurred.

	Step	Example
	Select an area of dry soil (near the wetted footprint of the spill) to sample. If possible, use a form to keep the water contained to a geometric shape (circle, square, rectangle, etc.).	Place a 2 foot diameter form onto an area of dry soil.
V_1	Pour a known amount of water onto the soil and let it soak in for an adequate amount of time. (This quantity is V_1 in Step 5 on the worksheet)	Pour one gallon of water into the form and let it soak in for 15 minutes.
A	Pull the form and measure the AREA of the wetted soil. It will likely be larger than the form. (This measurement is A in Step 5 on the worksheet)	In this example, let's say the wetted soil footprint's diameter is 2 ft 2 in. We convert the inches to feet and get a diameter of 2.17 ft. The radius is ½ of the diameter, so r = 1.085 ft So using the formula: Area = πr^2 (where $\pi \approx 3.14$) the area of the footprint is 3.14 x 1.085 ft x 1.085 ft = 3.70 ft^2
D	Using a small hand tool, dig down into the soil until dry soil is reached. Measure the DEPTH of the wet soil. Do this in multiple locations and average the measurements. Convert to feet. (This measurement is D in Step 5 on the worksheet)	Dig into the soil in 3 locations and measure the depth of the wetted soil. It is usually easiest to measure this depth in inches, so in this example we will measure in inches and then convert to feet. In this example, let's say we take the following measurements: 2½ inches, 1½ inches and 3¾ inches We convert the measurements to decimals and get 2.5 in, 1.5 in, and 3.75 in. Then we average the 3 measurements by adding them together and then dividing by 3: 2.5 in + 1.5 in + 3.75 in = 7.75 in 7.75 in ÷ 3 = 2.58 in Convert the number to feet by dividing by 12: 2.58 in ÷ 12 in = 0.215 ft
V_2	Multiply the AREA of the wet soil by the average DEPTH of the wet soil to determine the VOLUME of the wet soil in cubic feet. (This measurement is V_2 in Step 5)	3.70 ft^2 x 0.215 ft = 0.80 ft^3
V_3	Multiply by 7.48 to convert the volume in cubic feet (ft^3) to the volume in gallons (gal). *NOTE: This measurement is V_3 in Step 5*	Multiply the volume in cubic feet by the conversion multiplier to get the volume in gallons 0.80 ft^3 x 7.48 gal/ft^3 = 6 gal
Water Content	Calculate the water content in the soil: • Since you started with a known amount, you know how much water is in the soil. • Divide that known amount of water by the calculated volume of soil to get the percent of water content in the soil.	Divide the known volume of water by the calculated volume of soil 1 gal ÷ 6 gal = .17 so 17% is the water content in the soil.

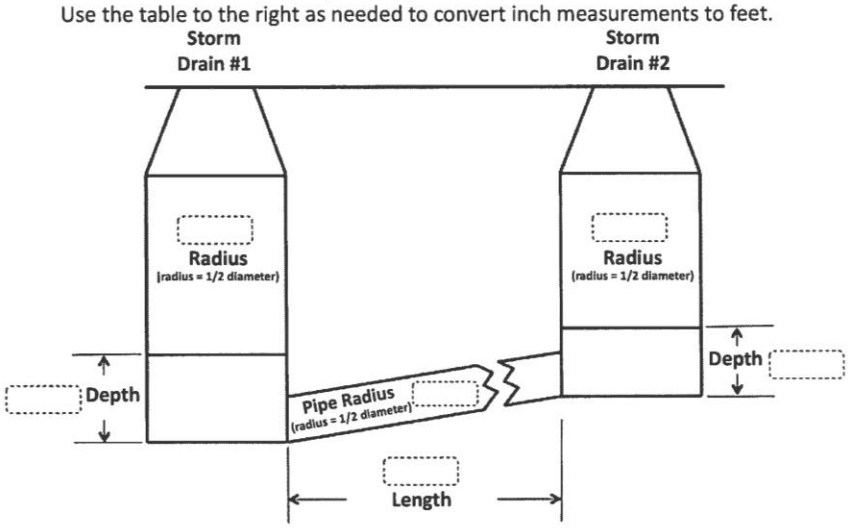
9. Area/Volume Method: Sewage Contained in a Storm Drain System

Form #_____

Area/Volume Method Worksheet: Sewage Contained in a Storm Drain System

Spill Date: _____ Location: _____

STEP 1: Take measurements (in feet) and enter them in the dashed boxes below.
Use the table to the right as needed to convert inch measurements to feet.



Convert Inches to Feet	
Inches	Feet
1/8"	0.01'
1/4"	0.02'
3/8"	0.01'
1/2"	0.04'
5/8"	0.05'
3/4"	0.06'
7/8"	0.07'
1"	0.08'
2"	0.17'
3"	0.25'
4"	0.33
5"	0.42'
6"	0.50'
7"	0.58'
8"	0.67'
9"	0.75'
10"	0.83'
11"	0.92'
12"	1.00'

STEP 2: Complete the table below for each part of the storm drain system diagrammed above.

	π	X	Radius	X	Radius	X	Depth	=	Volume
Storm Drain #1	3.14	X	ft	X	ft	X	ft	=	ft³

	π	X	Radius	X	Radius	X	Depth	=	Volume
Storm Drain #2	3.14	X	ft	X	ft	X	ft	=	ft³

	π	X	Radius	X	Radius	X	Length	=	Volume
Pipe	3.14	X	ft	X	ft	X	ft	=	ft³

STEP 3: Add the right column together to calculate the total spill volume in cubic feet.
Multiply by 7.48 to convert to gallons.

_____ ft³ + _____ ft³ + _____ ft³ x 7.48 = _____ gallons

Drain #1 Volume | Drain #2 Volume | Pipe Volume | **Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

STEP 4: Attach a map of the impacted storm drain to this form for future reference.

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

SMART Sewer Overflow Volume Estimation Workbook

10. Area/Volume Method: Sewage Contained in a Roadway Gutter

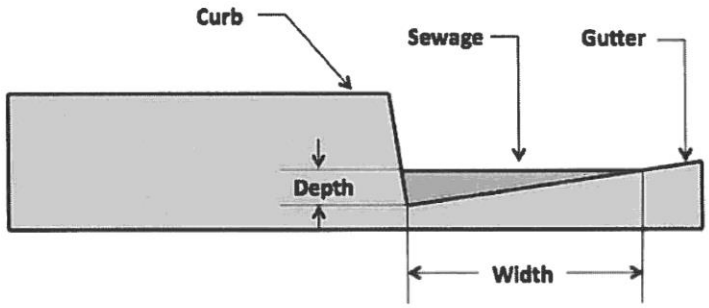
Form #_____

Area/Volume Method Worksheet: Contained in a Roadway Gutter

Spill Date: _____ Location: _____

STEP 1: Measure the length of the contained spill in feet: _____ feet

STEP 2: Measure the depth and width of the overflow in the gutter. Convert measurements to feet. Refer to the drawing below.



Depth: _____ inches ÷ 12 = _____ feet

Width: _____ inches ÷ 12 = _____ feet

STEP 4: Calculate the overflow volume using the following equation:

_____ X _____ X _____ ÷ 2 = _____ ft^3

Length | Depth | Width | Estimated spill volume in cubic feet

STEP 5: Convert the overflow volume from cubic feet to gallons:

_____ ft^3 X 7.48 = _____ gallons

Estimated spill volume in cubic feet | **Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

11. Flow Calculation Worksheet

Form #_____

Flow Calculation Worksheet

Spill Date: _____ Location: _____

Manhole #1 ID: _____ Manhole #2 ID: _____ Inside Pipe Diameter: _____ inches

STEP 1: Complete the **Start Time Estimation Worksheet** to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:

Spill Start Date: _____ Spill Start Time: _____ □ AM □ PM

Spill End Date: _____ Spill End Time: _____ □ AM □ PM

Spill Duration: _____ minutes

STEP 2: Calculate spill velocity:

A. Measure the distance between the two manholes: _____ feet

B. Drop a ball in at the upstream manhole.

C. Measure the time it takes to arrive at the downstream manhole: _____ seconds

D. Divide the distance in feet from A by the time in seconds from C:

_____ feet ÷ _____ seconds = _____ feet/second = Velocity **(V)**

STEP 3: Calculate inside pipe diameter squared (D^2) by multiplying the pipe diameter by itself. Convert to feet.

D^2 = _____ X _____ = _____ $inches^2$ ÷ 12 = _____ $feet^2$

Inside Pipe diameter | Inside Pipe diameter | Diameter squared in inches | Diameter squared in feet

STEP 4: Calculate flow level to pipe diameter ratio (L/D)

_____ inches ÷ _____ inches = **L/D** _____

Level of flow | Inside Pipe diameter

STEP 5: Identify Flow Unit Multiplier (K) in Table 1 using L/D. Read the GPM (Gallons Per Minute) column.

K = _____ gpm

STEP 6: Calculate the profiled flow by multiplying the numbers from Steps 2, 3 and 5 above.

_____ ft/sec x _____ feet x _____ = _____ GPM

Velocity (V) | Diameter Squared (D^2) | Multiplier (K) | Profiled Flow

STEP 7: Calculate the estimated spill volume by multiplying the numbers from Step 1 and Step 6.

_____ gpm x _____ minutes = _____ gallons

Profiled Flow | Spill Duration | **Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Flow Calculation Worksheet Reference

Table I Flow Unit Multiplier

L/D	K (Flow Unit Multiplier		
	MGD	GPM	CFS
0.01	0.0009	0.5966	0.0013
0.02	0.0024	1.6824	0.0037
0.03	0.0044	3.0814	0.0069
0.04	0.0068	4.7296	0.0105
0.05	0.0095	6.5894	0.0147
0.06	0.0124	8.6351	0.0192
0.07	0.0156	10.8475	0.0242
0.08	0.0190	13.2113	0.0294
0.09	0.0226	15.7143	0.0350
0.10	0.0264	18.3460	0.0409
0.11	0.0304	21.0975	0.0470
0.12	0.0345	23.9609	0.0534
0.13	0.0388	26.9294	0.0600
0.14	0.0432	29.9967	0.0668
0.15	0.0477	33.1571	0.0739
0.16	0.0524	36.4056	0.0811
0.17	0.0572	39.7374	0.0885
0.18	0.0621	43.1480	0.0961
0.19	0.0672	46.6334	0.1039
0.20	0.0723	50.1898	0.1118
0.21	0.0775	53.8135	0.1199
0.22	0.0828	57.5012	0.1281
0.23	0.0882	61.2496	0.1365
0.24	0.0937	65.0555	0.1449
0.25	0.0992	68.9161	0.1535
0.26	0.1049	72.8286	0.1623
0.27	0.1106	76.7901	0.1711
0.28	0.1163	80.7982	0.1800
0.29	0.1222	84.8503	0.1890
0.30	0.1281	88.9439	0.1982
0.31	0.1340	93.0767	0.2074
0.32	0.1400	97.2464	0.2167
0.33	0.1461	101.4507	0.2260
0.34	0.1522	105.6875	0.2355
0.35	0.1583	109.9546	0.2450
0.36	0.1645	114.2500	0.2545
0.37	0.1707	118.5715	0.2642
0.38	0.1770	122.9172	0.2739
0.39	0.1833	127.2851	0.2836
0.40	0.1896	131.6733	0.2934
0.41	0.1960	136.0797	0.3032
0.42	0.2023	140.5026	0.3130
0.43	0.2087	144.9400	0.3229
0.44	0.2151	149.3902	0.3328
0.45	0.2215	153.8512	0.3428
0.46	0.2280	158.3212	0.3527
0.47	0.2344	162.7985	0.3627
0.48	0.2409	167.2811	0.3727
0.49	0.2473	171.7673	0.3827
0.50	0.2538	176.2553	0.3927

L/D	K (Flow Unit Multiplier		
	MGD	GPM	CFS
0.51	180.7433	0.2603	0.4027
0.52	185.2295	0.2667	0.4127
0.53	189.7121	0.2732	0.4227
0.54	194.1894	0.2796	0.4327
0.55	198.6594	0.2861	0.4426
0.56	203.1204	0.2925	0.4526
0.57	207.5706	0.2989	0.4635
0.58	212.0080	0.3053	0.4724
0.59	216.4309	0.3117	0.4822
0.6	220.8374	0.3180	0.4920
0.61	225.2255	0.3243	0.5018
0.62	229.5934	0.3306	0.5115
0.63	233.9392	0.3369	0.5212
0.64	238.2607	0.3431	0.5308
0.65	242.5560	0.3493	0.5404
0.66	246.8232	0.3554	0.5499
0.67	251.0600	0.3615	0.5594
0.68	255.2643	0.3676	0.5687
0.69	259.4340	0.3736	0.5780
0.7	263.5668	0.3795	0.5872
0.71	267.6604	0.3854	0.5963
0.72	271.7125	0.3913	0.6054
0.73	275.7206	0.3970	0.6143
0.74	279.6822	0.4027	0.6231
0.75	283.5946	0.4084	0.6319
0.76	287.4553	0.4139	0.6405
0.77	291.2612	0.4194	0.6489
0.78	295.0096	0.4248	0.6573
0.79	298.6972	0.4301	0.6655
0.8	302.3210	0.4353	0.6736
0.81	305.8774	0.4405	0.6815
0.82	309.3629	0.4455	0.6893
0.83	312.7735	0.4505	0.6969
0.84	316.1053	0.4552	0.7043
0.85	319.3538	0.4599	0.7115
0.86	322.5143	0.4644	0.7186
0.87	325.5815	0.4688	0.7254
0.88	328.5500	0.4731	0.7320
0.89	331.4135	0.4772	0.7384
0.9	334.1650	0.4812	0.7445
0.91	336.7967	0.4850	0.7504
0.92	339.2997	0.4886	0.7560
0.93	341.6636	0.4920	0.7612
0.94	343.8759	0.4952	0.7662
0.95	345.9216	0.4981	0.7707
0.96	347.7815	0.5008	0.7749
0.97	349.4297	0.5032	0.7785
0.98	350.8287	0.5052	0.7816
0.99	351.9145	0.5068	0.7841
0.1	352.5112	0.5076	0.7854

L/D = Level to Diameter Ratio
MGD = Millions of Gallons per Day
GPM = Gallons per Minute
CFS = Cubic Feet per Second

12. Lower Lateral Estimator

Form #_____

Lower Lateral Estimation Worksheet

Spill Date: _____ Location: _____

STEP 1: Determine the number of Equivalent Dwelling Units (EDUs) for this spill: _____EDUs

NOTE: A single-family residential home = 1 EDU. For commercial buildings, refer to agency documentation.

STEP 2: Complete the **Start Time Estimation Worksheet** to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:

Spill Start Date: _____ Spill Start Time: _____ ☐ AM ☐ PM
Spill End Date: _____ Spill End Time: _____ ☐ AM ☐ PM
Spill Duration: _____ minutes

STEP 3: Calculate the estimated spill volume per EDU. Refer to the Lower Lateral Estimation Reference page as needed:

1. Identify agency flow rates and enter the figures into the chart below. Enter the flow volume per EDU for each period in column A. Complete columns B-D to calculate the flow rate per minute.
2. Break the actual spill time up into the time periods indicated in the agency's flow pattern data. Enter the number of minutes the spill was active during each time period in column E.
3. Calculate the gallons spilled per EDU during each time period by multiplying column D times column E.
4. Add the numbers in column F together to calculate the estimated spill volume per EDU.

Time Period	Agency Flow Rates per EDU				Spill	
	A	B	C	D	E	F
	Gallons per Period	Hours per Period	A ÷ B = Gallons per Hour	C ÷ 60 = Gallons per Minute	Minutes spill was active during period	D x E = Gallons Spilled per Period
Total Estimated Spill Volume per EDU						

STEP 4: Multiply the Estimated Spill Volume per EDU in the Step 3 chart by the number of EDUs determined in Step 1.

_____ gallons X _____ = _____ gallons
Volume per EDU # of EDUs Estimated Spill Volume

STEP 5: Adjust spill volume as necessary considering other factors, such as activity that would cause a fluctuating flow rate (doing laundry, taking showers, etc.). Explain rationale below and indicate adjusted spill estimate (attach a separate page if necessary):

Estimated Spill Volume: _____ gallons

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:
Name: _____ Signature: _____
Job Title: _____ Date: _____

Lower Lateral Estimation Reference

The following is an example of estimation using the Lower Lateral Estimation method.
All of these figures are for EXAMPLE ONLY. Always use your agency's flow data.

Agency Flow Rates: Columns A, B and C in the chart below represent the agency's diurnal flow pattern. Each agency will have unique diurnal flow patterns, so for this estimation method it is necessary to have the flow rate information for the location in which the spill has occurred. In this example, the agency's diurnal flow rate data are indicated as Gallons per Period per Equivalent Dwelling Unit (EDU). For this estimation method, it is necessary to know the gallons per hour or gallons per minute, so columns C and D contain those figures.

Spill Description: In this example, the spill involved a single family residential home. The start time was 9:45 AM and the Spill End time was 1:30 PM. Total spill time was 3 hours and 45 minutes, or 225 minutes. Columns D and E in the chart below are used to calculate the estimated number of gallons spilled by taking the flow rate indicated in column D of for each period and multiplying it by the number of minutes the spill was active during each period (Column E). The gallons spilled in each time period are added together to calculate the total estimated spill volume per EDU.

Time Period	Agency Flow Rates per EDU				Spill	
	A	B	C	D	E	F
	Gallons per Period	Hours per Period	A ÷ B = Gallons per Hour	C ÷ 60 = Gallons per Minute	Minutes spill was active during period	D x E = Gallons spilled per period
6 AM to Noon	72	6	12	0.20	135	27.0
Noon to 6 PM	54	6	9	0.15	90	13.5
6 PM to Midnight	45	6	7.5	0.13	0	0
Midnight to 6 AM	9	6	1.5	0.03	0	0
Total Estimated Spill Volume per EDU						40.5

This information alone likely does not tell the whole story. Typically, sewage does not run continuously from a home. If at all possible the customer should be interviewed. Be respectful and ask the customer if they would mind if you asked them a few questions to help determine the volume of the spill. Questions may include:

- Since the time you noticed the spill, how many people have been home?
- Have you done any laundry, run the dishwasher, or taken a shower?

Use the following general guidelines as appropriate to take water use into consideration. The amounts listed below are considered to be typical water usage.

- Washing Machine: 30 gallons/load
- Dishwasher: 9 gallons/load
- Shower (10 Min.): 25 gallons/shower

Next, consider all of the information you have gathered:

- Your visual assessment of the size of the stain or water mark on the ground plus any tissue, etc.
- The answers to the questions about use
- The Total Estimated Spill Volume calculated in the chart

Does the information gathered suggest that the volume determined by the estimation tool be adjusted, up, down or left as is? Describe your rationale for adjusting the estimation.

13. Lift Station Estimation

Form #_____

Lift Station Estimation Worksheet

Use this method only if the lift station influent and effluent rates are known.

Spill Date: _____ Location: _____

STEP 1: Identify the spill rate using SCADA or flow meter data.

- Influent Rate: If the spill is due to the station failure, then the rate of flow into the station will be the spill rate.
- Effluent Rate: If the force main fails, then the pump discharge rate along with the cycle frequency will be the spill rate.

Spill Rate: _____ gallons/minute (gpm)

Last date the flow meter was calibrated: _____

What was the source of the data?

□ This agency

□ Another agency: Agency: _____

Contact Name: _____

Contact Telephone: _____

STEP 2: Complete the **Start Time Estimation Worksheet** to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:

Spill Start Date: _____ Spill Start Time: _____ □ AM □ PM

Spill End Date: _____ Spill End Time: _____ □ AM □ PM

Spill Duration: _____ minutes

STEP 3: Multiply the spill rate by the spill duration to calculate the estimated spill volume.

_____ gpm X _____ minutes = _____ gallons

Spill Rate Spill Duration **Estimated spill volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

14. Manhole Spill Rate Tables – Manhole Cover in Place

Form #_____

Duration and Flow Rate Using Manhole Overflow Rate Tables—Manhole Cover In Place Worksheet

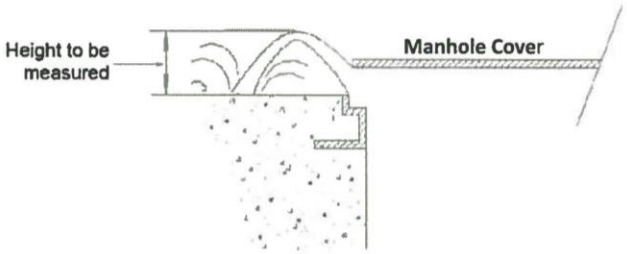
Spill Date: _____ Location: _____

STEP 1: Determine the size of the manhole cover. Check one: ☐ 24" Cover ☐ 36" Cover

STEP 2: Measure the height of the spout above the manhole rim in inches: _____ inches

Note: Be as precise as possible. A small difference in spout height can make a major difference in estimated spill volume!

Describe how the spout height was determined:



STEP 3: Determine the Spill Rate by referring to Table 1. Use the table on the left for a 24" cover or the table on the right for a 36" cover. Find the height measured in Step 2 in the left column. Read the Spill Rate in the next column (gpm = gallons per minute).

Spill Rate = _____ gpm

STEP 4: Complete the **Start Time Estimation Worksheet** to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:

Spill Start Date: _____ Spill Start Time: _____ ☐ AM ☐ PM

Spill End Date: _____ Spill End Time: _____ ☐ AM ☐ PM

Spill Duration: _____ minutes

STEP 5: Multiply the spill rate by the spill duration to calculate the estimated spill volume.

_____ gpm X _____ minutes = _____ gallons

Spill Rate | Spill Duration | **Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

SMART Sewer Overflow Volume Estimation Workbook

Duration and Flow Rate Using Manhole Overflow Rate Tables: Manhole Cover in Place Reference

Table 1

NOTE: This table is provided for general reference. The agency is strongly encouraged to develop site-specific data.

24" Cover

Height of spout above manhole rim in inches	SSO Flow Q		Min. sewer size in which these flows are possible
	in gpm	in MGD	
1/4	1	0.001	
1/2	3	0.004	
3/4	6	0.008	
1	9	0.013	
1 1/4	12	0.018	
1 1/2	16	0.024	
1 3/4	21	0.030	
2	25	0.037	
2 1/4	31	0.045	
2 1/2	38	0.054	
2 3/4	45	0.065	
3	54	0.077	
3 1/4	64	0.092	
3 1/2	75	0.107	
3 3/4	87	0.125	
4	100	0.145	
4 1/4	115	0.166	
4 1/2	131	0.189	
4 3/4	148	0.214	
5	166	0.240	
5 1/4	185	0.266	
5 1/2	204	0.294	
5 3/4	224	0.322	6"
6	244	0.352	
6 1/4	265	0.382	
6 1/2	286	0.412	
6 3/4	308	0.444	
7	331	0.476	
7 1/4	354	0.509	
7 1/2	377	0.543	
7 3/4	401	0.578	8"
8	426	0.613	
8 1/4	451	0.649	
8 1/2	476	0.686	
8 3/4	502	0.723	

36" Cover

Height of spout above manhole rim in inches	SSO Flow Q		Min. sewer size in which these flows are possible
	in gpm	in MGD	
1/4	1	0.002	
1/2	4	0.006	
3/4	8	0.012	
1	13	0.019	
1 1/4	18	0.026	
1 1/2	24	0.035	
1 3/4	31	0.044	
2	37	0.054	
2 1/4	45	0.065	
2 1/2	55	0.079	
2 3/4	66	0.095	
3	78	0.113	
3 1/4	93	0.134	
3 1/2	109	0.157	
3 3/4	127	0.183	
4	147	0.211	
4 1/4	169	0.243	
4 1/2	192	0.276	
4 3/4	217	0.312	6"
5	243	0.350	
5 1/4	270	0.389	
5 1/2	299	0.430	
5 3/4	327	0.471	
6	357	0.514	
6 1/4	387	0.558	8"
6 1/2	419	0.603	
6 3/4	451	0.649	
7	483	0.696	
7 1/4	517	0.744	
7 1/2	551	0.794	
7 3/4	587	0.845	10"
8	622	0.896	
8 1/4	659	0.949	
8 1/2	697	1.003	
8 3/4	734	1.057	
9	773	1.113	

Disclaimer:

This sanitary sewer overflow table was developed by Ed Euyen, Civil Engineer, P.E. No. 33955, California, for County Sanitation District 1. This table is provided as an example. Other Agencies may want to develop their own estimating tables.

15. Manhole Spill Rate Tables – Manhole Cover Removed

Form #_____

Duration and Flow Rate Using Manhole Overflow Rate Tables—Manhole Cover Removed Worksheet

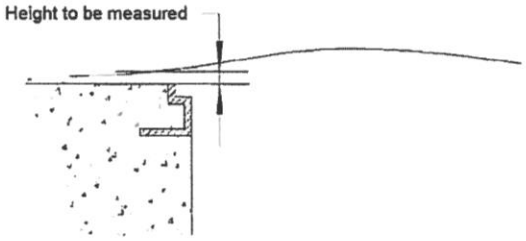
Spill Date: _____ Location: _____

STEP 1: Determine the size of the manhole cover. Check one: ☐ 24" Cover ☐ 36" Cover

STEP 2: Measure the water height above the manhole frame in inches: _____ inches

Note: Be as precise as possible. A small difference in spout height can make a major difference in estimated spill volume!

Describe how the spout height was determined:



STEP 3: Determine the Spill Rate by referring to Table 2. Use the table on the left for a 24" frame or the table on the right for a 36" frame. Find the height measured in Step 2 in the left column. Read the Spill Rate in the next column (gpm = gallons per minute). Spill Rate = _____ gpm

STEP 4: Complete the **Start Time Estimation Worksheet** to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:

Spill Start Date: _____ Spill Start Time: _____ ☐ AM ☐ PM

Spill End Date: _____ Spill End Time: _____ ☐ AM ☐ PM

Spill Duration: _____ minutes

STEP 5: Multiply the spill rate by the spill duration to calculate the estimated spill volume.

_____ gpm X _____ minutes = _____ gallons

Spill Rate | Spill Duration | **Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Duration and Flow Rate Using Manhole Overflow Rate Tables: Manhole Cover Removed Reference

Table 2

NOTE: This table is provided for general reference. The agency is strongly encouraged to develop site-specific data.

24" FRAME

Water height above manhole frame in inches	SSO Flow Q		Min. sewer size in which these flows are possible
	in gpm	in MGD	
1/8	28	0.04	
1/4	62	0.09	
3/8	111	0.16	
1/2	160	0.23	
5/8	215	0.31	6"
3/4	354	0.51	8"
7/8	569	0.82	10"
1	799	1.15	12"
1 1/8	1,035	1.49	
1 1/4	1,340	1.93	15"
1 3/8	1,660	2.39	
1 1/2	1,986	2.86	18"
1 5/8	2,396	3.45	18"
1 3/4	2,799	4.03	
1 7/8	3,132	4.51	
2	3,444	4.96	21"
2 1/8	3,750	5.4	
2 1/4	3,986	5.74	
2 3/8	4,215	6.07	
2 1/2	4,437	6.39	
2 5/8	4,569	6.58	24"
2 3/4	4,687	6.75	
2 7/8	4,799	6.91	
3	4,910	7.07	

36" FRAME

Water height above manhole frame in inches	SSO Flow Q		Min. sewer size in which these flows are possible
	in gpm	in MGD	
1/8	49	0.07	
1/4	111	0.16	
3/8	187	0.27	6"
1/2	271	0.39	
5/8	361	0.52	8"
3/4	458	0.66	
7/8	556	0.80	10"
1	660	0.95	12"
1 1/8	1,035	1.49	
1 1/4	1,486	2.14	15"
1 3/8	1,951	2.81	
1 1/2	2,424	3.49	18"
1 5/8	2,903	4.18	
1 3/4	3,382	4.87	
1 7/8	3,917	5.64	21"
2	4,458	6.42	
2 1/8	5,000	7.20	24"
2 1/4	5,556	8.00	
2 3/8	6,118	8.81	
2 1/2	6,764	9.74	
2 5/8	7,403	10.66	
2 3/4	7,972	11.48	30"
2 7/8	8,521	12.27	
3	9,062	13.05	
3 1/8	9,604	13.83	
3 1/4	10,139	14.60	
3 3/8	10,625	15.30	36"
3 1/2	11,097	15.98	
3 5/8	11,569	16.66	
3 3/4	12,035	17.33	
3 7/8	12,486	17.98	
4	12,861	18.52	
4 1/8	13,076	18.83	
4 1/4	13,285	19.13	
4 3/8	13,486	19.42	

Disclaimer:

This sanitary sewer overflow table was developed by Ed Euyen, Civil Engineer, P.E. No. 33955, California, for County Sanitation District 1. This table is provided as an example. Other Agencies may want to develop their own estimating tables.

16. Manhole Spill Rate Tables – Flow Out of Vent or Pick Hole

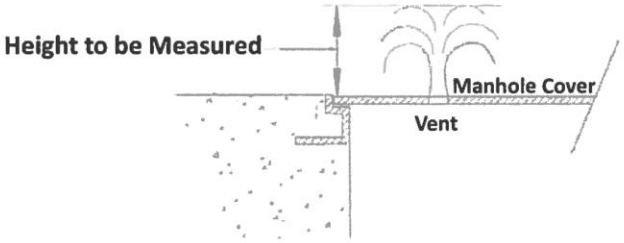
Form #_____

Duration and Flow Rate Using Manhole Overflow Rate Tables—Flow Out of Manhole Vent or Pick Hole

Spill Date: _____ Location: _____

STEP 1: Measure the water height flowing out of the vent or pick hole in inches: _____ inches
Note: Be as precise as possible. A small difference in spout height can make a major difference in estimated spill volume!

Describe how the spout height was determined:



STEP 2: Determine the Spill Rate by referring to Table 3. Find the height measured in Step 1 in the left column. Read the Spill Rate in the next column (gpm = gallons per minute). Spill Rate = _____ gpm

STEP 3: Complete the **Start Time Estimation Worksheet** to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:

Spill Start Date: _____ Spill Start Time: _____ ☐ AM ☐ PM

Spill End Date: _____ Spill End Time: _____ ☐ AM ☐ PM

Spill Duration: _____ minutes

STEP 4: Multiply the spill rate by the spill duration to calculate the estimated spill volume.

_____ gpm X _____ minutes = _____ gallons

Spill Rate | Spill Duration | **Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

Duration and Flow Rate Using Manhole Overflow Rate Tables: Flow out of Manhole Vent or Pickhole Reference

Table 3

NOTE: This table is provided for general reference. The agency is strongly encouraged to develop site-specific data.

This table is based on a 7/8 inch diameter pick hole

Height of spout above manhole cover in inches	SSO Flow Q in gpm
1/8	1.0
1/4	1.4
3/8	1.7
1/2	1.9
5/8	2.2
3/4	2.4
7/8	2.6
1	2.7
1 1/8	2.9
1 1/4	3.1
1 3/8	3.2
1 1/2	3.4
1 5/8	3.5
1 3/4	3.6
1 7/8	3.7
2	3.9
2 1/8	4.0
2 1/4	4.1
2 3/8	4.2
2 1/2	4.3
2 5/8	4.4
2 3/4	4.5
2 7/8	4.6
3	4.7
3 1/8	4.8
3 1/4	4.9
3 3/8	5.0
3 1/2	5.1
3 5/8	5.2
3 3/4	5.3
3 7/8	5.4
4	5.5
4 1/8	5.6
4 1/4	5.6
4 3/8	5.7
4 1/2	5.8
4 5/8	5.9
4 3/4	6.0
4 7/8	6.0
5	6.1
5 1/8	6.2
5 1/4	6.3
5 3/8	6.3
5 1/2	6.4
5 5/8	6.5
5 3/4	6.6
5 7/8	6.6
6	6.7
6 1/8	6.8
6 1/4	6.8
6 3/8	6.9
6 1/2	7.0
6 5/8	7.0
6 3/4	7.1
6 7/8	7.2
7	7.2
7 1/8	7.3
7 1/4	7.4
7 3/8	7.4
7 1/2	7.5
7 5/8	7.6
7 3/4	7.6
7 7/8	7.7
8	7.7
8 1/8	7.8
8 1/4	7.9
8 3/8	7.9
8 1/2	8.0
8 5/8	8.0
8 3/4	8.1
8 7/8	8.1
9	8.2
9 1/8	8.3
9 1/4	8.3
9 3/8	8.4
9 1/2	8.4
9 5/8	8.5
9 3/4	8.5
9 7/8	8.6
10	8/7

Disclaimer:

This sanitary sewer overflow table was developed by Ed Euyen, Civil Engineer, P.E. No. 33955, California, for County Sanitation District 1. This table is provided as an example. Other Agencies may want to develop their own estimating tables.

17. Post-Event Flow Monitoring

Form #_____

Post-Event Flow Monitoring Worksheet

Spill Date: _____ Location: _____

Description of flow monitoring equipment used (e.g., model name and number): _____

_____

_____

STEP 1: Complete the **Start Time Estimation Worksheet** to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:

Spill Start Date: _____ Spill Start Time: _____ □ AM □ PM

Spill End Date: _____ Spill End Time: _____ □ AM □ PM

Spill Duration: _____ minutes

STEP 2: Install the flow monitoring equipment in the same mainline segment that experienced the spill.

STEP 3: Monitor the flow for the same duration as the spill duration determined in Step 1. Ideally monitoring should take place under the same weather conditions and on the same day of the week as the spill.

Monitoring Date: _____

Monitoring start time: _____ □AM □PM

Monitoring end time: _____ □AM □PM

Monitoring Duration: _____ minutes (should be equal to spill duration)

STEP 4: Record the Average Flow Rate according to the flow monitoring equipment.

Average Flow Rate: _____ gallons per minute (gpm)

STEP 5: Use the Average Flow Rate from Step 4 and the Spill Duration from Step 1 to calculate the Estimated Spill Volume.

_____ gpm X _____ minutes = _____ gallons

Average Flow Rate | Spill Duration | **Estimated Spill Volume**

Do you believe that this method has estimated the entire spill? ☐ Yes ☐ No

- If no, you MUST use additional methods to estimate the entire spill.
- If yes, it is advisable to use additional methods to support your estimation.

Explain why you believe this method has or has not estimated the entire spill:

This worksheet completed by:

Name: _____ Signature: _____

Job Title: _____ Date: _____

18. Field Spill Volume Estimation Summary

Form #_____

FIELD SPILL VOLUME ESTIMATION WORKSHEET SUMMARY

INSTRUCTIONS: Complete this form and forward it along with a map showing stoppage/blockage location and overflow location, the Start Time Estimation Worksheet, the worksheets used to calculate the estimates, and any photographs of the spill to the appropriate party. Be sure to include any other SSO documentation created in accordance with agency procedures.

Spill Date: _____ Location: _____

1. **Complete the Start Time Estimation Worksheet to provide a detailed description of how start time was determined. Copy the information from the Start Time Estimation Worksheet here:**

   Spill Start: _____ (date) _____ (time) □AM □PM Spill End: _____ (date) _____ (time) □AM □PM Spill Duration: _____ minutes

2. Spill Volume Estimation Method(s) Used: *Enter each method used, the estimated volume using that method and any comments.*

Method	Volume	Comments
_____	_____ gallons	_____
_____	_____ gallons	_____
_____	_____ gallons	_____
_____	_____ gallons	_____

3. Weather Conditions: □ Sunny □ Overcast □ Windy □ Snowing □ Raining: rainfall during spill _____ inches
   Air Temperature: _____ Humidity: _____ How temp/humidity were determined: _____

4. Describe any other factors contributing to the estimated spill volume. Include rationale for selecting method(s) and any additional information about the spill that influenced the estimation (attach an additional page if necessary):

5. What volume is estimated to have been lost to evaporation, traffic or ground based on conditions: _____ gallons

6. Calculate the estimated spill volume by adding the estimated volume plus any volume lost:

   _____ gallons (Volume based on methods/conditions/factors) + _____ gallons (Volume lost) = _____ gallons (Estimated Spill Volume)

7. Was any of the overflow recovered and/or returned to the system? □ YES □ NO
   If no: Explain why: _____
   If yes: How was recovered/returned volume calculated? _____
   How was recovery done? _____
   Where is the documentation of the recovery process? _____
   What volume of the spill was recovered and/or returned? _____ gallons

8. Was rinse water used (check one)? □ NO □ YES, potable chlorinated water □ YES, non-chlorinated/dechlorinated water
   If yes: What volume? _____ gallons
   How was this volume calculated? _____
   What volume of rinse water was returned? _____ gallons
   How was this volume calculated? _____
   Calculate the volume of rinse water used and not returned: _____ gallons

9. Calculate the estimated volume of SSO and rinse water not recovered:

   _____ gallons (Estimated Spill Volume (#6)) − _____ gallons (Total Volume Recovered/Returned (#7)) + _____ gallons (Rinse water not returned(#8)) = _____ gallons (TOTAL EST. VOLUME NOT RECOVERED)

This form completed by:

Name: _____ Signature: _____ Date: _____

Reviewed by: _____ Signature: _____ Date: _____

SMART Sewer Overflow Volume Estimation Workbook

Field Spill Volume Estimation Worksheet Summary Reference

Using Multiple Estimation Methods:

There are many ways to calculate a spill volume. Some methods will capture the entire spill, but other methods may only calculate a portion of the spill.

