2023 Sewer System Management Plan (SSMP)

West County Wastewater

October 2023

Internal 2023 SSMP Certification
(Updated October 2023)

We hereby certify, as the Legally Responsible Official (LRO) and the Director of Infrastructure & Planning (I&P) of West County Wastewater (WCW), that the following Sewer System Management Plan (SSMP) was performed in compliance with State Water Resources Control Board Order No. 2006-0003-DWQ and all subsequent amendments including the most recent amendment [Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements (effective June 5, 2023)]

LRO Printed Name: Gordon Times

LRO Signature: DocuSigned by: Gordon Times 1AEAE73D7595467...

Director of I&P Printed Name (Certifier): Michael Savannah

Director of I&P Signature: DocuSigned by: Michael Savannah C0B6CFD3E33F4D5...

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List of Acronyms

Acronym	Full / Extended Term
ASCE	American Society of Civil Engineers
ADWF	Average Dry Weather Flow
AMSA	Association of Metropolitan Sewerage Agencies
APWA	American Public Works Association
AWWA	American Water Works Association
BBP	Bloodborne Pathogens
BMP	Best Management Practice
CASA	California Association of Sanitation Agencies
CalOSHA	California Occupational Safety and Health Administration
CCTV	Closed-Circuit Television
CIP	Capital Improvement Program
CIWQS	California Integrated Water Quality System
COIN	Context, Observation, Impact and Need
CSM	Collection System Maintenance
CSMFO	California Society Municipal Finance Officers
CSO	Collection System Operations
CSRMA	California Sanitation Risk Management Authority
CWEA	California Water Environment Association
EAP	Emergency Action Plan
EC	Environmental Compliance
EDU	Equivalent Dwelling Unit
ELAP	Environmental Laboratory Accreditation Program
ESRI	Environmental Systems Research Institute
FOG	Fats, Oils and Grease
FSE	Food Service Establishment
GFOA	Government Finance Officers Association
GHS	Globally Harmonized System
GIS	Geographical Information System
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCS	Hazardous Communication Standard
I/I or I&I	Inflow & Infiltration
IIMM	International Infrastructure Management Manual
LRO	Legally Responsible Officer
MGD	Million Gallons per Day
MSDS	Material Safety Data Sheet
NACWA	National Association of Clean Water Agencies
NASSCO	National Association of Sewer Service Companies
NOV	Notice of Violation
NPDES	National Pollution Discharge Elimination System
O&M	Operations & Maintenance
PIPES	Public Incentive Program for Efficiency of Sewers
PM	Preventive Maintenance

PPE	Personal Protective Equipment
RWQCB	Regional Water Quality Control Board
SCBA	Self-Contained Breathing Apparatus
SDLF	Special District Leadership Foundation
SERP	Spill Emergency Response Plan
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
UPC	Uniform Plumbing Code
WCW	West County Wastewater
WDR	(General) Waste Discharge Requirements
WEF	Water Environment Federation
WEFTEC	Water Environment Federation Technical Exhibition & Conference
WQRRP	Water Quality & Resource Recovery Plant

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List of Terms

Blockage – An object that partially or completely impedes flow through a sewer pipeline. The blockage can be caused by debris, grease buildup, root intrusion, partial collapse or full collapse of the pipeline. A blockage is also known as a stoppage.

Capital Improvement Program (CIP) – A program that identifies and prioritizes system deficiencies and implements short-term and long-term rehabilitation actions to address each deficiency.

California Association of Sanitation Agencies (CASA) - A non-profit, statewide association representing public agencies that provide wastewater collection, treatment, disposal, and/or water reclamation services to California agencies. The organization's website can be accessed through this link: http://www.casaweb.org.

California Integrated Water Quality System (CIWQS) – A computer system used by the State Water Resources Control Board to track information about SSOs, and other related information. CIWQS is the tool used for online submittal of SSO details, which are made available to the public at a later time. The website can be accessed through this link: http://www.swrcb.ca.gov/ciwqs/.

California Water Environment Association (CWEA) – The statewide association of wastewater professionals that trains and certifies wastewater professionals, disseminates technical information and promotes policies to protect and enhance the environment. The organization's website can be accessed through this link: http://www.cwea.org.

FOG Control Program – A program implemented at the discretion of WCW, based on SSOs caused by FOG discharge into the sewer system. The primary goals of the program are: 1. Elimination of FOG discharge into the sewer system and 2. Elimination of SSOs caused by the discharge of FOG into the sewer system.

Geographical Information System (GIS) – A system that creates, manages, analyzes, and maps various types of data. Data is stored in a database and visualized in web-based applications.

Infiltration – The seepage of groundwater into a sewer system, including service connections. Seepage frequently occurs through defective or cracked pipes, pipe joints, connections or manhole walls and joints.

Inflow – The discharged rainfall or storm water which enters into a sewer system through roof leaders, cellars, yard and area drains, foundation drains, cross connections from the storm system or street wash waters or through holes in manhole covers. Inflow differs from infiltration in that it is a direct discharge into the sewer rather than a leak through defects in the sewer.

Lateral or Private Lateral – The privately-owned sewer pipeline that conveys wastewater from a user's structure into WCW's sewer system. The upper lateral extends from the building to the property line (or easement line). The lower lateral extends from the property or easement line to the connection to the main. The property is owner is responsible for obtaining sewer lateral compliance and maintenance of the entire sewer lateral (upper lateral and lower lateral or from the cleanout nearest to the house up to and including the connection to WCW's sewer system.

Master Plan – The 2014 Master Plan is a comprehensive plan for all WCW assets, including the collection system, the WQRRP, and other WCW Facilities. The planning period for the Collection System Master Plan is twenty (20) years, ending in 2032.

Monitoring and Reporting Program - The program used by WCW to monitor, maintain records, report issues and provide necessary notification to the public.

Public Incentive Program for Efficiency of Sewers (PIPES) – The PIPES Program is intended to reduce the number of SSOs that send raw sewage directly into nearby creeks or storm drains that eventually discharge pollution into San Francisco Bay. It is offered to eligible property owners located within the boundaries of WCW to help defray a portion of the cost of partially or completely replacing pre-approved defective sewer laterals. The PIPES Program Guide can be accessed here: https://www.wcwd.org/wp-content/uploads/2023/05/PIPES-Program-Guide-rev-05-04-2023_comb-4-Fillable_May2023.pdf.

Preventive Maintenance – The practice of completing regularly scheduled servicing of machinery, infrastructure and/or other equipment, using appropriate tools, tests, and lubricants.

Rainfall Dependent Infiltration and Inflow (RDI I/I) – The infiltration and inflow that is directly attributed to rainfall.

Sanitary Sewer Overflow (SSO) – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system, including overflows or releases that reach waters of the United States, overflows or releases that do not reach waters of the United States, and backups into buildings and/or private property caused by conditions within the publicly owned portion of the sewer system.

Sanitary Sewer System – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant (WWTP) headworks used to collect and convey wastewater to the WWTP.

Sewer System Management Plan (SSMP) – A series of documented programs that specifies means and methods a collection system owner/operator utilizes to conduct daily business. Each SSMP is unique for an individual discharger. The plan includes provisions to provide proper and efficient management, operation, and maintenance of the sanitary sewer system, while taking risk management and cost benefit into consideration.

Spill Emergency Response Plan (SERP) – This document identifies measures that are needed to respond to SSOs in a way that maximizes the protection of public health and the environment.

State Water Resources Control Board (SWRCB) – Also known as the State Board. This agency developed and passed the Statewide Waste Discharge Requirements for collection systems and maintains the SSO reporting web site.

Statewide Waste Discharge Requirements – The Statewide General Waste Discharge Requirements for Sanitary Sewer Systems was adopted by the SWRCB to provide a structure and guidance for SSMP development as well as other discharge requirements.

Pertinent orders are shown below:

- Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements
- Order No. R2-2019-0017 – Nutrient Discharges
- Order No. R2-2019-0003 – Waste Discharge Requirements
- Order No. R2-2017-0042 – Amendment of Waste Discharge Requirements
- Order No. R2-2017-0041 – Waste Discharge Requirements for Hg and PCB Discharges to SF Bay
- Order No. R2-2016-0008 – Alternate Monitoring and Reporting Requirements
- Order No. WQ 2013-0058-EXEC – Statewide Waste Discharge Requirements
- Order No. 2006-0003-DWQ – Statewide Waste Discharge Requirements

Stoppage – See Blockage.

Strategic Plan – The Strategic Plan includes the organizational vision, mission, core values, strategic goals and objectives. The Strategic Plan can be accessed here: https://www.wcwd.org/wp-content/uploads/2023/06/WCW-FY-2023-STRATEGIC-PLAN-UPDATE.23-060.pdf.

System Evaluation and Capacity Assurance Plan – A required component of an agency's SSMP that provides hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event.

Wastewater Collection System – See Sanitary Sewer System.

Wastewater Treatment Plant (WWTP) – A facility utilized as the final collection and treatment point of wastewater under the owner's jurisdiction.

Water Quality & Resource Recovery Plant (WQRRP) – The facility utilized as the final collection and treatment point of wastewater for West County Wastewater's customers.

West County Wastewater (WCW) – The organization formed in 1921, as a Special District, which is responsible for the collection and treatment of wastewater from unincorporated areas of El Sobrante, a portion of the City of Richmond, the City of San Pablo and a portion of the City of Pinole. WCW's boundary map (Figure 1), can be found on page ES-3.

List of Positions

"Secretary to the District/District Clerk" – Provides information updates to the Board and arranges for emergency meetings, if necessary.

"Capital Portfolio Manager" – Oversees the delivery of projects within WCW's boundaries.

"Collection System Manager" – Manages field O&M activities, provides relevant information to agency management, prepares and implements contingency plans, leads emergency responses, investigates and reports SSOs, and trains field crews.

"Director of Infrastructure and Planning" – Prepares wastewater collection system planning documents; manages capital improvement delivery system, documents new and rehabilitated assets, and coordinates the development and implementation of the SSMP.

"Environmental Services Manager" – Works on applicable permits, laws, and regulations.

"Field Crews" – Performs preventive maintenance activities, mobilizes and responds to notification of stoppages and SSOs (mobilizes sewer cleaning equipment, by-pass pumping equipment, and portable generators).

"General Manager" – Establishes policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as a public information officer.

"Inspector" – Ensures that new and rehabilitated assets meet agency standards, works with field crews to handle contractor-caused emergencies, and provides verbal reports to the Collection System Manager.

"Laboratory Manager" – Assigns staff to perform SSO and WQRRP sample analyses.

"Maintenance Manager" – Assigns staff to maintain WQRRP equipment and lift stations.

The CSO division provides routine and emergency support for equipment and vehicles. This division also provides maintenance, repair, SSO reporting and SSO response services. This division is also responsible for scheduling maintenance based on several factors including, but not limited to capacity, grease, offset and root-related issues.

The Planning & Support Services division handles permit issuance, sewer inspections, plan reviews and fee assessment for new development and sewer projects affecting existing sewer lines. This division is also responsible for maintaining GIS data and providing access to the data on a map.

The Capital Portfolio division handles the design and construction of capital projects related to collection system capacity upgrades, extensions and repairs.

The Environmental Programs (EP) division is significantly involved in mitigating FOG and

FOG-related issues.

The LRO is responsible for certifying all reports required by the SWRCB Order No. 2006-003 and all subsequent amendments including the most recent amendment [Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements (effective June 5, 2023)].

The Collection System Manager is the authorized representative for reporting SSOs to the SWRCB and other agencies, as applicable.

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Executive Summary

Background

The updated document, WCW's SSMP has been prepared pursuant to the SWRCB's document titled "A Guide for Developing and Updating of Sewer System Management Plans (SSMPs)" (September 2015). All components of the SSMP are currently in place, in well-established programs.