If a method captures the entire spill:

Select one method and then use at least one other method to support the initial estimate. Depending on the circumstances of the spill, it may make sense to average the volume estimates, or the final estimate may be skewed toward the calculation from one method or the other.

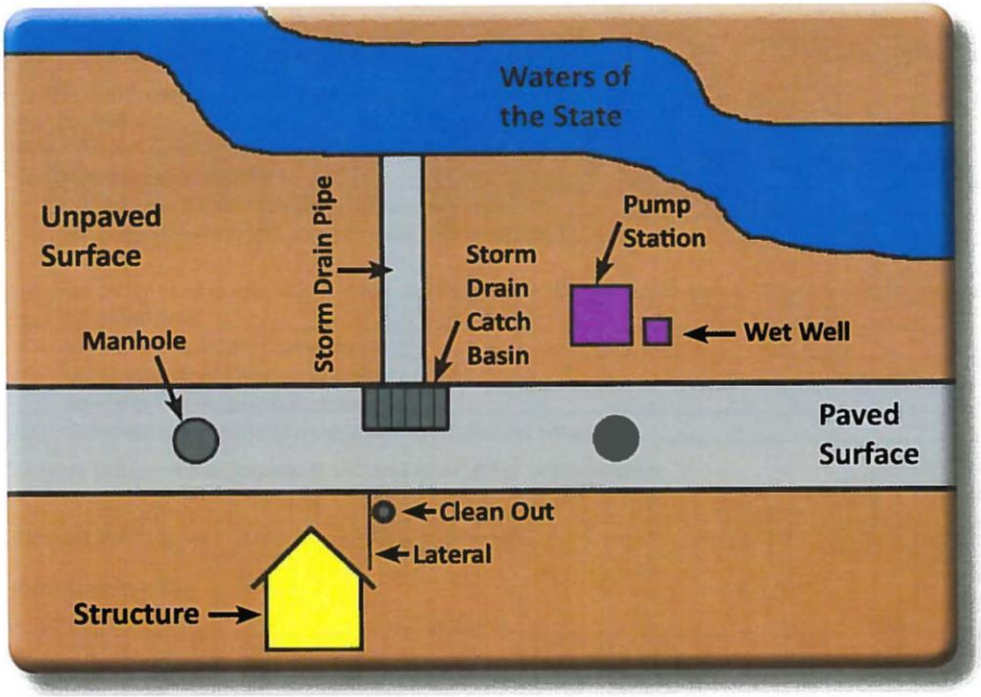
Example: The spill has ended by the time the crew arrives and 100% of the spill has been lost to waters of the State. In this case you might use the *Upstream Connections* method and then use the *Flow Calculation* method. The final estimate may be weighted toward one method or the other, or the two calculations could be averaged together.

If a method does not capture the entire spill:

Use a combination of methods in order to capture the entire spill volume. Depending on the circumstances of the spill and the methods used, the estimates may be added together to capture the entire spill. It is also possible to use a method that only calculates a portion of the spill as a reference point for the minimum spill volume.

Example: There is a spill from a manhole. A portion of the spill has been ponded and absorbed into the ground, and a portion of the spill has been contained in a storm drain. In this case, it would be advisable to use the *Area Volume Method: Ponded Sewage* to calculate the portion of the spill that has been ponded and absorbed. Then the *Area/Volume Method: Sewage Contained in Storm Drain System* would be used to account for the contained volume. In this case the two calculations would be added together. Then the *Upstream Connections Method* could be used as a double-check against the sum of the other two methods. Depending on the circumstances, the *Area/Volume* estimation and the *Upstream Connections* estimation may be averaged or weighted toward one of the methods.

Sewer System Diagram:



H. CLAIMS HANDLING

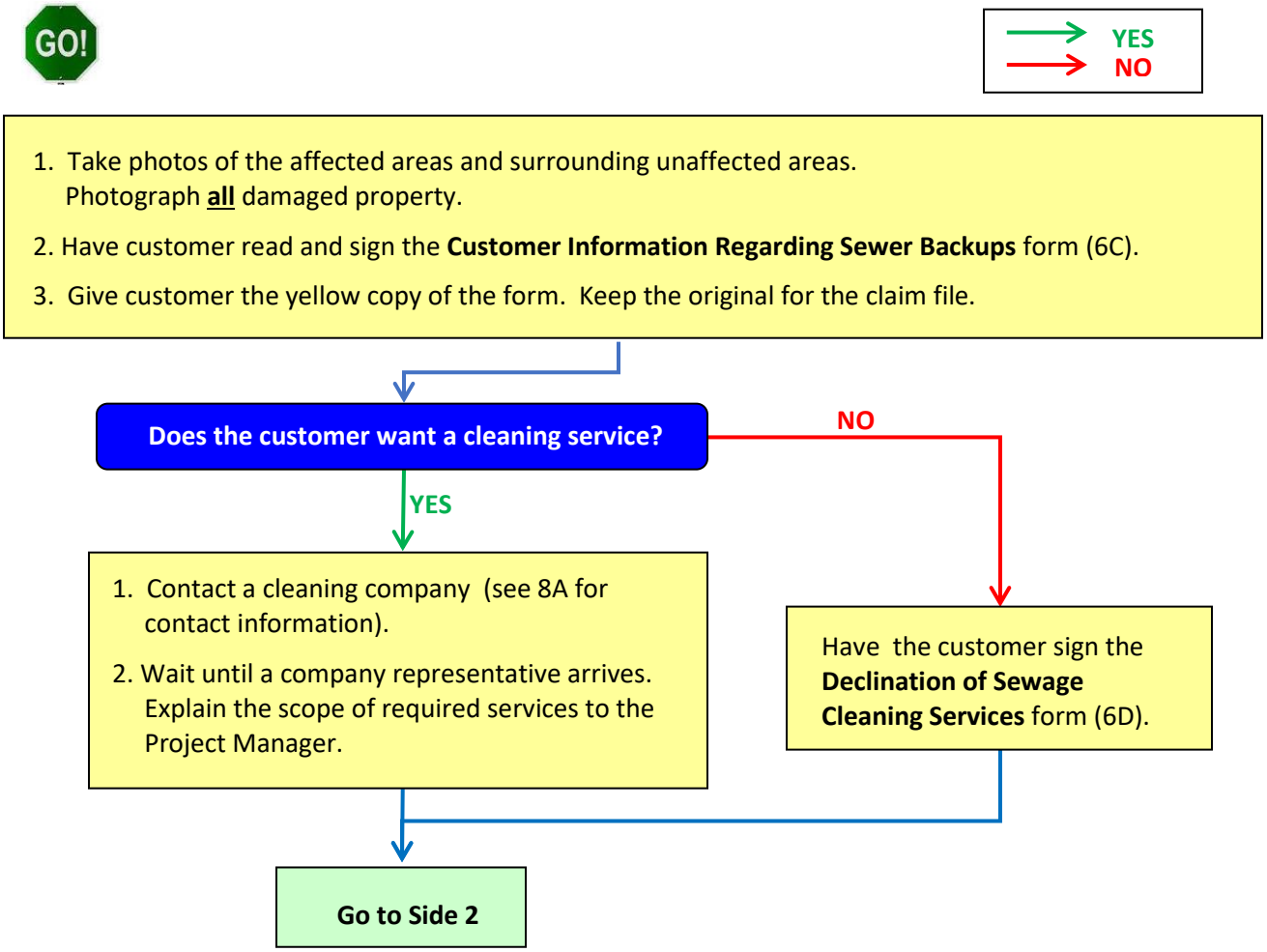
CentralSan staff shall offer a claim form to anyone upon request. All claims will be investigated, and decisions regarding claims will be made as required by government code 910 et. seq.

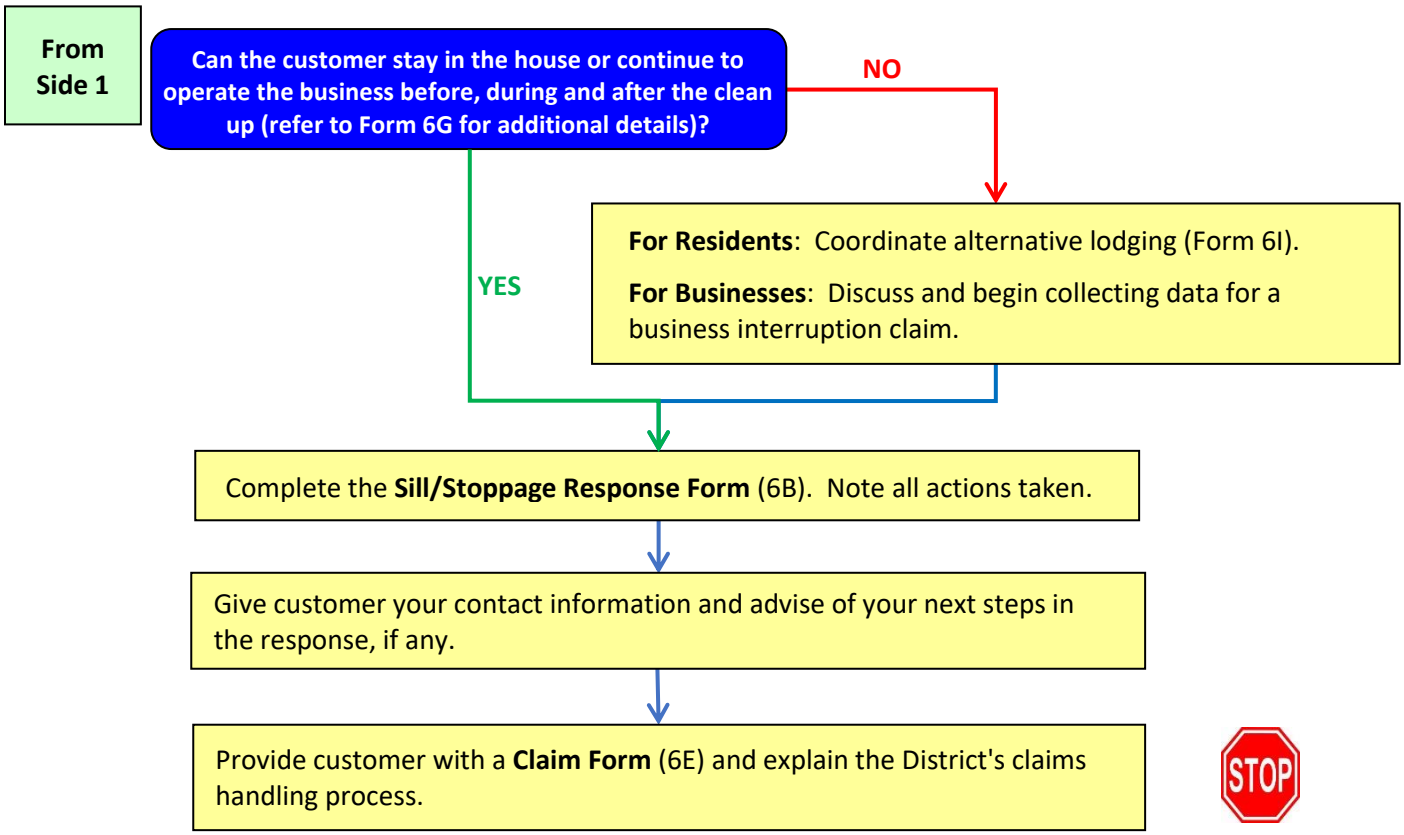
CentralSan staff's responsibility is to gather information regarding the incident and notify the appropriate CentralSan manager or designee.

The Safety & Risk Management Administrator or their designee is responsible for reviewing all claims and overseeing the adjustment and administration of each claim to closure.

Whenever an overflow causes or potentially causes damage to a home or business, contact Risk Management at 925-229-7320 (o) or 925-536-9434 (c).

If Risk Management staff is unavailable, field supervisors should follow these steps to resolve the immediate needs.





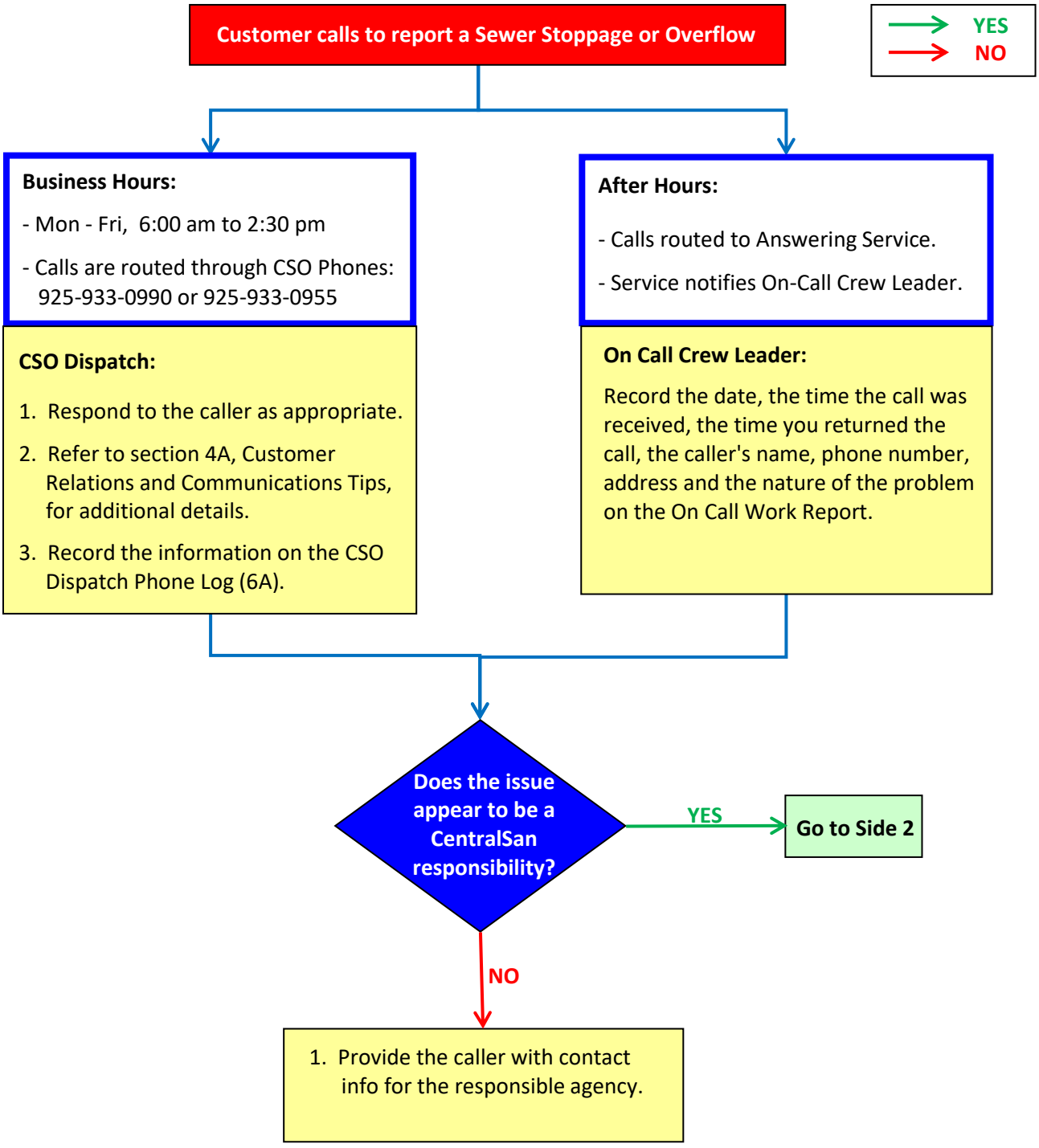
Upon notice of the loss Risk Management staff will make contact with the affected customer(s) and coordinate additional or ongoing needs (lodging, further clean up, reconstruction, etc.).

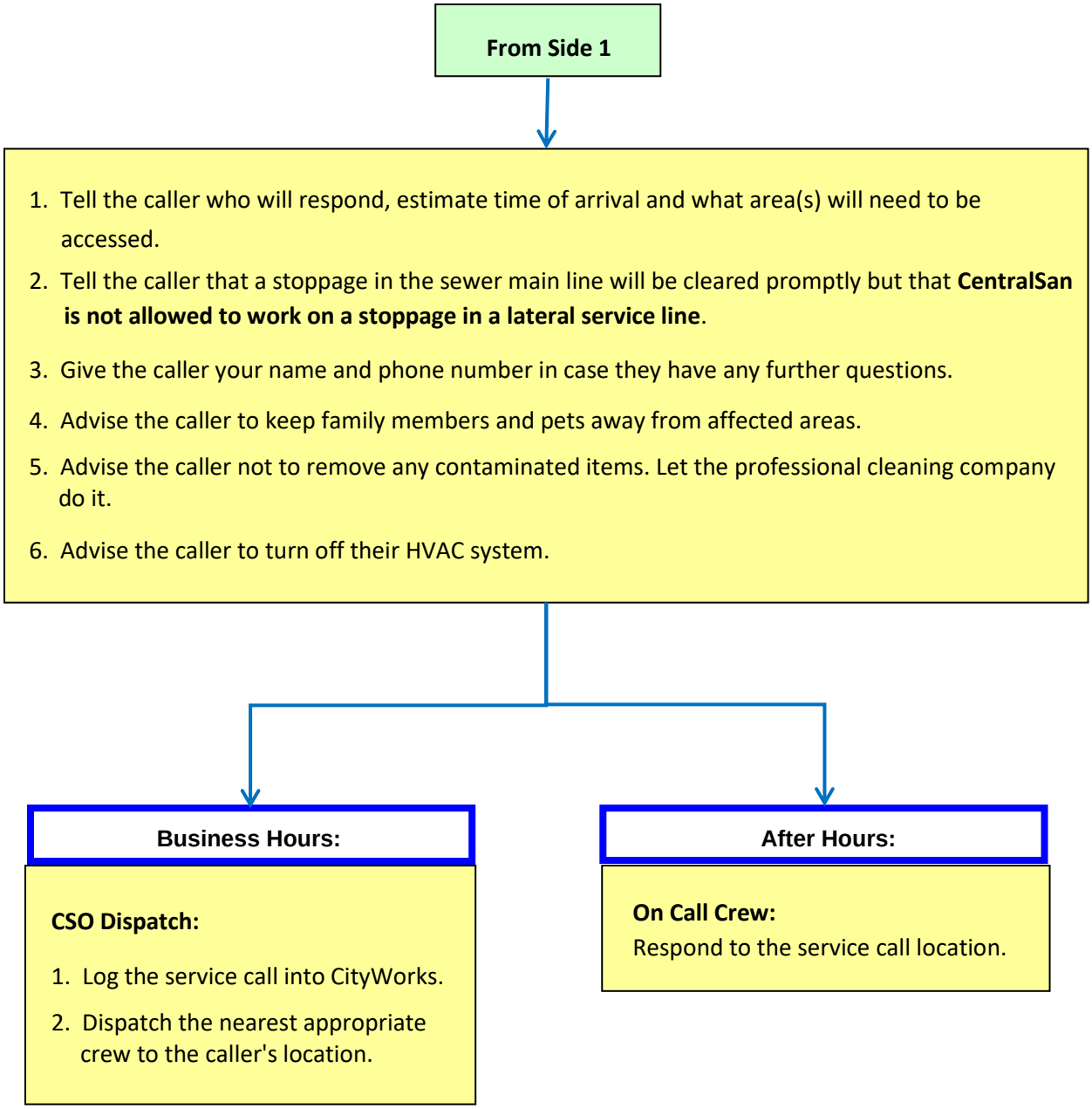
CSO field staff shall forward all documents, reports, photos and notes arising out of the loss to Risk Management as soon as possible to faciliate timely claims handling and resolution.

NOTE: All forms regarding property loss or damage are included in the Incident Envelope.

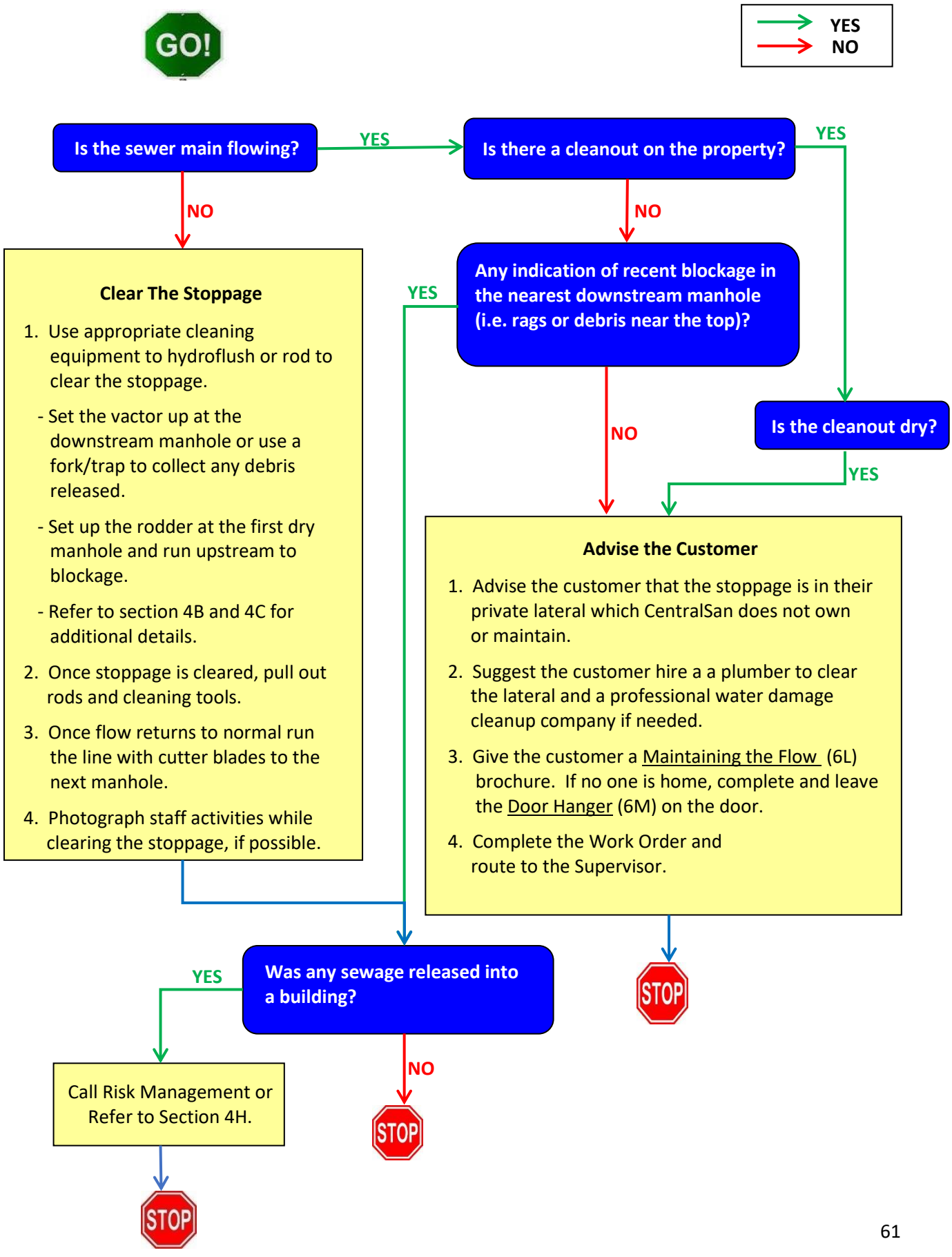
5. WORKFLOW DIAGRAMS

A. INTAKE PROCEDURE




From Side 1
1. Tell the caller who will respond, estimate time of arrival and what area(s) will need to be accessed.
2. Tell the caller that a stoppage in the sewer main line will be cleared promptly but that CentralSan is not allowed to work on a stoppage in a lateral service line.
3. Give the caller your name and phone number in case they have any further questions.
4. Advise the caller to keep family members and pets away from affected areas.
5. Advise the caller not to remove any contaminated items. Let the professional cleaning company do it.
6. Advise the caller to turn off their HVAC system.
Business Hours:
CSO Dispatch:
1. Log the service call into CityWorks.
2. Dispatch the nearest appropriate crew to the caller's location.
After Hours:
On Call Crew:
Respond to the service call location.

B. RESPONDING TO A PRIVATE LATERAL STOPPAGE



C. RESPONDING TO A SANITARY SEWER SPILL

YES
NO

1. Evaluate the extent and suspected cause of the spill.
2. If the spill will likely, or already is, impacting private property or receiving waters, photograph the areas impacted.
3. Inform your Supervisor or CSO Superintendant of the spill.
4. Refer to section 8A for emergency response vendor contact information.

Is the spill coming from a CentralSan manhole or cleanout? YES

CLEAR THE STOPPAGE

1. Use cleaning equipment appropriate to the situation (hydro, rod) Refer to sections 4B and 4C for additional info.
2. Once stoppage is resolved, remove tools and equipment.
3. Photograph staff activities while clearing the stoppage, if possible.

NO

Is the spill coming from a CentralSan Pump Station? YES

PUMP STATION FAILURE RESPONSE

1. Ensure all electrical hazards have been **Locked & Tagged Out**!
2. Determine the cause of the pump station failure.
3. Refer to the CentralSan Pump Station Emergency Response Plan.
4. Photograph staff activities and document all actions taken.

NO

Is the spill entering an area where public contact might occur? YES

DIVERSION & CONTAINMENT

1. **Divert away from sensitive areas** (unplugged storm drains, schools, day cares, playgrounds, intersections). Cover unplugged storm drains with mats, dirt, or other diking material.
2. **Prevent public contact**. Use cones or barricades for lane closure until the spill can be completely removed. Post signs to warn public of raw sewage. Photograph warning signs when in place.
3. **Contain the spill and return it to the system if possible**:
   * Plug storm drain catch basins or use rubber mats to cover basin inlet and divert flow to catch basin.
   * Build or excavate a berm to channel flow to downstream manhole. Barricade the manhole if you leave it open.
   * Use bypass pumps to pump around blockage until it can be removed.
   * Divert contents to low area of ground where it can be collected later.
4. **Photograph how the spill was diverted or contained**.

NO

PRIVATE PROPERTY SPILL

1. Photograph & document **ALL** evidence that the spill is from private property.
2. Provide customer with the Sewer Spill Reference Guide (6J) and the Maintaining the Flow Brochure (6L), both from the Incident Envelope.
3. If customer is not home, complete and leave the Customer Service Door Hanger (6M),
4. Complete the yellow service request after hours or close out Cityworks work order.

Go To Side 2

From Side 1

Has the spill reached/likely to reach a creek or other natural water body or is there evidence of a fish kill?

NO → **Were storm drains impacted?**

NO

YES

Use the Hach Ammonia Kit (in Field Sampling Kit) to trace the extent of the spill in the storm drain.

STORM DRAIN CLEANING

1. Seal or berm the storm drain immediately downstream of where the spill reached.
2. Photograph impacted storm drain catch basins before cleaning.
3. Vaccuum any visible sewage and **record the volume of sewage recovered**.
4. Flush impacted sections of storm drain (with 3x amount of spill, if possible) and **record the volume of flush water recovered**.
5. Remove all visible signs of sewage.
6. Return flush water (if chlorinated) to sanitary sewer and **record the volume of flush water recovered.**
7. Photograph all storm drain catch basins after cleaning is completed.

AREA CLEANUP

1. **Assign staff to begin cleanup**.

   NOTE: If spill was caused by a lateral or private line failure, clean up impacted public areas and document staff time, equipment used and expenses incurred.
2. **Remove all signs of gross pollution** (toilet paper, solids, grease etc.)
3. **Flush area** with metered water, unless its raining (3x amount of spill, if possible).

   - Continue flushing until clear Hach test.

   - Set up berm/other containment to **collect all dechlorinated flush water** so it can be returned to the sewer.

   - Don't use disinfectants that may enter the storm drain or other water body.
4. **Photograph the area** when cleanup operation is complete.

YES

For Spills greater than 1,000 gallons discharging or threatening to discharge to surface waters , notify CAL-OES within two hours. For CAT 1 Spills greater than 1,000 gallons into San Pablo Creek, notify EBMUD at 1-866-403-2683.

COLLECT WATER SAMPLES

1. Use the Field Sampling Kit and follow SOP. See 4F for additional info.
2. Assign staff to post the **Warning - Raw Sewage** sign (8C) along the shoreline of impacted waters or as directed by the County Environmental Health Dept.

Is it feasible or practical to contain/recover any of the spill from the contained area (i. e. small canal, ditch, creek etc.)?

NO

YES

CONTAINMENT

1. Contact your supervisor if additional containment assistance is required.
2. If the spill is sufficiently large, contact PSC as directed by Supervisor (see 8A).
3. Describe the situation and request assistance.

ESTIMATE SPILL VOLUME

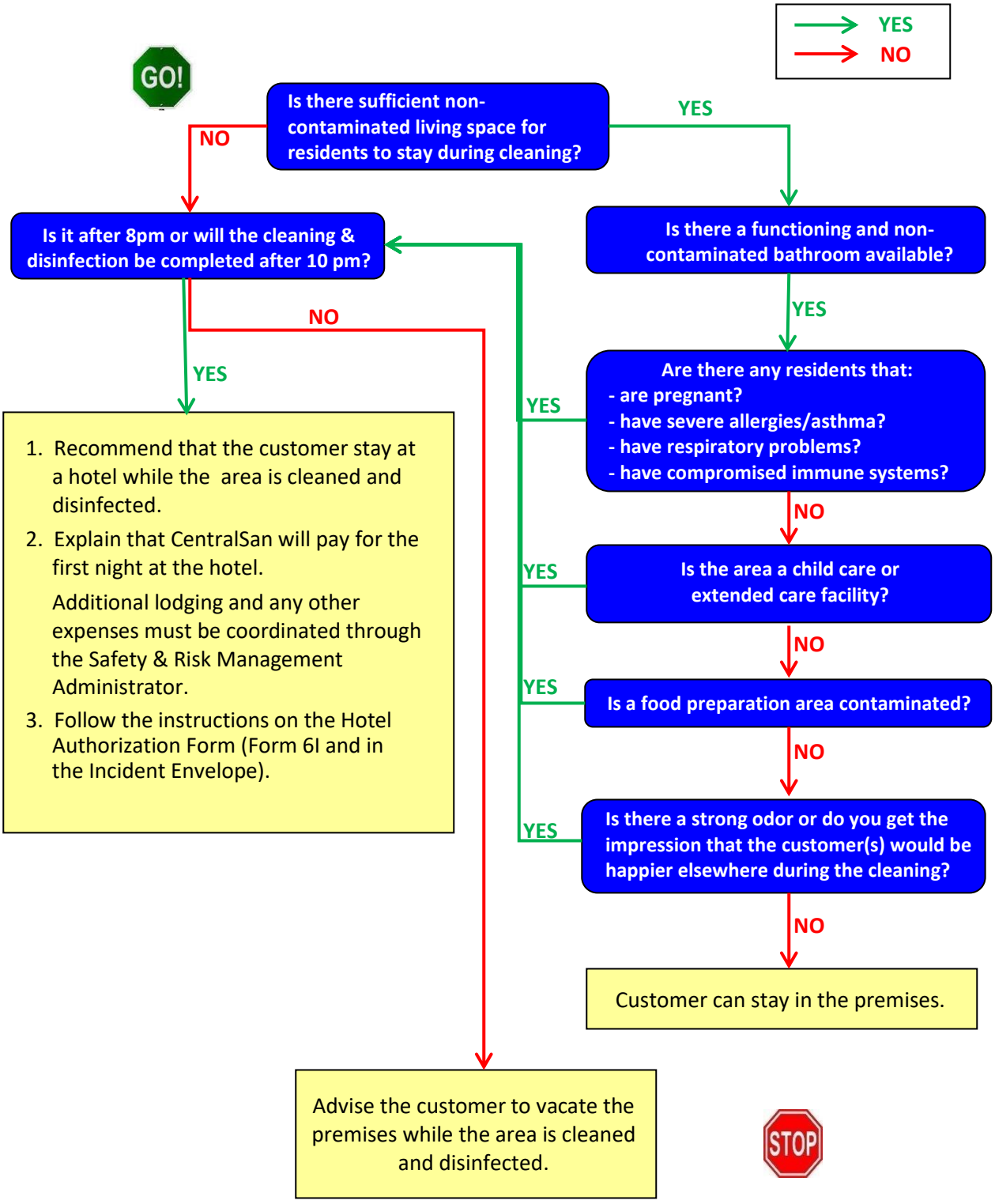
1. Estimate spill volume using one of the methods listed in section 4G.
2. **Remember** that the spill probably started some time before it was reported. Account for this when estimating spill volume.

DOCUMENTATION & REPORTING

1. Complete the **Spill/Stoppage Response Form** (6B) and place in the Incident Envelope.
2. Include **printed copies** of digital **photos** in the Incident Envelope.
3. Include all **notes, drawings, calculations and any other documentation** from the spill in the Incident Envelope.
4. Seal the envelope and forward the entire package to the Field Operations Superintendent.

STOP

D. LIVABILITY ASSESSMENT



6. FORMS

A. CSO DISPATCH PHONE LOG

Dispatch Phone Log

New Customer Call		
Date:_____ Resident Business	Name: _____ Business Name:	Home: _____ Work: _____ Cell:
Time:	Address:	
Cross Street:		City:
Description of problem:		
Time caller noticed spill: A.M. P.M.		Date:
Map #	Confirmed information above (name, address, phone #)	
D/S Structure:	U/S Structure:	
Crew Dispatched:		Time:
Dispatcher:		

New Customer Call		
Date:_____ Resident Business	Name: _____ Business Name:	Home: _____ Work: _____ Cell:
Time:	Address:	
Cross Street:		City:
Description of problem:		
Time caller noticed spill: A.M. P.M.		Date:
Map #	Confirmed information above (name, address, phone #)	
D/S Structure:	U/S Structure:	
Crew Dispatched:		Time:
Dispatcher:		

B. SPILL/STOPPAGE RESPONSE FORM

COLLECTIONS SYSTEM OPERATIONS
SPILL / STOPPAGE RESPONSE FORM

SPILL / STOPPAGE General Information

EVENT ID: _____ REGIONAL WATER BOARD: 2

SPILL LOCATION NAME: _____ AGENCY: _____

WDID: _____ SANITARY SEWER SYSTEM: _____

FILE NAME	FILE DESCRIPTION	Date/Time Uploaded	Status

Certified by: _____ Date & Time: _____

1. Spill Type CAT: _____

2. ESTIMATE SPILL VOLUMES

a) Estimated spill volume that reached a separate storm drain that flows to a surface water body?	
b) Estimated spill volume recovered from the separate storm drain that flows to a surface water body? (Do not include water used for clean-up)	
c) Estimated spill volume that reached a drainage channel that flows to a surface water body?	
d) Estimated spill volume recovered from a drainage channel that flows to a surface water body?	
e) Estimated spill volume discharged directly to a surface water body?	
f) Estimated spill volume recovered from surface water body?	
g) Estimated spill volume discharged to land? (Includes discharges directly to land, and discharges to a storm drain system or drainage channel that flows to a storm water infiltration/retention structure, field, or other non-surface water location.)	
h) Estimated spill volume recovered from the discharge to land? (Do not include water used for clean-up)	

Estimated Total spill volume Reached Surface Water (a-b+c+e)	**Estimated Total spill volume Reach Land (g)**	**Estimated Total spill volume Recovered (b+d+f+h)**	**Estimated Total spill volume (a+c+e+g)**

3. Did the spill discharge to a drainage channel and/or surface water?		**4.** Did the spill reach a separate (i.e., not combined) storm drainpipe?	
5. If spill reached to a separate storm drainpipe, was all of the wastewater fully captured from the separate storm drain and returned to the sanitary sewer system?			

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PHYSICAL LOCATION DETAILS

6. Spill Location Name:			
7. Latitude of spill location:		**8.** Longitude of spill location:	
9. County:		**10.** Regional Water Quality Control Board:	
11. Spill location description:			

SPILL DETAILS

12. Number of appearance points:		**13.** Spill Appearance point:	
14. Spill appearance point explanation:			
15. Final spill destination:			
16. Explanation of final spill destination:			
17. Estimated spill start date/time:		**18.** Date and time sanitary sewer system agency was notified of or discovered spill:	
19. Estimated operator arrival date/time:		**20.** Estimated spill end date/time:	
21. Spill cause:		**22.** Spill cause explanation:	
23. Where did failure occur:			
24. Explanation of where failure occurred:			
25. Was this spill associated with a storm event?		**26.** Diameter of sewer pipe at the point of blockage or failure:	
27. Material of sewer pipe at the point of blockage or failure:		**28.** Estimated age of sewer asset at the point of blockage or failure:	
29. Spill response activities:			
30. Explanation of spill response activities:			
31. Spill response completion date:			
32. Spill corrective action taken:			
33. Explanation of spill corrective action taken:			
34. a. Is there an ongoing investigation?		**34.** b. Reason for ongoing investigation?	
35. Visual inspection results from impacted receiving water:		**36.** Health warnings posted?	
37. Did the spill result in a beach closure (If YES, answer questions 38)?		**38.** Name of impacted beach(es) (enter N/A if not applicable):	
39. Name of impacted surface water(s) enter N/A if not applicable):		**40.** Water quality samples analyzed for:	
41. Explanation of water quality samples analyzed for:		**42.** Water quality sample results reported to:	
43. Explanation of water quality sample results reported to:		**44.** Explanation of volume estimation method used:	

NOTIFICATION DETAILS

45. CalOES Control Number		**46.** CalOES Called Date/Time	
47. (a) Name and Title (Contact person who can answer specific questions about this SSO)		**47.** (b) Contact Person Phone Number	

N:\public\Seitz\Regulatory\EORP\SERP 6-1-23\CSO Orange Sheet - Spill Response Form.docx

SPILL CATEGORY DETERMINATION

☐ Is a **CATEGORY 1** (if answer to any question is Yes) • Discharge to Surface Water? ☐ **Yes** ☐ **No** • Discharge to Drainage Conveyance System that Discharges to Surface Water, but **NOT** Fully Captured? ☐ **Yes** ☐ **No** • Exfiltrated to a Hydraulically Connected Surface Water? ☐ **Yes** ☐ **No**
☐ Is a **CATEGORY 2** (if spill is NOT a Category 1, and answer to question is Yes) • Is Discharge Volume is 1,000 Gallons or Greater? ☐ **Yes** ☐ **No**
☐ Is a **CATEGORY 3** (if spill is NOT a Category 1 and Answer to question is Yes) • Is Discharge Volume in between 50 gallons and 999 Gallons? ☐ **Yes** ☐ **No**
☐ Is a **CATEGORY 4** (if spill is NOT a Category 1 and answer to question is Yes) • Is Discharge Volume Less than 50 Gallons? ☐ **Yes** ☐ **No**

ASPHALT/CONCRETE AREA METHOD:

_____ x _____ x _____ x 7.48 x _____ = _____
L W D % of area wet TOTAL
(length) x (width) x (depth)

UNPAVED SURFACE AREA METHOD:

_____ x _____ x _____ x 7.48 x _____ x _____ = _____
L W D % of area wet saturation % TOTAL
(length) x (width) x (depth)

EYEBALL ESTIMATE:

Size	How Many	Total
1 Gallon		
5 Gallons		
30 Gallons		
55 Gallons		

CONVERSION	
Inches	Feet
Asphalt	.0026
Concrete	.0013
1/8"	.01'
1/4"	.02'
3/8"	.03'
1/2"	.04'
5/8"	.05'
3/4"	.06'
7/8"	.07'
1"	.08'
2"	.17'
3"	.25'
4"	.33'
5"	.42'
6"	.50'
7"	.58'
8"	.67'
9"	.75'
10"	.83'
11"	.92'
12"	1.00'

CAT 1 FOLLOW-UP:

☐ Biological Sampling – U/S, D/S, and at Spill
☐ Biologist Report (if spill is greater than 1,000 gallons)

Comments:

Form Completed by: _____ Date: _____

CSO Superintendent: _____ Date: _____

CSO Senior Engineer: _____ Date: _____

CSO Division Manager: _____ Date: _____

C. CUSTOMER INFORMATION REGARDING SEWER BACKUPS

Customer Information Regarding Sewer Backups

Address:	**Date:**

Dear Mr./Ms.: _____

We recognize that sewer backup incidents can be stressful and require immediate response before all facts concerning how an incident occurred are known. Rest assured that we do all we can to prevent this type of event from occurring. Nevertheless, occasionally tree roots or other debris in the sewer lines will cause a backup into homes or businesses immediately upstream of the blockage. At this time, the Central Contra Costa Sanitary District (CCCSD) is investigating the cause of the incident.

If CCCSD is found to be responsible for the incident, we are committed to cleaning and restoring your property and to protect the health of those affected during the remediation process.

We have contacted the following company to perform the necessary cleaning and restoration process:

Company Name/Phone:

The cleaning contractor provided by CCCSD has been selected because of its adherence to established protocols that are designed to assure all parties thorough, cost-effective and expeditious cleaning services. You have the right to select your own cleaning contractor but CCCSD does not guarantee payment of fees or expenses incurred and reserves the right to dispute fees and expenses deemed not usual and customary.

If you wish to submit a claim for damages, please contact Safety & Risk Management for CCCSD at 925-229-7320.

What You Need To Do Now:

- Do not attempt to clean the area yourself. Let the cleaning company handle this.
- Keep people and pets away from the affected area(s).
- Do not remove items from the affected area(s). The cleaning company will do this while they create an inventory of affected items.
- If you had recent plumbing work performed, contact your plumber or contractor to inform them of this incident.
- If you intend to file a claim, please do so as soon as practical. The California Government Code (Sec. 900-960) requires the filing of written claim and specifies timelines and notice procedures required in order to have your claim considered.

I/We acknowledge receipt of this notice:

Customer Signature: _____ **Date:** _____

CCCSD Signature: _____ **Date:** _____

Distribution: Original to Safety & Risk Management, Copy to Field Ops. Supt., Copy to Customer

5019 Imhoff Place Martinez, CA 94553 *925-228-9500*

D. DECLINATION OF SEWAGE CLEANING SERVICES

Declination of Sewage Cleaning Services

Customer Name:		
Address:		
Phone:		
Incident Date:	Incident Time:	Est # Gallons:
Photos Taken: ☐ Yes ☐ No	Suspected Cause of Overflow:	

Contents	Overflowed from	Areas Affected
☐ Wastewater	☐ Toilet	☐ Bathroom(s) _____
☐ Grey Water	☐ Shower/Tub	☐ Hallway
☐ Toilet Bowl Water	☐ Sink	☐ Kitchen
☐ Other (Describe)	☐ Washer	☐ Bedroom(s) _____
	☐ Backflow Prevention Device	☐ Garage
	☐ Other (Describe)	☐ Crawlspace
		☐ Exterior Only

Flooring Affected: ☐ Tile ☐ Linoleum ☐ Carpet ☐ Hard Wood ☐ Laminate ☐ Unfinished ☐ Other (Describe)

Personal Property Affected: ☐ Area Rugs ☐ Towels ☐ Bathmats ☐ Clothing ☐ Other (Describe below)

Customer – Please Read and Sign Below

I/We acknowledge that the Central Contra Costa Sanitary District (CCCSD) has offered to provide professional cleaning and decontamination services to remediate the sewage backup and/or overflow described above and that we declined the offer. We further understand and acknowledge that because we have declined this offer, any necessary remediation activities will be conducted without CCCSD assistance and that CCCSD will not accept responsibility for work performed by persons other than those engaged by CCCCSD. CCCSD will also not accept responsibility for any charges related to this incident that are not usual and customary. Please contact the CCCSD Safety & Risk Management Administrator at 925-229-7320 if you have any questions.

The information above was explained to the Customer by:	
Employee Signature:	**Title:**
Customer Signature:	**Date:**

Distribution: Original to Safety & Risk Management Copy to Customer

E. CLAIM FORM

CENTRAL SAN
CENTRAL CONTRA COSTA SANITARY DISTRICT

CLAIM FORM

(Government Code §910, 910.2, 910.4)

CLAIMANT'S NAME: _____

CLAIMANT'S ADDRESS: _____
Street City State Zip

Phone Number: (Home)_____ (Cell) _____

NAME AND ADDRESS OF PERSON TO WHOM NOTICES REGARDING THIS CLAIM SHOULD BE SENT (if different from above):

_____

_____

DATE OF THE OCCURRENCE, TRANSACTION, OR ACCIDENT GIVING RISE TO CLAIM:

_____

DATE OF DISCOVERY OF OCCURRENCE, CONDITION OR TRANSACTION, IF DIFFERENT THAN DATE SET FORTH ABOVE:
(Please indicate earliest date of discovery of the occurrence, condition or transaction, which gives rise to claim. Indicate how discovered.)

_____

_____

PLACE OF OCCURRENCE, ACCIDENT OR TRANSACTION:

_____

_____

GENERAL DESCRIPTION OF THE OCCURRENCE, ACCIDENT OR TRANSACTION GIVING RISE TO THE CLAIM (attach additional pages if more space is needed):

_____

_____

_____

GENERAL DESCRIPTION OF THE OBLIGATION, LOSS, INJURY OR DAMAGE SUFFERED:

_____

_____

_____

PROVIDE NAMES, IF KNOWN, OF ANY PUBLIC EMPLOYEES CAUSING THE INJURY OR LOSS:

_____

_____

TOTAL AMOUNT CLAIMED: $ _____

SIGNATURE OF CLAIMANT OR SIGNATURE OF REPRESENTATIVE OF CLAIMANT

_____ or _____

Claimant | Representative of Claimant

_____ or _____

Date | Print or type full name

_____

Representative capacity
(Attorney, Guardian, etc.)

Send this claim form and supporting documentation to:

Central Contra Costa Sanitary District
Secretary of the District
5019 Imhoff Place
Martinez, CA 94553

Chain of Custody

Central Contra Costa Sanitary District
4018 Imhoff Place
Martinez, CA 94553

ERC-LAB-CSO-SAM-COC-FOR
Revision : 3
Effective : 05/01/23

CityWorks
Workorder:

Report To: Steve Santer, Alex Bersaudez, Paul Seitz
Steve@centralsan.org, abersaudez@centralsan.org, pseitz@centralsan.org

Sampled by:

Sampler Signature:

Site Address:

Instructions:
Bottle 1 & 2:
Remove the seal from the container and pour sample into bottle using the sacrificial sterile bottle without touching the rim of the bottle. Fill the bottle to the 250mL line. Do not overfill, the bottle contains dechlorination agent. (fill both bottles 1 and 2)
Bottle 3a & 3b:
Fill bottle 3a first, cap and invert to dissolve sodium thiosulfate. (do not overfill the bottle)
Pour contents of bottle 3a into bottle 3b. Use caution when pouring, bottle 3b contains concentrated acid.
Bottle 4 & 5:
Fill bottles.

Sample ID	LIMS ID	Sample Type 1	Collection Date	Collection Time	Bottle Type 2	Number of Bottles	Parameters To Be Analyzed: cBOD	Dissolved Oxygen	pH	Total Residual Chlorine	Ammonia	COD	Enterococcus	Total Fecal Coliform	E Coli (Subcommit)	Preservative: H2SO4 (Preservation upon collection)	Temp 0-6C	Sodium Thiosulfate dechlorination tablet
Drainage Conveyance DCS-001 (Bottle 1)		G			P	1							x	x			x	x
Drainage Conveyance DCS-001 (Bottle 2)		G			P	1									x		x	x
Drainage Conveyance DCS-001 (Bottles 3a & 3b)*		G			P	1					x					x	x	x
Drainage Conveyance DCS-001 (Bottles 4 & 5)		G			P	2	x										x	
Upstream-RSWA-001U (Bottle 1)		G			P	1							x	x			x	x
Upstream-RSWA-001U (Bottle 2)		G			P	1									x		x	x
Upstream-RSWA-001U (Bottles 3a & 3b)*		G			P	1					x					x	x	x
Upstream-RSWA-001U (Bottles 4 & 5)		G			P	2	x										x	
Site-RSWA-001 (Bottle 1)		G			P	1							x	x			x	x
Site-RSWA-001 (Bottle 2)		G			P	1									x		x	x
Site-RSWA-001 (Bottles 3a & 3b)*		G			P	1					x					x	x	x
Site-RSWA-001 (Bottles 4 & 5)		G			P	2	x										x	
Downstream-RSWA-001D (Bottle 1)		G			P	1							x	x			x	x
Downstream-RSWA-001D (Bottle 2)		G			P	1									x		x	x
Downstream-RSWA-001D (Bottles 3a & 3b)*		G			P	1					x					x	x	x
Downstream-RSWA-001D (Bottles 4 & 5)		G			P	2	x										x	

[1] Sample Type: C = Composite, G = Grab, CG = Composite Grab

[2] Bottle Type: AG = Amber Glass, CG = Clear Glass, P = Poly, V = VOA

*Time of preservation is the same as collection.

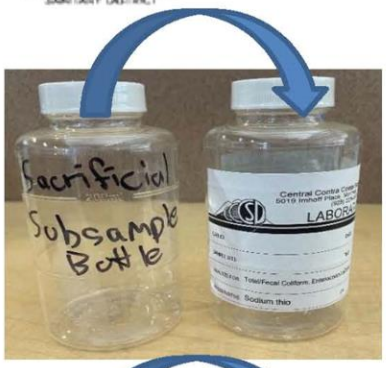
Total Number of Bottles

Comments:

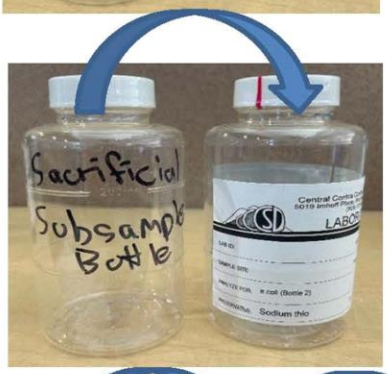
Relinquished by:	Date	Time	Received by:	Date	Time

Reviewed: _____ Date: _____

Instructions

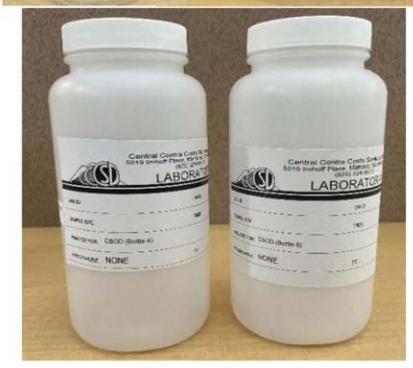


Remove seal and lid from **Sacrificial Subsampling Bottle** and fill the bottle with sample. Remove the lid and seal from **Bottle 1** and do not set the lid down. Pour sample from the **Sacrificial Subsampling Bottle** into **Bottle 1** and avoid touching anything to the rim of the bottle. Fill to the 250 mL line, **but do not overfill**!



Refill the **Sacrificial Subsampling Bottle** with sample. Remove the lid and seal from **Bottle 2** and do not set the lid down. Pour sample from the **Sacrificial Subsampling Bottle** into **Bottle 2** and avoid touching anything to the rim of the bottle. Fill to the 250 mL line, **but do not overfill**!

Using either the **Sacrificial Subsampling Bottle**, or another sampling device, collect the sample. Remove lid and seal from **Botle 3a** and fill to the 250 mL line with sample, **but do not overfill!** Replace the lid and shake to dissolve the sodium thiosulfate to dechlorinate sample. Remove the lid from **Bottle 3b**, but take caution as the bottle contains strong acid. Pour sample from **Bottle 3a** into **Bottle 3b** and replace the lid on Bottle 3b.



Fill **Bottle 4** and **Bottle 5** with sample. The containers can either be filled using another container, or dipped directly into the sample location.

G. AFFECTED PERSONAL PROPERTY INVENTORY LOG

Affected Personal Property Inventory Log

Instructions: Complete this form as completely as possible and send to the Central Contra Costa Sanitary District, Attn: Risk Management, 5019 Imhoff Place, Martinez, CA 94553. Please keep a copy for your records.

If you have any questions, please call 925-229-7320.

Quantity	Description	Where Purchased?		Age	Cost	Replacement Value
		Store	City			

Name: _____ **Date of Overflow:** _____

Affected Address: _____

Signature: _____ **Date:** _____

H. BUILDING HISTORY FORM

Building History Form *Complete this form as thoroughly as possible.*	
Your Name:	
Today's Date:	Date of Overflow:
Affected Property Address:	
Primary Resident's Name:	
Any other residents at this address? ☐ Yes ☐ No Approximate Ages:	
Is resident the owner? ☐ Yes ☐ No If No, list owner's name, address and phone number:	
Were the residents relocated to a hotel? ☐ Yes ☐ No If Yes, Hotel Name and City:	
Name of cleaning company called: Project Manager Name and Phone:	
Year Home Built:	# of Bathrooms:
List Rooms Affected:	
How long was sewage sitting?	
Is there an OPD? ☐ Yes ☐ No	Was it functional? ☐ Yes ☐ No
Any plumbing permits within last 3 years? ☐ Yes ☐ No If Yes, describe:	
Any active plumbing projects observed? ☐ Yes ☐ No If Yes, describe:	
Last cleaning of line segment:	Last repair of line segment:
Any prior spills at this location? ☐ Yes ☐ No If Yes, when:	

I. HOTEL AUTHORIZATION FORM

Hotel Authorization Form

INSTRUCTIONS TO EMPLOYEE:

- ☐ Review this form with the customer and ask them to select, in order of preference, which of the hotels they wish to stay at.
- ☐ Call the hotels to determine vacancy.
- ☐ Explain to the customer that only the first night's room and tax will be covered. All other hotel expenses will be their responsibility. Additional nights and other expenses must be approved by the Safety and Risk Management Administrator.
- ☐ Have the resident complete and sign the acknowledgement section at the bottom of the form.
- ☐ Give the resident the bottom copy of the form.

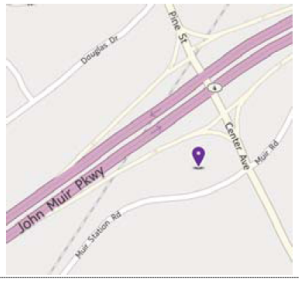
INSTRUCTIONS TO CUSTOMER:

This emergency lodging authorization is granted under the following conditions:

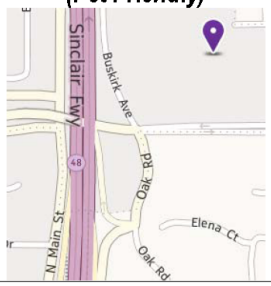
1. The voucher is good for one night's **room and tax only**. Phone, food and other charges will be your responsibility.
2. Additional nights or approval of other expenses must be approved by the District's Safety & Risk Management Administrator. Phone is (925) 229-7320.
3. Please bring a photo ID with you for hotel check-in.

HOTEL OPTIONS:

☐ ***Best Western John Muir Inn***
445 Muir Station Rd.
Martinez, 229-1010



☐ ***Extended Stay America***
3220 Buskirk Ave.
Pleasant Hill, 945-6788
(Pet Friendly)



☐ ***Lafayette Park Hotel***
3287 Mt. Diablo Blvd.
Lafayette, 283-3700

Emergency Hotel Authorization Voucher

Good for one night's stay at the hotel selected above on (date): _____

Guest(s) Name: _____

Field Supervisor Name: _____

Customer Acknowledgement

I/we have read the terms and conditions governing this offer of temporary relocation and agree to abide by them as described above.

Name *(Please print)*: _____

Affected Address: _____

Phone # where you can be reached: _____

Signature: _____ Date: _____

Original to Risk Management. Copies to Customer and Field Ops Superintendent.

J. SEWER SPILL REFERENCE GUIDE

4-B8

SEWER SPILL REFERENCE GUIDE
Your Responsibility as a Private Property Owner

What is a Sewage Spill?
Sewage spills occur when the wastewater being transported via underground pipes spills through a manhole, cleanout, or broken pipe. Sewage spills can cause health hazards, cause damage to homes and businesses and threaten the environment, local waterways and beaches.

Common Causes of Sewage Spills:

- Grease builds up and can eventually block the sewer pipes. Grease gets into the sewer from food establishments, household drains, and from poorly maintained commercial grease traps and interceptors. Grease is a common cause of pipe blockages.
- Structure problems including tree roots in the sewer lines, broken or cracked pipes, missing or broken clean-out caps, or undersized sewers.
- Infiltration and Inflow (I&I) impacts pipe capacity and is caused when groundwater or rainwater enters the sewer system through pipe defects and illegal connections.

Who Is Responsible for Sewer Repairs and Maintenance?
Each home or commercial building has a separate connection to the public sanitary sewer main. That connection is called a 'lateral'. It is the property owner's responsibility to maintain and repair their own sewer lateral from the house to the point of connection with the public sewer main. The Uniform Plumbing Code and the Central San Sewer Use Ordinance requires property owners to install and maintain a sanitary sewer spill protection device on their private sanitary sewer service lateral.

You Are Responsible for a Sewage Spill Caused by a Blockage or Break in Your Sewer Lines
Time is of the essence in dealing with sewage spills. You are required to do the following immediately:

- Control and minimize the spill. Keep spills contained on private property and out of gutters, storm drains, and public waterways by shutting off or not using the water.
- Use sandbags, dirt and/or plastic sheeting to prevent sewage from entering the storm drain system.
- It is recommended that you call a plumbing professional to clear blockages and make necessary repairs.
- Always notify Central San of sewage spills. If the spill exceeds 1,000 gallons, notify the California Office of Emergency Services (phone number on reverse).

You Could Be Liable for Not Protecting the Environment
Allowing sewage from your home, business or property to discharge to a gutter or storm drain may subject you to penalties and other out-of pocket costs to reimburse public agencies for clean-up and enforcement efforts.

California Health and Safety Code Sections 5410-5416 says that no person shall discharge raw or treated sewage or other waste in a manner that results in contamination, pollution, or nuisance. Any person who causes or permits a sewage discharge to any state waters 1) must immediately notify the local health agency of the discharge and 2) shall reimburse the local health agency for services that protect the public's health and safety. Persons who fail to provide this notice are guilty of a misdemeanor and shall be punished by a fine and/or imprisonment for less than one year.

California Water Code, Article 4, Chapter 4, Sections 13268-13271 and the California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2, Sections 2250-2260 require that any person who causes or permits sewage in excess of 1,000 gallons to be discharged into state waters shall immediately notify the Office of Emergency Services. Persons who fail to provide this notice are guilty of a misdemeanor and shall be punished by a fine and/or imprisonment for less than one year.

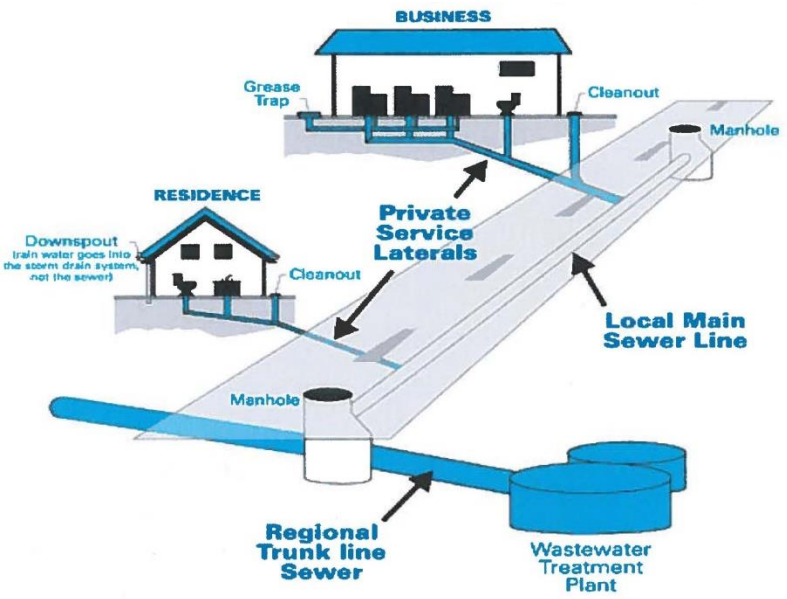
What to Look For:
Sewage spills can include water gushing from a manhole to less noticeable leaks that may take time to be noticed. Look for the following:

- Drain backups inside the building
- Wet ground and water leaking around manhole covers onto your street
- Leaking water from clean-outs or outside drains
- Unusual odorous wet areas, sidewalks, external walls, grounds or landscaping around a building

Caution!
When trying to locate a sewer problem, never open manholes or other public sewer structures. Because of potential hazards, only Central San personnel are allowed to open and inspect these structures.

Keep people and pets away from an area affected by a sewage spill. Untreated sewage has high levels of disease-causing viruses and bacteria. Always wear gloves whenever working around raw sewage and remember to wash your hands thoroughly when done.

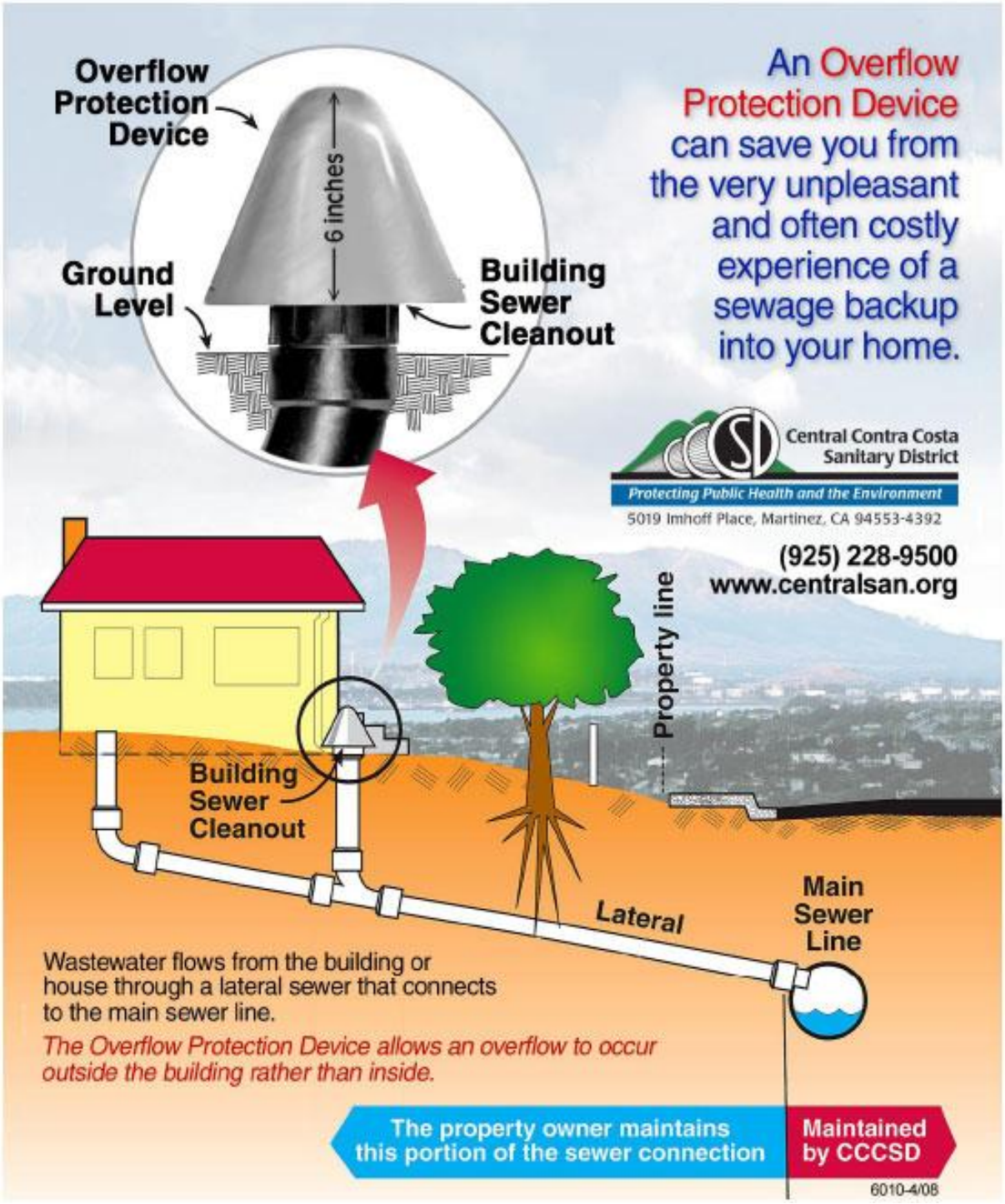
How a Sewer System Works
A property owner's sewer pipe is called a lateral and is connected to larger local main and regional trunk sewer lines. Service laterals run from the connection at the building to the connection with the public sewer, sometimes including areas under the street. These laterals are the property owner's responsibility to maintain and repair.



IF YOU HAVE A SEWAGE SPILL FROM YOUR PRIVATE SEWER LINE, CONTACT:

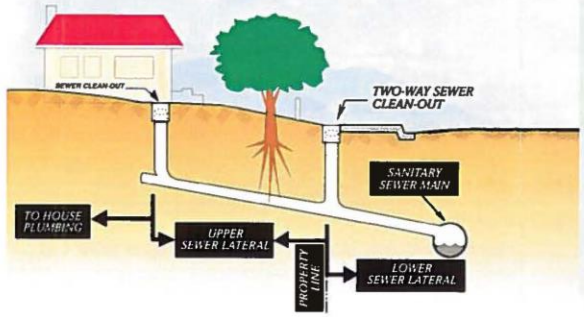
Central San	925-933-0990 or 925-933-0955
Contra Costa County Department of Environmental Health	925-646-2286
	or 925-646-1112 in case of emergency
Regional Water Quality Control Board	510-622-2460
California Office of Emergency Services	800-852-7550

K. SPILL PROTECTION DEVICE HANDOUT



What We Do NOT Do

We do not clean, maintain or repair side sewers, lateral sewers or house sewers – these are the responsibility of the property owner. The side sewer connects the plumbing system of the building to the public sewer. **The side sewer begins with and includes the connection to the public sewer, and terminates at the point of connection to the building plumbing system (usually two feet outside the foundation line or building wall).** The side sewer includes the lateral sewer and the house sewer. The lateral sewer is the portion of the side sewer which is within the public right-of-way or District easement. The house sewer is that portion of the side sewer from the lateral sewer to its connection to the building plumbing system.



Overflows/sewage spills from side sewers, lateral sewers or house sewers must be dealt with by the property owner. Immediate action should be taken to control and minimize the spill and clear the sewer blockage (a plumber may be necessary). Under no circumstances should sewage from your property be allowed to discharge into a gutter or storm drain.

How To Contact Us

General Information	(925) 228-9500
Sewer Overflows (24 Hours)	(925) 933-0955 or 933-0990
Treatment Plant InfoLine (To Report Odors)	(925) 335-7703
Household Hazardous Waste InfoLine	(800) 646-1431
Sewer Connection Permits	(925) 229-7371
Illegal Discharges into Sewer System	(925) 229-7288 or 229-7214
Safety & Risk Management	(925) 229-7390
Job Hotline	(925) 229-7109
Student Education Programs	(925) 229-7310
Public InfoLine	(925) 335-7702

Or visit our website at
www.centralsan.org

Take precautions

when dealing with a sewage spill. Always wear gloves and wash your hands. Keep people and pets away. Untreated sewage can cause health hazards and threaten the environment.

COLLECTION SYSTEM OPERATIONS

Maintaining the Flow

How we protect the public health and the environment by keeping your public sewers operating at peak efficiency

Central Contra Costa Sanitary District

Introduction

The purpose of this brochure is to provide you with information about Central Contra Costa Sanitary District (CCCSD) and, more specifically, our Collection System Operations (CSO) Department. You may have seen our CSO work crews in your neighborhood and wondered what they were doing and why. This brochure is intended to provide answers to those questions.

Sewage collection and wastewater treatment for 294,170 people and HHW collection service

Wastewater treatment for 126,300 residents in Concord and Clayton by contract and HHW collection service

HHW collection service only

Central San's Headquarters Office Building, treatment plant, and HHW Collection Facility are located in Martinez

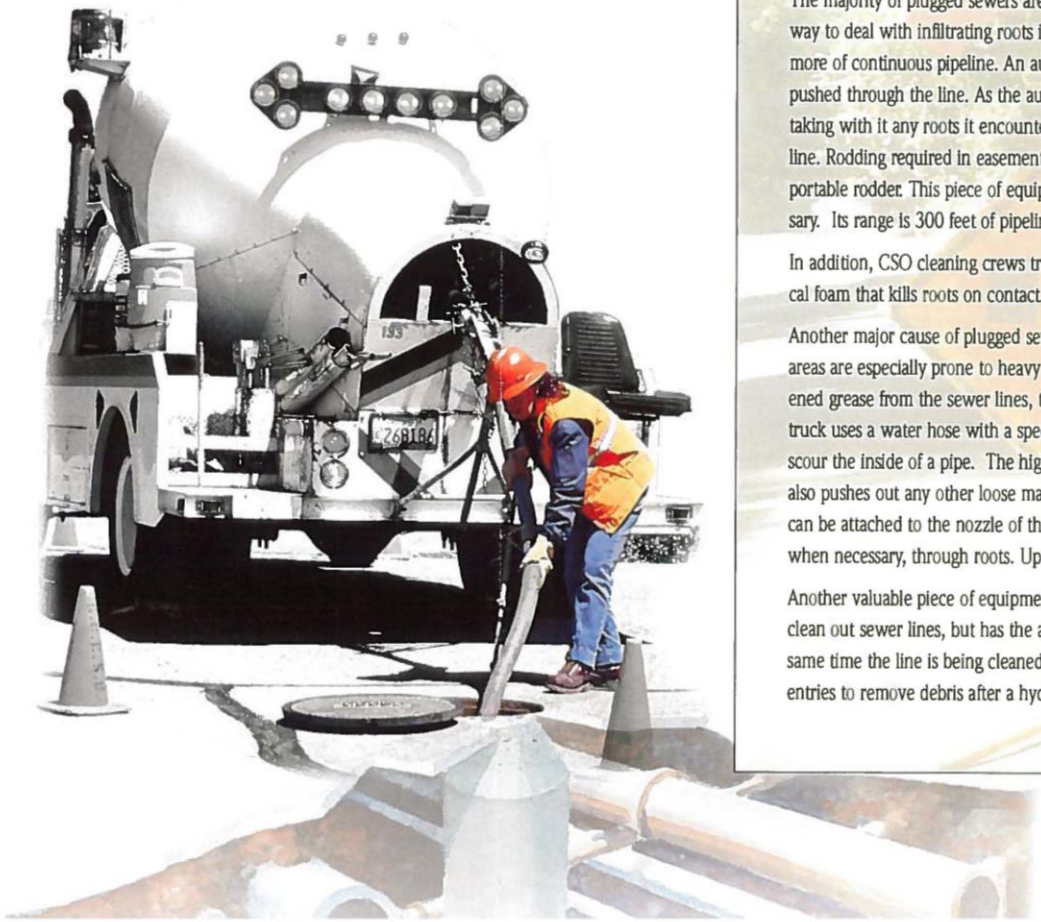
The District's Collection System Operations Department (sewer maintenance) is based in Walnut Creek

Who We Are

CCCSD is a special district with a five-member elected Board of Directors. Our primary responsibility is to protect the health of the public and the environment through safe and effective sewage collection, treatment and disposal. With about 250 employees, CCCSD also operates a household hazardous waste collection facility, recycles high-quality water, and promotes pollution prevention through various educational, informational and inspection programs. Located at the intersection of State Highway 4 and Interstate 680, CCCSD's modern wastewater treatment facility treats an average of 45 million gallons of wastewater per day for more than 400,000 residents and businesses in central Contra Costa County.

What We Do

CCSD's collection system includes more than 1,400 miles of underground pipeline ranging in size from 6 to 102 inches in diameter. To ensure a constant, efficient flow through those lines, our Collection System Operations (CSO) crews conduct critical cleaning, television inspection, and repair operations on an ongoing basis. They also handle occasional sewer replacement projects. With all of this activity, these crews are bound to cross your path at some time or another. And since our work could impact your life with noise or traffic delays, it's important to us that you know why we're there.



Cleaning and Maintenance Services

"Routine" maintenance is performed on all collection system pipelines once every 10 years. "Scheduled" maintenance is performed more frequently, sometimes even monthly, on lines especially susceptible to clogging. Our crews clean/maintain an average of 400 miles of pipeline each year. So 90% percent of the time, the people you see in CCCSD orange shirts and hard hats are CSO crews working to clean, repair and inspect sewer lines.

The majority of plugged sewers are caused by roots infiltrating the sewer lines. The most effective way to deal with infiltrating roots is with the power-rodding truck, which can reach 1,000 feet or more of continuous pipeline. An auger or scraper is attached to the truck's 3/8-inch rod and pushed through the line. As the auger is slowly pulled back, it scrapes along the sides of the pipes, taking with it any roots it encounters. The power rodder, however, cannot be used on every sewer line. Rodding required in easements or other out-of-the-way places must be done by hand with a portable rodder. This piece of equipment is removed from the truck and carried wherever necessary. Its range is 300 feet of pipeline.