The SSMP describes WCW's goals, organizational structure, SERP, FOG Control Program, legal authority, O&M program, design and construction standards, capacity management, SSO monitoring, measurement and program modifications, and audits.

This document describes how WCW manages and maintains its physical collection system assets and provides roughly 102,000 customers with sanitary sewer service.

Formed in 1921 in Contra Costa County, California, WCW is an independent Special District as it is not financially responsible for any other governmental entity nor is it a component unit of another governmental entity. WCW operates a 258-mile network of collection system piping (252 miles of gravity sewer mains and 6 miles of force mains), and a treatment plant that processes 6.9 MGD ADWF.

WCW is responsible for the collection and treatment of wastewater from unincorporated areas of El Sobrante, portions of the City of Pinole and the City of Richmond, as well as the entire City of San Pablo.

The Master Plan, as well as the biennially-renewed CIP and associated Budget contain descriptions of upcoming collection system improvement projects. The impact of land use changes, population growth, regulatory changes, revenue forecasts, and information about sewer mains and pump stations are considered during the preparation of the documents.

The Strategic Plan includes the organizational vision, mission, core values, strategic goals and objectives and it can be accessed here:
https://www.wcwd.org/wp-content/uploads/2023/06/WCW-FY-2023-STRATEGIC-PLAN-UPDATE.23-060.pdf

WCW uses databases to track inspection, maintenance and other data sets. WCW's comprehensive digital mapping software is called "GIS". The software allows staff to access detailed information online, via WCW's intranet. Field crews currently have access to static collection system maps, in the field, through the use of WCW devices. In the future, field crews will have access to GIS by utilizing their smartphones.

WCW also employs substantial computing power through the use of InfoSWMM, created

by Innovyze (formerly MWH soft). InfoSWMM is a dynamic, geospatial wastewater and storm water modeling and management software application. Planning & Support Services staff use the modeling results and other reports to update the CIP. WCW has an excellent track record regarding the prevention of SSOs, as a result of our scheduled sewer facility cleaning, routine inspections, and careful planning. Some SSOs are unavoidable, such as those related to vandalism. All overflows are reported through CIWQS. WCW has developed an SERP to efficiently dispatch crews to SSO sites, and ensure workers are trained to contain SSOs, while restoring collection system functionality.

The EP division provides outreach materials to customers, to educate them about proper grease disposal. Additionally, there is a grease pretreatment program for FSEs and other sources, designed to minimize the amount of FOG introduced into the collection system.

WCW enforces the use of grease pretreatment devices and other connection requirements through the plan check and permit issuance process. Pretreatment device use, installation and design are described in details G-4 and G-4A of WCW's Standard Details. The EP division completes annual inspections of FSEs, in order to minimize FOG-related deficiencies within the collection system.

WCW's goal is to continue to improve upon its successful management of the sewer system, which will continue the trend of reduced numbers of SSOs.

WCW Service Area

WCW currently provides wastewater collection and treatment service to approximately 102,000 residents within unincorporated areas of El Sobrante, a portion of the City of Richmond, the City of San Pablo and a portion of the City of Pinole. WCW's collection system service area encompasses a total area of 16.9 square miles and is shown on Figure 1, on page ES-3.

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Figure 1: WCW Service Area

WCW collects and treats wastewater of the following service types (commercial, industrial and residential).

WCW conveys all flows to its WQRRP, located at 2377 Garden Tract Road, Richmond, California, 94801.

Objectives

The objectives of the SSMP are to accomplish the following:

1. Establish and maintain goals that align with WCW collection system operation, management and capacity assurance activities in a manner that achieves the goals stated in Element 1.

2. Comply with the RWQCB SSMP Development Guidelines and Statewide WDR.

Element 1. Goals

WCW's Board of Directors, management and staff have worked together to develop the goals of the SSMP. The Strategic Plan plays an instrumental role in developing the pertinent goals.

Our SSMP-related goals are as follows:

- Responsibly manage, operate, and maintain all parts of the wastewater collection system and adhere to the components of the SSMP
- Provide adequate capacity to convey design peak flows
- Minimize the frequency of SSOs
- Mitigate the impact of SSOs

[END OF ELEMENT 1]

Element 2. Organization

The organization chart for WCW is shown as Figure 2, on page 2-5. The roles of the key staff involved with implementing the SSMP are described below:

"Secretary to the District/District Clerk" – Provides information updates to the Board and arranges for emergency meetings, if necessary.

"Capital Portfolio Manager" – Oversees the delivery of projects within WCW boundaries.

"Collection System Manager" – Manages field O&M activities, provides relevant information to agency management, prepares and implements contingency plans, leads emergency responses, investigates and reports SSOs, and trains field crews.

"Director of Infrastructure & Planning" – Prepares wastewater collection system planning documents; manages capital improvement delivery system, documents new and rehabilitated assets, and coordinates the development and implementation of the SSMP.

"Environmental Services Manager" – Works on applicable permits, laws, and regulations.

"Field Crews" – Performs preventive maintenance activities, mobilizes and responds to notification of stoppages and SSOs (mobilizes sewer cleaning equipment, by-pass pumping equipment, and portable generators).

"General Manager" – Establishes policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as a public information officer.

"Inspector" – Ensures that new and rehabilitated assets meet agency standards, works with field crews to handle contractor-caused emergencies, and provides verbal reports to the Collection System Manager.

"Laboratory Manager" – Assigns staff to perform SSO and WQRRP sample analyses.

"Maintenance Manager" – Assigns staff to maintain WQRRP equipment and lift stations.

The CSO division provides routine and emergency support for equipment and vehicles. This division also provides maintenance, repair, SSO reporting and SSO response services.

The Planning & Support Services division handles permit issuance, sewer inspections, plan reviews and fee assessment for new development and sewer projects affecting existing sewer lines. This division is also responsible for maintenance scheduling and mapping WCW's collection system.

The Capital Portfolio division handles the design and construction of capital projects related to collection system capacity upgrades, extensions and repairs.

The EP division is significantly involved in mitigating FOG and FOG-related issues.

The LRO is responsible for certifying all reports required by the SWRCB Order No. 2006-003 and all subsequent amendments including the most recent amendment [Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements (effective June 5, 2023)]. The Collection System Manager is the authorized representative for reporting SSOs to the SWRCB and other agencies, as applicable.

SSMP Implementation

The four (4) divisions most involved in implementing the SSMP are Capital Projects, CSO, Planning & Support Services and EC. Three (3) of the four (4) divisions (Capital Portfolio, CSO and Planning & Support Services) combine to form the Infrastructure and Planning department.

The CSO division focuses on the day-to-day tasks such as cleaning, inspecting, maintaining and repairing sewer mains, as well as responding to and reporting SSOs.

The Capital Projects and Planning & Support Services divisions are in charge of enforcing WCW's standards and mapping.

The EP division is responsible for providing public outreach and conducting annual inspections of FSEs.

All four (4) divisions are responsible for meeting the long-term needs of the collection system, such as capacity and preventive maintenance planning.

SSMP Updating

The Planning & Support Services and Capital Portfolio divisions are responsible for updating the SSMP and ensuring SSMP-related deadlines are met. Although, the Planning & Support Services and Capital Portfolio divisions are responsible for the overall SSMP, other divisions are responsible for updating documents within their area of expertise. For example, the CSO division is responsible for updating the SERP and the EP division is responsible for updating the FOG control program documents.

SSO Notification Process and Chain of Communication

The CSO division is responsible for responding to SSOs and reporting them in accordance with State requirements. Over the years, the CSO division has developed and maintained an SERP to denote WCW's procedures and staff responsibilities.

Key elements of the plans include:

1. SSO notification chain of command
2. First responder responsibilities
3. Documentation requirements
4. SSO tracking
5. State reporting requirements

6. Contact phone numbers

WCW has participated in the online reporting process, as required by the SWRCB, as part of the formal required process. The document describing the requirements can be accessed from the SWRCSB's website. All SSOs are tracked in a database that is administered by the CSO division.

WCW has developed contact numbers for collection system issues, such as illegal discharges, odor complaints and SSOs that may be associated with the sewer system. Any individual may report a problem to WCW by calling 510-222-6700. WCW staff answers phone calls from 08:00 AM to 05:00 PM, Mondays through Fridays. Staff contact information is also available on-line, at: www.wcwd.org. Outside of the previously mentioned business hours, customers are directed to call an emergency phone number (510-222-6799), to report sewer-related emergencies.

Individuals may report sewer lateral deficiency findings directly to the Planning & Support Services division as well. When the information is reported to Planning & Support Services, staff notes the affected property address and sends a letter to the property owner [with a cc to the appropriate external contact (City of Richmond code officer, Contra Costa County Environmental Health inspector, etc.)]. The letter notifies the property owner(s) of the situation and directs them to submit a sewer lateral video inspection, purchase a WCW sewer repair permit, and complete the required repair or replacement (construction).

Staff Directory for SSMP Implementation

Position / Title	Phone Number	Division/Dept.
Capital Portfolio Manager	(O) 510-662-3635 (M) 510-778-0491	Capital Portfolio
Collection System Manager	(O) 510-662-3617 (M) 510-812-9988	CSO
Director of Infrastructure and Planning	(O) 510-662-3631 (M) 510-680-0707	Infrastructure & Planning
Environmental Services Manager	(O) 510-837-6230 (M) 510-812-8274	EC
Laboratory Manager	(O) 510-837-6232 (M) 510-812-4744	Laboratory
General Manager	(O) 510-662-3612 (M) 510-778-0562	Administrative Services
WQRRP Maintenance Manager	(O) 510-837-6224 (M) 510-685-5760	Maintenance
WQRRP Operations Manager (Day Shift)	(O) 510-837-6226 (M) 510-812-9589	Operations
WQRRP Operations Manager (Night Shift)	(O) 510-837-6226 (M) 510-390-1722	Operations

Director of Water Quality and Resource Recovery	(O) 510-837-6223 (M) 510-812-9586	WQRRP

Table 1: Staff Directory for SSMP Implementation

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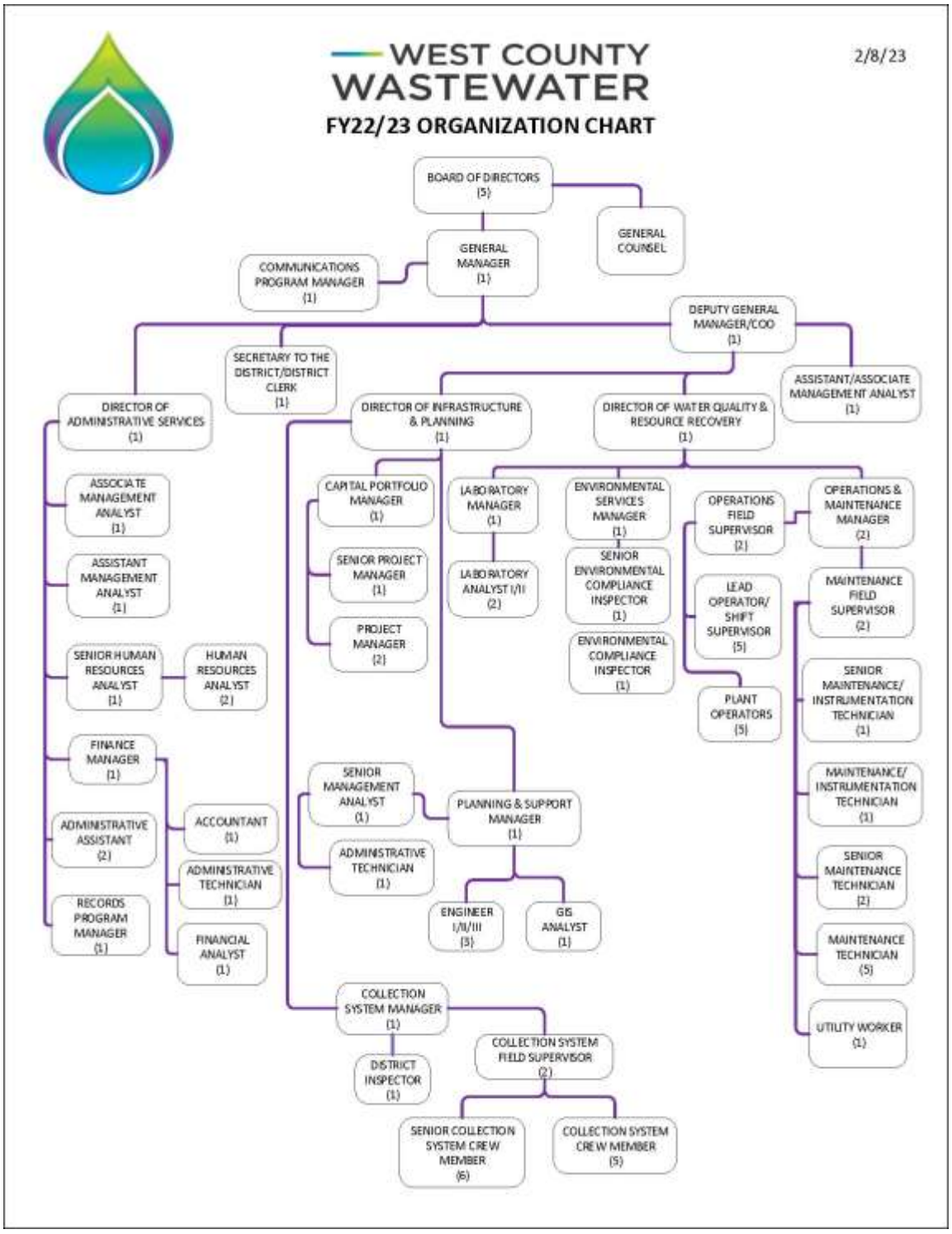

Figure 2: WCW Organization Chart

[END OF ELEMENT 2]

Element 3. SERP

WCW's collection system is a sanitary sewer system that is separate from the regional storm water conveyance system. It is not a system which handles the combination of sanitary sewage and storm water.

WCW makes every effort to prevent and mitigate overflows and blockages. Two types of emergency plans are maintained and utilized to reduce the risk and consequences of such occurrences. WCW's current SERP incorporates all current procedures. The plan deals primarily with SSOs located in gravity segments of the collection system network. Separate emergency response plans have been developed for the individual pump stations.

Each response plan specifies best practices for containment, mitigation, clean-up, notification, and reporting of a spill. WCW maintains an internal database of all SSOs to track system performance. As of September 28, 2007, WCW began reporting SSOs to the State's electronic reporting system, as required by previous SWRCB Order No. 2006-0003. WCW will continue with this practice per the most recent amendment [Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements (effective June 5, 2023)].

Individual Pump Station Emergency Response Plans

As previously mentioned, each pump station has a customized emergency response plan to accommodate the presence of specific engines, fuels, chemicals, electrical equipment and high flows of wastewater. Each individual pump station emergency response plan is similar to the SERP. The only difference is that each individual pump station emergency response plan has additional sections to cover topics such as personnel evacuation, first aid, fire and the specific equipment at the specific station.

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SSO & Backup Response Plan

An SSO & Backup Response Plan has been developed for the collection system to minimize the impact of SSOs. This document is maintained by the CSO division and consists of the following components:

- Purpose
- Policy
- Definitions as used in the SERP
- Regulatory Requirements for SERP Element of SSMP
- Goals
- SSO Detection
- SSO Response Procedures
- Water Quality
- Recovery and Cleanup
- Public Notification
- Failure Analysis Investigation
- Post SSO Event Debriefing
- Notification, Reporting, Monitoring and Recordkeeping Requirements
- Compliant Records
- Equipment
- SSO Response Training
- Authority
- Contractor Orientation
- Vendor Contact Information

Notification and Initial Response

Within Business Hours

During working hours, customers call 510-222-6700 to report SSOs. The Administration division gathers the pertinent SSO and customer information to make a service call log entry and report the SSO to the Collection System Manager. Upon receiving the call, the Collection System Manager gathers a service call crew and dispatches them to the SSO site.

Outside of Business Hours

In the event of after-hour, weekend or holiday SSOs, customers are directed to call an emergency response number (510-222-6799) through the message associated with WCW's primary phone number [(510-222-6700)]. The emergency response number contact calls the designated service call team that follows procedures detailed in WCW's SERP. The procedures were developed in cooperation with the assistance of DKF Solutions [(707) 373-9709] and cover the containment, clean-up, and reporting of SSOs.

Field Response

The dispatched field crew arrives on scene and determines the appropriate course of action. The crew must determine the most likely cause of the SSO and notify the responsible party. The crew makes every effort to contain the SSO, reduce any damage, restore collection system functionality, and document the event, including regulatory requirements. The crew uses cones and signs to prevent the public from coming in contact with sewage. In the event of a large SSO, local municipal employees, such as police and fire department employees, can assist WCW with preventing the public from coming in contact with sewage.

First Responder Priorities

The first responder's priorities are:

- To follow safe work practices.
- To respond promptly with the appropriate and necessary equipment.
- To contain the spill wherever feasible.
- To restore the flow as soon as practicable.
- To minimize public access to and/or contact with the spilled sewage.
- To promptly notify the Collection System Manager in event of a Category 1 or Category 2 SSO.
- To return the spilled sewage to the sewer system.
- To restore the area to its original condition (or as close as possible).

Emergency Response Training

The most important part of the SERP is the presence of skilled and knowledgeable workers. CSO employees receive initial and periodic refresher training in emergency response skills. All CSO personnel who may have a role in responding to, reporting, and/or mitigating an SSO should receive training on the contents of this SERP. Current CSO employees receive annual refresher training on this plan, as well as the procedures to be followed.

Reporting Overflow Data

In accordance with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, WCW maintains records for each SSO. The records include:

- Documentation of response steps and/or remedial actions
- Photographic evidence to document the extent of the SSO, field crew response operations, and site conditions after field crew SSO response operations have been completed. The date, time, location, and direction of photographs taken will be documented.
- Documentation of discharge and recovery calculation methods (volume).
- Documentation of discharge and recovery volume.

For reporting purposes, an SSO event of any category resulting in multiple appearance points in a sewer system requires an SSO report in CIWQS that includes:

- The GPS coordinates for the location of the SSO appearance point closest to the failure point.
- The blockage or location of the flow condition that caused the SSO.
- The descriptions of the locations of all other discharge points associated with the single SSO event.

[END OF ELEMENT 3]

Element 4. FOG Control Program

Discharges from FSEs and residential sites are potential sources for causing grease-related SSOs and blockages of WCW's facilities. To address SSOs caused by the discharge of FOG, WCW has established a FOG program.

Public Outreach

WCW's ongoing program educates the public on how to properly manage and dispose of FOG, in order to reduce SSOs. This outreach is implemented using various methods and media for both commercial and residential sectors.

FOG Disposal

WCW requires that FOG generated by commercial facilities is disposed of by a licensed and permitted waste hauler. Residential customers are encouraged to properly dispose of used cooking oil at the Household Hazardous Waste Collection facility, and other types of FOG in the trash.

Legal Authority

WCW's Wastewater Discharge Ordinance No. 2023-03 provides the legal authority to prohibit any discharge that causes or threatens to cause obstruction of flow to WCW's facilities. This Ordinance also provides WCW with the authority to require pretreatment, perform inspections and sampling, issue enforcement and impose penalties. In addition, a section of the Ordinance specifically addresses requirements for non-domestic users to install, maintain and properly operate grease removal devices.

Title 3 (Sewage and Discharge Regulations) of WCW's Code contains the following relevant sections.

3.45.060 Assessment of charges for obstructing or damage to district facilities or operations.
When a person's discharge, whether due to negligence, accident, spill or otherwise, causes an obstruction, damage or any other impairment to WCW's operation or facilities, WCW may impose a charge on the person for the cost to clean or repair the facility, or costs incurred to resume normal operations. An administrative service fee of 25 percent of WCW's costs may be added to these charges. The total amount shall be paid within 45 days of invoicing by WCW. If it can be shown that that person's discharge caused or significantly contributed to WCW violating its discharge requirements or incurring additional expenses or suffering loss or damage to the operation or facilities, then that person shall be responsible for any costs or expenses, or a prorated portion of such expenses, including assessments or penalties imposed by other agencies or the court on WCW. [Ord. 2023-03 § 9.060]

3.55.010 Interceptors required.
All nondomestic users shall be required to install and maintain a grease control device as directed by WCW when the general manager finds that it is necessary for the proper handling of FOG. A grease control device is not required for a building used

solely for residential purposes as long as there exists no common food preparation facility in such building. A grease control device shall be installed when the wastewater flow from the building is anticipated to contain FOG in amounts or concentrations, which in the discretion of WCW present the possibility of causing or contributing to the fouling of, the blockage of, or other damage to WCW facilities. [Ord. 2023-03 § 11.010]

3.55.020 Food service establishments.

All food service establishments (FSEs) shall properly install, operate, repair and maintain grease control devices. All FSEs connected to WCW facilities prior to the effective date of the ordinance codified in this section shall upgrade to a properly sized and installed grease control device if after two inspections the WCW general manager determines that the FSE is not complying with the WCW operation, repair and maintenance requirements or if the WCW general manager determines, in the WCW general manager's discretion, that the existing grease control device is or is likely to be ineffective at preventing the discharge of FOG or other harmful constituents into WCW facilities. [Ord. 2023-03 § 11.020]

3.55.030 Administration of FOG control program.

WCW will administer a FOG program which is intended to use grease control devices to prevent FOG from entering WCW facilities. WCW may require any FSE to install a grease control device according to applicable provisions of the WCW code prior to connection to WCW or at any time after connection to WCW if WCW discovers or determines subsequent to the connection that the building, facility, or operation of that user produces a waste with characteristics that would warrant or require installation of a grease control device pursuant to this chapter. The installation of a proper grease control device shall be the responsibility of the parcel owner and the entity which applies for, makes or uses the connection to WCW facilities or for an industrial user permit, and the owner/proprietor of the business or entity whose operations cause or contribute to the necessity for a grease control device. WCW will determine, in its discretion, whether a grease control device is required on a case-by-case basis based on an evaluation of objective criteria including but not limited to factors such as those listed hereunder:

A. The type of facility (a restaurant, cafe, bar, bakery, cheese factory, catering service, institutional kitchen, etc.).

B. The volume of the user's business or operation (such as drainage fixture units, menu type, number of servings per day, etc.).

C. Size and nature of facilities (including kitchen facilities) based on type and size of facility, number and size of fixtures, and type of cooking or processing equipment used.

D. The type of service provided or operation undertaken (such as dine-in meal service versus carry-out meal service).

E. The type of foods or other materials used in the cooking, processing or manufacturing operations carried on within the user's facility.

F. The overall potential for FOG discharges.

G. The existence of devices, procedures or processes which are designed to minimize the amount of FOG from entering the sewer system.

The design, size, location and procedures for operation of a grease control device shall be approved by WCW and conform to the requirements set forth in the Uniform Plumbing Code and this chapter. Such approval shall be obtained prior to the user's connection of the facility to WCW facilities in the event of new construction or remodeling. The size of the grease control device shall be established by WCW. Grease control devices must be located to be easily accessible for cleaning and inspection. If a user has already connected to WCW facilities and WCW determines that a grease control device must be installed, the user shall cause a grease control device to be installed within the time established by WCW which in any case shall not exceed 100 days after the user has been notified that a grease control device must be installed. [Ord. 2023-03 § 11.030]

3.55.040 Grease control device maintenance procedures and program.

A. Not less frequently than once every two calendar years, WCW will inspect FSEs for compliance with this chapter and all other applicable laws, rules, regulations and ordinances that regulate installation and maintenance of grease control devices. Any FSE found to be in violation of this chapter or any other applicable laws, rules, regulations and ordinances that regulate installation and maintenance of grease control devices and all FSEs in an area experiencing SSOs (sanitary sewer overflows) caused by FOG shall be inspected not less frequently than once each calendar year.