In addition, CSO cleaning crews treat about 60,000 feet of sewer pipeline each year with a chemical foam that kills roots on contact.

Another major cause of plugged sewers is grease. Sewer lines located downstream from restaurant areas are especially prone to heavy grease build-up and blockage. To clean out the layers of hardened grease from the sewer lines, the crew uses a technique called hydroflushing. The hydroflush truck uses a water hose with a special nozzle that creates a high-pressure spray (2,000 psi) to scour the inside of a pipe. The high-pressure water knocks material loose from the pipe walls, and also pushes out any other loose material such as sand, grit and mud. A circular hydro-root saw can be attached to the nozzle of the hydroflush and used to cut through the hardest grease and, when necessary, through roots. Up to 850 feet of continuous pipeline can be cleaned this way.

Another valuable piece of equipment is the Vactor Jet Rodder. It also uses high-pressure water to clean out sewer lines, but has the additional feature of vacuuming up all the loosened debris at the same time the line is being cleaned. This virtually eliminates the need for crews to make manhole entries to remove debris after a hydroflush cleaning.

On-Call/Emergency Se

Overflows/

Pipeline Repair & Replacement Services

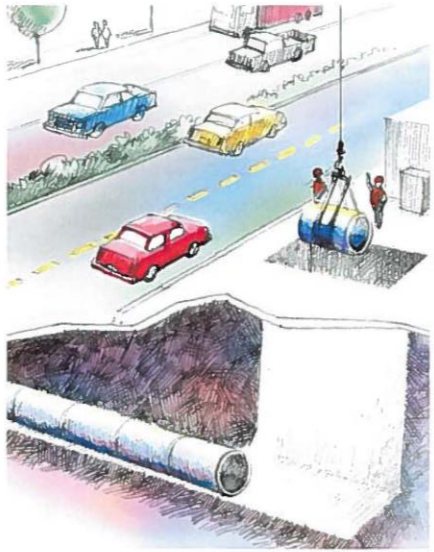
On other, more rare occasions, you'll see our crews working to repair or replace sewer lines. CCCSD has been around since 1946, and some of the pipes we acquired over the years have been in place long before we came along. Dilapidated or undersized sewers that no longer function properly must be repaired or replaced.

TV inspections are also performed on newly constructed lines

Often, the first step in repairing or replacing a sewer line involves Close Circuit Television/Locating. When a problem area in a main line is suspected, a small video camera on wheels/skids, with a locating device attached to it, is pulled through the line. Viewing the images on a remote television monitor, CSO crew members can pinpoint problem areas within the pipes and determine the best corrective action to take. TV inspections are also performed on newly constructed lines to verify the quality of construction.

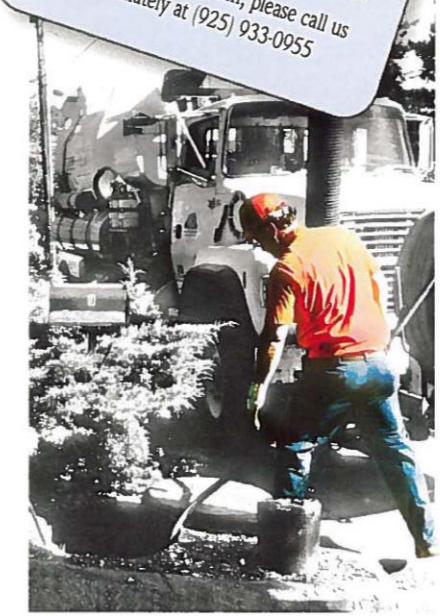
When repairs or replacements are necessary, we use trenchless or "no-dig" technology whenever possible. "No-dig" technology drastically reduces the amount of surface disruption that occurs with pipeline replacement. It saves money and reduces construction impacts on residents and businesses. This technique is especially useful in high-density areas where backyard easements, landscaping and structural barriers make open-cut construction extremely expensive.

A state-of-the-art piece of equipment that has revolutionized the method for replacing old sewer pipe is the pipe insertion machine. It can replace pipe in half the time of conventional methods which involve digging up the ground, removing the old pipe, installing a new one, and covering it up. The new technique is called pipe bursting. The pipe insertion machine is pneumatically driven through the soil. It disintegrates old pipe, enlarges the ensuing hole, and pulls in new pipe -- all in the same operation. The only excavation required is two pits every 400-500 feet for the launch and retrieval of the equipment, and a small pit at each side-sewer connection.



"No-dig" technology drastically reduces the amount of surface disruption

...are, but ...ely. Our CSO crews provide 24-hour service and respond to emergencies within 30 minutes, day or night. Non-emergency responses are usually within 45 minutes. If you suspect a problem, please call us immediately at (925) 933-0955

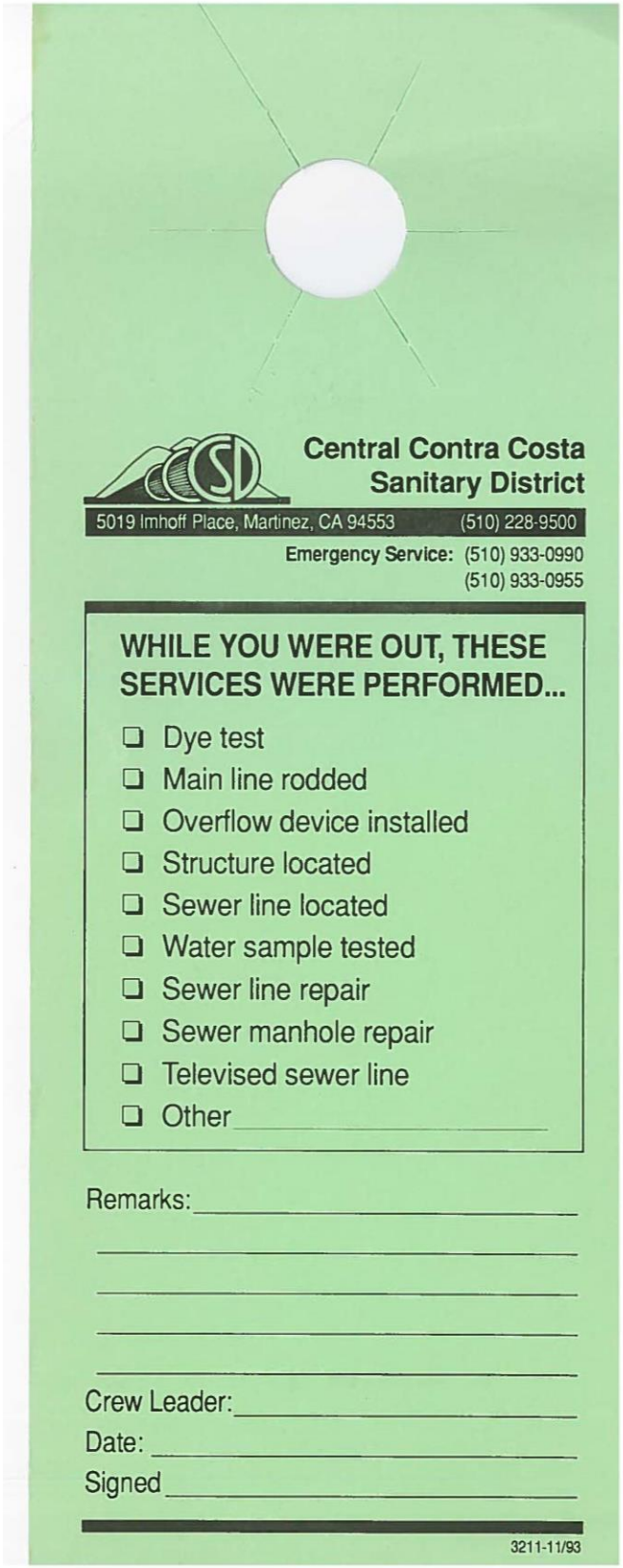


Using this method is much more preferable to the long and deep trenches dug with the old method.

Another "no dig" technique is called horizontal boring. A drill rig laid on its side bores through the soil horizontally, creating a hole through which a pipe is pulled. This technique is particularly useful in hilly areas.

Cured in-place pipe (CIPP), or inversion lining is another trenchless technology. This technique leaves the old pipeline in place while a polyester felt liner, impregnated with a thermosetting resin, is inserted and filled with hot water for curing. Once the curing process is completed, the sewer is as good as new.

M. DOOR HANGER



Central Contra Costa Sanitary District

5019 Imhoff Place, Martinez, CA 94553 (510) 228-9500

Emergency Service: (510) 933-0990
(510) 933-0955

WHILE YOU WERE OUT, THESE SERVICES WERE PERFORMED...

- ❑ Dye test
- ❑ Main line rodded
- ❑ Overflow device installed
- ❑ Structure located
- ❑ Sewer line located
- ❑ Water sample tested
- ❑ Sewer line repair
- ❑ Sewer manhole repair
- ❑ Televised sewer line
- ❑ Other _____

Remarks: _____

_____

_____

_____

_____

Crew Leader: _____

Date: _____

Signed _____

3211-11/93

7. UPDATE OF PLAN

A. Plan Review and Updates

The SERP will be reviewed in January of each calendar year to ensure that it is up to date with the WDR and emergency response activities performed by CentralSan. It is a requirement of Section 5.12, of the WDR, that the Enrollee shall certify, in its Annual Report, that its SERP is up to date. The Annual Report is due by April 1st of each year after the Effective date of this General Order for each calendar year, per section 3.9 of the WDR.

The Field Operations Superintendent and Senior Engineer will ensure that material or significant changes to the Plan are incorporated into the document, are recorded on the Review and Revision Log (Page 1), and ensure that the contents of this Plan are consistent with Element 6 of Central San's Sewer System Management Plan.

B. Training

The Collection System Operations Division Manager, Collection System Operations Senior Engineer and/or Field Operations Superintendent will provide training on the SERP to field staff annually and will advise field crews of any changes made to the Plan between such trainings in a timely manner.

CentralSan staff training will include:

- WDR
- SERP and Pumping Stations Emergency Response Plan
- SSMP
- Overflow estimation using the CentralSan overflow simulator
- Start Time determination
- Bypass pump setup

In addition, training will be provided to contractors working on collection system projects. This training will be provided at the Pre-Construction meeting. Contractors will be responsible for containing spills originating from their construction activities. CentralSan staff will provide all repairs, clean-up, sampling, and reporting for the spill.

Contractor Training will include:

- Terminating the spill
- Containing the spill
- 24-hour emergency dispatch and contact information

8. RESOURCES

A. Emergency Vendor Contact Information

SERVICE/SUPPLIES	VENDOR NAME	PHONE NUMBER
Hazardous Materials Response	Phillips Service Corp. (PSC)	800-800-7472 (Benicia)
	NRC Environmental Services	877-880-4672
Spills to Creeks or Other Waterways	Phillips Service Corp. (PSC)	707-748-3058
	NSC Environmental Services	800-337-7455
Sewer Backup Cleanup	Restoration Management	800-400-5058
	ServiceMaster Restore	800-480-8439
Generators / Lane Closure / Equipment Rental	Cresco Equipment Rental	925 827-1742 (Pleasant Hill) 925 284-4595 (Lafayette) 925 837-4475 (Danville) 925 228-9811 (Martinez)
	United Rental	510-562-3000 (Oakland) 925-370-1000 (Martinez)
	Construction Zone	925-969-7508
	Bay Area Barricade	925-686-1089
Other	Trench Shoring Company	510-900-0595 (Newark)
	Rain for Rent	925-679-2803(Oakley)

B. Other Agency Contact Information

CentralSan coordinates with our local cities, counties, and municipalities regularly. The coordination focuses on many different items, such as:

- Preventative maintenance activities within the Public Right of Way.
- Encroachment permits for repairs
- Manhole adjustments to existing grade
- City Paving project coordination
- Facility inspections
- Emergency Response

Over the last 15 years, CentralSan has worked with our cities, county, and agencies to receive their electronic system maps. We have received the system maps for all storm drains and water

lines within our service area. The electronic files have been added as a layer to our ESRI electronic mapping system and can be accessed by field crews during emergency response.

In addition, the San Pablo Reservoir is located in Suisun Basin as defined by the SWRCB Region 2 Basin Plan. San Pablo Creek and its tributaries are upstream of the reservoir. CentralSan has a verbal agreement with the East Bay Municipal Utility District (EBMUD) that if there is a spill greater than or equal to 1,000 gallons into San Pablo Creek or its tributaries, we will notify them immediately after our call to Cal-OES. This notification is outlined in our "Responding to a Spill" procedure.

AGENCY NAME	**PHONE NUMBER**
City of Concord	925-671-3448
City of San Ramon	925-973-2500
City of Danville	925-314-3450
City of Walnut Creek	925-256-3586
City of Pleasant Hill	925-671-4646
City of Martinez	925-372-3580
City of Lafayette	925-934-3908
City of Moraga	925-888-7050
City of Orinda	925-253-4231
Diablo San Ramon Sanitary District	925-828-0515
East Bay MUD	866-403-2683
Contra Costa Water District	925-688-8000
Mt. View Sanitary District	925-228-5635
Contra Costa County	925-313-2000
Zone 7	925-454-5000

C. Public Posting Notice

WARNING!

RAW SEWAGE

KEEP OUT!

Central Contra Costa Sanitary District

For more information, call
925-933-0990 or 925-933-0955

Print this page on orange paper and laminate.

9. DEFINITIONS

Definitions as used in this Plan and as outlined in Order Number WQ 2022-0103-DWQ Statewide Waste Discharge Requirements (WDR):

Annual Report
An Annual Report (previously termed as Collection System Questionnaire in Order 2006-0003-DWQ) is a mandatory report in which the Enrollee provides a calendar-year update of its efforts to prevent spills.

Basin Plan
A Basin Plan is a water quality control plan specific to a Regional Water Quality Control Board (Regional Water Board), that serves as regulations to: (1) define and designate beneficial uses of surface and groundwaters, (2) establish water quality objectives for protection of beneficial uses, and (3) provide implementation measures.

Beneficial Uses
The term “Beneficial Uses” is a Water Code term, defined as the uses of the waters of the State that may be protected against water quality degradation. Examples of beneficial uses include but are not limited to, municipal, domestic, agricultural, and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

California Integrated Water Quality System (CIWQS)
CIWQS is the statewide database that provides for mandatory electronic reporting as required in State and Regional Water Board-issued waste discharge requirements.

Data Submitter
A Data Submitter is an individual designated and authorized by the Enrollee’s Legally Responsible Official to enter spill data into the online CIWQS Sanitary Sewer System Database. A Data Submitter does not have the authority of a Legally Responsible Official to certify reporting entered into the online CIWQS Sanitary Sewer System Database.

Disadvantaged Community
A disadvantaged community is a community with a median household income of less than eighty percent (80%) of the statewide annual median household income.
For the purpose of this General Order, there is no differentiation between a small and large disadvantaged community.

Drainage Conveyance System
A drainage conveyance system is a municipal separate storm sewer system or other municipal/non-municipal drainage canal, channel, pipeline, or conveyance system constructed to provide drainage through transport of stormwater and non-stormwater flows.

Environmentally Sensitive Area

An environmentally sensitive area is a designated agricultural and/or wildlife area identified to need special natural landscape protection due to its wildlife or historical value.

Exfiltration
Exfiltration is the underground exiting of sewage from a sanitary sewer system through cracks and/or corrosion in pipes, misaligned joints, or broken/failed infrastructure.

Flood Control Channel
A flood control channel is a channel used to convey stormwater and non-stormwater flows through and from areas for flood management purposes.

Governing Entity
A governing entity includes but is not limited to the following:
• A publicly elected governing board, council, or commission of a municipal agency;
• A Department or Division director of a federal or state agency that is not governed by a board;
• A governing board or commission of an organization or aspillciation; and
• A private system owner/manager that is not governed by a board.

Hydrologically Connected
Two waterbodies are hydrologically connected when one waterbody flows, or has the potential to flow, into the other waterbody. For the purpose of this General Order, groundwater is hydrologically connected to a surface water when the groundwater feeds into the surface water (The surface water in this example is termed a gaining stream as it gains flow from surrounding groundwater.)

Lateral (including Lower and Lower and Upper Lateral)
A lateral is an underground segment of pipe that transports sewage from a building or property (residential, commercial, or industrial) to a sanitary sewer system main in a street or easement. A lower lateral is the portion of the lateral located between: (1) the sanitary sewer system main, and (2) either the property line or the boundary of an established easement. An upper lateral is the portion of the lateral from the building or property, to a clean out closest to the property line or boundary of an established easement.

Legally Responsible Official
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.

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, so as to interfere with the comfortable enjoyment of life or property;
• Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and
• Occurs during, or as a result of, the treatment or disposal of wastes.

Private Sewer Lateral
A private sewer lateral is the privately-owned lateral that transports sewage from private property(ies) into a sanitary sewer system.

Private Sanitary Sewer System
A private sanitary sewer system is a sanitary sewer system of any size that is owned and/or operated by a private individual, company, corporation, or organization. A private sanitary sewer system may or may not connect into a publicly owned sanitary sewer system.

Receiving Water
A receiving water is waters of the State that receive a discharge of waste.

Resilience
Resilience is the ability to plan, prepare for, mitigate, and adapt to changing conditions from hazards to enable rapid recovery of physical, social, economic, and ecological infrastructure. Improving resilience before or following a hazard event should engage physical infrastructure and social systems with adaptive capacity to ensure rapid return to functionality, accounting for interdependencies within and across all sectors.

Satellite Sewer System
A satellite sewer system is a portion of a sanitary sewer system owned or operated by a different owner than the owner of the downstream wastewater treatment facility ultimately treating the sewage.

Sewer System Management Plan
A sewer system management plan is a living document an Enrollee develops and implements to effectively manage its sanitary sewer system(s) in accordance with this General Order.

Sewage
Sewage is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge) conveyed in a sanitary sewer system.

Spill
A spill is a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system spill, operational failure, and/or infrastructure failure. Exfiltration of sewage is not considered to be a spill under this General Order if the exfiltrated sewage remains in the subsurface and does not reach a surface water of the State.

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

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

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

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

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

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

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

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

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

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

Training
Training is in-house or external education and guidance needed that provides the knowledge, skills, and abilities to comply with this General Order.

Wash Down Water
Wash down water is water used to clean a spill area.

Waste
Waste, as defined in Water Code section 13050(d), includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, aspillciated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Waters of the State
Waters of the State are surface water or groundwater within boundaries of the state as defined in Water Code section 13050(e), in which the State and Regional Water Boards have authority to protect beneficial uses. Waters of the State include, but are not limited to, groundwater aquifers, surface waters, saline waters, natural washes and pools, wetlands, sloughs, and estuaries, regardless if flow or water exists during dry conditions. Waters of the State include waters of the United States.

Waters of the United States
Waters of the United States are surface waters or waterbodies that are subject to federal jurisdiction in accordance with the Clean Water Act.

Water Quality Objective
A water quality objective is the limit or maximum amount of pollutant, waste constituent or characteristic, or parameter level established in statewide water quality control plans and Regional Water Boards' Basin Plans, for the reasonable protection of beneficial uses of surface waters and groundwater and the prevention of nuisance.

Notifications, Monitoring and Reporting for Category 1 and 2 Spills as outlined in Order Number WQ 2022-0103-DWQ Statewide Waste Discharge Requirements (WDR), Attachment E-2

10. APPENDICES

Appendix A – Water Quality Monitoring Program

SSMP ELEMENT 6: Appendix D
WATER QUALITY MONITORING PROGRAM

WDR REQUISITES

This Water Quality Monitoring Program provides the District's response activities and standard operating procedures to be utilized in the OERP, in the event a sanitary sewer overflow (SSO) exceeds 50,000 gallons. This program is reviewed periodically and may be updated as necessary.

State 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 (Effective September 9, 2013), requires the following:

SSO WDR Section D. Water Quality Monitoring Requirements

To comply with subsection D.7(v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.
2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).
3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.
4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.
5. Within 18 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
   i. Ammonia
   ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

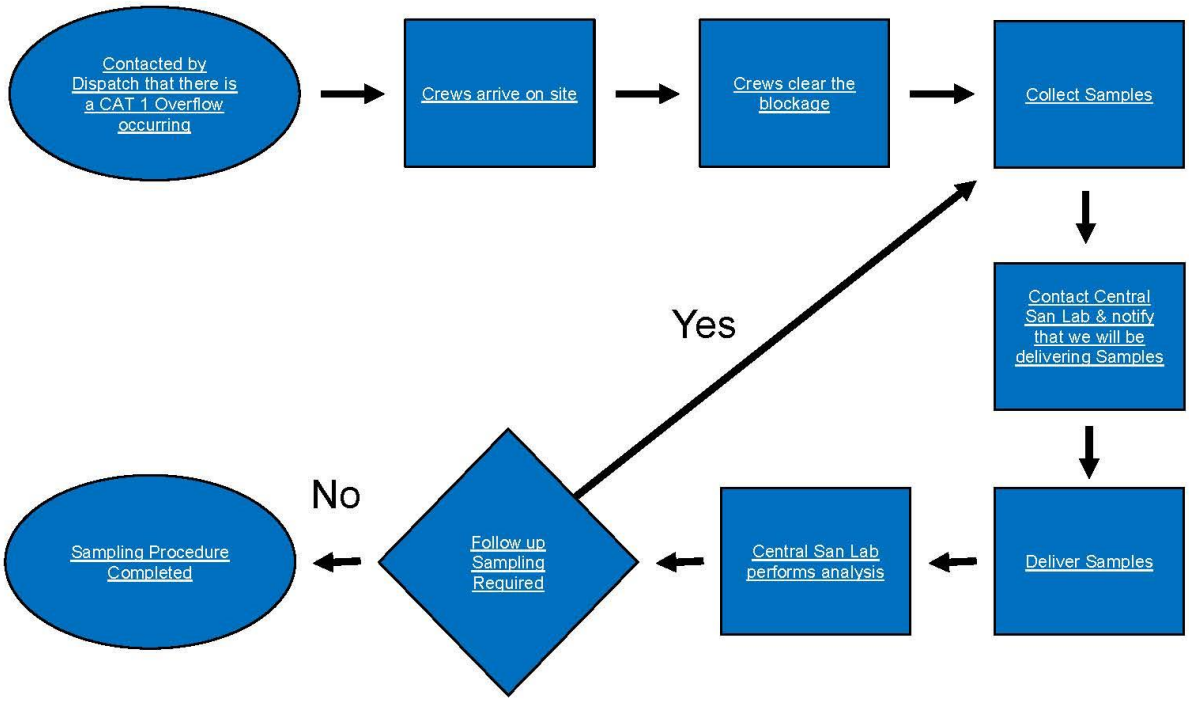
Additionally, for spills greater than 50,000 gallons, an SSO Technical Report is required and must be submitted within 45 calendar days from the SSO end date. The SSO Technical Report requirements are described in Element VI of the OERP.

CENTRAL SAN COMPLIANCE

1.0 CONTAIN PROTOCOLS FOR WATER QUALITY MONITORING

CentralSan collects water quality samples for **ALL** Category 1 SSO's. The Field Superintendent or a Field Supervisor will collect, transport, and submit water quality samples for analysis to CentralSan's Laboratory, located at our Treatment Plant in Martinez, California. Samples are taken at or near where the SSO reaches the surface water (entry point), approximately 100 feet upstream, and downstream of the entry point. The samples are collected as soon as the blockage has been cleared or if additional staff is available the sampling activities will be completed in concurrence with clearing the blockage. The samples are analyzed for ammonia, total coliform, fecal coliform, enterococcus and e-coli. Additional follow up samples are recommended to confirm the extent that the impact reverts to baseline levels. Follow up samples can be used to determine if posting of warning signs should be discontinued, if signs were posted. Collaboration with the Office of Emergency Services, Fish and Wildlife and the County Health Department shall continue until closures have been removed.

In addition, CentralSan has contracted with Environmental Science Associate to provide a certified Biologist to review and provide recommendations for **ALL** Category 1 SSO's. CentralSan staff performs the creek cleanup and the biologist is required, within 48-hours, to inspect the site for any additional cleanup activities. The Biologist then submits a report to CentralSan outlining the findings. Biologist reports are attached to the SSO backup documentation and kept at the Collection System Operations location in Walnut Creek.



6-2

2.0 ACCOUNT FOR SPILL TRAVEL TIME IN THE SURFACE WATER AND SCENARIOS WHERE MONITORING MAY NOT BE POSSIBLE

The following methods are recommended to estimate spill travel time and direction:

> Method 1: Use a velocity probe (such as a Global Water FP111-S Flow Probe). To determine the rate of flow in the surface water or
>
> Method 2: **Visual ft/sec measurement.** This may be done by observing or dropping floatable debris in the surface water and timing how long it takes to travel over a measured distance (e.g., 100 feet). Include sections in the surface water where there are bends, bottlenecks, or other characteristics that may slow down the flow. If the first measurement is uncertain, this estimate may be performed three to five times, and the values averaged to determine an estimated travel time.

Either method will provide a means to estimate the distance traveled and identify where the SSO may be headed within the waterway.

The following are scenarios where monitoring may not be possible

Be aware of safety issues and do not subject personnel to unsafe conditions in order to comply with this Water Quality Monitoring Plan. Sampling will not be conducted if there are any concerns regarding field crew safety. These concerns may include:

- Heavy rain events that compromise access points through flooding and swift currents
- Rain events that include lightning
- Steep creekbanks that limit access
- Large flows in creek that are not conducive to sampling

3.0 REQUIRE WATER QUALITY ANALYSIS FOR AMMONIA AND BACTERIAL INDICATORS TO BE PERFORMED BY AN ACCREDITED OR CERTIFIED LABORATORY

Central San is required to meet dozens of stringent water quality regulations. We operate a laboratory that is located at our wastewater treatment plant, located at 5019 Imhoff Place in Martinez, CA. CentralSan's laboratory is certified by the California State Environmental Laboratory Accreditation Program.

Approximately 35,000 tests are conducted on an annual basis to identify a variety of wastewater constituents, including ammonia, bacteria, metals, toxic organic compounds, and pathogens.

CALIFORNIA STATE
ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM
Fields of Accreditation

Central Contra Costa Sanitary District, Dr. Mario M. Menesini Environmental Laboratory
Environmental and Regulatory Compliance
5015 Imhoff Place
Martinez, CA 94553
Phone: 9253357751

Certificate Number: 1397
Expiration Date: 12/31/2024

Field of Accreditation: 107 - Microbiological Methods for Non-Potable Water and Sewage Sludge			
107.001	001	Total Coliform (Enumeration)	SM 9221 B,C-2006
107.001	002	Fecal Coliform (Enumeration)	SM 9221 C,E-2006
107.017	001	Enterococci	Enterolert
Field of Accreditation: 108 - Inorganic Constituents in Non-Potable Water			
108.009	001	Turbidity	EPA 180.1
108.053	001	Oil & Grease, Total Recoverable	EPA 1664 A
108.063	001	Alkalinity	SM 2320 B-2011
108.067	001	Hardness	SM 2340 C-2011
108.069	001	Specific Conductance	SM 2510 B-2011
108.071	001	Residue, Total	SM 2540 B-2011
108.073	001	Residue, Filterable TDS	SM 2540 C-2011
108.075	001	Residue, Non-filterable TSS	SM 2540 D-2011
108.079	001	Residue, Settleable	SM 2540 F-2011
108.105	001	Chlorine, Total Residual	SM 4500-Cl C-2011
108.137	001	Hydrogen Ion (pH)	SM 4500-H+ B-2011
108.139	001	Ammonia (as N)	SM 4500-NH3 C-2011
108.139	002	Kjeldahl Nitrogen,Total (as N)	SM 4500-NH3 C-2011
108.149	001	Ammonia (as N)	SM 4500-NH3 H-2011
108.159	001	Nitrate-Nitrite (as N)	SM 4500-NO3 F-2011
108.159	002	Nitrite (as N)	SM 4500-NO3 F-2011
108.165	001	Oxygen, Dissolved	SM 4500-O C-2011
108.175	002	Phosphorus,Total	SM 4500-P E-2011
108.179	001	Phosphate,Ortho (as P)	SM 4500-P G-2011
108.181	001	Phosphorus,Total	SM 4500-P H-2011
108.201	001	Sulfide (as S)	SM 4500-S D-2011
108.207	002	Carbonaceous BOD	SM 5210 B-2011
108.251	001	Oxygen, Dissolved	ASTM D888-09C
108.325	001	Chemical Oxygen Demand	Hach 8000
108.335	001	Cyanide, Total	Kelada-01
Field of Accreditation: 109 - Metals and Trace Elements in Non-Potable Water			
109.625	002	Antimony	EPA 200.8
109.625	003	Arsenic	EPA 200.8
109.625	004	Barium	EPA 200.8

As of 1/1/2023, this list supersedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with the State.

109.625	005	Beryllium	EPA 200.8
109.625	007	Cadmium	EPA 200.8
109.625	008	Chromium	EPA 200.8
109.625	009	Cobalt	EPA 200.8
109.625	010	Copper	EPA 200.8
109.625	013	Lead	EPA 200.8
109.625	014	Manganese	EPA 200.8
109.625	015	Molybdenum	EPA 200.8
109.625	016	Nickel	EPA 200.8
109.625	017	Selenium	EPA 200.8
109.625	018	Silver	EPA 200.8
109.625	019	Thallium	EPA 200.8
109.625	022	Vanadium	EPA 200.8
109.625	023	Zinc	EPA 200.8
109.635	001	Mercury	EPA 245.1
Field of Accreditation: 110 - Volatile Organic Constituents in Non-Potable Water			
110.040	003	Acrolein	EPA 624.1
110.040	004	Acrylonitrile	EPA 624.1
110.040	005	Benzene	EPA 624.1
110.040	006	Bromodichloromethane	EPA 624.1
110.040	007	Bromoform	EPA 624.1
110.040	008	Bromomethane (Methyl Bromide)	EPA 624.1
110.040	010	Carbon Tetrachloride	EPA 624.1
110.040	011	Chlorobenzene	EPA 624.1
110.040	012	Chloroethane	EPA 624.1
110.040	013	2-Chloroethyl vinyl Ether	EPA 624.1
110.040	014	Chloroform	EPA 624.1
110.040	015	Chloromethane (Methyl Chloride)	EPA 624.1
110.040	016	Dibromochloromethane (Chlorodibromomethane)	EPA 624.1
110.040	017	1,2-Dichlorobenzene	EPA 624.1
110.040	018	1,3-Dichlorobenzene	EPA 624.1
110.040	019	1,4-Dichlorobenzene	EPA 624.1
110.040	020	1,1-Dichloroethane	EPA 624.1
110.040	021	1,2-Dichloroethane (Ethylene Dichloride)	EPA 624.1
110.040	022	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 624.1
110.040	023	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 624.1
110.040	024	1,2-Dichloropropane	EPA 624.1
110.040	025	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 624.1
110.040	026	trans-1,3-Dichoropropylene (trans-1,3 Dichloropropene)	EPA 624.1
110.040	029	Ethylbenzene	EPA 624.1
110.040	031	Methylene Chloride (Dichloromethane)	EPA 624.1
110.040	034	1,1,2,2-Tetrachloroethane	EPA 624.1

110.040	035	Tetrachloroethylene (Tetrachloroethene)	EPA 624.1
110.040	037	Toluene	EPA 624.1
110.040	038	1,1,1-Trichloroethane	EPA 624.1
110.040	039	1,1,2-Trichloroethane	EPA 624.1
110.040	040	Trichloroethylene (Trichloroethene)	EPA 624.1
110.040	041	Vinyl Chloride	EPA 624.1
110.040	043	o-Xylene	EPA 624.1
110.040	045	Trichlorofluoromethane	EPA 624.1
110.040	046	m+p-Xylene	EPA 624.1

Field of Accreditation:111 - Semi-volatile Organic Constituents in Non-Potable Water

111.160	001	Acenaphthene	EPA 625.1
111.160	002	Acenaphthylene	EPA 625.1
111.160	003	Anthracene	EPA 625.1
111.160	004	Benzidine	EPA 625.1
111.160	005	Benzo(a)anthracene	EPA 625.1
111.160	006	Benzo(a)pyrene	EPA 625.1
111.160	007	Benzo(b)fluoranthene	EPA 625.1
111.160	008	Benzo(g,h,i)perylene	EPA 625.1
111.160	009	Benzo(k)fluoranthene	EPA 625.1
111.160	010	Bis(2-chloroethoxy) Methane	EPA 625.1
111.160	011	Bis(2-chloroethyl) Ether	EPA 625.1
111.160	012	bis(2-Chloroisopropyl) ether (2,2'-Oxybis(1-chloropropane))	EPA 625.1
111.160	013	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 625.1
111.160	014	4-Bromophenyl Phenyl Ether	EPA 625.1
111.160	015	Butyl Benzyl Phthalate	EPA 625.1
111.160	016	2-Chloronaphthalene	EPA 625.1
111.160	017	4-Chlorophenyl Phenyl Ether	EPA 625.1
111.160	018	Chrysene	EPA 625.1
111.160	019	Dibenz(a,h)anthracene	EPA 625.1
111.160	020	3,3'-Dichlorobenzidine	EPA 625.1
111.160	021	Diethyl Phthalate	EPA 625.1
111.160	022	Dimethyl Phthalate	EPA 625.1
111.160	023	Di-n-butyl Phthalate	EPA 625.1
111.160	024	2,4-Dinitrotoluene	EPA 625.1
111.160	025	2,6-Dinitrotoluene	EPA 625.1
111.160	026	Di-n-octyl Phthalate	EPA 625.1
111.160	027	Fluoranthene	EPA 625.1
111.160	028	Fluorene	EPA 625.1
111.160	029	Hexachlorobenzene	EPA 625.1
111.160	030	Hexachlorobutadiene	EPA 625.1
111.160	031	Hexachloroethane	EPA 625.1
111.160	032	Indeno(1,2,3-c,d)pyrene	EPA 625.1

111.160	033	Isophorone	EPA 625.1
111.160	034	Naphthalene	EPA 625.1
111.160	035	Nitrobenzene	EPA 625.1
111.160	036	N-nitroso-di-n-propylamine	EPA 625.1
111.160	037	Phenanthrene	EPA 625.1
111.160	038	Pyrene	EPA 625.1
111.160	039	1,2,4-Trichlorobenzene	EPA 625.1
111.160	040	4-Chloro-3-methylphenol	EPA 625.1
111.160	041	2-Chlorophenol	EPA 625.1
111.160	042	2,4-Dichlorophenol	EPA 625.1
111.160	043	2,4-Dimethylphenol	EPA 625.1
111.160	044	2,4-Dinitrophenol	EPA 625.1
111.160	045	2-Methyl-4,6-dinitrophenol	EPA 625.1
111.160	046	2-Nitrophenol	EPA 625.1
111.160	047	4-Nitrophenol	EPA 625.1
111.160	048	Pentachlorophenol	EPA 625.1
111.160	049	Phenol	EPA 625.1
111.160	050	2,4,6-Trichlorophenol	EPA 625.1
111.160	098	Hexachlorocyclopentadiene	EPA 625.1
111.160	108	N-nitrosodimethylamine	EPA 625.1
111.160	110	N-nitrosodiphenylamine	EPA 625.1
111.160	143	1,2-Diphenylhydrazine	EPA 625.1
Field of Accreditation: 113 - Environmental Toxicity Methods			
113.011	001C	Fathead Minnow (P. promelas)	EPA 2000.0, Continuous Flow
Field of Accreditation: 114 - Inorganic Constituents in Hazardous Waste			
114.335	002	Antimony	EPA 6020
114.335	003	Arsenic	EPA 6020
114.335	004	Barium	EPA 6020
114.335	005	Beryllium	EPA 6020
114.335	006	Cadmium	EPA 6020
114.335	007	Chromium	EPA 6020
114.335	008	Cobalt	EPA 6020
114.335	009	Copper	EPA 6020
114.335	010	Lead	EPA 6020
114.335	012	Nickel	EPA 6020
114.335	013	Silver	EPA 6020
114.335	014	Thallium	EPA 6020
114.335	015	Zinc	EPA 6020
114.335	016	Molybdenum	EPA 6020
114.335	017	Selenium	EPA 6020
114.335	018	Vanadium	EPA 6020
114.535	001	Mercury	EPA 7471 A