B. Any user of a grease control device connected to WCW facilities shall operate, maintain, repair and/or replace the grease control device and keep it in proper working order at all times. Grease control devices shall be cleaned by a licensed and permitted waste hauler on a periodic basis to assure that the grease control device will operate as designed at all times. Cleaning frequencies will be determined by WCW on a case-by-case basis. Generally, the minimum cleaning frequency of any grease control device shall be whenever the combined layer of settled solids and the layer of floating solids in the grease control device reaches 25 percent of the design hydraulic depth of the grease control device. Grease traps may require more frequent maintenance to stay below the 25 percent limit. Other types of grease control devices that do not use gravity separation for solids removal shall be maintained based on inspection and sampling data collected by WCW.

C. Cleaning of a grease control device shall be such that contents are totally removed including any solids stuck to the inside walls of the device. The only acceptable means of cleaning a grease control device shall be to pump out all of the contents for disposal by a licensed contractor. Grease traps may be cleaned by the FSE operator; provided, that the contents of the trap are completely removed and stored in a secured container before being picked up and hauled off site by a licensed contractor. The storage and disposal of collected FOG waste shall comply with all applicable laws and regulations. The use of chemicals, enzymes, grease solvents or emulsifiers to temporarily dissolve fats, oils and grease in lieu of physical cleaning is not acceptable grease control device maintenance and is prohibited.

D. Maintenance records shall be kept by the FSE operator for no less than three years. Such records must document each maintenance, repair, cleaning or replacement of all or any part of a grease control device. Such documentation shall include, but not be limited to, receipts for cleaning and repair jobs performed, and cleaning and repair logs with date of service, type of service, name of company and employee performing the service, the signature of the company representative and employee providing the service, and the volume, disposal method and destination of the solids removed.

E. Any user who is required to install or have in operation a grease control device pursuant to this chapter or otherwise shall implement BMPs for their facility which are intended to ensure that the grease control device operates as designed to prevent FOG or other harmful constituents from entering WCW facilities. Such BMPs may include adoption of kitchen practices to minimize the grease-laden garbage which ultimately enters the facility's drains and floor traps and/or other such procedures as may be required for the proper operation of the grease control device.

F. No wastewater other than those from kitchen fixtures or food processing equipment shall be discharged into grease control devices. [Ord. 2023-03 § 11.040]

3.55.050 Enforcement.

A. Authorized WCW personnel shall be permitted to enter upon all properties, without prior notification, for the purpose of inspection, observation, measurements, sampling, testing or record review in accordance with this chapter and the WCW code.

B. Failure of any user who is required to maintain a grease control device pursuant to this chapter and/or pursuant to lawful WCW direction shall be subject to each of the enforcement provisions set forth in Chapter 3.45 WCWDC in addition to the enforcement mechanisms in this section. The enforcement provisions of this chapter and code shall also apply to the failure to instruct personnel, and maintain, pump and/or institute a proper FOG reduction program.

C. Any user who fails to comply with requirements of this chapter shall be issued a notice of violation. Follow-up inspection/sampling will be conducted until compliance is met. The FSE may be charged an inspection fee for each inspection and follow-up inspection as necessary to achieve compliance, as outlined in the WCW fee schedule. Continued noncompliance may be cause for further enforcement action pursuant to this title. [Ord. 2023-03 § 11.050]

Identification of Maintenance Schedules

The Planning & Support Services and CSO divisions are responsible for identifying areas within the sewer system that are subject to abnormal volumes of grease. Excessive grease areas are addressed by using WCW's maintenance scheduling software (Hansen 8) to increase the scheduled frequency of pipeline cleaning, to minimize blockages. Identifying pipelines with excessive grease buildup is accomplished by tracking blockage history and performing pipeline investigations, including, but not limited to, video inspections.

Source Control

The Planning & Support Services and Collection System Operations divisions identify "problem areas" in the sewer system and report these areas to the EP division. The EP division uses this information to specifically target outreach to potential contributors and implement additional regulatory measures as needed, including, but not limited to, performing inspections and implementing BMPs. Public education and outreach materials will be used to address FOG problems in residential areas.

[END OF ELEMENT 4]

Element 5. Legal Authority

WCW is a Sanitary District which has been organized and currently exists under the Sanitary District Act of 1923 (California Health and Safety Code 6400 et. seq.).

As such, its legal authority refers to powers granted to the wastewater collection system agency to provide services to the public, through sewer use ordinances, service agreements, and other mechanisms. Using this legal authority, WCW requires system users to meet performance standards, maintain user-owned elements of the system, and pay penalties for non-compliance. The existing legal mechanisms that meet the requirements for the SSMP include the following:

- Legal agreements, discharge permits, and ordinances include the proper authority to require system users to comply with standards of design, construction, use, and maintenance.
- The wastewater collection system agency has the authority to ultimately disconnect the user if they fail to comply with the established conditions of use. Other civil or criminal recourse is available to the wastewater collection system agency in cases where deliberate and significant violations of these conditions occur and there is a substantial impact to a receiving water or endangerment of human health.
- Illegal discharges are subject to corrective response action using existing laws prohibiting a type of discharge, regardless of the user type (i.e., commercial, industrial, etc.).
- WCW has enforceable regulations prohibiting downspout, roof drain and/or area drain connections to our sanitary sewer system.
- WCW requires laterals to be equipped with operational backwater overflow devices when a property is sold/transferred or any repair is made to a sewer lateral.

WCW Code

The Code is available on WCW's website, at the link below:
http://www.codepublishing.com/ca/wcwd/

The Code is composed of the following Titles:

- Title 1 -- BOARD OF DIRECTORS
- Title 2 -- PERSONNEL
- Title 3 -- WASTEWATER
- Title 4 -- FEES AND CHARGES
- Title 5 -- INFORMAL BIDDING

WCW uses its Standard Specifications for Design and Construction to describe how to properly install and operate sewer lines within WCW's boundaries. The legal authority for this document is cited from Title 3 of the Code, Section 3.05.090 - Jurisdiction, as applied to WCW:

The jurisdiction of WCW shall include the sewer system and appurtenant connections thereto within its political boundaries or service areas. No portion of this regulation or administration thereof shall be construed to regulate or prescribe standards for the installation of plumbing, with the exception of special sewage disposal-related facilities including, but not limited to, sewage ejectors, backflow protectors, industrial and commercial waste treatment facilities, and oil and grease interceptors within buildings and structures within the boundaries of the West County Wastewater District. [Ord. 2023-03 § 1.090]

Specific Legal Authority

Title 3 Enforcement

In order to achieve compliance, WCW will use a variety of enforcement mechanisms. Available enforcement mechanisms range from informal administrative action to formal criminal prosecution. WCW may, in its discretion, implement the use of any mechanism or the concurrent use of several mechanisms, in order to enforce the provisions of Title 3. The enforcement mechanisms available to WCW for violations of the provisions of Title 3 include the following:

A. Informal administrative action (including NOVs and warning notices).

B. Administrative orders, compliance schedules, and other reports.

C. Imposition of fines and fees for noncompliance with permit requirements.

D. Imposition of penalties for noncompliance with administrative orders.

E. Assessment of charges for obstruction or damage to WCW facilities or operations.

F. Suspension or termination of services.

G. Civil action.

H. Criminal action. [Ord. 2023-003 § 9.010]

Design and Construction of New and Rehabilitated Sewers and Connections

WCW uses Title 3 (Uniform Plumbing Code) of the Code and WCW's Standard Specifications for Design and Construction to ensure that any changes to the collection system are properly designed and constructed. The Ordinance that provides this authority is WCW Ordinance 2023-03.

Installation, Testing, and Inspection of New and Rehabilitated Sewers

Chapter 3.15 (Plumbing Code) of the Code and WCW's Standard Details describe the requirements for installation, testing and inspection of collection system modifications. The Ordinance that creates this authority is WCW Ordinance 2023-03.

General Ordinance Violation Provisions

WCW has been given the authority to enforce provisions of any WCW ordinance and correct any ordinance violations, based on the California Health and Safety Code, Division 6, Part 1, Chapter 4, section 6523.

In order to enforce the provisions of any ordinance of WCW, WCW may correct any violation of an ordinance of WCW. The cost of such correction may be added to any sewer service charge payable by the person violating the ordinance or the owner or tenant of the property upon which the violation occurred, and WCW shall have such remedies for the collection of such costs as it has for the collection of sewer service charges. WCW may also petition the superior court for the issuance of a preliminary or permanent injunction, or both, as may be appropriate, restraining any person from the continued violation of any ordinance of WCW.

This section permits WCW to correct any violation of its ordinances, and add the cost of doing so to the County tax roll, to be collected along with the annual property taxes. It also permits the authority to lien the property, for the cost of correcting the violation.

Infiltration and Inflow from Laterals

All inflow is prohibited as part of Title 3 of the Code. Section 3.30.050J, which prohibits all inflow with the following text:

3.30.050 Prohibited substances or characteristics.
Any storm water, ground water, rainwater, street drainage, subsurface drainage, yard drainage, roof runoff, artesian well water, swimming pool drainage, diatomaceous earth filter backwash, unless a specific permit is issued by WCW. WCW may approve such discharge only when no other reasonable alternative for disposal is available and all other provisions of this chapter are met.

Specific Overflow Enforcement and Prohibitions

WCW has been given the authority to regulate overflows from private laterals, based on the California Health and Safety Code, Division 6, Part 1, Chapter 4, sections 6521 and 6522. Excerpts are below:

6521. It may make and enforce all necessary and proper regulations for:
(a) The removal of garbage.

(b) The cleanliness of the roads and streets of the district.
(c) All other sanitary purposes not in conflict with the laws of this State.

6521.5. Any district may exercise the power granted to sanitation districts by Section 4765 of this code.

6522. It may do any act necessary or proper to the complete exercise and effect of any of its powers, or for the purposes for which it is formed.

6522.1. No regulation or ordinance of a district which regulates or prescribes standards for the installation of plumbing inside of buildings and structures, shall be effective within any county, city and county or city which has adopted an ordinance, regulation, or code incorporated in an ordinance governing such installations.

Any private lateral that causes an overflow in WCW's system is in violation of Sections 3.30.040A-D of the Code. The text of this section is quoted below, which also includes other restrictions. Remedies available to WCW include fines and disconnection and are described in more detail in the enforcement section.

3.30.040 Prohibited discharges.
A user may not discharge, or cause to be discharged, wastewater to the POTW if it contains substances or has characteristics, which, either alone or by interaction with other wastewater, cause or threaten to cause:

A. Damage to the POTW.

B. Interference or impairment of operation or maintenance of the POTW.

C. Obstruction of flow in the POTW.

D. Hazard to human life.

E. Interference with treatment plant or disposal processes.

F. In no case shall substances discharged to the POTW cause the plant to be in noncompliance with federal, state and local laws, rules and regulations pertaining to sludge, biosolids or effluent disposal.

G. Unreasonable interference with recycling and reclamation of wastewater, residues, sludge or scum.

H. WCW to violate its National Pollutant Discharge Elimination System (NPDES) permit or the receiving water quality standards.

I. Flammable or explosive conditions.

J. A noxious or malodorous condition, a public nuisance, a hazard to life, or conditions sufficient to prevent normal entry into the POTW for maintenance and repair.

K. Wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent, thereby violating WCW's NPDES permit.

L. Conditions that violate any statute, rule, regulation, or ordinance of any public agency, relating to releases of hazardous wastes, hazardous substances or other pollutants to the environment when such release is to a publicly owned sanitary sewer.

M. Any alteration or change of WCW's NPDES permit or any additional regulatory supervision, intervention or oversight of WCW's operations.

N. Any alteration of WCW's treatment plant processes.

O. Any significant alteration of WCW operations, including but not limited to affecting the ability of WCW to procure adequate insurance and/or subjecting WCW operations to significantly increased potential liability. [Ord. 2023-03 § 6.040]

3.55.050 Enforcement.

A. Authorized WCW personnel shall be permitted to enter upon all properties, without prior notification, for the purpose of inspection, observation, measurements, sampling, testing or record review in accordance with this chapter and the WCW code.

B. Failure of any user who is required to maintain a grease control device pursuant to this chapter and/or pursuant to lawful WCW direction shall be subject to each of the enforcement provisions set forth in Chapter 3.45 WCWDC in addition to the enforcement mechanisms in this section. The enforcement provisions of this chapter and code shall also apply to the failure to instruct personnel, and maintain, pump and/or institute a proper FOG reduction program.

C. Any user who fails to comply with requirements of this chapter shall be issued a notice of violation. Follow-up inspection/sampling will be conducted until compliance is met. The FSE may be charged an inspection fee for each inspection and follow-up inspection as necessary to achieve compliance, as outlined in the WCW fee schedule. Continued noncompliance may be cause for further enforcement action pursuant to this title. [Ord. 2023-03 § 11.050]

WCW uses the standards established in Title 3 that include Section 3.30.040, or discharge permits to regulate the quantity and quality of discharges from businesses operating in WCW's service area. The standards apply to fixed facilities with permanent connections to WCW's collection system and temporary dischargers (i.e. dewatering from construction projects, mobile service providers, etc.)

[END OF ELEMENT 5]

Element 6. O&M Program

Funding

WCW collects sewer use charges to fund operations and maintenance activities. Sewer use changes are adjusted through rate-setting processes governed by the California Constitution (Article XIIIB).

Every two (2) years, the Board adopts the O&M and CIP budgets.

WCW publishes a Comprehensive Annual Financial Report that is submitted to the CSMFO for independent review. Recent versions of the document are available on WCW's website, at www.wcwd.org.

Resources

WCW has eighty-one (81) approved positions [seventy-six (76) regular full-time employee positions and five (5) publically-elected Directors]. The full-time employee positions are organized in three (3) departments that are led by directors. The directors are responsible for their budgets and expenses, and they report to the Deputy General Manager. The three (3) departments are: Administrative Services, Infrastructure and Planning, and Water Quality and Resource Recovery.

The Administrative Services department provides services to WCW including, but not limited to administrative and human resources services.

The Infrastructure and Planning department is responsible for capital projects to repair or replace sewer system segments. In addition, the department also manages new customer connections and maintains WCW's collection system piping. It includes the Capital Portfolio, CSO and Planning & Support Services divisions.

The Water Quality and Resource Recovery department is responsible for FOG-related public outreach, as well as annual inspections of FSEs and grease removal devices. It includes the EC, Laboratory, Maintenance and Operations divisions.

Budgets

O&M Budget

WCW's O&M budget operates under a fiscal year budget cycle beginning July 1st and ending June 30th. It funds the O&M necessary to keep WCW facilities operating in an efficient manner.

CIP Budget

WCW's CIP budget operates under a fiscal year budget cycle beginning July 1st and ending June 30th. It funds the capital investment needed to maintain the current infrastructure and accommodate new connections.

Collection System Map

WCW uses GIS software to track sewer-related spatial data. The system links many of the disparate geographically-oriented databases used at WCW and presents them to employees. This project links most of WCW's sewer and parcel-related spatial databases:

1. Cathodic Protection Locations
2. Lift Stations
3. Sewer Easements
4. Sewer Nodes (cleanouts, lampholes, manholes and rodding inlets)
5. Sewer Mains (gravity mains and force mains)
6. Mapping and Parcel Information
7. Sewer Maintenance Management System
8. Sewer TV Inspection Program (laterals and mains): inspection reports, photos and videos
9. WCW Sewer System Management Plan

WCW has begun using ArcGIS Enterprise, a system that is deployed in an AWS cloud environment.

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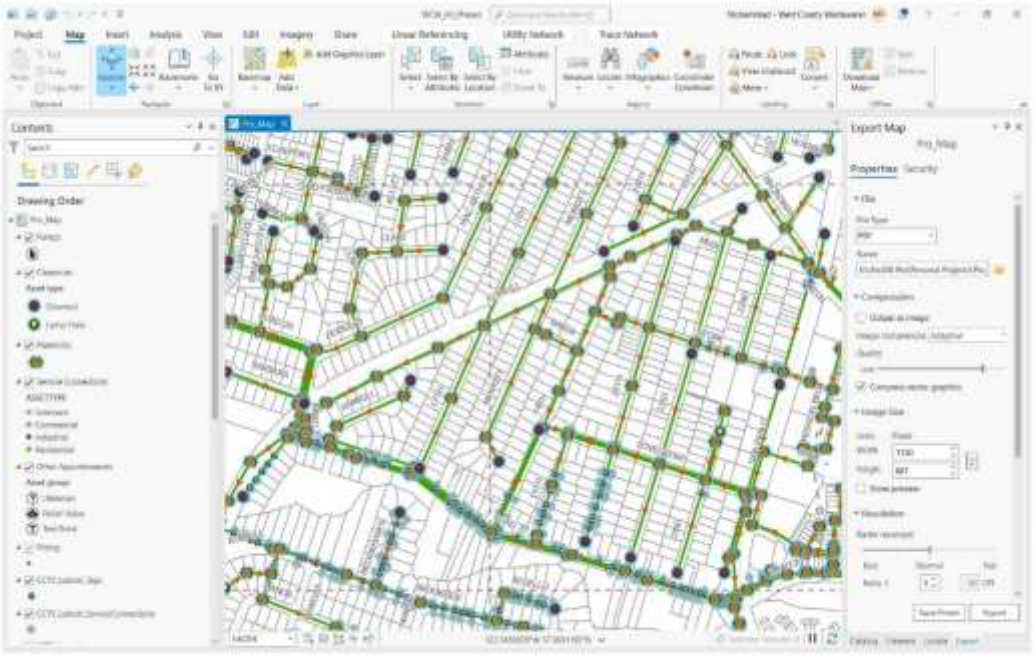

Figure 3: ArcGIS Pro Screen View

A sample ArcGIS Pro screen is shown in Figure 3 (above). The system allows WCW employees to search for WCW assets by identifying fields, such as assessor's parcel numbers, street addresses, pipeline segment IDs, etc., and view them on-line, at appropriate map scales. Additionally, ArcGIS displays the latitudes and longitudes that are required in SSO reporting to the SWRCB. Employees can zoom into a specific site using various graphics tools. The sewer line data is updated when construction project-based as-built drawings are provided. Information changes (i.e. abandoned mains, relocation of mains) are also discovered by CSO employees and reported to the Planning & Support Services division periodically. The information changes are updated in the system regularly. Other GIS layers, such as imagery, street maps, and other agency utilities, are updated as they become available. Pipe segments, manholes, junction structures, pump stations, WCW-owned properties or other fixed assets are indicated on the dynamic map. Employees can double-click on the feature to display maintenance data pipe diameters, and other information, as shown in Figure 4 (see page 6-4). Maintenance information is recorded on paper by service crews, and then entered into the appropriate database. Each feature has a unique identifier that uses WCW's map grid, structure type, and structure number to name the structure. For example, manhole 090919 is located on WCW map 09, within basin 09, as the 19th manhole named in that basin. An advantage of the dynamic interface is that data layers are listed on the left hand side of the screen, and can be turned on and off, as desired. World Imagery, parcel information, streets, and other features can be displayed or turned off to create any employee-preferred map. The map can be printed for offline use.

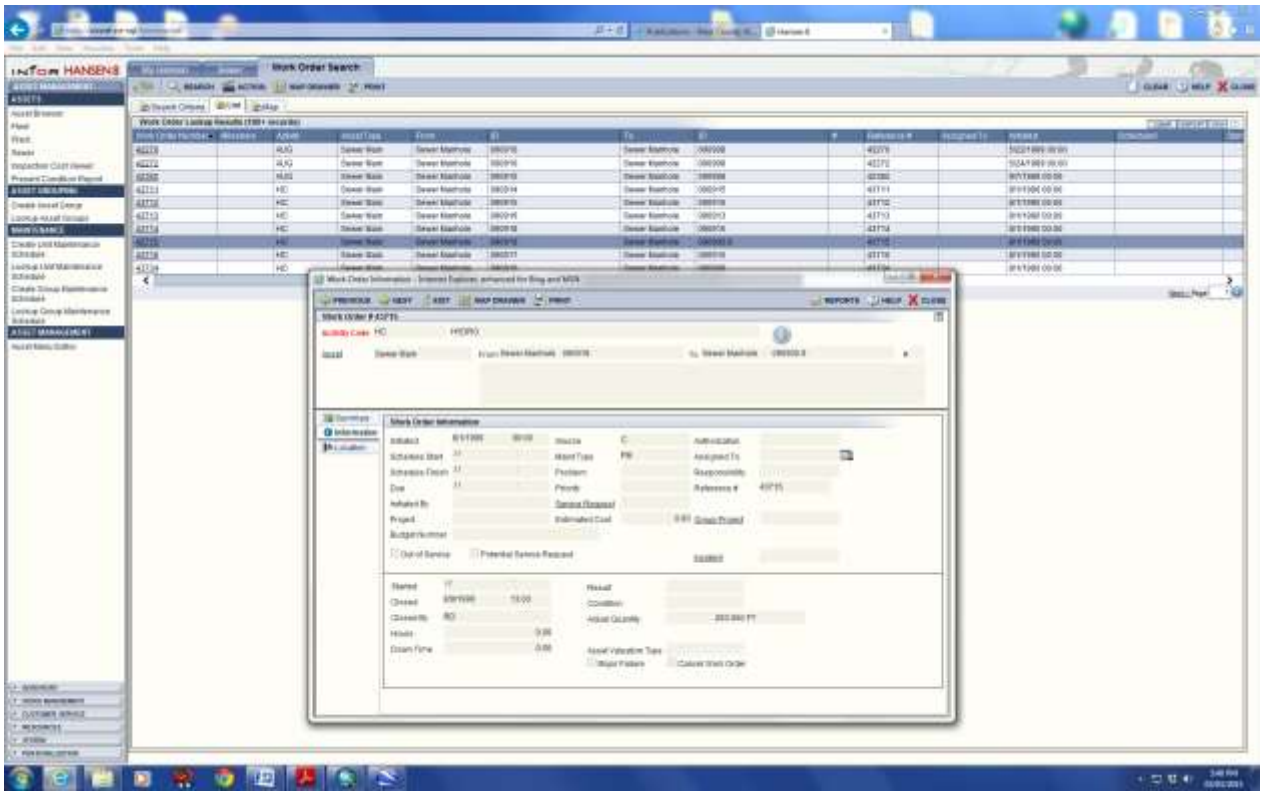

Figure 4: Facility Information Report

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Figure 5 is the same as Figure 3; however, Figure 5 is the ArcGIS screen view with the World Imagery layer turned on.