Field of Accreditation: 115 - Leaching/Extraction Tests and Physical Characteristics of Hazardous Waste			
115.135	001	Corrosivity - pH Determination	EPA 9045 C
Field of Accreditation: 116 - Volatile Organic Compounds in Hazardous Waste			
116.265	001	Benzene	EPA 8260 B
116.265	004	Bromodichloromethane	EPA 8260 B
116.265	005	Bromoform	EPA 8260 B
116.265	006	Bromomethane (Methyl Bromide)	EPA 8260 B
116.265	010	Carbon Disulfide	EPA 8260 B
116.265	011	Carbon Tetrachloride	EPA 8260 B
116.265	012	Chlorobenzene	EPA 8260 B
116.265	013	Chlorodibromomethane (Dibromochloromethane)	EPA 8260 B
116.265	014	Chloroethane	EPA 8260 B
116.265	015	Chloroform	EPA 8260 B
116.265	016	Chloromethane (Methyl Chloride)	EPA 8260 B
116.265	018	Dichlorodifluoromethane (Freon 12)	EPA 8260 B
116.265	019	cis-1,2-Dichloroethylene (cis 1,2 Dichloroethene)	EPA 8260 B
116.265	020	trans-1,2-Dichloroethylene (trans- 1,2 Dichloroethene)	EPA 8260 B
116.265	021	cis-1,3-Dichloropropylene (cis 1,3 Dichloropropene)	EPA 8260 B
116.265	022	trans-1,3-Dichloropropylene (trans-1,3 Dichloropropene)	EPA 8260 B
116.265	023	Ethylbenzene	EPA 8260 B
116.265	025	Methyl tert-butyl Ether (MTBE)	EPA 8260 B
116.265	026	Methylene Chloride (Dichloromethane)	EPA 8260 B
116.265	030	Styrene	EPA 8260 B
116.265	031	Tetrachloroethylene (Tetrachloroethene)	EPA 8260 B
116.265	032	Toluene	EPA 8260 B
116.265	033	Trichloroethylene (Trichloroethene)	EPA 8260 B
116.265	034	Trichlorofluoromethane	EPA 8260 B
116.265	035	Vinyl Chloride	EPA 8260 B
116.265	036	m+p-Xylene	EPA 8260 B
116.265	037	o-Xylene	EPA 8260 B
116.265	040	1,1-Dichloroethane	EPA 8260 B
116.265	041	1,1-Dichloroethylene (1,1-Dichloroethene)	EPA 8260 B
116.265	042	1,1,1-Trichloroethane	EPA 8260 B
116.265	044	1,1,2,2-Tetrachloroethane	EPA 8260 B
116.265	045	1,1,2-Trichloroethane	EPA 8260 B
116.265	046	1,2-Dichlorobenzene	EPA 8260 B
116.265	047	1,2-Dichloroethane (Ethylene Dichloride)	EPA 8260 B
116.265	050	1,2-Dichloropropane	EPA 8260 B
116.265	053	1,3-Dichlorobenzene	EPA 8260 B
116.265	054	1,4-Dichlorobenzene	EPA 8260 B
116.265	055	2-Chloroethyl vinyl Ether	EPA 8260 B
116.265	057	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	EPA 8260 B

Field of Accreditation: 117 - Semi-volatile Organic Chemistry of Hazardous Waste

117.435	001	Acenaphthene	EPA 8270 C
117.435	002	Acenaphthylene	EPA 8270 C
117.435	004	Anthracene	EPA 8270 C
117.435	005	Benzidine	EPA 8270 C
117.435	007	Benzo(a)anthracene	EPA 8270 C
117.435	008	Benzo(b)fluoranthene	EPA 8270 C
117.435	009	Benzo(k)fluoranthene	EPA 8270 C
117.435	010	Benzo(g,h,i)perylene	EPA 8270 C
117.435	011	Benzo(a)pyrene	EPA 8270 C
117.435	013	Bis(2-chloroethoxy) Methane	EPA 8270 C
117.435	014	Bis(2-chloroethyl) Ether	EPA 8270 C
117.435	015	Bis(2-ethylhexyl)phthalate (Di(2-ethylhexyl) phthalate)	EPA 8270 C
117.435	016	Butyl Benzyl Phthalate	EPA 8270 C
117.435	017	Chrysene	EPA 8270 C
117.435	018	Dibenz(a,h)anthracene	EPA 8270 C
117.435	020	Di-n-butyl Phthalate	EPA 8270 C
117.435	021	Diethyl Phthalate	EPA 8270 C
117.435	022	Dimethyl Phthalate	EPA 8270 C
117.435	023	Di-n-octyl Phthalate	EPA 8270 C
117.435	024	Fluoranthene	EPA 8270 C
117.435	025	Fluorene	EPA 8270 C
117.435	026	Naphthalene	EPA 8270 C
117.435	027	Nitrobenzene	EPA 8270 C
117.435	029	Pentachlorophenol	EPA 8270 C
117.435	034	2-Chloronaphthalene	EPA 8270 C
117.435	035	2-Chlorophenol	EPA 8270 C
117.435	036	2,4-Dichlorophenol	EPA 8270 C
117.435	037	2,4-Dimethylphenol	EPA 8270 C
117.435	038	2,4-Dinitrophenol	EPA 8270 C
117.435	039	2,4-Dinitrotoluene	EPA 8270 C
117.435	041	2,6-Dinitrotoluene	EPA 8270 C
117.435	043	2-Nitrophenol	EPA 8270 C
117.435	045	3,3'-Dichlorobenzidine	EPA 8270 C
117.435	047	4-Chloro-3-methylphenol	EPA 8270 C
117.435	048	4-Bromophenyl Phenyl Ether	EPA 8270 C
117.435	049	4-Chlorophenyl Phenyl Ether	EPA 8270 C
117.435	051	4-Nitrophenol	EPA 8270 C
117.435	088	N-nitrosodimethylamine	EPA 8270 C
117.435	089	N-nitrosodiphenylamine	EPA 8270 C
117.435	090	N-nitroso-di-n-propylamine	EPA 8270 C
117.435	091	Indeno(1,2,3-c,d)pyrene	EPA 8270 C

117.435	092	Isophorone	EPA 8270 C
117.435	094	Phenanthrene	EPA 8270 C

4.0 REQUIRE MONITORING INSTRUMENTS AND DEVICES USED TO IMPLEMENT THE SSO WATER QUALITY MONITORING PROGRAM TO BE PROPERLY MAINTAINED AND CALIBRATED, INCLUDING ANY RECORDS TO DOCUMENT MAINTENANCE AND CALIBRATION, AS NECESSARY, TO ENSURE THEIR CONTINUED ACCURACY

The below list references documents where persons reviewing SSO data would look to answer questions about calibration and maintenance of equipment used to measure parameters for an SSO sample. The three documents listed below are kept at the District's Laboratory, located in Martinez, California. Records pertaining to maintenance and calibration of equipment used to analyze SSO samples are available by request.

1. Central Contra Costa Sanitary District Dr. Mario M. Menesini Environmental Laboratory Quality Assurance Manual.

2. Standard Operating Procedures for methods used to analyze sanitary sewer overflow samples. (These will have calibration procedures/frequency along with quality control frequencies and acceptance limits.)

3. Instrument logbooks where preventative or reactive maintenance along with software updates are described.

5.0 WITHIN 18 HOURS OF THE ENROLLEE BECOMING AWARE OF THE SSO, REQUIRE WATER QUALITY SAMPLING FOR, AT A MINIMUM, THE FOLLOWING CONSTITUENTS:

- AMMONIA
- APPROPRIATE BACTERIAL INDICATOR(S) PER THE APPLICABLE BASIN WATER PLAN WATER QUALITY OBJECTIVE OR REGIONAL BOARD DIRECTION WHICH MAY INCLUDE TOTAL AND FECAL COLIFORM, ENTEROCOCCUS, AND E-COLI

SSO Sampling Contact Information

Company	Contact Person	Phone #
Central San Laboratory Program Administrator	Mary Lou Esparza	925-335-7751 925-260-1470 cell
Central San Supervising Chemist	Blake Brown	925-229-7237 925-324-5721 cell
Central San Collection System Superintendent	Steve Sauter	925-229-7150 925-260-2046 cell
Central San Collection System Supervisor	Alex Benavidez	925-229-7175 925-383-0795 cell
Central San Collection System Division Manager	Paul Seitz	925-335-7743 925-383-0033 cell
Environmental Science Associates Biologist	Garrett Leidy	510-463-6738
Environmental Science Associates Vice President	Erich Fischer	916-564-4500

FIELD EQUIPMENT SUPPLIES NEEDED FOR SAMPLING

The following list describes equipment that should be stocked and readily available for each water quality sampling event.

1. Personnel protective equipment including latex/nitrile gloves and eye protection
2. 4 Coolers for samples –
    a. Storm drain entry point (DCS-001)
    b. entry point sample (RSW-001)
    c. upstream sample (RSW-001U)
    d. downstream sample (RSW-001D)
3. Ice for coolers to keep samples cold
4. 12 –290mL Sterile plastic containers (containing sodium thiosulfate preservative) for Bacteria sample collection –
    a. Bottle 1 for Coliform & Enterococcus (1 bottle per kit)
    b. Bottle 2 for e.coli (1 bottle per kit)
    c. Sacrificial sterile bottle for sample collection (1 bottle per kit)
5. 4 Sets of dechlor/preservation kits (3a & 3b) –
    a. Bottle 3a (290mL sterile container containing sodium thiosulfate preservative) (1 per kit)
    b. Bottle 3b (250mL plastic bottle with Sulfuric Acid) (1 per kit)
6. 8 –1 L plastic containers (2 bottles per kit)
7. 1 — Sampling apparatus with 10' extension handle
8. 1 Gallon plastic bags used for any trash
9. Chain of Custody Forms

Ensure that there are adequate quantities of sample containers-kits if there are more than three sample locations

SAMPLE COLLECTION BEST PRACTICE

1. Collect all grab samples approximately 3"- 6" below the surface (or if shallower, as close as possible to this depth) to avoid sampling debris or scum from the surface.
2. Collect the sample in a safe manner in the middle of the flow, against the direction of water flow.
3. Once the lid is opened for the individual sample bottle, do not touch the inside surface of the bottle or lid.
4. For sample bottles that contain a preservative, take care to keep the preservation material in the container and do not overfill.
5. Once samples have been gathered, immediately place all sample bottles on ice.
6. Deliver samples to CentraSan's Laboratory.

SAMPLING TIME CONSTRAINTS

Bacteria samples have a 6-hour (preserved and cooled) regulatory holding time. Samples will not be analyzed if the holding time has been exceeded. CentralSan's Laboratory needs about 1 hour to set up the tests.

Samples must be maintained at 6°C/ 43°F (on ice or refrigerated) from the time of collection until receipt by CentralSan's Laboratory.

SAMPLING PROCEDURE

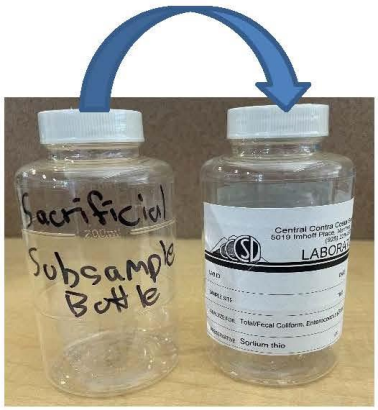
1. Remove four (4) ice chests from Overflow Response Cabinet located in CSO Warehouse.
2. Verify all 4 ice chests each have the following:

   - (1) – Sacrificial sterile sampling bottle (for pouring) with sterility seal intact
   - (2) – 290ml bottle (Bottles 1 & 2) (with dichlorination reagent already inside and plastic sterility seal intact)
   - (1) dechlor/preservation kit taped together (Bottles 3a & 3b)
     - 1 290mL sterile bottle with dechlorination agent
     - 1 250mL plastic bottle with Sulfuric acid
   - (2) 1L unpreserved, plastic bottles (Bottles 4 & 5)

3. Fill ice chests approximately half-full of ice.

4. Site sample should be taken at the entry point of spill (RSW-001), approximately 100' upstream of entry point (RSW-001U) and 100' downstream of entry point location (RSW-001D). If the spill enters a drainage conveyance system, additionally collect at the entry point to the drainage conveyance system (DCS-001).

5. Sampling Instructions
   - Bottles 1 & 2 (2)-290mL sterile plastic bottles & (1) 290mL sacrificial sterile pouring bottle

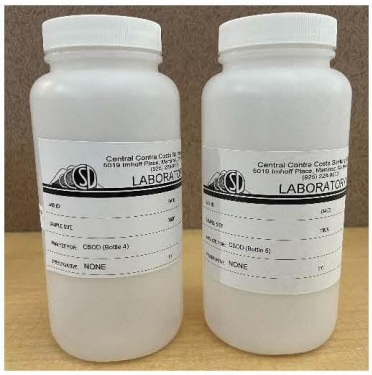


- Remove the plastic sterility seal
- Remove the cap of bottle 1 and do not allow the inside of the cap to touch anything (to prevent contamination)
- Use sacrificial 290mL sterile container to fill bottles 1 and 2 to the 250mL fill line taking caution not to overfill.
- Replace the lid and retain the sacrificial bottle to fill sample 3a.
- Fill in the label with collection date/time

- Sample bottles 3a & 3b (3a is a 290mL Dechlor container and 3b is a 250mL preservation container)

- Fill bottle 3a with the sacrificial bottle used above without overfilling, this bottle contains dechlorination agent.
- Cap 3a and shake to dissolve the dechlorination agent.
- Pour the contents of bottle 3a into bottle 3b without overfilling. Bottle 3b contains sulfuric acid to preserve the sample. Use caution, Sulfuric acid could cause acid burns.
- Cap 3b.
- Fill in the label with collection date/time.

- Sample bottles 4 & 5 (2-1L plastic bottles)



- Fill both 1L bottles with sample leaving 1-inch of headspace in the sample bottle.
- Fill in the label with collection date/time.

6. Repeat Step 5 for each of the sampling locations.
7. Fill out labels with appropriate information (see below). Use Sharpie ultra-fine point or similar, to avoid smearing.

Central Contra Costa Sanitary District
5019 Imhoff Place, Martinez, CA 94553-4392
(925) 228-9500

LABORATORY

LAB ID: DATE

SAMPLE SITE TIME

ANALYZE FOR: Total/Fecal Coliform, Enterococcus (Bottle 1)

PRESERVATIVE: Sodium thio BY:

Central Contra Costa Sanitary District
5019 Imhoff Place, Martinez, CA 94553-4392
(925) 228-9500

LABORATORY

LAB ID: DATE

SAMPLE SITE TIME

ANALYZE FOR: e.coil (Bottle 2)

PRESERVATIVE: Sodium thio BY:

Central Contra Costa Sanitary District
5019 Imhoff Place, Martinez, CA 94553-4392
(925) 228-9500

LABORATORY

LAB ID: DATE

SAMPLE SITE TIME

ANALYZE FOR: NH3 (Bottle 3a & 3b)

PRESERVATIVE: H2SO4+ Sodium thio BY:

Central Contra Costa Sanitary District
5019 Imhoff Place, Martinez, CA 94553-4392
(925) 228-9500

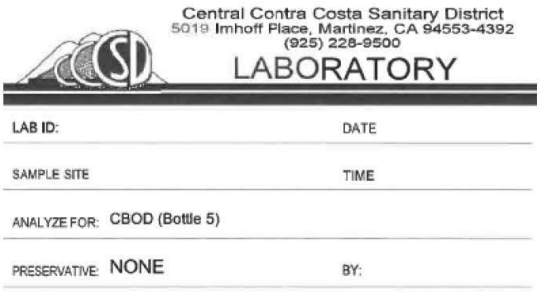
LABORATORY

LAB ID: DATE

SAMPLE SITE TIME

ANALYZE FOR: CBOD (Bottle 4)

PRESERVATIVE: NONE BY:



8. Put all sample bottles in their corresponding ice chests and deliver to lab within 5 hours
9. Fill out Chain of Custody Form for each location where samples were taken

CHAIN OF CUSTODY FORM

Chain of Custody

Central Contra Costa Sanitary District
5019 Imhoff Place
Martinez, CA 94553

ERC-LAB-QSO-SAM-COC-FOR
Revision: 3
Effective: 05/01/23

Report To: Steve Sauter, Alex Servidez, Paul Seitz
Steve@centralsan.org, alservidez@centralsan.org, pseitz@centralsan.org

Sampled by:

Sampler Signature:

C.Rylands
Workorder:

Site Address:

Instructions:
Bottle 1 & 2:
Remove the seal from the container and pour sample into bottle using the sacrificial sample bottle without touching the rim of the bottle. Fill the bottle to the 250mL Line. Do not overfill, the bottle contains dechlorination agent. (fill both bottle 1 and 2)
Bottle 3a & 3b:
Fill bottle 3a first, cap and invert to dissolve sodium thiosulfate. (do not over fill the bottle)
Pour contents of bottle 3a into bottle 3b. Use caution when pouring, bottle 3b contains concentrated acid.
Bottle 4 & 5:
Fill bottles

Sample ID	LIMS ID	Sample Type1	Collection Date	Collection Time	Bottle Type2	Number of Bottles	Parameters To Be Analyzed: COD, Dissolved Oxygen, pH, Total Residual Chlorine, Ammonia, COD, Enterococcus, Total Fecal Coliform, e.Coli (subcontract), HDSO4 (Preservation upon collection), Temp OHC, Sodium Thiosulfate dechlorination Note!	Preservative
Drainage Conveyance DC-5401 (Bottle 1)		G			P	1	X	X
Drainage Conveyance DC-5401 (Bottle 2)		G			P	1	X	X
Drainage Conveyance DC-5401 (Bottles 3a & 3b)*		G			P	1	X	X
Drainage Conveyance DC-5401 (Bottles 4 & 5)		G			P	2	X	X
Upstream-RSW-001U (Bottle 1)		G			P	1	X	X
Upstream-RSW-001U (Bottle 2)		G			P	1	X	X
Upstream-RSW-001U (Bottles 3a & 3b)*		G			P	1	X	X
Upstream-RSW-001U (Bottles 4 & 5)		G			P	2	X	X
Site-RSW-001 (Bottle 1)		G			P	1	X	X
Site-RSW-001 (Bottle 2)		G			P	1	X	X
Site-RSW-001 (Bottles 3a & 3b)*		G			P	1	X	X
Site-RSW-001 (Bottles 4 & 5)		G			P	2	X	X
Downstream-RSW-001D (Bottle 1)		G			P	1	X	X
Downstream-RSW-001D (Bottle 2)		G			P	1	X	X
Downstream-RSW-001D (Bottles 3a & 3b)*		G			P	1	X	X
Downstream-RSW-001D (Bottles 4 & 5)		G			P	2	X	X

Total Number of Bottles

*Sample Type: C= Composite, G = Grab, CG = Composite Grab
†Bottle Type: AG = Amber Glass, CG = Clear Glass, P = Poly, V = VOA
*Time of preservation is the same as collection.

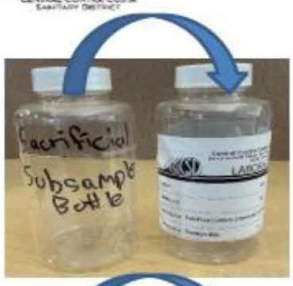
Relinquished by:	Date	Time	Received by:	Date	Time

Comments:

Reviewed: _____ Date: _____

CHAIN OF CUSTODY FORM – INSTRUCTION PAGE

Instructions



Remove seal and lid from **Sacrificial Subsampling Bottle** and fill the bottle with sample. Remove the lid and seal from **Bottle 1** and do not set the lid down. Pour sample from the **Sacrificial Subsampling Bottle** into **Bottle 1** and avoid touching anything to the rim of the bottle. Fill to the 250 mL line, **but do not overfill!**

Refill the **Sacrificial Subsampling Bottle** with sample. Remove the lid and seal from **Bottle 2** and do not set the lid down. Pour sample from the **Sacrificial Subsampling Bottle** into **Bottle 2** and avoid touching anything to the rim of the bottle. Fill to the 250 mL line, **but do not overfill!**

Using either the **Sacrificial Subsampling Bottle**, or another sampling device, collect the sample. Remove lid and seal from **Botle 3a** and fill to the 250 mL line with sample, **but do not overfill!** Replace the lid and shake to dissolve the sodium thiosulfate to dechlorinate sample. Remove the lid from **Bottle 3b**, but take caution as the bottle contains strong acid. Pour sample from **Bottle 3a** into **Bottle 3b** and replace the lid on Bottle 3b.

Fill **Bottle 4** and **Bottle 5** with sample. The containers can either be filled using another container, or dipped directly into the sample location.

Appendix B – Statewide Waste Discharge Requirements Order WQ 2022-0103-DWQ

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

This Order was adopted by the State Water Resources Control Board on December 6, 2022.

This Order shall become effective **180 days after the Adoption Date of this General Order,** on June 5, 2023.

The Enrollee shall comply with the requirements of this Order upon the Effective Date of this General Order.

This General Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, protect the Enrollee from liability under federal, state, or local laws, nor create a vested right for the Enrollee to continue the discharge of waste.

CERTIFICATION

I, Jeanine Townsend, Clerk to the Board, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the State Water Board on December 6, 2022.

AYE:	Chair E. Joaquin Esquivel Vice Chair Dorene D'Adamo Board Member Sean Maguire Board Member Laurel Firestone Board Member Nichole Morgan
NAY:	None
ABSENT:	None
ABSTAIN:	None

Courtney Tyler for
Jeanine Townsend
Clerk to the Board

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Table of Attachments

1. INTRODUCTION

This General Order regulates sanitary sewer systems designed to convey sewage. For the purpose of this Order, a sanitary sewer system includes, but is not limited to, pipes, valves, pump stations, manholes, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks. A sanitary sewer system includes:

- Laterals owned and/or operated by the Enrollee;
- Satellite sewer systems; and/or
- Temporary conveyance and storage facilities, including but not limited to temporary piping, vaults, construction trenches, wet wells, impoundments, tanks and diversion structures.

Sewage is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system. Sewage contains high levels of suspended solids, non-digested organic waste, pathogenic bacteria, viruses, toxic pollutants, nutrients, oxygen-demanding organic compounds, oils, grease, pharmaceuticals, and other harmful pollutants.

For the purpose of this General Order, a spill is 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. Sewage and its associated wastewater spilled from a sanitary sewer system may threaten public health, beneficial uses of waters of the State, and the environment.

This General Order serves as statewide waste discharge requirements and supersedes the previous State Water Resources Control Board (State Water Board) Order 2006-0003-DWQ and amendments thereafter. All sections and attachments of this General Order are enforceable by the State Water Board and Regional Water Quality Control Boards (Regional Water Boards). Through this General Order, the State Water Board requires an Enrollee to:

- Comply with federal and state prohibitions of discharge of sewage to waters of the State, including federal waters of the United States;
- Comply with specifications, and notification, monitoring, reporting and recordkeeping requirements in this General Order that implement the federal Clean Water Act, the California Water Code (Water Code), water quality control plans (including Regional Water Board Basin Plans) and policies;
- Proactively operate and maintain resilient sanitary sewer systems to prevent spills;
- Eliminate discharges of sewage to waters of the State through effective implementation of a Sewer System Management Plan;
- Monitor, track, and analyze spills for ongoing system-specific performance improvements; and
- Report noncompliance with this General Order per reporting requirements.

An Enrollee is a public, private, or other non-governmental entity that has obtained approval for regulatory coverage under this General Order, including:

- A state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:
  - greater than one (1) mile in length (each individual sanitary sewer system);
  - one (1) mile or less in length where the State Water Board or a Regional Water Board requires regulatory coverage under this Order; or
- A federal agency, private company, or other non-governmental entity that owns and/or operates a sanitary sewer system of any size where the State Water Board or a Regional Water Board requires regulatory coverage under this Order in response to a history of spills, proximity to surface water, or other factors supporting regulatory coverage.

For the purpose of this Order, a sanitary sewer system includes only systems owned and/or operated by the Enrollee.

2. REGULATORY COVERAGE AND APPLICATION REQUIREMENTS

2.1. Requirements for Continuation of Existing Regulatory Coverage

To continue regulatory coverage from previous Order 2006-0003-DWQ under this General Order, **within the 60-days-prior-to the Effective Date of this General Order**, the Legally Responsible Official of an existing Enrollee shall electronically certify the Continuation of Existing Regulatory Coverage form in the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database. The Legally Responsible Official will receive an automated CIWQS-issued Notice of Applicability email, confirming continuation of regulatory coverage under this General Order. All regulatory coverage under previous Order 2006-0003-DWQ will cease on the Effective Date of this Order.

An Enrollee continuing existing regulatory coverage is not required to submit a new application package or pay an application fee for enrollment under this General Order. The annual fee due date for continued regulatory coverage from previous Order 2006-0003-DWQ to this General Order remains unchanged.

A previous Enrollee of Order 2006-0003-DWQ that fails to certify the Continuation of Existing Regulatory Coverage form in the online CIWQS database by the Effective Date of this Order is considered a New Applicant, and will not have regulatory coverage for its sanitary sewer system(s) until:

- A new application package for system(s) enrollment is submitted per section 2.2 (Requirements for New Regulatory Coverage) below; and
- The new application package is approved per section 2.2.2 (Approval of Application Package (For New Applicants Only)).

2.2. Requirements for New Regulatory Coverage

No later than 60 days prior to commencing and/or assuming operation and maintenance responsibilities of a sanitary sewer system, a duly authorized representative that

maintains legal authority over the public or private sanitary sewer system is required to enroll under this General Order by submitting a complete application package as specified below and as provided in Attachment B (Application for Enrollment Form) of this General Order.

Unless required by a Regional Water Board, a public agency that owns a combined sewer system subject to the Combined Sewer Overflow Control Policy (33 U.S. Code § 1342(q)), is not required to enroll, under this Order, the portions of its sanitary sewer system(s) that collects combined sanitary wastewater and stormwater.

2.2.1. Application Package Requirements

The Application for Enrollment package for new applicants must include the following items:

- **Application for Enrollment Form**. The form in Attachment B of this General Order must be completed, signed, and certified by a Legally Responsible Official, in accordance with section 5.1 (Designation of a Legally Responsible Official) of this General Order. If an electronic Application for Enrollment form is available at the time of application, a new applicant shall submit its application form electronically; and
- **Application Fee**. A fee payable to the "State Water Resources Control Board" in accordance with the Fee Schedule in the California Code of Regulations, Title 23, section 2200, or subsequent fee regulations updates.

  The application fee for this General Order is based on the sanitary sewer system's threat to water quality and complexity designations of category 2C or 3C, which is assigned based on the population served by the system. The current Fee Schedule for sanitary sewer systems is listed under subdivision (a)(2) at the following website: Fee Schedule (https://www.waterboards.ca.gov/resources/fees/water_quality/).

2.2.2. Approval of Application Package (For New Applicants Only)

The Deputy Director of the State Water Board, Division of Water Quality (Deputy Director) will consider approval of each complete Application for Enrollment package. The Deputy Director will issue a Notice of Applicability letter which serves as approved regulatory coverage for the new Enrollee.

If the submitted application package is not complete in accordance with section 2.2.1 (Application Package Requirements) of this General Order, the Deputy Director will send a response letter to the applicant outlining the application deficiencies. The applicant will have 60 days from the date of the response letter to correct the application deficiencies and submit the identified items necessary to complete the application package to the State Water Board.

2.2.3. Electronic Reporting Account for New Enrollee

Within 30 days after the date of the Approval of Complete Application Package for System Enrollment, a duly authorized representative for the Enrollee shall obtain a CIWQS Sanitary Sewer System Database user account by clicking the "User Registration" button and following the directions on the CIWQS Login Page

(https://ciwqs.waterboards.ca.gov). If additional assistance is needed to establish an online CIWQS user account, contact State Water Board staff by email at CIWQS@waterboards.ca.gov. The online user account will provide the Enrollee secure access to the online CIWQS database for electronic reporting.

2.3. Regulatory Coverage Transfer

Regulatory coverage under this General Order is not transferable to any person or party except after an existing Enrollee submits a written request for a regulatory coverage transfer to the Deputy Director, at least 60 days in advance of any proposed system ownership transfer. The written request must include a written agreement between the existing Enrollee and the new Enrollee containing:

- Acknowledgement that the transfer of ownership is solely of an existing system with an existing waste discharge identification (WDID) number;
- The specific ownership transfer date in which the responsibility and regulatory coverage transfer between the existing Enrollee and the new Enrollee becomes effective; and
- Acknowledgement that the existing Enrollee is liable for violations occurring up to the ownership transfer date and that the new Enrollee is liable for violations occurring on and after the ownership transfer date.

The Deputy Director will consider approval of the written request. If approved, the Deputy Director will issue a Notice of Applicability letter which serves as an approved transfer of regulatory coverage to the new Enrollee.

3. FINDINGS

3.1. Legal Authorities

3.1.1. Federal and State Regulatory Authority

The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States (33 U.S.C. 1251). The Water Code authorizes the State Water Board to implement the Clean Water Act in the State and to protect the quality of all waters of the State (Water Code sections 13000 and 13160).

3.1.2. Discharge of Sewage

A discharge of untreated or partially treated sewage is a discharge of waste as defined in Water Code section 13050(d) that could affect the quality of waters of the State and is subject to regulation by waste discharge requirements issued pursuant to Water Code section 13263 and Chapter 9, Division 3, Title 23 of the California Code of Regulations. A discharge of sewage may pollute and alter the quality of the waters of the State to a degree that unreasonably affects the beneficial uses of the receiving water body or facilities that serve those beneficial uses (Water Code section 13050(l)(1)).

3.1.3 Water Boards Authority to Require Technical Reports, Monitoring, and Reporting

Water Code sections 13267 and 13383 authorize the Regional Water Boards and the State Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. Water Code section 13267(b), authorizes the Regional Water Boards to "require any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region… or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of water within its region shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires…In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports." Water Code section 13267(f) authorizes the State Water Board to require this information if it consults with the Regional Water Boards and determines that it will not duplicate the efforts of the Regional Water Boards. The State Water Board has consulted with the Regional Water Boards and made this determination.

The technical and monitoring reports required by this General Order and Attachment E (Notification, Monitoring, Reporting and Recordkeeping Requirements) are necessary to evaluate and ensure compliance with this General Order. The effort to develop required technical reports will vary depending on the system size and complexity and the needs of the specific technical report. The burden and cost of these reports are reasonable and consistent with the interest of the state in protecting water quality, which is the primary purpose of requiring the reports.

Water Code section 13383(a) authorizes the Water Boards to "establish monitoring, inspection, entry, reporting, and recordkeeping requirements… for any person who discharges, or proposes to discharge, to navigable waters, any person who introduces pollutants into a publicly owned treatment works, any person who owns or operates, or proposes to own or operate, a publicly owned treatment works or other treatment works treating domestic sewage, or any person who uses or disposes, or proposes to use or dispose, of sewage sludge." Section 13383(b) continues, "the state board or the regional boards may require any person subject to this section to establish and maintain monitoring equipment or methods, including, where appropriate, biological monitoring methods, sample effluent as prescribed, and provide other information as may be reasonably required."

Reporting of spills from privately owned sewer laterals and systems pursuant to section 5.15 (Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems) of this General Order is authorized by Water Code section 13225(c) and encouraged by the State Water Board, wherein a local agency may investigate and report on any technical factors involved in water quality control provided the burden including costs of such reports bears a reasonable relationship to the need for the report and the benefits to be obtained therefrom. The burden of reporting private spills under section 5.15 (Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems) is minimal and is outweighed by the benefit of providing Regional Water Boards an opportunity to respond to these spills

when an Enrollee, which in many cases has a contractual relationship with the owner of the private system, has knowledge of the spills.

3.1.4. Water Board Authority to Prescribe General Waste Discharge Requirements

Water Code section 13263(i) provides that the State Water Board may prescribe general waste discharge requirements for a category of discharges if the State Water Board finds or determines that:

- The discharges are produced by the same or similar operations;
- The discharges involve the same or similar types of waste;
- The discharges require the same or similar treatment standards; and
- The discharges are more appropriately regulated under general waste discharge requirements than individual waste discharge requirements.

Since 2006, the State Water Board has been regulating over 1,100 publicly owned sanitary sewer systems (See section 3.1.5 (Previous Statewide General Waste Discharge Requirements) of this General Order). California also has a large unknown number of unregulated privately owned sanitary sewer systems. All waste conveyed in publicly owned and privately owned sanitary sewer systems (as defined in this General Order) is comprised of untreated or partially treated domestic waste and/or industrial waste. Generally, sanitary sewer systems are designed and operated to convey waste by gravity or under pressure; system-specific design elements and system-specific operations do not change the common nature of the waste, the common threat to public health, or the common impacts on water quality. Spills of waste from a sanitary sewer system prior to reaching the ultimate downstream treatment facility are unauthorized and enforceable by the State Water Board and/or a Regional Water Board. Therefore, spills from sanitary sewer systems are more appropriately regulated under general waste discharge requirements.

As specified in Water Code sections 13263(a) and 13241, the implementation of requirements set forth in this Order is for the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each Regional Water Board and take into account the environmental characteristics of sewer service areas and hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality, costs associated with compliance with these requirements, the need for developing housing within California, and the need to protect sources of drinking water and other water supplies.

3.1.5. Previous Statewide General Waste Discharge Requirements

On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ serving as Waste Discharge Requirements pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with section 13260) for inadvertent discharges to waters of the State. Order 2006-0003-DWQ prohibited discharges of untreated or partially treated sewage. Order 2006-0003-DWQ also required system-specific management, operation, and maintenance of publicly owned sewer systems greater than one mile in length.

To decrease the impacts on human health and the environment caused by sewage spills, the previous Order required enrollees to develop a rehabilitation and replacement plan that identifies system deficiencies and prioritizes short-term and long-term rehabilitation actions. The previous Order also required enrollees to:

1. Maintain information that can be used to establish and prioritize appropriate Sewer System Management Plan activities; and
2. Implement a proactive approach to reduce spills.

The previous Order required Sewer System Management Plan elements for "the proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management."

On July 30, 2013, the State Water Board amended General Order 2006-0003-DWQ with Order WQ 2013-0058-EXEC, Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

Many enrollees of Order 2006-0003-DWQ have already implemented proactive measures to reduce sewage spills. Other enrollees, however, still need technical assistance and funding to improve sanitary sewer system operation and maintenance for the reduction of sewage spills.

3.1.6. Existing Memorandum of Agreement with California Water Environment Association

The California Water Environment Association is a nonprofit organization dedicated to providing water industry certifications, training, and networking opportunities. The Association's Technical Certification Program provides accredited sanitary sewer system operator certification for collection system operators and maintenance workers.

On February 10, 2016, the State Water Board entered into a collaborative agreement with the Association titled *Memorandum of Agreement Between the California State Water Resources Control Board and the California Water Environment Association - Training Regarding Requirements Set Forth in Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*. The Memorandum sets forth collaborative training necessary for regulated sanitary sewer system personnel to operate and maintain a well operating system and ensure full compliance with statewide sewer system regulations.

On March 15, 2018, the State Water Board and the California Water Environment Association amended the existing Memorandum of Agreement to include collaborative outreach and expand training needs associated with further updates to Water Board regulations for sanitary sewer systems. The State Water Board encourages further Agreement updates as necessary to support improved sewer system operations and the professionalism of collection system operators.

3.2. General

3.2.1. Waters of the State

Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state as defined in Water Code section 13050(e), and are inclusive of waters of the United States.

3.2.2. Sanitary Sewer System Spill Threats to Public Health and Beneficial Uses

Sewage contains high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. Sewage spills may cause a public nuisance, particularly when sewage is discharged to areas with high public exposure such as streets and surface waters used for drinking, irrigation, fishing, recreation, or other public consumption or contact uses.

More specifically, sanitary sewer spills may:

- Adversely affect aquatic life and/or threaten water quality when reaching receiving waters;
- Inadvertently release trash, including plastics;
- Impair the recreational use and aesthetic enjoyment of surface waters by polluting surface water or groundwater;
- Threaten public health through direct public exposure to bacteria, viruses, intestinal parasites, and other microorganisms that can cause serious illness such as gastroenteritis, hepatitis, cryptosporidiosis, and giardiasis;
- Negatively impact ecological receptors and biota within surface waters; and
- Cause nuisance including odors, closure of beaches and recreational areas, and property damage.

Sanitary sewer system spills may pollute receiving waters and threaten beneficial uses of surface water and groundwater. Potentially threatened beneficial uses include, but are not limited to the following (with associated acronym representations as included in statewide water quality control plans and Regional Water Boards' Basin Plans):

- Municipal and Domestic Supply (MUN)
- Water Contact Recreation (REC-1) and Non-Contact Water Recreation (REC-2)
- Cold Freshwater Habitat (COLD)
- Warm Freshwater Habitat (WARM)
- Native American Culture (CUL)
- Wildlife Habitat (WILD)
- Rare, Threatened, or Endangered Species (RARE)
- Spawning, Reproduction, and/or Early Development (SPWN)
- Wetland Habitat (WET)
- Agricultural Supply (AGR)
- Estuarine Habitat (EST)

- Commercial and Sport Fishing (COMM)
- Subsistence Fishing (SUB)
- Tribal Tradition and Culture (CUL)
- Tribal Subsistence Fishing (T-SUB)
- Aquaculture (AQUA)
- Marine Habitat (MAR)
- Preservation of Biological Habitats of Special Significance (BIOL)
- Migration of Aquatic Organisms (MIGR)
- Shellfish Harvesting (SHELL)
- Industrial Process Supply (PROC)
- Industrial Service Supply (IND)
- Hydropower Generation (POW)
- Navigation (NAV)
- Flood Peak Attenuation/Flood Water Storage (FLD)
- Water Quality Enhancement (WQE)
- Fresh Water Replenishment (FRSH)
- Groundwater Recharge (GWR)
- Inland Saline Water Habitat (SAL)

3.2.3. Proactive Sanitary Sewer System Management to Eliminate Spill Causes

Finding 3 of the previous Order, 2006-0003-DWQ, states: "Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO [sanitary sewer overflow]. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs."