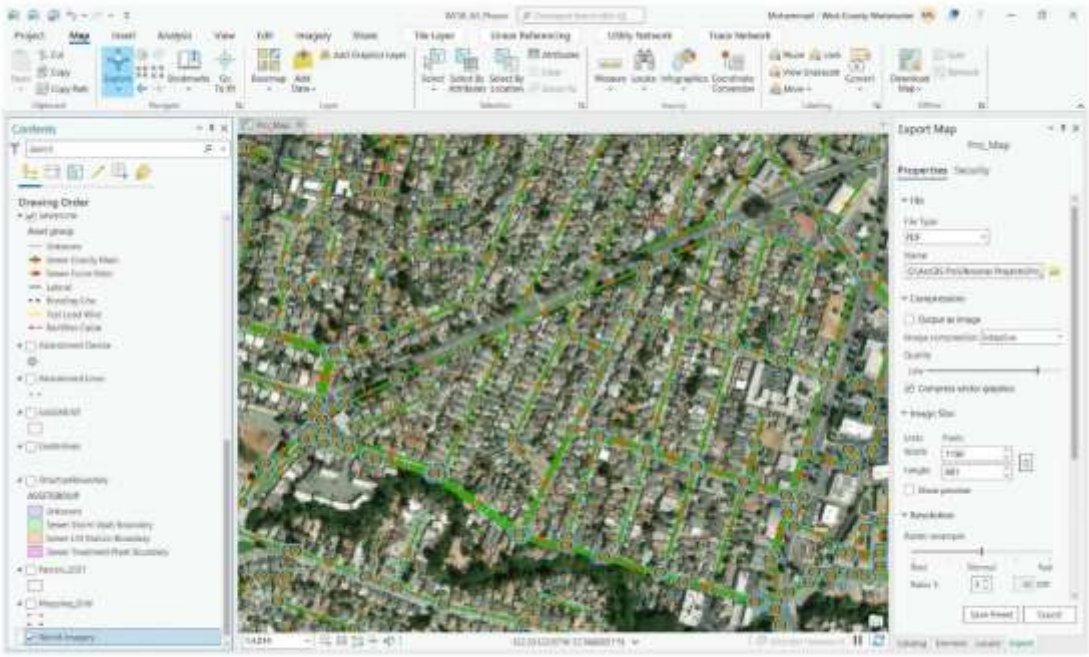

Figure 5: World Imagery Layer Active in ArcGIS Pro

ArcGIS is a product of ESRI, and it is updated as changes are made to WCW's sewer system.

1. General
    a. Unique ID number for each feature.
    b. Location with reference to street, property lines, latitude and longitude, and the California Grid.
    c. Topographic contours.
    d. Other utilities (storm sewer lines).
    e. Other utilities (water lines).
    f. Soils polygons.
    g. City boundaries.
    h. Streams.
    i. Earthquake fault zones and traces.
2. Pipeline related data
    a. TV inspection data.
    b. Size.
    c. Material type.
    d. Depth from rim to invert, if known.
    e. Maintenance data.

f. Flow direction.
g. Slope, if known.
h. Invert and rim elevations, if known.
i. Date constructed.
j. Creek crossings layer and database.
k. Historical overflows; size and date

3. Parcel related data
   a. Owner information.
   b. Map location.
   c. Latitudes and longitudes.
   d. Legal description.
   e. Zoning.
   f. Date built.
   g. Flow and toll zones.

Prioritized Preventive Maintenance

WCW has taken preventive maintenance very seriously. All lines that are twenty-four (24) inches in diameter or less are on cleaning schedules ranging from three (3) to forty-eight (48) month intervals. Lines that are larger than twenty-four (24) inches in diameter are inspected by CSO and the deficiencies are documented and reported. External resources are brought in to resolve the reported maintenance deficiencies within the large lines. The maintenance schedules are predicated on the histories of sewer lines, results of TV inspections and proximity to environmentally-sensitive areas, as well as other factors. Areas with a history of overflows and other issues (i.e. "problem areas") are assigned a more frequent cleaning schedule, in order to prevent SSOs. WCW conducts the cleaning and maintenance of sewer lines with an approach collectively described as "quality cleaning". The most effective tools are identified and selected for various maintenance situations. In addition, SOPs are developed and continually updated.

WCW assets have an average age of approximately fifty (50) years, with some approaching one hundred (100) years of age, as specified in the Master Plan. Keeping all these components in working order requires a methodical approach of inspection, cleaning, maintenance, repair, renovation and planning. WCW's primary goal is to prevent SSOs.

WCW uses video inspection, feedback from cleaning crews and information from customers to evaluate the condition of its collection system piping. Information is collected in paper form by field crews, and then transferred to the Hansen 8 database.

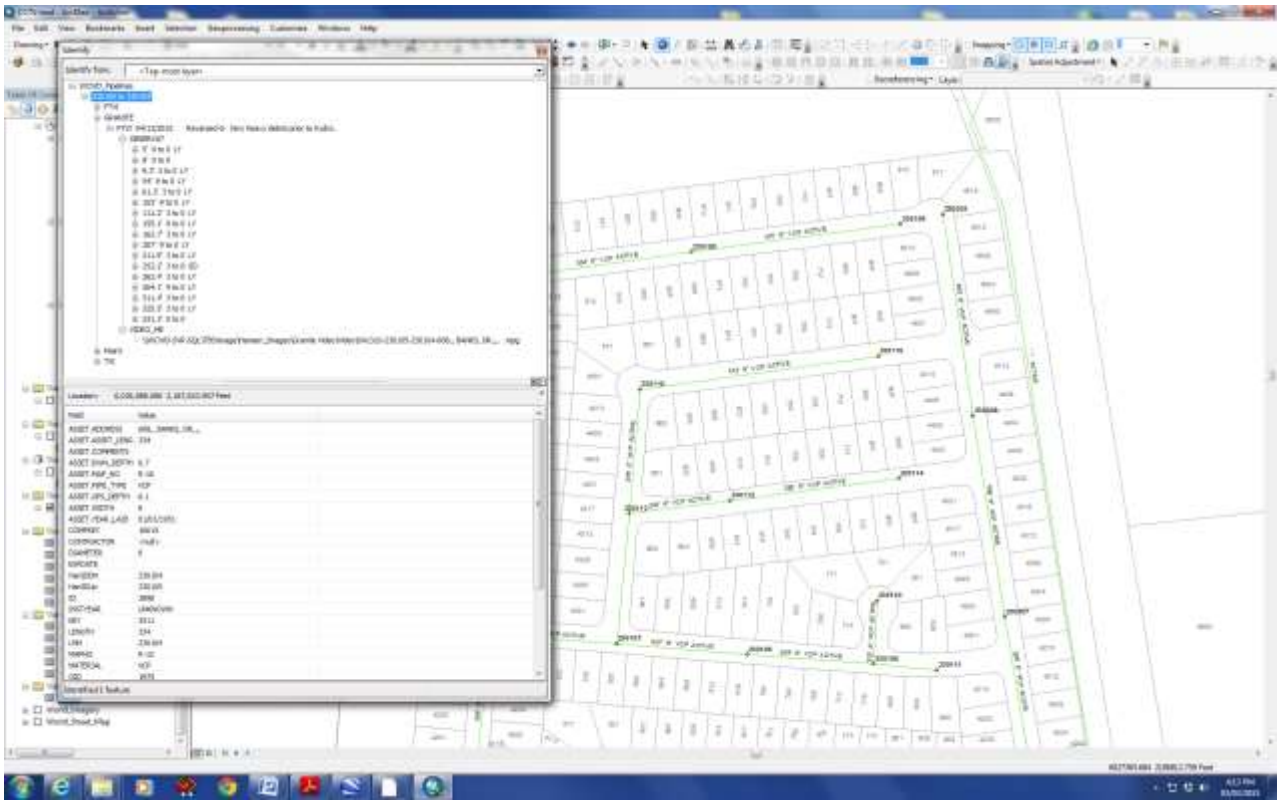

Figure 6: Accessing CCTV History from the ArcGIS System

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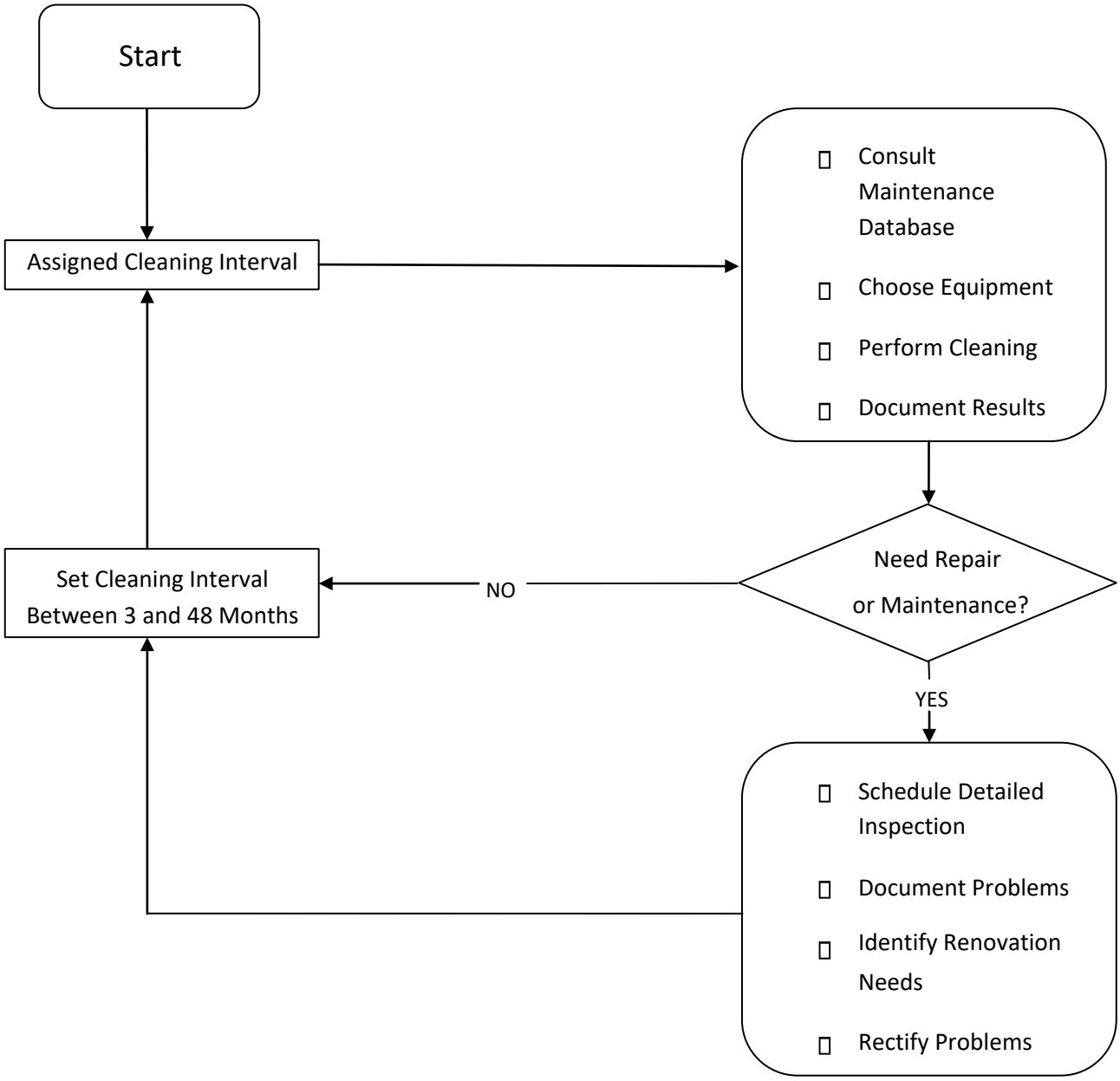

Figure 7: Cleaning Frequency Chart

WCW cleans six (6) inch to twenty-four (24) inch sewers in the collection system and utilizes two (2) methods: rodding and jetting/hydroflushing. CSO employees perform rodding services by using mechanical "rodders" on WCW's rodder truck (Figure 8). CSO employees perform jetting services by utilizing high pressure water streams via WCW's hydroflush truck (Figure 9) or via WCW's trailer-mounted hydroflush (Figure 10).

Rodding services are primarily used for root removal. Jetting services are primarily used for grease and debris removal; however, jetting can also be used to remove roots. Hydroflush—vacuum combination vehicles, also known as vactor trucks
Figure 11), are used to remove heavy debris from the sewer. Vactor trucks are also used to help mitigate the effects of SSOs, by removing sewage from street gutters, storm drains, and other affected areas.

Cleaning crews are given a monthly schedule of locations to service, and they perform the maintenance with rodding, jetting and/or vactoring equipment, appropriately.

Figure 8: WCW Rodder Truck

Figure 9: WCW Hydroflush Truck

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Figure 10: WCW Trailer-Mounted Hydroflush

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Figure 11: WCW Hydroflush—Vacuum Combo Vehicle (Vactor)

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Inspection Programs

CCTV Inspection

WCW began a comprehensive collection system CCTV-inspection program in 2001. The plan is to inspect all sewer lines by CCTV, and visually inspect all sewer lampholes, rodding inlets and manholes, as part of the process. Sewer facilities are inspected using CCTV, at different frequencies, with the goal of each sewer facility being inspected at least once every ten (10) years. Facilities with documented deficiencies are inspected more frequently than facilities without documented deficiencies. Significant inspection factors of note are maintenance accessibility and sewer capacity.

CCTV inspection results are to be analyzed and sewer pipes needing immediate attention, modified cleaning activities/schedules, and future sewer replacement are identified. Pipe segments identified for replacement are prioritized by the following factors, geographic area, maintenance accessibility, sewer stoppage history, and utility/road surface renovation coordination.

WCW performs CCTV inspections through the use of its CCTV van (Figure 12).

Figure 12: WCW CCTV Van

Contingency Equipment and Replacement Inventories

Please see attachment D, "CSO and Maintenance Equipment Inventory List"

Emergency Response Trailer

The CSO division deploys an Emergency Response Vehicle (

Figure 13) in response to SSOs caused by blockages which are difficult to break. The trailer is outfitted with documentation, equipment, supplies and tools (Figure 14) which are used to:

1. contain and/or divert sewage.
    a. prevent sewage from entering into storm drains.
    b. prevent sewage from entering into other sensitive areas.
2. prevent pedestrian and vehicular traffic from entering into the SSO site (traffic signs, cones, etc.).
3. bypass affected sewer lines (pump around equipment).
4. allow for confined space entry (confined space entry equipment).
5. provide first aid (first aid supplies).
6. report the SSO (SSO reports documentation).

In summary, the primary purposes for the trailer are usage for confined space entry and quick restoration of collection system functionality during an SSO.

Figure 13: Emergency Response Trailer (Outside)

Figure 14: Emergency Response Trailer (Inside)

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Emergency Response Trailer

CSO field crews may find it necessary to enter confined spaces such as trenches or manholes to resolve an issue. If this situation arises, a confined space entry trailer is deployed (Figure 15). The trailer is outfitted with the documentation, equipment, supplies and tools required to safely enter a confined space, and remain in compliance while doing so (Figure 16).

The equipment includes, but is not limited to:

1. air blower
2. davit arms, harnesses and winches
3. fire extinguisher
4. first aid kit
5. gas detectors
6. hard hats
7. internal confined space entry permits
8. pipe plugs
9. SCBA

Figure 15: Confined Space Entry Trailer (Outside)

Figure 16: Confined Space Entry Trailer (Inside)

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CSO Spot Repair Program

Collection system defects are discovered by field crews during the completion of preventive maintenance and CCTV tasks. If the defect meets pre-defined criteria, the field crew will schedule and complete the required repair. Most emergency repairs are completed by CSO field crews. Emergency repairs and/or other significant repairs which cannot be completed by CSO field crews are passed onto the Planning & Support Services division. The Planning & Support Services division schedules the repairs for completion by a contractor. Contractor repairs are CCTV-inspected by the CSO division upon completion.

CSO field crews use WCW's 10-yard dump truck, construction equipment box van, Case backhoe, Bobcat mini excavator and box truck to complete repairs (Figures 17, 18, 19, 20, 21 and 22, respectively).

Figure 17: WCW 10-yard Dump Truck

Figure 18: WCW Construction Equipment Box Van

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Figure 19: Case Backhoe

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Figure 20: Bobcat Mini Excavator

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Figure 21: Box Truck (Side)

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Figure 22: Box Truck (Back)

Training

Training Records

WCW training records are kept on file for each employee. Additionally, a training database is maintained for the purpose of reviewing employee qualifications and adding or modifying training requirements for individual employees.

Competency Training

CSO employees receive on-the-job training, as required by work assignments. They are certified with CSM grade levels that are administered by CWEA. WCW's training program consists of both introductory and continuing education on various topics including, but not limited to, health, safety, and the environment. Training is customized to serve the different needs of WCW's employees and is provided by both WCW's staff and contractors. The training program is detailed below:

Employee and Contractor Orientation

Employees and contractors who work on WCW projects receive training on safety topics in order to provide orientation, information on safe work practices, and background on WCW's Safety Program. The following outline lists the course subjects. Appropriate items from the outline below are selected for the orientation based on the job requirements:

1. Accident Prevention and First Aid
2. WCW Safety Policy & Responsibilities
3. WCW Smoking Policies
4. Emergency Evacuation Procedure
5. Eye & Face Protection
6. Fire Evacuation
7. General Safe Work Practices
8. Hard Hats
9. Hazard Communication Standard (Hazardous Materials/MSDSs)
10. Hearing & Body Protection
11. New Employee Plant Orientation
12. Methane & Hydrogen Sulfide
13. SERP
14. PPE
15. Respirators
16. Safety Directives and Safety Directive Quiz
17. Safety Shoes
18. SSO and Backup Response Plan
19. Unique Hazards
20. Vehicle Safe Driving Practices (Safety Belts, Speed Limits - Plant 15 mph)

Refresher Training Topics

CSO employees are subject to periodic refresher training such as respiratory protection training, emergency response, and others, as appropriate. Refresher sessions

are provided on topics when new materials or processes are added to the workplace, or when new regulatory requirements or new hazards are identified. Ongoing refresher training is an important element of WCW's training program.

Special Training Topics

Special topics are presented to employees on an as-needed basis. An employee's manager or WCW's Safety Committee may determine what type and amount of training may be appropriate for an individual employee, based on their work tasks, previous training and projected work tasks.

The topics vary each year; however, they are represented by the list below:

1. Respirator Care and Use
2. Hazard Communication
3. Confined Space Entry Procedures
4. CPR/First Aid
5. Ladder Safety
6. Electrical Safety
7. Forklift/Heavy Equipment
8. Ergonomics
9. Cranes and Rigging
10. Emergency Preparedness Drill
11. Personal Protective Equipment
12. Fire Drill
13. Fire Extinguisher Safety

Tailgate Training Sessions

Tailgate training sessions are provided at the WQRRP and remote jobsite locations when preparing crews for specific jobs. The sessions are part of the ongoing safety training program and they are logged and documented in the field. A representative list of the training sessions is included below:

1. Confined Space Hazards
2. Materials Handling Safety
3. Hydrogen Sulfide Control
4. Storage and Use of Chemicals
5. OSHA Asbestos Standard
6. Permissible Exposure Limits
7. Exposure to Hazardous Materials
8. Polysulfide Caulking Health Hazards
9. Material Safety Data Sheets

[END OF ELEMENT 6]

Element 7. Design and Construction Standards

The design and construction standards for Developer projects, Capital projects, and CSO projects are described in this element.

Developer Projects

Developer projects are projects designed and constructed with private funds. Examples of developer projects include the construction of housing complexes, the construction of shopping centers, etc.

Standards and Specifications for Design and Construction of New and Rehabilitation Projects

WCW considers the UPC to be the minimum standard for design and construction, and has adopted it, as shown below. WCW has published design and construction standards for the use of customers, contractors, and engineers, which supersede the UPC. WCW's design and construction standards are contained within a document titled, "Standard Details", which is available online, via this link: https://www.wcwd.org/wp-content/uploads/2022/07/Lateral-Spec-revised-07-25-22.pdf.

3.15.010 Adoption of Uniform Plumbing Code.

The most current edition of the Uniform Plumbing Code, as amended and updated from time to time, including appendices thereto, being a codification of laws relating to the plumbing industry of a general nature as published by the International Association of Plumbing and Mechanical Officials, 4755 East Philadelphia Street, Ontario, California 91760, or any successor or publisher, is hereby adopted by reference and made a part of this chapter as though fully set forth herein, except such portions as are hereinafter deleted, modified or amended by this chapter. A copy of said code is on file in the office of the general manager. Except as amended hereby and by other amending ordinances, the remainder of this title shall remain in full force and effect. [Ord. 2023-03 § 3.010].
Future revisions to WCW's Code will occur, as needed.

The UPC governs requirements for the design and all work in connection with sewer construction and/or projects financed by private individuals within the jurisdiction of WCW. The jurisdiction of WCW includes the entire sewerage system and its appurtenances from the point of connection with the building plumbing to the discharge terminus of the treatment plant outfall. Ownership and maintenance of the building lateral to the point of connection with the sewer main is the responsibility of the property owner.

WCW's Standards ensure that infrastructure built in WCW's service area will conform to accepted practices and that equipment will operate properly. New developments are of particular interest, because the developer is often responsible for constructing new sewer mains, and dedicating them to WCW, upon completion of the project. WCW

must ensure that the new infrastructure will not cause any operational problems for WCW. Adherence to the Standard Specifications supports this aim. Project plans must be approved by WCW, prior to issuance of a construction permit.

All plans for sewer projects are reviewed for compliance with WCW's Design Standards prior to construction. Cut sheets are prepared by the developer's engineer and reviewed by WCW's staff during the final plan review.

Capital Projects

Capital projects are construction or rehabilitation projects of WCW-owned facilities. The projects are managed by WCW's staff and are funded by WCW.

Standards and Specifications for Design and Construction of New and Rehabilitation Projects

The Standard Specifications are used as guidelines for Capital projects. Variance from the requirements may only be allowed when existing conditions prevent conformance to the Standard Specifications, and when such variance is deemed permissible. Such conditions include existing underground facilities and elevations of connection points to the existing sewer system, among others. In cases where materials and construction techniques not covered in the Standard Specifications are used, WCW's staff must use judgment to approve or recommend modifications to the design of the new/replacement sewers and/or pump stations.

Within each set of WCW project specifications, WCW uses standard General Conditions, project-modified Special Conditions and Technical Specifications for bidding and constructing Capital projects.

Capital sewer projects may be designed by WCW staff or by consultants. They are typically reviewed at the 60%, 90% and 100% design completion levels. Construction of WCW sewer projects is managed and inspected by WCW, consultant or contractor staff.

Standards for Inspection and Testing of New and Rehabilitated Facilities

Inspectors use WCW's Standard Specifications and Code, approved project plans, permits, and/or construction contracts, as the basis for inspecting and monitoring the testing of new, repaired or replaced sewers, pump stations, and other appurtenances. Sewer projects are inspected during construction to ensure the quality and acceptability of materials furnished, work performed, and manner of the performance of construction.

As shown on page 1 of the "District Requirements for the Installation of House Sewers", which can be accessed through this link: https://www.wcwd.org/wp-content/uploads/2022/07/Lateral-Spec-revised-07-25-22.pdf, it is the contractor's responsibility to arrange for inspections. WCW inspects and approves work, in accordance with WCW's standards and the UPC. Inspections occur during the construction project and prior to the end of the contractor's one (1)-year warranty period.

Prior to trench backfilling and final acceptance of sewer projects, all sewers are inspected by closed-circuit television or low-pressure air testing. Construction files are

archived following the completion of the projects.