Many spills are preventable through proactive attention on sanitary sewer system management using the best practices and technologies available to address major causes of spills, including but not limited to:

- Blockages from sources including but not limited to:
  - Fats, oils and grease;
  - Tree roots;
  - Rags, wipes and other paper, cloth and plastic products; and
  - Sediment and debris.
- Sewer system damage and exceedance of sewer system hydraulic capacity from identified system-specific environmental, and climate-change impacts, including but not limited to:

- Sea level rise impacts including flooding, coastal erosion, seawater intrusion, tidal inundation and submerged lands;
- Increased surface water flows due to higher intensity rain events;
- Flooding;
- Wildfires and wildfire induced impacts;
- Earthquake induced damage;
- Landslides; and
- Subsidence.

- Infrastructure deficiencies and failures, including but not limited to:
  - Pump station mechanical failures;
  - System age;
  - Construction material failures;
  - Manhole cover failures;
  - Structural failures; and
  - Lack of proper operation and maintenance.
- Insufficient system capacity (temporary or sustained), due to factors including but not limited to:
  - Excessive and/or increased storm or groundwater inflow/infiltration;
  - Insufficient capacity due to population increase and/or new connections from industrial, commercial and other system users; and
  - Stormwater capture projects utilizing a sanitary sewer system to convey stormwater to treatment facilities for reuse.
- Community impacts, including but not limited to:
  - Power outages;
  - Vandalism; and
  - Contractor-caused or other third party-caused damages.

3.2.4. Underground Sanitary Sewer System Leakage

Portions of some sanitary sewer systems may leak, causing underground exfiltration (exiting) of sewage from the system. Exfiltrated sewage that remains in the underground infrastructure trench and/or the soil matrix, and that does not discharge into waters of the State (surface water or groundwater) may not threaten beneficial uses.

Underground exfiltrated sewage may threaten beneficial uses if discharged to waters of the State. Exfiltrated sewage that discharges to groundwater may impact beneficial uses of groundwater and pollute groundwater supply. Additionally, if in close proximity, exfiltrated sewage may enter into a compromised underground drainage conveyance system that discharges into a water of the United States, or into groundwater that is hydrologically connected to (feeds into) a water of the United States, thus potentially causing: (1) a Clean Water Act violation, (2) threat and impact to beneficial uses, and/or (3) surface water pollution.

3.2.5. Proactive Sanitary Sewer System Management to Reduce Inflow and Infiltration

Excessive inflow (stormwater entering) and infiltration (groundwater seepage entering) to sanitary sewer systems is preventable through proactive sewer system management using the best practices and technologies available. The efficiency of the downstream wastewater treatment processes is dependent on the performance of the sanitary sewer system. When the structural integrity of a sanitary sewer system deteriorates, high volumes of inflow and infiltration can enter the sewer system. High levels of inflow and infiltration increase the hydraulic load on the downstream treatment plant, which can reduce treatment efficiency, lead to bypassing a portion of the treatment process, cause illegal discharge of partially treated effluent, or in extreme situations make biological treatment facilities inoperable (e.g., wash out the biological organisms that treat the waste).

3.3. Water Quality Control Plans, Policies and Resolutions

The nine Regional Water Boards have adopted region-specific water quality control plans (commonly referred to as Basin Plans) that designate beneficial uses, establish water quality objectives, and contain implementation programs and policies to achieve those objectives. The State Water Board has adopted statewide water quality control plans, policies and resolutions establishing statewide water quality objectives, implementation programs and initiatives.

3.3.1. State Water Board Antidegradation Policy

On October 28, 1968, the State Water Board adopted Resolution 68-16, titled Statement of Policy with Respect to Maintaining High Quality of Waters in California, which incorporates the federal antidegradation policy. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings.

The continued prohibition of sewage discharges from sanitary sewer systems into waters of the State aligns with Resolution 68-16. A sewage discharge from sanitary sewers to waters of the State is prohibited by this Order. Therefore, this Order does not allow degradation of waters of the State. In addition, this Order: (1) further expands the existing prohibition of sewage discharges to include waters of the State, in addition to waters of the United States as provided in previous Order 2006-0003-DWQ, and (2) enhances the ability for Water Board enforcement of violations of the established prohibitions.

3.3.2. State Water Board Sources of Drinking Water Policy

On May 19,1988, the State Water Board adopted Resolution 88-63 (amended on February 1, 2006), titled Sources of Drinking Water, establishing state policy that all waters of the State, with certain exceptions, are suitable or potentially suitable for municipal or domestic supply.

3.3.3. State Water Board Cost of Compliance Resolution

On September 24, 2013, the State Water Board adopted Resolution 2013-0029, titled Directing Actions in Response to Efforts by Stakeholders on Reducing Costs of

Compliance While Maintaining Water Quality Protection. Through this resolution, the State Water Board committed to continued stakeholder engagement in identifying and implementing measures to reduce costs of compliance with regulatory orders while maintaining water quality protection and improving regulatory program outcomes.

3.3.4. State Water Board Human Right to Water Resolution

On February 16, 2016, the State Water Board adopted Resolution 2016-0010, titled Adopting the Human Right to Water as a Core Value and Directing its Implementation in Water Board Programs and Activities, addressing the human right to water as a core value and directing Water Board programs to implement requirements to support safe drinking water for all Californians.

On November 16, 2021, the State Water Board adopted Resolution 2021-0050 titled Condemning Racism, Xenophobia, Bigotry, and Racial Injustice, and Strengthening Commitment to Racial Equity, Diversity, Inclusion, Access, and Anti-racism. Among other actions, through Resolution 2021-0050, the State Water Board, in summary as corresponding to this General Order, reaffirms its commitment to its Human Right to Water resolution, upholding that every human being in California deserves safe, clean, affordable, and accessible water for human consumption, cooking, and sanitation purposes. Resolution 2021-0050 provides the State Water Board commitment to:

- Protect public health and beneficial uses of waterbodies in all communities, including communities disproportionately burdened by wastes discharge of waste to land and surface water;
- Restore impaired surface waterbodies and degraded aquifers; and
- Promote multi-benefit water quality projects.

Through Resolution 2021-0050, the State Water Board also commits to expanding implementation of its Climate Change Resolution to address the disproportionate effects of extreme hydrologic conditions and sea-level rise on Black, Indigenous, and people of color communities, prioritizing:

- The right to safe, clean, affordable, and accessible drinking water and sanitation;
- Sustainable management and protection of local groundwater resources;
- Healthy watersheds; and
- Access to surface waterbodies that support subsistence fishing.

On June 7, 2022, the State Water Board adopted a Resolution, titled Authorizing the Executive Director or Designee to Enter into One or More Multi-Year Contracts Up to a Combined Sum of $4,000,000 for a Statewide Wastewater Needs Assessment, supporting the equitable access to sanitation for all Californians and implementation of Resolutions 2016-0010 and 2021-0050.

This General Order supports the State Water Board priority in collecting a comprehensive set of data for California's wastewater systems, including sanitary sewer systems. Data reported per the requirements of this Order will be used with data from other Water Boards' programs, to further develop criteria and create a statewide risk

framework to prioritize critical funding and infrastructure investments for California's most vulnerable populations, including disadvantaged or severely disadvantaged communities with inadequate or failing sanitation systems and threatened access to healthy drinking water supplies.

3.3.5. State Water Board Open Data Resolution

On July 10, 2018, the State Water Board adopted Resolution 2018-0032, titled Adopting Principles of Open Data as a Core Value and Directing Programs and Activities to Implement Strategic Actions to Improve Data Accessibility and Associated Innovation, directing regulatory programs to assure all monitoring and reporting requirements support the State Water Boards' Open Data Initiative.

3.3.6. State Water Board Response to Climate Change

On March 7, 2017, the State Water Board adopted Resolution 2017-0012, titled Comprehensive Response to Climate Change, requiring a proactive response to climate change in all California Water Board actions, with the intent to embed climate change consideration into all programs and activities.

3.4. California Environmental Quality Act

The adoption of this Order is an action to reissue general waste discharge requirements that is exempt from the California Environmental Quality Act (Public Resources Code section 21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment (Cal. Code Regs., Title 14, section 15308). In addition, the action to adopt this Order is exempt from CEQA pursuant to Cal. Code Regs., Title 14, section 15301, to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in sections 15301 and 15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

3.5. State Water Board Funding Assistance for Compliance with Water Board Water Quality Orders

The State Water Board, Division of Financial Assistance administers the implementation of the State Water Board financial assistance programs, per Board-adopted funding policies. Among other funding areas, the Division administers loan and grant funding for the planning and construction of wastewater and water recycling facilities per funding program-specific policies and guidelines. Applicants may apply for Clean Water State Revolving Fund low-interest loan, Small Community Wastewater grant funding assistance, and other funding available at the time of application, for some of the costs associated with complying with this General Order.

Funding applicants may obtain further information regarding current funding opportunities, and Division of Financial Assistance staff contact information at the following website: Financial Assistance Funding - Grants and Loans | California State Water Resources Control Board.
(https://www.waterboards.ca.gov/water_issues/programs/grants_loans/)

Section 13477.6 of the Water Code authorizes the Small Community Grant Fund. The Small Community Grant Fund allows the State Water Board to provide grant funding assistance to small, disadvantaged communities and small severely disadvantaged communities that may not otherwise be able to afford a loan or similar financing for projects to comply with requirements of this General Order. The State Water Board also considers loan forgiveness on a disadvantaged community-specific basis.

For disadvantaged communities' wastewater needs, the State Water Board places priority on the funding of projects that address:

- Public health;
- Violations of waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permits;
- Providing sewer system service to existing septic tank owners; and
- High priority public health and water quality concerns identified by a Regional Water Board.

3.6. Notification to Interested Parties

On January 31, 2022, the State Water Board notified interested parties and persons of its intent to reissue Sanitary Sewer Systems General Order 2006-0003-DWQ by issuing a draft General Order for a 60-day public comment period. State Water Board staff conducted extensive stakeholder outreach and encouraged public participation in the adoption process for this General Order. On March 15, 2022, the State Water Board held a public meeting to hear and consider oral public comments. The State Water Board considered all public comments prior to adopting this General Order.

THEREFORE, IT IS HEREBY ORDERED, that pursuant to Water Code sections 13263, 13267, and 13383 this General Order supersedes Order 2006-0003-DWQ, Order WQ 2013-0058-EXEC, and any amendments made to these Orders thereafter, except for enforcement purposes and to meet the provisions contained in Division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, the Enrollee shall comply with the requirements in this Order.

4. PROHIBITIONS

4.1 Discharge of Sewage from a Sanitary Sewer System

Any discharge from a sanitary sewer system that has the potential to discharge to surface waters of the State is prohibited unless it is promptly cleaned up and reported as required in this General Order.

4.2. Discharge of Sewage to Waters of the State

Any discharge from a sanitary sewer system, discharged directly or indirectly through a drainage conveyance system or other route, to waters of the State is prohibited.

4.3. Discharge of Sewage Creating a Nuisance

Any discharge from a sanitary sewer system that creates a nuisance or condition of pollution as defined in Water Code section 13050(m) is prohibited.

5. SPECIFICATIONS

5.1. Designation of a Legally Responsible Official

The Enrollee shall designate a Legally Responsible Official that has authority to ensure the enrolled sanitary sewer system(s) complies with this Order, and is authorized to serve as a duly authorized representative. The Legally Responsible Official must have responsibility over management of the Enrollee's entire sanitary sewer system, and must be authorized to make managerial decisions that govern the operation of the sanitary sewer system, including having the explicit or implicit duty of making major capital improvement recommendations to ensure long-term environmental compliance. The Legally Responsible Official must have or have direct authority over individuals that:

- Possess a recognized 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, demonstrated through extensive knowledge, training and experience.

For example, a sewer system superintendent or manager, an operations manager, a public utilities manager or director, or a district engineer may be designated as a Legally Responsible Official.

The Legally Responsible Official shall complete the electronic CIWQS "User Registration" form (https://ciwqs.waterboards.ca.gov/ciwqs/newUser.jsp). A Legally Responsible Official that represents multiple enrolled systems shall complete the electronic CIWQS "User Registration" form for each system.

The Enrollee shall submit any change to its Legally Responsible Official, and/or change in contact information, to the State Water Board within 30 calendar days of the change by emailing ciwqs@waterboards.ca.gov and copying the appropriate Regional Water Board as provided in Attachment F (Regional Water Quality Control Board Contact Information) of this General Order.

5.2. Sewer System Management Plan Development and Implementation

To facilitate adequate local funding and management of its sanitary sewer system(s), the Enrollee shall develop and implement an updated Sewer System Management Plan. The scale and complexity of the Sewer System Management Plan, and specific elements of the Plan, must match the size, scale and complexity of the Enrollee's sanitary sewer system(s). The Sewer System Management Plan must address, at minimum, the required Plan elements in Attachment D (Sewer System Management Plan – Required Elements) of this General Order. To be effective, the Sewer System Management Plan must include procedures for the management, operation, and maintenance of the sanitary sewer system(s). The procedures must: (1) incorporate the

prioritization of system repairs and maintenance to proactively prevent spills, and (2) address the implementation of current standard industry practices through available equipment, technologies, and strategies.

For an existing Enrollee under Order 2006-0003-DWQ that has certified its Continuation of Existing Regulatory Coverage, per section 2.1 (Requirements for Continuation of Existing Regulatory Coverage) of this General Order:

Within six (6) months of the Adoption Date of this General Order:

- The Legally Responsible Official shall upload the Enrollee's existing Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database.

For a new Enrollee:

Within twelve (12) months of the Application for Enrollment approval date:

- The governing entity of the new Enrollee shall approve its Sewer System Management Plan; and
- The Legally Responsible Official shall certify and upload its Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database.

5.3. Certification of Sewer System Management Plan and Plan Updates

The Legally Responsible Official shall certify and upload its Sewer System Management Plan and all subsequent updates to the online CIWQS Sanitary Sewer System Database.

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.

A new Enrollee of this General Order (that did not have a sanitary sewer system enrolled in the previous State Water Board Order 2006-0003-DWQ) shall conduct its first internal Sewer System Management Plan audit for the time period between the date of submittal of its certified Sewer System Management Plan and the third subsequent December 31st date. The audit report must be submitted into the online CIWQS Sanitary Sewer System Database **by July 1 of the following calendar year**.

See the following tables for clarification:

Initial Audit Period and Audit Due Date for New Enrollees

	Audit Period	Audit Due Date
New Enrollee	Certified Sewer System Management Plan Submittal Date through the third subsequent December 31st date	July 1st date after audit period
Example	*Certified Sewer System Management Plan Submittal Date of August 2, 2025* *Audit Period of August 2, 2025 through December 31, 2027*	*July 1, 2028*

Initial Audit Period for Transition from 2-Year Audit Required in Previous Order 2006-0003-DWQ to 3-Year Audit Required in this General Order

	Audit Period	Audit Due Date
An Enrollee previously regulated by Order 2006-003-DWQ	A 3-year period starting from the end of last required 2-year Audit Period	Within six months after end of 3-year Audit Period
Example	*Last required Audit Period start date of August 2, 2021;* *Audit Period of August 2, 2021 through August 1, 2024*	*February 1, 2025*

Three-Year Ongoing Audit Period

	Audit Period	Audit Due Date
Each Enrollee	A 3-year period starting from the end of last required Audit Period	Within six months after end of 3-year Audit Period

5.5. Six-Year Sewer System Management Plan Update

At a minimum, the Enrollee shall update its Sewer System Management Plan every six (6) years after the date of its last Plan Update due date. (For an Enrollee previously regulated by Order 2006-0003-DWQ, the six-year period shall commence on the due date identified in section 3.11 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this Order. The Updated Sewer System Management Plan must include:

- Elements required in Attachment D (Sewer System Management Plan – Required Elements) of this Order;
- Summary of revisions included in the Plan update based on internal audit findings; and
- Other sewer system management-related changes.

The Enrollee's governing entity shall approve the updated Plan. The Legally Responsible Official shall upload and certify the approved updated Plan in the online CIWQS Sanitary Sewer System Database in accordance with section 3.11 (Sewer System Management Plan Reporting Requirements) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order. During the time period in between Plan updates, the Enrollee shall continuously document changes to its Sewer System Management Plan in a change log attached to the Plan.

5.6. System Resilience

The Enrollee shall include and implement system-specific procedures in its Sewer System Management Plan to proactively prioritize: (1) operation and maintenance, (2) condition assessments, and (3) repair and rehabilitation, to address ongoing system resilience, as specified in Attachment D (Sewer System Management Plan – Required Elements) of this General Order.

5.7. Allocation of Resources

The Enrollee shall:

- Establish and maintain a means to manage all necessary revenues and expenditures related to the sanitary sewer system; and
- Allocate the necessary resources to its sewer system management program for:
  - Compliance with this General Order,
  - Full implementation of its updated Sewer System Management Plan,
  - System operation, maintenance, and repair, and
  - Spill responses.

5.8. Designation of Data Submitters

The Legally Responsible Official may designate one or more individuals as a Data Submitter for reporting of spill data. The Legally Responsible Official shall authorize the designation of Data Submitter(s) through the online CIWQS database (https://ciwqs.waterboards.ca.gov) prior to the individuals establishing a CIWQS user account (https://ciwqs.waterboards.ca.gov/ciwqs/newUser.jsp) and entering spill data into the online CIWQS Sanitary Sewer System Database.

The Legally Responsible Official shall submit any change to its Data Submitter(s), and/or change in Data Submitter contact information, to the State Water Board within 30 calendar days of the change, by emailing ciwqs@waterboards.ca.gov and copying the appropriate Regional Water Board as provided in Attachment F (Regional Water Quality Control Board Contact Information) of this General Order.

5.9. Reporting Certification

The Legally Responsible Official shall electronically certify, on the Enrollee's behalf, all applications, reports, the Sewer System Management Plan(s) and corresponding updates, and other information submitted electronically into the online CIWQS Sanitary Sewer System Database, as follows:

"I certify under penalty of perjury under the laws of the State of California that the electronically submitted information was prepared under my direction or supervision. Based on my inquiry of the person(s) directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete, and complies with the Statewide Sanitary Sewer Systems General Order. I am aware that there are significant penalties for submitting false information."

Hardcopy submittals to the State Water Board must be accompanied by the above certification statement.

5.10. System Capacity

The Enrollee shall maintain the system capacity necessary to convey: (1) base flows during dry weather conditions, and (2) wet weather peak flows consistent with designated local historic storms. Design storms must take into account system-specific stormwater contributions via inflow and infiltration, and location-specific depth of groundwater and storm frequencies. The Enrollee shall implement capital improvements to provide adequate hydraulic capacity to:

- Meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance element of its Sewer System Management Plan; and
- Prevent system capacity-related spills, and adverse impacts to the treatment efficiency of downstream wastewater treatment facilities.

5.11. System Performance Analysis

The Enrollee shall include a running 10-year system performance analysis in its Annual Report. The analysis must include two CIWQS-generated graphs presenting the following information:

Graph 1 – Total Spill Volume per Year:

X axis: A 10-year period which includes the current calendar year and the nine previous calendar years;

Y axis: The total spill volume, per Spill Category, for each calendar year.

Graph 2 – Total Number of Spills per Year:

X axis: A 10-year period which includes the current calendar year and the nine previous calendar years;

Y axis: The total number of spills, per Spill Category, for each calendar year.

The current calendar year is the calendar year covered in the Annual Report.

The Enrollee shall generate the graphs in CIWQS, using the existing data in the online CIWQS Sanitary Sewer System Database at the following graph generation link: (https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=sso_operation_report).

5.12. Spill Emergency Response Plan and Remedial Actions

For Existing Enrollees (with regulatory coverage under Order 2006-0003-DWQ):

Within six (6) months of the Adoption Date of this General Order, the Enrollee shall update and implement its Spill Emergency Response Plan, per Attachment D, section 6 (Spill Emergency Response Plan) of this General Order.

For New Enrollees:

Within six (6) months of the Application for Enrollment approval date, the Enrollee shall develop and implement a Spill Emergency Response Plan, per Attachment D, section 6 (Spill Emergency Response Plan) of this General Order.

The Enrollee shall certify, in its Annual Report, that its Spill Emergency Response Plan is up to date.

The Spill Emergency Response Plan shall include measures to protect public health and the environment. The Enrollee shall respond to spills from its system(s) in a timely manner that minimizes water quality impacts and nuisance by:

- Immediately stopping the spill and preventing/minimizing a discharge to waters of the State;
- Intercepting sewage flows to prevent/minimize spill volume discharged into waters of the State;
- Thoroughly recovering, cleaning up and disposing of sewage and wash down water; and
- Cleaning publicly accessible areas while preventing toxic discharges to waters of the State.

5.13. Notification, Monitoring, Reporting and Recordkeeping Requirements

The Enrollee shall comply with notification, monitoring, reporting, and recordkeeping requirements in Attachment E1 of this General Order.

5.13.1. Spill Categories

Individual spill notification, monitoring and reporting must be in accordance with the following spill categories:

- **Category 1 Spill**

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

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

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

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

- **Category 2 Spill**

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

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

- **Category 3 Spill**

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

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

- **Category 4 Spill**

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

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

5.13.2. Annual Report

The Enrollee shall submit an Annual Report (previously termed as Collection System Questionnaire in Order 2006-0003-DWQ) as specified in section 3.9 (Annual Report) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

For new Enrollees: Within 30 days of obtaining a CIWQS account, a new Enrollee shall submit its initial Annual Report, as specified in section 3.9 (Annual Report) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

5.14. Electronic Sanitary Sewer System Service Area Boundary Map

For continuing enrollees, starting on July 1, 2025, and no later than December 31, 2025:

For new enrollees – no earlier than July 1, 2025, or within 12 months of the Application for Enrollment approval date, whichever date is later:

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.

5.15. Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems

Within 24 hours of becoming aware of a spill (as described below) from a private sewer lateral or private sanitary sewer system that is not owned/operated by the Enrollee, the Enrollee is encouraged to report the following observations to the online CIWQS Sanitary Sewer System Database at the following link: https://ciwqs.waterboards.ca.gov:

- A spill equal or greater than 1,000 gallons that discharges (or has a potential to discharge) to a water of the State, or a drainage conveyance system that discharges to waters of the State; or
- Any volume of sewage that discharges (or has a potential to discharge) to surface waters.

In the CIWQS module, the Enrollee is encouraged to identify:

- Time of observation;
- Description of general spill location (for example, street name and cross street names);
- Estimated volume of spill;
- If known, general description of spill destination (for example, flowing into drainage channel, flowing directly into a creek, etc.); and
- If known, name of private system owner/operator.

The CIWQS database will make the name and contact information of the entity voluntarily reporting a private spill, accessible to State and Regional Water Board staff only. The CIWQS database will only make information regarding the actual spill, accessible to the public.

5.16. Voluntary Notification of Spills from Privately-Owned Laterals and/or Systems to the California Office of Emergency Services

Upon observing or acquiring knowledge of any of the following from a private sewer lateral or private sanitary sewer system that is not owned/operated by the Enrollee, the Enrollee is encouraged to notify the California Office of Emergency Services (as provided by Health and Safety Code section 5410 et. seq. and Water Code section 13271), or inform the responsible party that State law requires such notification to the Office of Emergency Services by any person that causes or allows a sewage discharge to waters of the State:

- A spill equal to 1,000 gallons or more that discharges (or has a potential to discharge) to waters of the State, or a drainage conveyance system that discharges to waters of the State; or
- A spill of any volume to surface waters.

5.17. Unintended Failure to Report

If an Enrollee becomes aware that they unintentionally failed to submit relevant facts in any report required in this General Order, the Enrollee shall promptly notify Regional Water Board and State Water Board staff. Regional Water Board contact information is included in Attachment F of this Order. State Water Board staff shall be contacted by email at SanitarySewer@waterboards.ca.gov for assistance in formally amending the corresponding report(s) in the online CIWQS Sanitary Sewer System Database.

5.18. Duty to Report to Water Boards

In accordance with Water Code section 13267 and/or section 13383, upon request by the State Water Board Executive Director (or designee) or a Regional Water Board Executive Officer (or designee), the Enrollee shall provide the requested information which the State or Regional Water Board deems necessary to determine compliance with this General Order.

5.19. Operation and Maintenance

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

6. PROVISIONS

6.1. Enforcement Provisions

The following enforcement provisions are based on existing federal and state regulations, laws and policies, including the federal Clean Water Act, the state Water Code and the State Water Board Enforcement Policy.

6.1.1. Enforceability of Clean Water Act and Water Code Violations

Noncompliance with requirements of this General Order or discharging sewage without enrolling in this General Order constitutes a violation of the Water Code and a potential

violation of the Clean Water Act and is grounds for an enforcement action by the State Water Board or the applicable Regional Water Board. Failure to comply with the notification, monitoring, inspection, entry, reporting, and recordkeeping requirements may subject the Enrollee to administrative civil liabilities of up to $10,000 a day per violation pursuant to Water Code section 13385; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. Discharging waste not in compliance with the requirements of this General Order or the Clean Water Act may subject the Enrollee to administrative civil liabilities up to $10,000 a day per violation and additional liability up to $10 per gallon of discharge not cleaned up after the first 1,000 gallons of discharge; up to $5,000 a day per violation pursuant to Water Code section 13350 or up to $20 per gallon of waste discharged; or referral to the Attorney General for judicial civil enforcement.

6.1.2. Monetary Penalties

The Water Code provides the State and Regional Water Boards the authority to pursue formal enforcement actions, including imposing administrative liability and civil monetary penalties, for non-compliance with the requirements of this General Order and violations of the Clean Water Act.

6.1.3. Falsifying or Failure to Report

The Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this General Order, or falsifying any information provided in the technical or monitoring reports is subject to administrative liability and civil monetary penalties. Any person who knowingly fails or refuses to furnish technical or monitoring program reports or falsifies any information provided in reports required by this General Order is subject to criminal penalties.

6.1.4. Severability of General Order

The provisions of this General Order are severable; if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.

6.1.5. Indirect Discharges

In the event that a spill enters into a drainage conveyance system, the Enrollee shall take all feasible steps to prevent discharge of sewage into waters of the State by blocking or redirecting the flow in the drainage conveyance system, removing the sewage from the drainage conveyance system, and cleaning the system in a manner that does not inadvertently impact beneficial uses of the receiving water body.

6.1.6. Water Boards' Considerations for Discretionary Enforcement

Consistent with the State Water Board Enforcement Policy, when considering Water Code section 13327 factors, the State Water Board or a Regional Water Board may consider the Enrollee's efforts to contain, control, clean up, and mitigate spills. In assessing the factors, the State Water Board or the applicable Regional Water Board will consider:

- The Enrollee's compliance with this General Order with a focus on compliance with reporting requirements;
- The Enrollee's provision of adequate funding to implement the requirements of this General Order;
- The Enrollee's compliance with providing a complete and updated Sewer System Management Plan;
- The Enrollee's compliance with implementing its Sewer System Management Plan;
- The overall effectiveness of the Enrollee's Sewer System Management Plan with respect to:
    - System management, operation, and maintenance,
    - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent spills (e.g. adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow, etc.),
    - Preventive maintenance (including cleaning, root grinding, and fats, oils, and grease control) and source control measures,
    - Implementation of backup equipment,
    - Inflow and infiltration prevention and control,
    - Appropriate sanitary sewer system capacity to prevent spills, and
    - The Enrollee's responsiveness to stop and mitigate the impact of the discharge;
- The Enrollee's compliance with identifying the cause of the spill;
- The Enrollee's use of available information and observations to accurately estimate the spill volume and identify the affected or potentially affected receiving waters;
- The Enrollee's thoroughness of cleaning up sewage in drainage conveyance systems after the spill(s);
- The Enrollee's use of water quality and biological monitoring and assessment to determine the short-term and long-term impacts to beneficial uses and the environment;
- The Enrollee's follow up actions to improve system performance;
- The Enrollee's implementation of feasible alternatives to prevent spills, such as:
    - Use of temporary storage or waste retention,
    - Reduction of system inflow and infiltration,
    - Collection and hauling of waste to a treatment facility,
    - Prevention of and/ or containment of spills due to a design storm event identified in the Enrollee's Sewer System Management Plan,

- Implementation of available equipment, technologies, strategies, and recommended industry practices for maintaining and managing sewer systems to prevent spills, and contain and eliminate discharges to waters of the State; and

- The spill duration and factors beyond the reasonable control of the Enrollee causing the event.

6.1.7. Enforcement Discretion Based on Reporting Compliance

Consistent with the State Water Board Enforcement Policy, the State Water Board or a Regional Water Board may consider the Enrollee's efforts to comply with spill reporting requirements when determining compliance with Water Code section 13267 and section 13383. When assessing Water Code section 13227 factors, the State Water Board or the applicable Regional Water Board will consider:

- The Enrollee's diligence to comply with all reporting requirements in this General Order;
- The use of best available information for the Enrollee's reporting of spill start date and start time in which the release of sewage from the sanitary sewer system initiated;
- The Enrollee's reporting of spill end date, and end time to be the date and time in which the release of sewage from the sanitary sewer system was stopped;
- The Enrollee's diligence to accurately estimate and report spill volumes;
- The Enrollee's subsequent verification and/or updates to initial Draft Spill Reports in accordance with this General Order; and
- The Enrollee's timely certification of required spill reports.

Consistent with Water Code section 13267 and section 13383, the State Water Board or a Regional Water Board may require an Enrollee to report the results of a condition assessment of a specified portion of the Enrollee's sanitary sewer system.

6.2. Other Regional Water Board Orders

It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with federal and state regulations. This Order will not be interpreted or applied:

- In a manner inconsistent with the federal Clean Water Act;
- To authorize a spill or discharge that is illegal under either the Clean Water Act, the Water Code, and/or an applicable Basin Plan prohibition or water quality standard;
- To prohibit a Regional Water Board from issuing an individual National Pollutant Discharge Elimination System (NPDES) permit or individual waste discharge requirements superseding an Enrollee's regulatory coverage under this General Order for a sanitary sewer system authorized under the Clean Water Act or Water Code;

- To supersede any more specific or more stringent waste discharge requirements or enforcement orders issued by a Regional Water Board; or
- To supersede any more specific or more stringent state or federal requirements in existing regulation, an administrative/judicial order, or Consent Decree.

6.3. Sewer System Management Plan Availability

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

6.4. Entry and Inspection

6.4.1. Entry and Availability of Information

The Enrollee shall allow State and Regional Water Board staff, upon presentation of credentials and other documents as may be required by law, to:

- Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the requirements of this General Order;
- Have access to and reproduce any records required to be maintained by this General Order;
- Inspect any facility and/or equipment (including monitoring and control equipment), practices, or operations required in this General Order; and
- Sample or monitor substances or parameters for assuring compliance with this General Order, or as otherwise authorized by the Water Code.

6.4.2. Pre-Inspection Questionnaire

The Enrollee shall provide pre-inspection information to State and Regional Water Board staff through the completion of a Pre-Inspection Questionnaire provided by Water Board staff.

ATTACHMENT A - DEFINITIONS

Annual Report

An Annual Report (previously termed as Collection System Questionnaire in Order 2006-0003-DWQ) is a mandatory report in which the Enrollee provides a calendar-year update of its efforts to prevent spills.

Basin Plan

A Basin Plan is a water quality control plan specific to a Regional Water Quality Control Board (Regional Water Board), that serves as regulations to: (1) define and designate beneficial uses of surface and groundwaters, (2) establish water quality objectives for protection of beneficial uses, and (3) provide implementation measures.

Beneficial Uses

The term "Beneficial Uses" is a Water Code term, defined as the uses of the waters of the State that may be protected against water quality degradation. Examples of beneficial uses include but are not limited to, municipal, domestic, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

California Integrated Water Quality System (CIWQS)

CIWQS is the statewide database that provides for mandatory electronic reporting as required in State and Regional Water Board-issued waste discharge requirements.

Data Submitter

A Data Submitter is an individual designated and authorized by the Enrollee's Legally Responsible Official to enter spill data into the online CIWQS Sanitary Sewer System Database. A Data Submitter does not have the authority of a Legally Responsible Official to certify reporting entered into the online CIWQS Sanitary Sewer System Database.

Disadvantaged Community

A disadvantaged community is a community with a median household income of less than eighty percent (80%) of the statewide annual median household income.

For the purpose of this General Order, there is no differentiation between a small and large disadvantaged community.

Drainage Conveyance System

A drainage conveyance system is a publicly- or privately-owned separate storm sewer system, including but not limited to drainage canals, channels, pipelines, pump stations, detention basins, infiltration basins/facilities, or other facilities constructed to transport stormwater and non-stormwater flows.

Enrollee

An Enrollee is a public, private, or other non-governmental entity that has obtained approval for regulatory coverage under this General Order, including:

- A state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:
  - greater than one (1) mile in length (each individual sanitary sewer system);
  - one mile or less in length where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order, or
- A federal agency, private company, or other non-governmental entity that owns and/or operates a sanitary sewer system of any size where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order in response to a history of spills, proximity to surface water, or other factors supporting regulatory coverage.

Environmentally Sensitive Area

An environmentally sensitive area is a designated agricultural and/or wildlife area identified to need special natural landscape protection due to its wildlife or historical value.

Exfiltration

Exfiltration is the underground exiting of sewage from a sanitary sewer system through cracks, offset or separated joints, or failed infrastructure due to corrosion or other factors.

Flood Control Channel

A flood control channel is a channel used to convey stormwater and non-stormwater flows through and from areas for flood management purposes.

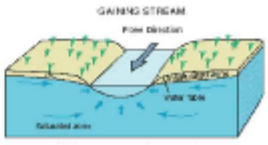
Governing Entity

A governing entity includes but is not limited to the following:

- A publicly elected governing board, council, or commission of a municipal agency;
- A Department or Division director of a federal or state agency that is not governed by a board;
- A governing board or commission of an organization or association; and
- A private system owner/manager that is not governed by a board.

Hydrologically Connected

Two waterbodies are hydrologically connected when one waterbody flows, or has the potential to flow, into the other waterbody. For the purpose of this General Order, groundwater is hydrologically connected to a surface water when the groundwater feeds into the surface water. (The surface waterbody in this example is termed a gaining stream as it gains flow from surrounding groundwater.)



Lateral (including Lower and Upper Lateral)

A lateral is an underground segment of smaller diameter pipe that transports sewage from a customer's building or property (residential, commercial, or industrial) to the Enrollee's main sewer line in a street or easement. Upper and lower lateral boundary definitions are subject to local jurisdictional codes and ordinances, or private system ownership.

A lower lateral is the portion of the lateral located between the sanitary sewer system main, and either the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations.

An upper lateral is the portion of the lateral from the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations, to the building or property.

Legally Responsible Official

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.

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, so as to interfere with the comfortable enjoyment of life or property;
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and
- Occurs during, or as a result of, the treatment or disposal of wastes.

Private Sewer Lateral

A private sewer lateral is the privately-owned lateral that transports sewage from private property(ies) into a sanitary sewer system.

Private Sanitary Sewer System

A private sanitary sewer system is a sanitary sewer system of any size that is owned and/or operated by a private individual, company, corporation, or organization. A private sanitary sewer system may or may not connect into a publicly owned sanitary sewer system.

Potential to Discharge, Potential Discharge

Potential to Discharge, or Potential Discharge, means any exiting of sewage from a sanitary sewer system which can reasonably be expected to discharge into a water of the State based on the size of the sewage spill, proximity to a drainage conveyance system, and the nature of the surrounding environment.

Receiving Water

A receiving water is a water of the State that receives a discharge of waste.

Resilience

Resilience is the ability to recover from or adjust to adversity or change, and grow from disruptions. Resilience can be built through planning, preparing for, mitigating, and adapting to changing conditions.

Sanitary Sewer System

A sanitary sewer system is a system that is designed to convey sewage, including but not limited to, pipes, manholes, pump stations, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks, including:

- Laterals owned and/or operated by the Enrollee;
- Satellite sewer systems; and/or
- Temporary conveyance and storage facilities, including but not limited to temporary piping, vaults, construction trenches, wet wells, impoundments, tanks and diversion structures.

For purpose of this Order, sanitary sewer systems include only systems owned and/or operated by the Enrollee.

Satellite Sewer System

A satellite sewer system is a portion of a sanitary sewer system owned or operated by a different owner than the owner of the downstream wastewater treatment facility ultimately treating the sewage.

Sewer System Management Plan

A sewer system management plan is a living document an Enrollee develops and implements to effectively manage its sanitary sewer system(s) in accordance with this General Order.

Sewage

Sewage, and its associated wastewater, is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system.

Spill

A spill is 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. Exfiltration of sewage is not considered to be a spill under this General Order if the exfiltrated sewage remains in the subsurface and does not reach a surface water of the State.

Training

Training is in-house or external education and guidance needed that provides the knowledge, skills, and abilities to comply with this General Order.

Wash Down Water

Wash down water is water used to clean a spill area.

Waste

Waste, as defined in Water Code section 13050(d), includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Waste Discharge Identification Number (WDID)

A waste discharge identification number (WDID) identifies each individual sanitary sewer system enrolled under this General Order. A WDID number is assigned to each enrolled system upon an Enrollee's approved regulatory coverage.

Waters of the State

Waters of the State are surface waters or groundwater within boundaries of the state as defined in Water Code section 13050(e), in which the State and Regional Water Boards have authority to protect beneficial uses. Waters of the State include, but are not limited to, groundwater aquifers, surface waters, saline waters, natural washes and pools, wetlands, sloughs, and estuaries, regardless of flow or whether water exists during dry conditions. Waters of the State include waters of the United States.

Waters of the United States

Waters of the United States are surface waters or waterbodies that are subject to federal jurisdiction in accordance with the Clean Water Act.

Water Quality Objective

A water quality objective is the limit or maximum amount of pollutant, waste constituent or characteristic, or parameter level established in statewide water quality control plans and Regional Water Boards' Basin Plans, for the reasonable protection of beneficial uses of surface waters and groundwater and the prevention of nuisance.

ATTACHMENT B – APPLICATION FOR ENROLLMENT

1. **Enrollment Status:** (Mark only one item)

   ☐ New Enrollee

   ☐ New Enrollee with previous regulatory coverage under Order 2006-0003-DWQ
   (that failed to certify continuation of coverage in CIWQS per Order 2022-XXXX-DWQ)
   Existing WDID Number: _____

2. **Applicant Information:**

   Legally Responsible Official Submitting Application

   First and Last Name: _____

   Title: _____

   Phone: _____

   Email: _____

   System Owner/Operator Name: _____

   Mailing Address: _____

   City, State, Zip: _____

   County: _____

   Sanitary Sewer System Name: _____

   Regional Water Quality Control Board(s): _____

   Signature and Date: _____

3. **Applicant Type (Check one):**

   ☐ City ☐ County ☐ State ☐ Federal ☐ Special District

   ☐ Government Combination ☐ Private ☐ Other Non-governmental Entity

4. **Wastewater Treatment Plant Receiving Sanitary Sewer System Waste:**

   Wastewater Treatment Plant Permittee: _____

   WDID No.: _____

5. Billing Information

Billing Address: _____

City, State, Zip: _____

Billing Contact Person and Title: _____

Phone and Email Address: _____

6. Application Fee:

The application fee, as required by Water Code section 13260, is based on the daily population served by the sanitary sewer system. See updated Fee Schedule. (https://www.waterboards.ca.gov/resources/fees/water_quality/)

Check one of the following and enter fee amount:

☐ Population Served < 50,000 – Total Fee submitted: $ _____

☐ Population Served ≥ 50,000 – Total Fee submitted: $ _____

Make the fee payment payable to the State Water Resources Control Board and mail the complete application package to:

State Water Resources Control Board, Accounting Office
P. O. Box 1888
Sacramento, CA 95812-1888

Attention: Statewide Sanitary Sewer System Program

7. Application Submittal Certification

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

Print Name: _____

Title: _____

Signature: _____ Date: _____

ATTACHMENT C - NOTICE OF TERMINATION

1. Enrollee Information

Enrollee Name: _____

WDID No: _____

Legally Responsible Official Requesting Termination of Coverage: _____

First and Last Name: _____

Title: _____

Phone: _____

Email: _____

Mailing Address: _____

City, State, Zip: _____

County: _____

Sanitary Sewer System Name(s) or Unique Identifier(s): _____

Regional Water Quality Control Board(s): _____

Signature and Date: _____

2. Basis of Termination

Explanation of termination, including subsequent regulatory coverage and subsequent owner/operator of enrolled sanitary sewer system, as applicable:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

3. Regulatory Coverage Termination Certification

I certify under penalty of perjury under the laws of the State of California that to the best of my knowledge: 1) the sanitary sewer system I officially represent is not required to be regulated under the Statewide Waste Discharge Requirements for Sanitary Sewer Systems Order 2022-XXXX-DWQ, and 2) the information submitted in this Notice of Termination is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I understand that the submittal of this Notice of Termination does not release sanitary sewer system agencies from liability for any violations of the Clean Water Act.

Print Name: _____

Title: _____

Signature: _____ Date: _____

For State Water Board Use Only

☐ Approved for Termination ☐ Denied and Returned to Enrollee

Deputy Director of Water Quality Signature: _____

Date: _____ Notice of Termination Effective Date: _____

ATTACHMENT D – SEWER SYSTEM MANAGEMENT PLAN – REQUIRED ELEMENTS

Table of Contents

ATTACHMENT D – SEWER SYSTEM MANAGEMENT PLAN – REQUIRED ELEMENTS

A Sewer System Management Plan (Plan) is a living planning document that documents ongoing local sewer system management program activities, procedures, and decision-making – at the scale necessary to address the size and complexity of the subject sanitary sewer system(s). This Plan may incorporate other programs and other plans by reference, to address short-term and long-term system resilience through:

- Proactive planning and decision-making;
- Local government ordinances;
- Updated operations and maintenance activities and procedures;
- Implementation of capital improvements;
- Sufficient local budget to support staff resources, contractors, equipment, and training; and
- Updated training of staff and contractors.

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. As specified in Provision 6.1 (Enforcement Provisions) of this General Order, consistent with the Water Code and the State Water Board Enforcement Policy, the State Water Board or a Regional Water Board may consider the Enrollee's efforts in implementing an effective Sewer System Management Plan to prevent, contain, control, and mitigate spills when considering Water Code section 13327 factors to determine necessary enforcement of this General Order.

This Attachment includes the following required elements that the Enrollee shall address in its Plan and subsequent updates. The Enrollee shall identify any requirement in this Attachment that is not applicable to the Enrollee's sewer system and shall explain in its Plan why the requirement is not applicable.

1. SEWER SYSTEM MANAGEMENT PLAN GOAL AND INTRODUCTION

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

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

1.1. Regulatory Context

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

1.2. Sewer System Management Plan Update Schedule

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

1.3. Sewer System Asset Overview

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

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

Additionally, the Plan Introduction section must provide reference to the Enrollee's up-to-date map of its sanitary sewer system, as required in section 4.1 (Updated Map of Sanitary Sewer System) of this Attachment.

2. ORGANIZATION

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

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

health officer, county environmental health agency, and State Office of Emergency Services.)

3. LEGAL AUTHORITY

The Plan must include copies or an electronic link to the Enrollee's current sewer system use ordinances, service agreements and/or other legally binding procedures to demonstrate the Enrollee possesses the necessary legal authority to:

- Prevent illicit discharges into its sanitary sewer system from inflow and infiltration (I&I); unauthorized stormwater; chemical dumping; unauthorized debris; roots; fats, oils, and grease; and trash, including rags and other debris that may cause blockages;
- Collaborate with storm sewer agencies to coordinate emergency spill responses, ensure access to storm sewer systems during spill events, and prevent unintentional cross connections of sanitary sewer infrastructure to storm sewer infrastructure;
- Require that sewer system components and connections be properly designed and constructed;
- Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned and/or operated by the Enrollee;
- Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures; and
- Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

4. OPERATION AND MAINTENANCE PROGRAM

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

4.1. Updated Map of Sanitary Sewer System

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

4.2. Preventive Operation and Maintenance Activities

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

The scheduling system must include:

- Inspection and maintenance activities;

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

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

4.3. Training

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

- The requirements of 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.

4.4. Equipment Inventory

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

5. DESIGN AND PERFORMANCE PROVISIONS

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

5.1. Updated Design Criteria and Construction Standards and Specifications

Updated design criteria, and construction standards and specifications, for the construction, installation, repair, and rehabilitation of existing and proposed 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.

5.2. Procedures and Standards

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

6. SPILL EMERGENCY RESPONSE PLAN

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

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

7. SEWER PIPE BLOCKAGE CONTROL PROGRAM

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

The procedures must include, at minimum:

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

8. SYSTEM EVALUATION, CAPACITY ASSURANCE AND CAPITAL IMPROVEMENTS

The Plan must include procedures and activities for:

- Routine evaluation and assessment of system conditions;
- Capacity assessment and design criteria;
- Prioritization of corrective actions; and
- A capital improvement plan.

8.1 System Evaluation and Condition Assessment

The Plan must include procedures to:

- Evaluate the sanitary sewer system assets utilizing the best practices and technologies available;

- Identify and justify the amount (percentage) of its system for its condition to be assessed each year;
- Prioritize the condition assessment of system areas that:
  - Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies;
  - Are located in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas;
  - Are within the vicinity of a receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List;
- Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection methods;
- Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State;
- Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and
- Identify system assets vulnerable to direct and indirect impacts of climate change, including but not limited to: sea level rise; flooding and/or erosion due to increased storm volumes, frequency, and/or intensity; wildfires; and increased power disruptions.

8.2. Capacity Assessment and Design Criteria

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

- Dry-weather peak flow conditions that cause or contributes to spill events;
- The appropriate design storm(s) or wet weather events that causes or contributes to spill events;
- The capacity of key system components; and
- Identify the major sources that contribute to the peak flows associated with sewer spills.

The capacity assessment must consider:

- Data from existing system condition assessments, system inspections, system audits, spill history, and other available information;
- Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;

- Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change;
- Increases of erosive forces in canyons and streams near underground and above-ground system components due to larger and/or higher-intensity storm events;
- Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events; and
- Necessary redundancy in pumping and storage capacities.

8.3. Prioritization of Corrective Action

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

8.4. Capital Improvement Plan

The capital improvement plan must include the following items:

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

9. MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

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.

10. INTERNAL AUDITS

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.

11. COMMUNICATION PROGRAM

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

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

ATTACHMENT E1 – NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

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ATTACHMENT E1– NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

The Notification Requirements (section 1), Spill-specific Monitoring Requirements (section 2), Reporting Requirements (section 3) and Recordkeeping Requirements (section 4) in this Attachment are pursuant to Water Code section 13267 and section 13383, and are an enforceable component of this General Order. For the purpose of this General Order, the term:

- Notification means the notifying of appropriate parties of a spill event or other activity.
- Spill-specific Monitoring means the gathering of information and data for a specific spill event to be reported or kept as records.
- Reporting means the reporting of information and data into the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database.
- Recordkeeping means the maintaining of information and data in an official records storage system.

Failure to comply with the notification, monitoring, reporting and recordkeeping requirements in this General Order may subject the Enrollee to civil liabilities of up to $10,000 a day per violation pursuant to Water Code section 13385; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement.

Water Code section 13193 et seq. requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Resources Control Board (State Water Board) to collect sanitary sewer spill information for each spill event and make this information available to the public. Sanitary sewer spill information for each spill event includes but is not limited to: Enrollee contact information for each spill event, spill cause, estimated spill volume and factors used for estimation, location, date, time, duration, amount discharged to waters of the State, response and corrective action(s) taken.

1. NOTIFICATION REQUIREMENTS

1.1. Notification of Spills of 1,000 Gallons or Greater to the California Office of Emergency Services

Per Water Code section 13271, for a spill that discharges in or on any waters of the State, or discharges or is deposited where it is, or probably will be, discharged in or on any waters of the State, the Enrollee shall notify the California Office of Emergency Services and obtain a California Office of Emergency Services Control Number as soon as possible **but no later than two (2) hours** after:

- The Enrollee has knowledge of the spill; and
- Notification can be provided without substantially impeding cleanup or other emergency measures.

The notification requirements in this section apply to individual spills of 1,000 gallons or greater, from an Enrollee-owned and/or operated laterals, to a water of the State.

1.2. Spill Notification Information

The Enrollee shall provide the following spill information to the California Office of Emergency Services before receiving a Control Number, as applicable:

- Name and phone number of the person notifying the California Office of Emergency Services;
- Estimated spill volume (gallons);
- Estimated spill rate from the system (gallons per minute);
- Estimated discharge rate (gallons per minute) directly into waters of the State or indirectly into a drainage conveyance system;
- Spill incident description:
  - Brief narrative of the spill event, and
  - Spill incident location (address, city, and zip code) and closest cross streets and/or landmarks;
- Name and phone number of contact person on-scene;
- Date and time the Enrollee was informed of the spill event;
- Name of sanitary sewer system causing the spill;
- Spill cause or suspected cause (if known);
- Amount of spill contained;
- Name of receiving water body receiving or potentially receiving discharge; and
- Description of water body impact and/ or potential impact to beneficial uses.

1.3. Notification of Spill Report Updates

Following the initial notification to the California Office of Emergency Services and until such time that the Enrollee certifies the spill report in the online CIWQS Sanitary Sewer System Database, the Enrollee shall provide updates to the California Office of Emergency Services regarding substantial changes to:

- Estimated spill volume (increase or decrease in gallons initially estimated);
- Estimated discharge volume discharged directly into waters of the State or indirectly into a drainage conveyance system (increase or decrease in gallons initially estimated); and
- Additional impact(s) to the receiving water(s) and beneficial uses.

2. SPILL-SPECIFIC MONITORING REQUIREMENTS

2.1 Spill Location and Spread

The Enrollee shall visually assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools. The Enrollee shall document the critical spill locations, including:

- Photography and GPS coordinates for:
  - The system location where spill originated.

    For multiple appearance points of a single spill event, the points closest to the spill origin.
- Photography for:
  - Drainage conveyance system entry locations,
  - The location(s) of discharge into surface waters, as applicable,
  - Extent of spill spread, and
  - The location(s) of clean up.

2.2 Spill Volume Estimation

To assess the approximate spill magnitude and spread, the Enrollee shall estimate the total spill volume using updated volume estimation techniques, calculations, and documentation for electronic reporting. The Enrollee shall update its notification and reporting of estimated spill volume (which includes spill volume recovered) as further information is gathered during and after a spill event.

2.3. Receiving Water Monitoring

2.3.1. Receiving Water Visual Observations

Through visual observations and use of best available spill volume-estimating techniques and field calculation techniques, the Enrollee shall gather and document the following information for spills discharging to surface waters:

- Estimated spill travel time to the receiving water;
- For spills entering a drainage conveyance system, estimated spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water;
- Estimated spill volume entering the receiving water; and
- Photography of:
  - Waterbody bank erosion,
  - Floating matter,
  - Water surface sheen (potentially from oil and grease),

- Discoloration of receiving water, and
- Impact to the receiving water.

2.3.2. Receiving Water – Water Quality Sampling and Analysis

For sewage spills in which an estimated 50,000 gallons or greater are discharged into a surface water, the Enrollee shall conduct the following water quality sampling no later than **18 hours** after the Enrollee's knowledge of a potential discharge to a surface water:

- Collect one water sample, each day of the duration of the spill, at:
  - The DCS-001 location as described in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment, if sewage discharges to a surface water via a drainage conveyance system; and/or
  - Each of the three receiving water sampling locations in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment;

    If the receiving water has no flow during the duration of the spill, the Enrollee must report "No Sampling Due To No Flow" for its receiving water sampling locations.

The Enrollee shall analyze the collected receiving water samples for the following constituents per section 2.3.3 (Water Quality Analysis Specifications) of this Attachment:

- Ammonia, and
- Appropriate bacterial indicator(s) per the applicable Basin Plan water quality objectives, including one or more of the following, unless directed otherwise by the Regional Water Board:
  - Total Coliform Bacteria
  - Fecal Coliform Bacteria
  - *E-coli*
  - Enterococcus

  Dependent on the receiving water(s), sampling of bacterial indicators shall be sufficient to determine post-spill (after the spill) compliance with the water quality objectives and bacterial standards of the California Ocean Plan or the California Inland Surface Water Enclosed Bays, and Estuaries Plan, including the frequency and/or number of post-spill receiving water samples as may be specified in the applicable plans.

The Enrollee shall collect and analyze additional samples as required by the applicable Regional Water Board Executive Officer or designee.

2.3.3. Water Quality Analysis Specifications

Spill monitoring must be representative of the monitored activity (40 Code of Federal Regulations section 122.41(j)(1)).

Sufficiently Sensitive Methods

Sample analysis must be conducted according to sufficiently sensitive test methods approved under 40 Code of Federal Regulations Part 136 for the sample analysis of pollutants. For the purposes of this General Order, a method is sufficiently sensitive when the minimum level of the analytical method approved under 40 Code of Federal Regulations Part 136 is at or below the receiving water pollutant criteria.

Environmental Laboratory Accreditation Program-Accredited Laboratories

The analysis of water quality samples required per this General Order must be performed by a laboratory that has accreditation pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code. (Water Code section 13176(a).) The State Water Board accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

2.3.4. Receiving Water Sampling Locations

The Enrollee shall collect receiving water samples at the following locations.

Sampling of Flow in Drainage Conveyance System (DCS) Prior to Discharge

Sampling Location	Sampling Location Description
DCS-001	A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.

Receiving Surface Water Sampling (RSW)[1]

Sampling Location	Sampling Location Description
RSW-001 Point of Discharge	A point in the receiving water where sewage initially enters the receiving water.
RSW-001U: Upstream of Point of Discharge	A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.

Sampling Location	Sampling Location Description
RSW-001D: Downstream of Point of Discharge	A point in the receiving water, downstream of the point of sewage discharge, where the spill material is fully mixed with the receiving water.

[1] The Enrollee must use its best professional judgment to determine the upstream and downstream distances based on receiving water flow, accessibility to upstream/downstream waterbody banks, and size of visible sewage plume.

2.4. Safety and Access Exceptions

If the Enrollee encounters access restrictions or unsafe conditions that prevents its compliance with spill response requirements or monitoring requirements in this General Order, the Enrollee shall provide documentation of access restrictions and/or safety hazards in the corresponding required report.

3. REPORTING REQUIREMENTS

All reporting required in this General Order must be submitted electronically to the online CIWQS Sanitary Sewer System Database (https://ciwqs.waterboards.ca.gov), unless specified otherwise in this General Order. Electronic reporting may solely be conducted by a Legally Responsible Official or Data Submitter(s) previously designated by the Legally Responsible Official, as required in section 5.8 (Designation of Data Submitters) of this General Order.

The Enrollee shall report any information that is protected by the Homeland Security Act, by email to SanitarySewer@waterboards.ca.gov, with a brief explanation of the protection provided by the Homeland Security Act for the subject report to be protected from unauthorized disclosure and/or public access, and for official Water Board regulatory purposes only.

3.1. Reporting Requirements for Individual Category 1 Spill Reporting

3.1.1. Draft Spill Report for Category 1 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 1 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;

5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;
    - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
    - Description of the drainage conveyance system transporting the spill;
    - Photographs of the drainage conveyance system entry location(s);
    - Estimated spill volume fully recovered from the drainage conveyance system;
    - Estimated spill volume remaining within the drainage conveyance system;
11. Description and photographs of all discharge point(s) into the surface water;
12. Estimated spill volume that discharged to surface waters; and
13. Estimated total spill volume recovered.

3.1.2. Certified Spill Report for Category 1 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for Category 1 spills, to the online CIWQS Sanitary Sewer System Database. Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.1.1 (Draft Spill Report for Category 1 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
    - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
    - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;

4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, lateral, pump station, etc.);
6. Description of the pipe material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion;
14. Name and type of receiving water body(s);
15. Description of the water body(s), including but not limited to:
    - Observed impacts on aquatic life,
    - Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill,
    - Responsible entity for closing/restricting use of water body, and
    - Number of days closed/restricted as a result of the spill.
16. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and
17. If water quality samples were collected, identify sample locations and the parameters the water quality samples were analyzed for. If no samples were taken, Not Applicable shall be selected.

3.1.3. Spill Technical Report for Individual Category 1 Spill in which 50,000 Gallons or Greater Discharged into a Surface Water

For any spill in which 50,000 gallons or greater discharged into a surface water, **within 45 calendar days** of the spill end date, the Enrollee shall submit a Spill Technical Report to the online CIWQS Sanitary Sewer System Database. The Spill Technical Report, at minimum, must include the following information:

1. Spill causes and circumstances, including at minimum:
    - Complete and detailed explanation of how and when the spill was discovered;

- Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
- Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
- Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
- Detailed description of the spill cause(s);
- Description of the pipe material, and estimated age of the pipe material, at the failure location;
- Description of the impact of the spill;
- Copy of original field crew records used to document the spill; and
- Historical maintenance records for the failure location.

2. Enrollee's response to the spill:
   - Chronological narrative description of all actions taken by the Enrollee to terminate the spill;
   - Explanation of how the Sewer System Management Plan Spill Emergency Response Plan was implemented to respond to and mitigate the spill; and
   - Final corrective action(s) completed and a schedule for planned corrective actions, including:
     - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable,
     - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences, and
     - Necessary modifications to the Emergency Spill Response Plan to incorporate lessons learned in responding to and mitigating the spill.
3. Water Quality Monitoring, including at minimum:
   - Description of all water quality sampling activities conducted;
   - List of pollutant and parameters monitored, sampled and analyzed; as required in section 2.3 (Receiving Water Monitoring) of this Attachment;
   - Laboratory results, including laboratory reports;
   - Detailed location map illustrating all water quality sampling points; and
   - Other regulatory agencies receiving sample results (if applicable).
4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

3.1.4. Amended Certified Spill Reports for Individual Category 1 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.2. Reporting Requirements for Individual Category 2 Spill Reporting

3.2.1. Draft Spill Report for Category 2 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 2 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;

   If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
    - Description of the drainage conveyance system transporting the spill;
    - Photographs of the drainage conveyance system entry location(s);
    - Estimated spill volume fully recovered from the drainage conveyance system;
    - Estimated spill volume remaining within the drainage conveyance system;

- Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable; and

11. Estimated total spill volume recovered.

3.2.2. Certified Spill Report for Category 2 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for the Category 2 spill, to the online CIWQS Sanitary Sewer System Database (https://ciwqs.waterboards.ca.gov). Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.2.1 (Draft Spill Report for Category 2 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
   - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
   - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, pump station, etc.);
6. Description of the pipe/infrastructure material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion; and

14. Whether or not the spill was located within 1,000 feet of a municipal surface water intake.

3.2.3. Amended Certified Spill Reports for Individual Category 2 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.3. Monthly Certified Spill Reporting for Category 3 Spills

The Enrollee shall report and certify all Category 3 spills to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occurred. (For example, all Category 3 spills occurring in the month of February shall be reported and certified by March 30th). After the Legally Responsible Official certifies the spills, the online CIWQS Sanitary Sewer System Database will issue a spill event identification number for each spill.

The monthly reporting of all Category 3 spills must include the following items for each spill:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Description, photographs, and GPS coordinates where the spill originated:
   - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
7. Estimated total spill volume exiting the system;
8. Description and photographs of the extent of the spill and spill boundaries;
9. Did the spill reach a drainage conveyance system? If Yes:
   - Description of the drainage conveyance system transporting the spill;
   - Photographs of the drainage conveyance system entry locations(s);
   - Estimated spill volume fully recovered from the drainage conveyance system; and

- Estimated spill volume discharged to a groundwater infiltration basis or facility, if applicable.

10. Estimated total spill volume recovered;
11. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reaches of the spill;
12. Spill end date and time;
13. Description of how the spill volume estimations were calculated, including, at minimum:
    - The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
    - The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
14. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
15. System failure location (for example, main, pump station, etc.);
16. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location;
17. Description of the impact of the spill;
18. Whether or not the spill was associated with a storm event;
19. Description of spill response activities including description of immediate spill containment and cleanup efforts;
20. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum:
    - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
    - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including:
      - Adjusted schedule/method of preventive maintenance,
      - Planned rehabilitation or replacement of sanitary sewer asset,
      - Inspected, repaired asset(s), or replaced defective asset(s),
      - Capital improvements,
      - Documentation verifying immediately implemented system modifications and operating/maintenance modifications,
      - Description of spill response activities,

- Spill response completion date, and
- Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill;

21. Detailed narrative of investigation and investigation findings of cause of spill.

3.4. Monthly Certified Spill Reporting for Category 4 Spills

The Enrollee shall report and certify the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, within 30 calendar days after the end of the month in which the spills occurred.

3.5. Amended Certified Spill Reports for Category 3 Spills

Within 90 calendar days of the certified Spill Report due date, the Enrollee may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After 90 calendar days, the Legally Responsible Official shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a certified Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the 90-day timeframe for amending the certified Spill Report, as provided above.

3.6. Annual Certified Spill Reporting of Category 4 and/or Lateral Spills

For all Category 4 spills and spills from its owned and/or operated laterals that are caused by a failure or blockage in the lateral and that do not discharge to a surface water, the Enrollee shall:

- Maintain records per section 4.4. of this Attachment;

  The Enrollee shall provide records upon request by State Water Board or Regional Water Board staff.

- Annually upload and certify a report, in an appropriate digital format, of all recordkeeping of spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occurred.

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

3.7. Monthly Certification of "No-Spills" or "Category 4 Spills" and/or "Non-Category 1 Lateral Spills"

If either (1) no spills occur during a calendar month or (2) only Category 4, and/or Enrollee-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the Enrollee shall certify, within 30 calendar days after

the end of each calendar month, either a "No-Spill" certification statement, or a "Category 4 Spills" and/or "Non-Category 1 Lateral Spills" certification statement, in the online CIWQS Sanitary Sewer System Database, certifying that there were either no spills, or Category 4 and/or Non-Category 1 Lateral Spills that will be reported annually (per section 3.6 of this Attachment) for the designated month.

If a spill starts in one calendar month and ends in a subsequent calendar month, and the Enrollee has no further spills of any category, in the subsequent calendar month, the Enrollee shall certify "no-spills" for the subsequent calendar month.

If the Enrollee has no spills from its systems during a calendar month, but the Enrollee voluntarily reported a spill from a private lateral or a private system, the Enrollee shall certify "no-spills" for that calendar month.

If the Enrollees has spills from its owned and/or operated laterals during a calendar month, the Enrollee shall not certify "no spills" for that calendar month.

3.8. Electronic Sanitary Sewer System Service Area Boundary Map

The Legally Responsible Official shall submit, to the State Water Board, an up-to-date electronic spatial map of its sewer system service area boundaries. The map must be in accordance with section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order and the specification provided on the statewide Sanitary Sewer Systems program website. The map must include the location of wastewater treatment facility(ies) that treats the sewer system waste, if in the same sewer service boundary.

By the Effective Date of this General Order, specifications for the electronic sanitary sewer service area boundary map format will be provided on the statewide Sanitary Sewer Systems Order program website.

3.9. Annual Report (Previously termed as Collection System Questionnaire in General Order 2006-0003-DWQ)

A new Enrollee shall complete and submit its first certified Annual Report into the online CIWQS Sanitary Sewer System Database, **within 30 days of obtaining a CIWQS account**; Subsequent Annual Reports are due by April 1 of each year.

All enrollees shall update their previous year's Annual Report, **by April 1 of each year after the Effective Date of this General Order,** for each calendar year (January 1 through December 31).

The Annual Report must be entered directly into the online CIWQS Sanitary Sewer System Database. The Enrollee's Legally Responsible Official shall certify the Annual Report as instructed in CIWQS;

The Annual Report must address, and update as applicable, the following items:

- Population served;

- Updated sewer system service area boundary map, if service area boundary has changed from original map submitted per section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order;
- Number of system operation and maintenance staff:
  - Entry level (less than two years of experience),
  - Journey level (greater than two years of experience),
  - Supervisory level, and
  - Managerial level;
- Number of operation and maintenance staff certified as a certified collection system operator by the California Water Environmental Association (CWEA), with:
  - Corresponding number of certified collection system operator grade levels (Grade I, II, III, IV, and V);
- System information:
  - Miles of system gravity and force mains,
  - Number of upper and lower service laterals connected to system,
  - Estimated number of upper and lower laterals owned and/or operated by the Enrollee,
  - Portion of laterals that is Enrollee's responsibility,
  - Average age the major components of system infrastructure,
  - Number and age of pump stations, and
  - Estimated total miles of the system pipeline not accessible for maintenance;
- Name and location of the treatment plant(s) receiving sanitary sewer system's waste;
- Name of satellite sewer system tributaries;
- Number of system's gravity sewer above or underground crossings of water bodies throughout system;
- Number of force main (pressurized pipe) above or underground crossings of water bodies throughout system;
- Number of siphons used to convey waste throughout the sewer system;
- Miles of sewer system cleaned;
- Miles of sewer system video inspected, or comparable (i.e., video closed-circuit television or alternative inspection methods);
- System Performance Evaluation as specified in section 5.11 (System Performance Analysis) of this General Order;
- Major spill causes (for example, root intrusion, grease deposition);

- System infrastructure failure points (for example, main, pump station, lateral, etc.);
- Ongoing spill investigations; and
- Actions taken to address system deficiencies.

3.10. Sewer System Management Plan Audit Reporting Requirements

The Enrollee shall submit its Sewer System Management Plan Audit and other pertinent audit information, in accordance with section 5.4 (Sewer System Management Plan Audits) of this General Order, to the online CIWQS Sanitary Sewer System Database **by six (6) months after the end of the 3-year audit period**.

If a Sewer System Management Plan Audit is not conducted as required: the Enrollee shall:

- Update the online CIWQS Sanitary Sewer System Database and select the justification for not conducting the Audit; and
- Notify its corresponding Regional Water Board (see Attachment F (Regional Water Quality Control Board Contact Information)) of the justification for the lapsed requirements.

The Enrollee's reporting of a justification for not conducting a timely Audit does not justify non-compliance with this General Order. The Enrollee shall:

- Submit the late Audit as required in this General Order; and
- Comply with subsequent Audit requirements and due dates corresponding with the original audit cycle.

3.11. Sewer System Management Plan Reporting Requirements

For an Existing Enrollee previously regulated by Order 2006-0003-DWQ: **Within every six (6) years after the required due date of its last Plan Update**, the Legally Responsible Official shall upload and certify a local governing entity-approved Sewer System Management Plan Update to the online CIWQS Sanitary Sewer System Database. If the electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its updated Sewer System Management Plan posted on its own website.

Order 2006-0003-DWQ required each enrollee to develop its initial Sewer System Management Plan per the following schedule, with required Plan updates at a frequency of 5-years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2009
Between 100,000 and 10,000: August 2, 2009
Between 10,000 and 2,500: May 2, 2010
Less than 2,500: August 2, 2010

This Order carries forth the previously-required Plan Update schedule per Order 2006-0003-DWQ. Per the six-year Plan Update frequency required in this Order, the Enrollee shall upload and certify its first Plan Update, to the online CIWQS Sanitary Sewer System Database by the following due dates, with subsequent Plan Updates at the frequency of six years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2025

Between 100,000 and 10,000: August 2, 2025

Between 10,000 and 2,500: May 2, 2026

Less than 2,500: August 2, 2026

For a New Enrollee: **Within twelve (12) months of its Application for Enrollment Approval date**, the Legally Responsible Official of a new Enrollee shall upload and certify a local governing entity-approved Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database. If electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its Sewer System Management Plan posted on its own website. The due date for subsequent 6-year Plan updates, is six (6) years from the submittal due date of the new Enrollee's first Sewer System Management Plan.

4. RECORDKEEPING REQUIREMENTS

The Enrollee shall maintain records to document compliance with the provisions of this General Order, and previous General Order 2006-0003-DWQ as applicable, for each sanitary sewer system owned, including any required records generated by an Enrollee's contractor(s).

4.1. Recordkeeping Time Period

The Enrollee shall maintain records of documents required in this Attachment, including records collected for compliance with this General Order, and records collected in accordance with previous General Order 2006-0003-DWQ, for five (5) years.

4.2. Availability of Documents

The Enrollee shall make the records required in this General Order readily available, either electronic or hard copies, for review by Water Board staff during onsite inspections or through an information request.

4.3. Spill Reports

The Enrollee shall maintain records for each of the following spill-related events and activities:

- Spill event complaint, including but not limited to records documenting how the Enrollee responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
  - Date, time, and method of notification,

- Date and time the complainant first noticed the spill, if available,
- Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available,
- Complainant's contact information, if available, and
- Final resolution of the complaint;

- Records documenting the steps and/or remedial action(s) undertaken by the Enrollee, using all available information, to comply with this General Order, and previous General Order 2006-0003-DWQ as applicable;
- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated;
- All California Office of Emergency Services notification records, as applicable; and
- Records, in accordance with the Monitoring Requirements in this Attachment.

4.4. Recordkeeping of Category 4 Spills and Non-Category 1 Lateral Spills

An Enrollee must maintain the following records for each individual Category 4 spill and for each individual non-Category 1 Enrollee-owned and/or operated lateral spill, and report in accordance to section 3.6 (Annual Certified Spill Reporting of Category 4 and/or Lateral Spills) of this Attachment.

Recordkeeping of Individual Category 4 Spill Information:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Description and GPS coordinates for the system location where the spill originated;
4. Did the spill reach a drainage conveyance system? If Yes:
   - Description of drainage conveyance system location,
   - Estimated spill volume fully recovered within the drainage conveyance system, and
   - Estimated spill volume remaining within the drainage conveyance system;
5. Estimated total spill volume exiting the sanitary sewer system;
6. Spill date and start time;
7. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
8. System failure location (for example, main, pump station, etc.);
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of how the volume estimation was calculated, including, at minimum:

- The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
- The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;

11. Description of implemented system modifications and operating/maintenance modifications.

Recordkeeping of Individual Lateral Spill Information:

1. Date and time the Enrollee was notified of, or self-discovered, the spill;
2. Location of individual spill;
3. Estimated individual spill volume;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.); and
5. Description of how the volume estimations were calculated.

Total Annual Spill Information:

1. Estimated total annual spill volume;
2. Description of spill corrective actions, including at minimum:
   - Local regulatory enforcement action taken against the sewer lateral owner in response to a spill, as applicable, and
   - System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

4.5. Sewer System Telemetry Records

The Enrollee shall maintain the following sewer system telemetry records if used to document compliance with this General Order, and previous General Order 2006-0003-DWQ as applicable, including spill volume estimates:

- Supervisory control and data acquisition (SCADA) system(s);
- Alarm system(s);
- Flow monitoring device(s) or other instrument(s) used to estimate sewage flow rates, and/or volumes;
- Computerized maintenance management system records; and
- Asset management-related records.

4.6. Sewer System Management Plan Implementation Records

The Enrollee shall maintain records documenting the Enrollee's implementation of its Sewer System Management Plan, including documents supporting its Sewer System Management Plan audits, corrections, modifications, and updates to the Sewer System Management Plan.

4.7. Audit Records

The Enrollee shall maintain, at minimum, the following records pertaining to its Sewer System Management Plan audits, and other internal audits:

- Completed audit documents and findings;
- Name and contact information of staff and/or consultants that conducted or involved in the audit; and
- Follow-up actions based on audit findings.

4.8. Equipment Records

The Enrollee shall maintain a log of all owned and leased sewer system cleaning, operational, maintenance, construction, and rehabilitation equipment.

4.9. Work Orders

The Enrollee shall maintain record of work orders for operations and maintenance projects.

ATTACHMENT E2 – SUMMARY OF NOTIFICATION, MONITORING AND REPORTING REQUIREMENTS

This Attachment provides a summary of notification, monitoring and reporting requirements, by spill category, and for Enrollee-owned and/or operated laterals as required in Attachment E1 of this General Order, for quick reference purposes only.

Table E2-1
Spill Category 1: Spills to Surface Waters

Spill Requirement	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters: Notify the California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	• Conduct spill-specific monitoring; • Conduct water quality sampling of the receiving water within **18 hours** of initial knowledge of spill of 50,000 gallons or greater to surface waters.	(Section 2 of Attachment E1)
Reporting	• Submit Draft Spill Report **within three (3) business days** of the Enrollee's knowledge of the spill; • Submit Certified Spill Report **within 15 calendar days** of the spill end date; • Submit Technical Report **within 45 calendar days** after the spill end date for a Category 1 spill in which **50,000 gallons or greater** discharged to surface waters; and • Submit Amended Spill Report **within 90 calendar days** after the spill end date.	(Section 3.1 of Attachment E1)

Table E2-2
Spill Category 2: Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State: Notify California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• Submit Draft Spill Report **within three (3) business days** of the Enrollee's knowledge of the spill; • Submit Certified Spill Report **within 15 calendar days** of the spill end date; and • Submit Amended Spill Report **within 90 calendar days** after the spill end date.	(Section 3.2 of Attachment E1)

Table E2-3
Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within **30 calendars days** after the end of the month in which the spills occur; and • Submit Amended Spill Reports **within 90 calendar days** after the Certified Spill Report due date.	(Section 3.3 and 3.5 of Attachment E1)

Table E2-4
Spill Category 4: Spills Less Than 50 Gallons That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred. • Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur.	(Section 3.4, 3.6, 3.7 and 4.4 of Attachment E1)

Table E2-5
Enrollee Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a spill of 1,000 gallons or greater, from an enrollee-owned and/or operated lateral, discharging or threatening to discharge to waters of the State: Notify California Office of Emergency Services and obtain a notification control number. Not applicable to a spill of less than 1,000 gallons.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	Conduct visual monitoring.	(Section 2 of Attachment E1)
Reporting	• Upload and certify a report, in an acceptable digital format, of all lateral spills (that do not discharge to a surface water) to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. • Report a lateral spill of any volume that discharges to a surface water as a Category 1 spill.	(Sections 3.6, 3.7 and 4.4 of Attachment E1)

ATTACHMENT F – REGIONAL WATER QUALITY CONTROL BOARD CONTACT INFORMATION

This Attachment provides a map, list of counties, and contact information to assist the Enrollee in identifying the corresponding Regional Water Quality Control Board office, for all Regional Water Board notification requirements in this General Order.

Region 1 -- North Coast Regional Water Quality Control Board:
Del Norte, Glenn, Humboldt, Lake, Marin, Mendocino, Modoc, Siskiyou, Sonoma, and Trinity counties.

RB1SpillReporting@waterboards.ca.gov or (707) 576-2220

Region 2 -- San Francisco Bay Regional Water Quality Control Board:
Alameda, Contra Costa, San Francisco, Santa Clara (Northern most part of Morgan Hill), San Mateo, Marin, Sonoma, Napa, Solano counties.

RB2SpillReports@waterboards.ca.gov or (510) 622-2369

Region 3 -- Central Coast Regional Water Quality Control Board:
Santa Clara (most of Morgan Hill), San Mateo (Southern portion), Santa Cruz, San Benito, Monterey, Kern (small portions), San Luis Obispo, Santa Barbara, Ventura (Northern portion) counties.

CentralCoast@waterboards.ca.gov or (805) 549-3147

Region 4 -- Los Angeles Regional Water Quality Control Board:
Los Angeles, Ventura counties (small portions of Kern and Santa Barbara counties).

rb4-ssswdr@waterboards.ca.gov or (213) 576-6600

Region 5 -- Central Valley Regional Water Quality Control Board:

Rancho Cordova (Sacramento) Office: Colusa, Lake, Sutter, Yuba, Sierra, Nevada, Placer, Yolo, Napa, (North East), Solano (West), Sacramento, El Dorado, Amador, Calaveras, San Joaquin, Contra Costa (East), Stanislaus, Tuolumne counties.

RB5sSpillReporting@waterboards.ca.gov or (916) 464-3291

Fresno Office: Fresno, Kern, Kings, Madera, Mariposa, Merced, and Tulare counties, and small portions of San Benito and San Luis Obispo counties.

RB5fSpillReporting@waterboards.ca.gov or (559) 445-5116

Redding Office: Butte, Glen, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Tehama counties.

RB5rSpillReporting@waterboards.ca.gov or (530) 224-4845

Region 6 -- Lahontan Regional Water Quality Control Board:

Lake Tahoe Office: Alpine, Modoc (East), Lassen (East side and Eagle Lake), Sierra, Nevada, Placer, El Dorado counties.

RB6sSpillReporting@waterboards.ca.gov or (530) 542-5400

Victorville Office: Mono, Inyo, Kern (East), San Bernardino, Los Angeles (North East corner) counties.

RB6vSpillReporting@waterboards.ca.gov or (760) 241-6583

Region 7 -- Colorado River Basin Regional Water Quality Control Board:

Imperial county and portions of San Bernardino, Riverside, San Diego counties.

RB7SpillReporting@waterboards.ca.gov or (760) 346-7491

Region 8 -- Santa Ana Regional Water Quality Control Board:

Orange, Riverside, San Bernardino counties.

RB8SpillReporting@waterboards.ca.gov or (951) 782-4130

Region 9 -- San Diego Regional Water Quality Control Board:

San Diego county and portions of Orange and Riverside counties.

RB9Spill_Report@waterboards.ca.gov or (619) 516-1990

End of Order 2022-0103-DWQ

Appendix C – Health and Safety Code Sections 5410-5416

California LEGISLATIVE INFORMATION

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HEALTH AND SAFETY CODE - HSC

DIVISION 5. SANITATION [4600 - 6127] *(Division 5 enacted by Stats. 1939, Ch. 60.)*

PART 3. COMMUNITY FACILITIES [4600 - 6127] *(Heading of Part 3 amended by Stats. 1970, Ch. 420.)*

CHAPTER 6. General Provisions with Respect to Sewers [5400 - 5474.10] *(Chapter 6 enacted by Stats. 1939, Ch. 60.)*

ARTICLE 2. Sewage and Other Waste [5410 - 5416] *(Heading of Article 2 amended by Stats. 1967, Ch. 1447.)*

5410. As used in this chapter:

(a) "Waste" includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation of whatever nature.

(b) "Person" as used in this article also includes any city, county, district, the state or any department or agency thereof.

(c) "Waters of the state" means any water, surface or underground, including saline waters, within the boundaries of the state.

(d) "Contamination" means an impairment of the quality of the waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. "Contamination" shall include any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

(e) "Pollution" means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects: (1) such waters for beneficial uses, or (2) facilities which serve such beneficial uses. "Pollution" may include "contamination."

(f) "Nuisance" means anything which: (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property, and (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal, and (3) occurs during, or as a result of, the treatment or disposal of wastes.

(g) "Regional board" means any California regional water quality control board created pursuant to Section 13201 of the Water Code.

(Amended by Stats. 1969, Ch. 482.)

5411. No person shall discharge sewage or other waste, or the effluent of treated sewage or other waste, in any manner which will result in contamination, pollution or a nuisance.

(Amended by Stats. 1967, Ch. 1447.)

5411.5. (a) Any person who, without regard to intent or negligence, causes or permits any sewage or other waste, or the effluent of treated sewage or other waste, to be discharged in or on any waters of the state, or discharged in or deposited where it is, or probably will be, discharged in or on any waters of the state, shall, as soon as that person has knowledge of the discharge, immediately notify the local health officer or the director of environmental health of the discharge.

(b) A person who fails to provide the notice required by this section is guilty of a misdemeanor and shall be punished by a fine of not less than five hundred dollars ($500) nor more than one thousand dollars ($1,000), or imprisonment for less than one year, or both the fine and imprisonment.

(c) The notification required by this section shall not apply to a discharge authorized by law and in compliance with waste discharge requirements or other requirements established by the appropriate regional water quality control board or the State Water Resources Control Board.

(d) The notification required by this section shall not apply to an unauthorized discharge of effluent of treated sewage defined as recycled water pursuant to Section 13050 or 13529.2 of the Water Code.

(Amended by Stats. 2013, Ch. 635, Sec. 2. Effective January 1, 2014.)

5412. Whenever the state department or any local health officer finds that a contamination exists, the state department or officer shall order the contamination abated, as provided in this chapter, and, commencing July 1 of a year in which the Legislature has appropriated sufficient funds for this purpose, shall submit any report required pursuant to subdivision (d) of Section 13193 of the Water Code.

(Amended by Stats. 2001, Ch. 498, Sec. 2. Effective January 1, 2002.)

5412.5. (a) Any person who, without regard to intent or negligence, causes or permits any sewage or other waste, or the effluent of treated sewage or other waste to be discharged in or on any waters of the state, or discharged in or deposited where it is, or probably will be, discharged in or on any waters of the state that may cause contamination of waters used for a water-contact sport, as defined in Section 24155, shall reimburse the local health officer or the director of environmental health for the necessary and actual costs incurred to mitigate the threat of contamination and to protect the health and safety of the public.

(b) The governing body of the county shall establish the amount of payment at a level sufficient to pay the necessary and reasonable costs incurred by the local health officer or environmental health director administering this section and Section 5411.5.

(c) For the purposes of this section "mitigate" includes, but is not limited to, actions taken by the local health officer or the director of environmental health in the affected tributaries and waters used for a water-contact sport to investigate the waste discharge, to collect and analyze water samples to determine the areas of contamination, to close or restrict use, to post closure signs, and to notify the public of closures or restrictions.

(d) This section shall not apply to discharge authorized by law and in compliance with waste discharge requirements or other requirements established by the appropriate regional water quality control board or the State Water Resources Control Board.

(Added by Stats. 1992, Ch. 410, Sec. 2. Effective January 1, 1993.)

5413. Whenever the state department finds that a pollution or nuisance does, in fact, exist, that condition shall be immediately referred by the state department to the proper regional board for action, together with any recommendations for correction, and, commencing July 1 of a year in which the Legislature has appropriated sufficient funds for this purpose, the state department shall submit any report required pursuant to subdivision (d) of Section 13193 of the Water Code. Upon request of a regional board, the state department shall inspect and report to the board on any technical factors involved in any condition of pollution or nuisance.

(Amended by Stats. 2001, Ch. 498, Sec. 3. Effective January 1, 2002.)

5414. With respect to any condition of contamination, the state department may accept the action of any state, county, or municipal officer or agency having jurisdiction over the matter as sufficient.

(Repealed and added by Stats. 1949, Ch. 1550.)

5415. No provision in this chapter is a limitation on any of the following:

(a) The authority of a city or county to adopt and enforce additional regulations not in conflict with this chapter imposing additional conditions, restrictions, or limitations relating to the disposal of sewage or other waste.

(b) The authority of any city or county to declare, prohibit, and abate nuisances.

(c) The authority of a state agency in the enforcement or administration of any provision of law which it is specifically permitted or required to enforce or administer.

(d) The right of any person to maintain at any time any appropriate action for relief against any private nuisance as defined in the Civil Code or for relief against any contamination or pollution.

(e) The authority of a city or county to adopt and enforce regulations relating to the use of recycled water in accordance with Chapter 7 (commencing with Section 13500) of Division 7 of the Water Code.

(Amended by Stats. 1995, Ch. 28, Sec. 5. Effective January 1, 1996.)

5416. (a) There shall be not less than one water closet for each 20 employees or fractional part thereof working at a construction job site.

(b) The water closet shall consist of a patented chemical type privy, or a pit privy; provided, however, that a pit privy shall consist of a pit at least four feet deep with a well-constructed shelter, the openings of which shall be flyproofed, and with respect to which adequate sanitary and safe flooring shall be provided. With the approval of the local health officer other types of toilet facilities or modifications of those specified may be allowed.

(c) For the purpose of this section the term construction site shall mean the location on which actual construction of a building is in progress.

(d) A violation of this section shall constitute a misdemeanor.

(Amended by Stats. 1953, Ch. 433.)

Appendix D – Fish and Game Code Sections 5650-5656

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FISH AND GAME CODE - FGC

DIVISION 6. FISH [5500 - 9101] *(Division 6 enacted by Stats. 1957, Ch. 456.)*

PART 1. GENERALLY [5500 - 6956] *(Part 1 enacted by Stats. 1957, Ch. 456.)*

CHAPTER 2. Pollution [5650 - 5803] *(Chapter 2 enacted by Stats. 1957, Ch. 456.)*

ARTICLE 1. General [5650 - 5656] *(Article 1 enacted by Stats. 1957, Ch. 456.)*

5650. (a) Except as provided in subdivision (b), it is unlawful to deposit in, permit to pass into, or place where it can pass into the waters of this state any of the following:

(1) Any petroleum, acid, coal or oil tar, lampblack, aniline, asphalt, bitumen, or residuary product of petroleum, or carbonaceous material or substance.

(2) Any refuse, liquid or solid, from any refinery, gas house, tannery, distillery, chemical works, mill, or factory of any kind.

(3) Any sawdust, shavings, slabs, or edgings.

(4) Any factory refuse, lime, or slag.

(5) Any cocculus indicus.

(6) Any substance or material deleterious to fish, plant life, mammals, or bird life.

(b) This section does not apply to a discharge or a release that is expressly authorized pursuant to, and in compliance with, the terms and conditions of a waste discharge requirement pursuant to Section 13263 of the Water Code or a waiver issued pursuant to subdivision (a) of Section 13269 of the Water Code issued by the State Water Resources Control Board or a regional water quality control board after a public hearing, or that is expressly authorized pursuant to, and in compliance with, the terms and conditions of a federal permit for which the State Water Resources Control Board or a regional water quality control board has, after a public hearing, issued a water quality certification pursuant to Section 13160 of the Water Code. This section does not confer additional authority on the State Water Resources Control Board, a regional water quality control board, or any other entity.

(c) It shall be an affirmative defense to a violation of this section if the defendant proves, by a preponderance of the evidence, all of the following:

(1) The defendant complied with all applicable state and federal laws and regulations requiring that the discharge or release be reported to a government agency.

(2) The substance or material did not enter the waters of the state or a storm drain that discharges into the waters of the state.

(3) The defendant took reasonable and appropriate measures to effectively mitigate the discharge or release in a timely manner.

(d) The affirmative defense in subdivision (c) does not apply and may not be raised in an action for civil penalties or injunctive relief pursuant to Section 5650.1.

(e) The affirmative defense in subdivision (c) does not apply and may not be raised by any defendant who has on two prior occasions in the preceding five years, in any combination within the same county in which the case is prosecuted, either pleaded nolo contendere, been convicted of a violation of this section, or suffered a judgment for a violation of this section or Section 5650.1. This subdivision shall apply only to cases filed on or after January 1, 1997.

(f) The affirmative defense in subdivision (c) does not apply and may not be raised by the defendant in any case in which a district attorney, city attorney, or Attorney General alleges, and the court finds, that the defendant acted willfully.

(Amended by Stats. 2007, Ch. 130, Sec. 96. Effective January 1, 2008.)

5650.1. (a) Every person who violates Section 5650 is subject to a civil penalty of not more than twenty-five thousand dollars ($25,000) for each violation.

(b) The civil penalty imposed for each separate violation pursuant to this section is separate, and in addition to, any other civil penalty imposed for a separate violation pursuant to this section or any other provision of law.

(c) In determining the amount of any civil penalty imposed pursuant to this section, the court shall take into consideration all relevant circumstances, including, but not limited to, the nature, circumstance, extent, and gravity of the violation. In making this determination, the court shall consider the degree of toxicity and volume of the discharge, the extent of harm caused by the violation, whether the effects of the violation may be reversed or mitigated, and with respect to the defendant, the ability to pay, the effect of any civil penalty on the ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the gravity of the behavior, the economic benefit, if any, resulting from the violation, and any other matters the court determines justice may require.

(d) Every civil action brought under this section shall be brought by the Attorney General upon complaint by the department, or by the district attorney or city attorney in the name of the people of the State of California, and any actions relating to the same violation may be joined or consolidated.

(e) In any civil action brought pursuant to this chapter in which a temporary restraining order, preliminary injunction, or permanent injunction is sought, it is not necessary to allege or prove at any stage of the proceeding that irreparable damage will occur if the temporary restraining order, preliminary injunction, or permanent injunction is not issued, or that the remedy at law is inadequate.

(f) After the party seeking the injunction has met its burden of proof, the court shall determine whether to issue a temporary restraining order, preliminary injunction, or permanent injunction without requiring the defendant to prove that it will suffer grave or irreparable harm. The court shall make the determination whether to issue a temporary restraining order, preliminary injunction, or permanent injunction by taking into consideration, among other things, the nature, circumstance, extent, and gravity of the violation, the quantity and characteristics of the substance or material involved, the extent of environmental harm caused by the violation, measures taken by the defendant to remedy the violation, the relative likelihood that the material or substance involved may pass into waters of the state, and the harm likely to be caused to the defendant.

(g) The court, to the maximum extent possible, shall tailor any temporary restraining order, preliminary injunction, or permanent injunction narrowly to address the violation in a manner that will otherwise allow the defendant to continue business operations in a lawful manner.

(h) All civil penalties collected pursuant to this section shall not be considered fines or forfeitures as defined in Section 13003 and shall be apportioned in the following manner:

(1) Fifty percent shall be distributed to the county treasurer of the county in which the action is prosecuted. Amounts paid to the county treasurer shall be deposited in the county fish and wildlife propagation fund established pursuant to Section 13100.

(2) Fifty percent shall be distributed to the department for deposit in the Fish and Game Preservation Fund. These funds may be expended to cover the costs of legal actions or for any other law enforcement purpose consistent with Section 9 of Article XVI of the California Constitution.

(Amended by Stats. 1996, Ch. 1122, Sec. 2. Effective January 1, 1997.)

5651. Whenever it is determined by the department that a continuing and chronic condition of pollution exists, the department shall report that condition to the appropriate regional water quality control board, and shall cooperate with the board in obtaining correction or abatement in accordance with any laws administered by the board for the control of practices for sewage and industrial waste disposal.

(Amended by Stats. 1985, Ch. 1429, Sec. 1. Effective October 1, 1985.)

5652. (a) It is unlawful to deposit, permit to pass into, or place where it can pass into the waters of the state, or to abandon, dispose of, or throw away, within 150 feet of the high water mark of the waters of the state, any cans, bottles, garbage, motor vehicle or parts thereof, rubbish, litter, refuse, waste, debris, or the viscera or carcass of any dead mammal, or the carcass of any dead bird.

(b) The abandonment of any motor vehicle in any manner that violates this section shall constitute a rebuttable presumption affecting the burden of producing evidence that the last registered owner of record, not having complied with Section 5900 of the Vehicle Code, is responsible for that abandonment and is thereby liable for the cost of removal and disposition of the vehicle. This section prohibits the placement of a vehicle body on privately

owned property along a streambank by the property owner or tenant for the purpose of preventing erosion of the streambank.

(c) This section does not apply to a refuse disposal site that is authorized by the appropriate local agency having jurisdiction or to the depositing of those materials in a container from which the materials are routinely removed to a legal point of disposal.

(d) This section shall be enforced by all law enforcement officers of this state.

(Amended by Stats. 2007, Ch. 285, Sec. 107. Effective January 1, 2008.)

5653. (a) The use of vacuum or suction dredge equipment by a person in a river, stream, or lake of this state is prohibited, except as authorized under a permit issued to that person by the department in compliance with the regulations adopted pursuant to Section 5653.9. Before a person uses vacuum or suction dredge equipment in a river, stream, or lake of this state, that person shall submit an application to the department for a permit to use the vacuum or suction dredge equipment, specifying the type and size of equipment to be used and other information as the department may require pursuant to regulations adopted by the department to implement this section.

(b) (1) The department shall not issue a permit for the use of vacuum or suction dredge equipment until the permit application is deemed complete. A complete permit application shall include any other permit required by the department and one of the following, as applicable:

(A) A copy of waste discharge requirements or a waiver of waste discharge requirements issued by the State Water Resources Control Board or a regional water quality control board in accordance with Division 7 (commencing with Section 13000) of the Water Code.

(B) A copy of a certification issued by the State Water Resources Control Board or a regional water quality control board and a permit issued by the United States Army Corps of Engineers in accordance with Sections 401 and 404 of the Federal Water Pollution Control Act (33 U.S.C. Secs. 1341 and 1344, respectively) to use vacuum or suction dredge equipment.

(C) If the State Water Resources Control Board or the appropriate regional water quality control board determines that waste discharge requirements, a waiver of waste discharge requirements, or a certification in accordance with Section 1341 of Title 33 of the United States Code is not necessary for the applicant to use of vacuum or suction dredge equipment, a letter stating this determination signed by the Executive Director of the State Water Resources Control Board, the executive officer of the appropriate regional water quality control board, or their designee.

(c) Under the regulations adopted pursuant to Section 5653.9, the department shall designate waters or areas wherein vacuum or suction dredge equipment may be used pursuant to a permit, waters or areas closed to the use of that equipment, the maximum size of the vacuum or suction dredge equipment that may be used, and the time of year when the equipment may be used. If the department determines, pursuant to the regulations adopted pursuant to Section 5653.9, that the use of vacuum or suction dredge equipment does not cause any significant effects to fish and wildlife, it shall issue a permit to the applicant. If a person uses vacuum or suction dredge equipment other than as authorized by a permit issued by the department consistent with regulations implementing this section, that person is guilty of a misdemeanor.

(d) (1) Except as provided in paragraph (2), the department shall issue a permit upon the payment, in the case of a resident, of a base fee of twenty-five dollars ($25), as adjusted under Section 713, when an onsite investigation of the project size is not deemed necessary by the department, and a base fee of one hundred thirty dollars ($130), as adjusted under Section 713, when the department deems that an onsite investigation is necessary. Except as provided in paragraph (2), in the case of a nonresident, the base fee shall be one hundred dollars ($100), as adjusted under Section 713, when an onsite investigation is not deemed necessary, and a base fee of two hundred twenty dollars ($220), as adjusted under Section 713, when an onsite investigation is deemed necessary.

(2) The department may adjust the base fees for a permit described in this subdivision to an amount sufficient to cover all reasonable costs of the department in regulating suction dredging activities.

(e) It is unlawful to possess a vacuum or suction dredge in areas, or in or within 100 yards of waters, that are closed to the use of vacuum or suction dredges.

(f) A permit issued by the department under this section shall not authorize an activity in violation of other applicable requirements, conditions, or prohibitions governing the use of vacuum or suction dredge equipment, including those adopted by the State Water Resources Control Board or a regional water quality control board. The department, the State Water Resources Control Board, and the regional water quality control boards shall make reasonable efforts to share information among the agencies regarding potential violations of requirements, conditions, or prohibitions governing the use of vacuum or suction dredge equipment.

(g) For purposes of this section and Section 5653.1, the use of vacuum or suction dredge equipment, also known as suction dredging, is the use of a mechanized or motorized system for removing or assisting in the removal of, or the processing of, material from the bed, bank, or channel of a river, stream, or lake in order to recover minerals. This section and Section 5653.1 do not apply to, prohibit, or otherwise restrict nonmotorized recreational mining activities, including panning for gold.

(Amended by Stats. 2015, Ch. 680, Sec. 2. Effective January 1, 2016.)

5653.1. (a) The issuance of permits to operate vacuum or suction dredge equipment is a project pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) and permits may only be issued, and vacuum or suction dredge mining may only occur as authorized by any existing permit, if the department has caused to be prepared, and certified the completion of, an environmental impact report for the project pursuant to the court order and consent judgment entered in the case of Karuk Tribe of California et al. v. California Department of Fish and Game et al., Alameda County Superior Court Case No. RG 05211597.

(b) Notwithstanding Section 5653, the use of any vacuum or suction dredge equipment in any river, stream, or lake of this state is prohibited until the director certifies to the Secretary of State that all of the following have occurred:

(1) The department has completed the environmental review of its existing suction dredge mining regulations, as ordered by the court in the case of Karuk Tribe of California et al. v. California Department of Fish and Game et al., Alameda County Superior Court Case No. RG 05211597.

(2) The department has transmitted for filing with the Secretary of State pursuant to Section 11343 of the Government Code, a certified copy of new regulations adopted, as necessary, pursuant to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

(3) The new regulations described in paragraph (2) are operative.

(4) The new regulations described in paragraph (2) fully mitigate all identified significant environmental impacts.

(5) A fee structure is in place that will fully cover all costs to the department related to the administration of the program.

(c) (1) To facilitate its compliance with subdivision (b), the department shall consult with other agencies as it determines to be necessary, including, but not limited to, the State Water Resources Control Board, the State Department of Public Health, and the Native American Heritage Commission, and, on or before April 1, 2013, shall prepare and submit to the Legislature a report with recommendations on statutory changes or authorizations that, in the determination of the department, are necessary to develop the suction dredge regulations required by paragraph (2) of subdivision (b), including, but not limited to, recommendations relating to the mitigation of all identified significant environmental impacts and a fee structure that will fully cover all program costs.

(2) The requirement for submitting a report imposed under this subdivision is inoperative on January 1, 2017, pursuant to Section 10231.5 of the Government Code.

(3) The report submitted to the Legislature pursuant to this subdivision shall be submitted in accordance with Section 9795 of the Government Code.

(d) The Legislature finds and declares that this section, as added during the 2009–10 Regular Session, applies solely to vacuum and suction dredging activities conducted for instream mining purposes. This section does not expand or provide new authority for the department to close or regulate suction dredging conducted for regular maintenance of energy or water supply management infrastructure, flood control, or navigational purposes governed by other state or federal law.

(e) This section does not prohibit or restrict nonmotorized recreational mining activities, including panning for gold.

(Amended by Stats. 2012, Ch. 39, Sec. 7. Effective June 27, 2012.)

5653.3. Any person required to possess a permit pursuant to Section 5653 shall present his or her dredging equipment for inspection upon request of a state or county fish and game warden.

(Added by Stats. 1988, Ch. 1037, Sec. 2.)

5653.5. For purposes of Section 5653, "river, stream, or lake" means the body of water at the current water level at the time of the dredging.

(Added by Stats. 1988, Ch. 1037, Sec. 3.)

5653.7. In the event of an unanticipated water level change, when necessary to protect fish and wildlife resources, the department may close areas that were otherwise opened for dredging and for which permits were issued pursuant to Section 5653.

(Added by Stats. 1988, Ch. 1037, Sec. 4.)

5653.8. For purposes of Sections 5653 and 5653.3, "person" does not include a partnership, corporation, or other type of association.

(Added by Stats. 1994, Ch. 1109, Sec. 2. Effective September 29, 1994.)

5653.9. The department shall adopt regulations to carry out Section 5653 and may adopt regulations to carry out Sections 5653.3, 5653.5, and 5653.7. The regulations shall be adopted in accordance with the requirements of Division 13 (commencing with Section 21000) of the Public Resources Code and Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

(Amended by Stats. 1994, Ch. 775, Sec. 2. Effective January 1, 1995.)

5654. (a) (1) Notwithstanding Section 7715 and except as provided in paragraph (2), the director, within 24 hours of notification of a spill or discharge, as those terms are defined in subdivision (ad) of Section 8670.3 of the Government Code, where any fishing, including all commercial, recreational, and nonlicensed subsistence fishing, may take place, or where aquaculture operations are taking place, shall close to the take of all fish and shellfish all waters in the vicinity of the spill or discharge or where the spilled or discharged material has spread, or is likely to spread. In determining where a spill or discharge is likely to spread, the director shall consult with the Administrator of the Office of Spill Prevention and Response. At the time of closure, the department shall make all reasonable efforts to notify the public of the closure, including notification to commercial and recreational fishing organizations, and posting of warnings on public piers and other locations where subsistence fishing is known to occur. The department shall coordinate, when possible, with local and regional agencies and organizations to expedite public notification.

(2) Closure pursuant to paragraph (1) is not required if, within 24 hours of notification of a spill or discharge, the Office of Environmental Health Hazard Assessment finds that a public health threat does not or is unlikely to exist.

(b) Within 48 hours of notification of a spill or discharge subject to subdivision (a), the director, in consultation with the Office of Environmental Health Hazard Assessment, shall make an assessment and determine all of the following:

(1) The danger posed to the public from fishing in the area where the spill or discharge occurred or spread, and the danger of consuming fish taken in the area where the spill or discharge occurred or spread.

(2) Whether the areas closed for the take of fish or shellfish should be expanded to prevent any potential take or consumption of any fish or shellfish that may have been contaminated by the spill or discharge.

(3) The likely period for maintaining a closure on the take of fish and shellfish in order to prevent any possible contaminated fish or shellfish from being taken or consumed or other threats to human health.

(c) Within 48 hours after receiving notification of a spill or discharge subject to subdivision (a), or as soon as is feasible, the director, in consultation with the Office of Environmental Health Hazard Assessment, shall assess and determine the potential danger from consuming fish that have been contained in a recirculating seawater tank onboard a vessel that may become contaminated by the vessel's movement through an area where the spill or discharge occurred or spread.

(d) If the director finds in his or her assessment pursuant to subdivision (b) that there is no significant risk to the public or to the fisheries, the director may immediately reopen the closed area and waive the testing requirements of subdivisions (e) and (f).

(e) Except under the conditions specified in subdivision (d), after complying with subdivisions (a) and (b), the director, in consultation with the Office of Environmental Health Hazard Assessment, but in no event more than seven days from the notification of the spill or discharge, shall order expedited tests of fish and shellfish that would have been open for take for commercial, recreational, or subsistence purposes in the closed area if not for the closure, to determine the levels of contamination, if any, and whether the fish or shellfish is safe for human consumption.

(f) (1) Within 24 hours of receiving a notification from the Office of Environmental Health Hazard Assessment that no threat to human health exists from the spill or discharge or that no contaminant from the spill or discharge is present that could contaminate fish or shellfish, the director shall reopen the areas closed pursuant to this section. The director may maintain a closure in any remaining portion of the closed area where the Office of Environmental

Health Hazard Assessment finds contamination from the spill or discharge persists that may adversely affect human health.

(2) The director, in consultation with the commission, may also maintain a closure in any remaining portion of the closed area where commercial fishing or aquaculture occurs and where the department determines, pursuant to this paragraph, that contamination from the spill or discharge persists that may cause the waste of commercial fish or shellfish as regulated by Section 7701.

(g) To the extent feasible, the director shall consult with representatives of commercial and recreational fishing associations and subsistence fishing communities regarding the extent and duration of a closure, testing protocols, and findings. If a spill or discharge occurs within the lands governed by a Native American tribe or affects waters flowing through tribal lands, or tribal fisheries, the director shall consult with the affected tribal governments.

(h) The director shall seek full reimbursement from the responsible party or parties for the spill or discharge for all reasonable costs incurred by the department in carrying out this section, including, but not limited to, all testing.

(Amended by Stats. 2009, Ch. 294, Sec. 13. Effective January 1, 2010.)

5655. (a) In addition to the responsibilities imposed pursuant to Section 5651, the department may clean up or abate, or cause to be cleaned up or abated, the effects of any petroleum or petroleum product deposited or discharged in the waters of this state or deposited or discharged in any location onshore or offshore where the petroleum or petroleum product is likely to enter the waters of this state, order any person responsible for the deposit or discharge to clean up the petroleum or petroleum product or abate the effects of the deposit or discharge, and recover any costs incurred as a result of the cleanup or abatement from the responsible party.

(b) An order shall not be issued pursuant to this section for the cleanup or abatement of petroleum products in any sump, pond, pit, or lagoon used in conjunction with crude oil production that is in compliance with all applicable state and federal laws and regulations.

(c) The department may issue an order pursuant to this section only if there is an imminent and substantial endangerment to human health or the environment and the order shall remain in effect only until any cleanup and abatement order is issued pursuant to Section 13304 of the Water Code. A regional water quality control board shall incorporate the department's order into the cleanup and abatement order issued pursuant to Section 13304 of the Water Code, unless the department's order is inconsistent with any more stringent requirement established in the cleanup and abatement order. Any action taken in compliance with the department's order is not a violation of any subsequent regional water quality control board cleanup and abatement order issued pursuant to Section 13304 of the Water Code.

(d) The Administrator of the Office of Spill Prevention and Response has the primary authority to serve as a state incident commander and direct removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any placement of petroleum or a petroleum product in the waters of the state, except as otherwise provided by law. This authority may be delegated.

(e) For purposes of this section, the following definitions apply:

(1) "Petroleum product" means oil of any kind or form, including, but not limited to, fuel oil, sludge, oil refuse, and oil mixed with waste other than dredged spoil. "Petroleum product" does not include any pesticide that has been applied for agricultural, commercial, or industrial purposes or that has been applied in accordance with a cooperative agreement authorized by Section 116180 of the Health and Safety Code, that has not been discharged accidentally or for purposes of disposal, and the application of which was in compliance with all applicable state and federal laws and regulations.

(2) "State incident commander" means a person with the overall authority for managing and conducting incident operations during an oil spill response, who shall manage an incident consistent with the standardized emergency management system required by Section 8607 of the Government Code. Incident management generally includes the development of objectives, strategies, and tactics, ordering and release of resources, and coordinating with other appropriate response agencies to ensure that all appropriate resources are properly utilized and that this coordinating function is performed in a manner designed to minimize risk to other persons and to the environment.

(Amended by Stats. 2010, Ch. 328, Sec. 68. Effective January 1, 2011.)

5656. Any recovery or settlement of money damages, including, but not limited to, civil penalties arising out of any civil action filed and maintained by the Attorney General in the enforcement of this article shall be deposited in the Fish and Wildlife Pollution Account in the Fish and Game Preservation Fund.

(Amended by Stats. 1995, Ch. 720, Sec. 3. Effective January 1, 1996.)

Appendix E – California Water Code Section 13271

California LEGISLATIVE INFORMATION

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WATER CODE - WAT

DIVISION 7. WATER QUALITY [13000 - 16104] *(Division 7 repealed and added by Stats. 1969, Ch. 482.)*

CHAPTER 4. Regional Water Quality Control [13200 - 13286.9] *(Chapter 4 added by Stats. 1969, Ch. 482.)*

ARTICLE 4. Waste Discharge Requirements [13260 - 13276] *(Article 4 added by Stats. 1969, Ch. 482.)*

13271. (a) (1) Except as provided by subdivision (b), any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the state, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the state, shall, as soon as (A) that person has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the state toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.16) of Chapter 7 of Division 1 of Title 2 of the Government Code.

(2) The Office of Emergency Services shall immediately notify the appropriate regional board, the local health officer, and the director of environmental health of the discharge. The regional board shall notify the state board as appropriate.

(3) Upon receiving notification of a discharge pursuant to this section, the local health officer and the director of environmental health shall immediately determine whether notification of the public is required to safeguard public health and safety. If so, the local health officer and the director of environmental health shall immediately notify the public of the discharge by posting notices or other appropriate means. The notification shall describe measures to be taken by the public to protect the public health.

(b) The notification required by this section shall not apply to a discharge in compliance with waste discharge requirements or other provisions of this division.

(c) Any person who fails to provide the notice required by this section is guilty of a misdemeanor and shall be punished by a fine of not more than twenty thousand dollars ($20,000) or imprisonment in a county jail for not more than one year, or both. Except where a discharge to the waters of this state would have occurred but for cleanup or emergency response by a public agency, this subdivision shall not apply to any discharge to land which does not result in a discharge to the waters of this state.

(d) Notification received pursuant to this section or information obtained by use of that notification shall not be used against any person providing the notification in any criminal case, except in a prosecution for perjury or giving a false statement.

(e) For substances listed as hazardous wastes or hazardous material pursuant to Section 25140 of the Health and Safety Code, the state board, in consultation with the Department of Toxic Substances Control, shall by regulation establish reportable quantities for purposes of this section. The regulations shall be based on what quantities should be reported because they may pose a risk to public health or the environment if discharged to groundwater or surface water. Regulations need not set reportable quantities on all listed substances at the same time. Regulations establishing reportable quantities shall not supersede waste discharge requirements or water quality objectives adopted pursuant to this division, and shall not supersede or affect in any way the list, criteria, and guidelines for the identification of hazardous wastes and extremely hazardous wastes adopted by the Department of Toxic Substances Control pursuant to Chapter 6.5 (commencing with Section 25100) of Division 20 of the Health and Safety Code. The regulations of the Environmental Protection Agency for reportable quantities of hazardous substances for purposes of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. Sec. 9601 et seq.) shall be in effect for purposes of the enforcement of this section until the time that the regulations required by this subdivision are adopted.

(f) (1) The state board shall adopt regulations establishing reportable quantities of sewage for purposes of this section. The regulations shall be based on the quantities that should be reported because they may pose a risk to public health or the environment if discharged to groundwater or surface water. Regulations establishing reportable quantities shall not supersede waste discharge requirements or water quality objectives adopted pursuant to this division. For purposes of this section, "sewage" means the effluent of a municipal wastewater treatment plant or a private utility wastewater treatment plant, as those terms are defined in Section 13625, except that sewage does not include recycled water, as defined in subdivisions (c) and (d) of Section 13529.2.

(2) A collection system owner or operator, as defined in paragraph (1) of subdivision (a) of Section 13193, in addition to the reporting requirements set forth in this section, shall submit a report pursuant to subdivision (c) of Section 13193.

(g) Except as otherwise provided in this section and Section 8589.7 of the Government Code, a notification made pursuant to this section shall satisfy any immediate notification requirement contained in any permit issued by a permitting agency. When notifying the Office of Emergency Services, the person shall include all of the notification information required in the permit.

(h) For the purposes of this section, the reportable quantity for perchlorate shall be 10 pounds or more by discharge to the receiving waters, unless a more restrictive reporting standard for a particular body of water is adopted pursuant to subdivision (e).

(i) Notification under this section does not nullify a person's responsibility to notify the local health officer or the director of environmental health pursuant to Section 5411.5 of the Health and Safety Code.

(Amended by Stats. 2013, Ch. 352, Sec. 532. Effective September 26, 2013. Operative July 1, 2013, by Sec. 543 of Ch. 352.)

11. REFERENCES

A. Pumping Stations Emergency Response Plan