For small projects, inspections are provided by WCW's staff. For larger projects, inspection services may be provided by a consultant or other person(s) appointed by WCW. Testing is normally conducted by the contractor, with WCW's inspector monitoring to verify that all requirements are met.

CSO Projects

All of the construction projects performed by CSO staff consist of spot repairs and manhole repairs/replacements. CSO staff relies on WCW's Standard Specifications for Design and Construction for all projects. Spot repairs conducted by CSO are detailed in section 6 and are completed by utilizing the equipment shown on Figures 17, 18, 19, 20, 21 and 22.

Standards for Inspection and Testing of New and Rehabilitated Facilities

CSO projects are CCTV-inspected by CSO staff after completion. This allows staff to ensure the work is acceptable.

[END OF ELEMENT 7]

Element 8. Capacity Management

This section documents the process to assess the current and future capacity requirements for the collection system. It also describes the capacity assurance plan of providing hydraulic capacity for key sewer elements, under peak flow conditions.

Capacity Assessment

The Master Plan documents WCW's current practices related to its sewer main renovation program.

Various tools and methods are used to evaluate current and future sewer capacity needs and requirements. They are described below:

Sewer TV (Pipe Evaluation) Program

Capacity issues may result from pipe defects, such as offset joints or collapsed pipes. WCW's TV inspection program identifies defects that could cause capacity problems. In 2001, WCW began a program to televise and assess the condition of the entire collection system. During the inspection process, pipe condition is assessed using the NASSCO scoring system. Each pipe defect (grease, debris, roots, etc.) is given a numerical score. Severe defects observed, such as blockages or cavities (with the potential to cause SSOs) are immediately referred to the CSO division for action.

Flowmeter Installation

ADS Flowview sensors have been installed within WCW's manholes identified to most likely experience surcharging. Additionally, ADS Flowview software has been installed on the Collection System Manager's computer to allow them to monitor sewage levels in real time.

The sensor installation locations are listed below:

No.	Location (Description)	Location (MH Number)
1	Contra Costa Avenue	MH 06-12-09
~~2~~	~~Contra Costa College~~	~~MH 20-05-05~~
3	El Patio Road	MH 18-03-08
4	Richmond Rod and Gun Club	MH 22-01-08
5	Kindercare – San Pablo Dam Road	MH 05-05-01
6	La Colina Road	MH 15-07-02
7	Lambert Road	MH 18-02-03
8	Riverside Drive	MH 05-16-04.2
~~9~~	~~Via Verdi~~	~~MH 15-11-02~~
10	San Pablo Avenue Siphon	MH 07-01-02.1
11	Willow Road	MH 06-01-06.4
12	Battery Street	MH 09-10-05
13	Campbell Lane	MH 15-04-05
14	Hilltop Lake	MH 42-05-27

15	Lancaster Drive	MH 20-01-10
16	Montara Bay	MH 54-03-03B

Table 2: Flowmeter Sensor Installation Locations

Collection System Master Plan

The Collection System is covered in Volume 2 of the Master Plan. The Master Plan is a comprehensive plan for all WCW assets, including the collection system, the WQRRP, and other WCW Facilities. The planning period for the Collection System Master Plan is twenty (20) years, ending in 2032.

The key investigation methods were:

- A visual condition assessment was conducted to assess the condition of the aboveground assets, which include the lift stations. The visual condition assessment included a seismic screening of the lift station buildings.
- A desktop analysis was conducted to assess the condition of the below-ground assets, which include the pipelines and manholes. To supplement the desktop analysis, problem areas were reviewed and discussed in meetings with CSO staff. Defect ratings from video inspections were also reviewed.

The key findings were:

- The collection system is performing well, and best maintenance practices are reflected in the extended service life of many of the assets. Nevertheless, there were several issues noted, and many of the assets will be in need of renewal during the twenty (20)-year planning period.
- Assets were identified and recommended for replacement or rehabilitation in the near-term (five-year) planning horizon. Long-term renewal needs over the twenty (20)-year planning period of the Master Plan were also recommended.

An interactive map of sewer lines to be replaced based on Master Plan can be accessed through this link: https://www.google.com/maps/d/embed?mid=1hsaWQcJN4CeYExXSGqTCbSAhuTE&ll=37.97296390941711%2C-122.31486096826171&z=13.

Historical information was reviewed in conjunction with data collected from a temporary flow monitoring program, land use data, and population estimates to determine flow projections for WCW.

Hydraulic Model Development and Calibration

- The hydraulic model was calibrated for both dry weather and wet weather flow conditions based on the data obtained during the flow monitoring program, which occurred from January 18, 2012 to March 25, 2012.
- The results of the dry and wet weather flow calibration process were

compared against generally accepted international standards for hydraulic model calibration.

- In general, the calibration results were good, and the hydraulic model was considered to be calibrated and ready to evaluate the capacity of the collection system.
- There were a few monitoring sites where the calibration results did not fall within the generally accepted calibration standards. The results were evaluated on a case-by case basis and justification was provided to explain any discrepancies.

Collection System Capacity Evaluation

Basins with high rates of I/I were identified, based on a temporary flow monitoring program. It was recommended that the basins (Basin 4, 6, 7/8, 15, 24, and 26) would be targeted, as part of an I/I identification and reduction evaluation program. The I/I identification and reduction evaluation program was completed on the schedule below:

- 2015/2016: Basins 3, 4 and 6
- 2016/2017: Basins 7 and 8
- 2017/2018: Basin 15
- 2018/2019: Basins 24 and 26

The I/I identification and reduction evaluation program consisted of:

- CCTV sewer inspections
- Field reconnaissance
- Micro-basin flow monitoring
- Smoke testing

The basins were further broken down into sub-basins, where rankings could be developed based on:

- Inflow
- RDI
- Combined I/I

Potential bottlenecks and capacity-restricted sewer mains were identified based on the data evaluations. I/I investigation, prioritization and reduction efforts will be undertaken to reduce I/I-related effects. The investigation's working assumption is that the basins within WCW's boundaries that have the most sewer laterals in the worst condition are

allowing the most infiltration to take place. The basins have been identified so that inspection and repair efforts, including CCTV-inspection, visual inspection, spot repairs or full replacement of sewer mains may be undertaken by WCW. Additionally, inspection and repair efforts, including CCTV-inspection, partial repair or full replacement of sewer laterals may be undertaken by property owners.

The findings of the study were:

1. Priority 1: Severe I/I basins upstream from bottleneck nodes
    a. 3F, 7A, 7B, 7D, 8F, 24E, 26A, 26B, 26D & 26E
2. Priority 2: High I/I basins upstream from bottleneck nodes
    a. 3C, 3D, 7F/7G, 8C1/8C2, 8D/8E, 15H, 15J, 24D & 26C
3. Priority 3: Severe I/I basins with no observed bottleneck nodes
    a. 24F
4. Priority 4: High I/I basins with no observed bottleneck nodes
    a. 24A & 24C
5. Priority 5: Moderate I/I basins upstream from bottleneck nodes
    a. 3E, 3G, 6A, 15E, 15F, 15G & 15K
6. Priority 6: Moderate I/I basins upstream from bottleneck nodes
    a. 4E, 8B, 15B, 15D, 24B & 24G

WCW staff evaluated the findings and formulated a plan to resolve the issues. One of the major ideas developed from the review was the PIPES Program. This customer-friendly program offers incentives to property owners who replace their defective sewer laterals in accordance with WCW and PIPES Program rules.

Resolution 2020-28 approved the commencement of the program and the addition of $400,000 to the budget, beginning in Fiscal Year (FY) 2021, to fund this program on a recurring basis.

The program was officially rolled out on November 2, 2020 and is still active.

WCW staff also developed several post-Master Plan projects intended to improve sewer system reliability:

Cathodic Protection (20WC203) – in progress

The project scope includes assessment of the current cathodic protection status of the 36" transmission line from the WQRRP to the City of Richmond's WWTP (Veolia).

The findings will be used to develop subsequent cathodic protection improvement projects (i.e. rectifier replacement, test station repair, etc.).

CCTV – in progress

The project scope includes hydrojetting 11,380 LF of sewer lines, removal and

transportation of the collected debris, CCTV of the referenced sewer lines and creation of a condition assessment report.

The findings will be used to develop subsequent gravity sewer replacement projects.

Forcemain Assessment – in progress

The project scope includes assessing the conditions of all forcemains within WCW's boundaries.

The findings will be used to develop subsequent forcemain replacement projects.

Schedule of Expected Project Completion Dates

WCW plans to complete several projects to improve sewer system functionality for its customers. The table below lists all of the upcoming lift station and sewer installation projects that should be completed within the next five (5) years:

Schedule of Expected Project Completion Dates		
Project Name	**Description**	**Expected Completion Date**
El Sobrante Sewer Replacement Project	Replacement of approx. 5,000 LF of collection system mains	October 2023
Lower San Pablo Sewer Replacement Project	Replacement of approx. 3,000 LF of gravity sewer mains	November 2023
La Honda Force Main Sewer Replacement Project	Analysis of the existing force main leaving the lift station either leading to the replacement of the existing force main and the installation of another (dual) force main or assurance that the existing force main is in good condition along with the installation of another (dual) force main (approx. 200 LF each)	December 2023
Foster Lane Sewer Realignment Project	Demolition of a lift station and removal force mains that will be out of service, as well as the installation of sealed manhole lids and approx. 360 LF of gravity sewer mains	January 2024

Clean and Green Project	Reduction of carbon footprint and utilization of green energy	April 2024
Force Main Assessments Project	Analysis of force mains maintained by our organization that will lead to other	June 2024
Carriage Hills Lift Station Force Main Sewer Replacement Project	Analysis of the existing force main leaving the lift station either leading to the replacement of the existing force main and the installation of another (dual) force main or assurance that the existing force main is in good condition along with the installation of another (dual) force main (approx. 800 LF each)	December 2024
Pinole Center Lift Station Force Main Sewer Replacement Project	Analysis of the existing force main leaving the lift station either leading to the replacement of the existing force main and the installation of another (dual) force main or assurance that the existing force main is in good condition along with the installation of another (dual) force main (approx. 1,000 LF each)	December 2024
Carriage Hills Lift Station Upgrade Project	Upgrades at the lift station	June 2025
La Honda Lift Station Upgrade Project	Upgrades at the lift station	June 2025
Tara Hills Lift Station Upgrade Project	Upgrades at the lift station	June 2025

La Paloma Odor Mitigation Project	Removal of a manhole vortex, installation of a collector sewer main and installation of a backup force main. Installation of odor control devices will be considered if the other items do not result in resolution	August 2025
D'Avila Lift Station Upgrade Project	Upgrades at the lift station	November 2026

Table 3: Schedule of Expected Project Completion Dates

Corrective Action Update and Plan

Recent Corrective Action Project(s)

Priority Pipes 3rd Application Project, 3.1
WCW previously discovered that several segments of our collection system were defective, created a project scope and ensured the Capital Portfolio division would be able to facilitate completion of necessary construction. This project is complete.

Basin 7 Inflow & Infiltration Sewer Replacement Project
In conjunction with our I/I consultant, WCW created a project scope and ensured the Capital Portfolio division would be able to facilitate completion of necessary construction to reduce the amount of I/I entering into our system, travelling to the WQRRP and potentially causing an SSO. This project is complete.

Lower San Pablo Sewer Replacement Project
WCW worked with a consultant to ensure the replacement of defective sewer mains could be designed. Capital Portfolio staff arranged for the completion of the design. Design is complete; however, construction is currently on hold.

El Sobrante Sewer Replacement Project
WCW worked with a consultant to ensure the replacement of defective sewer mains could be designed. Capital Portfolio staff arranged for the completion of the design. Design is complete; however, construction is currently on hold.

San Pablo Sewer Replacement Project
WCW worked with a consultant to ensure the replacement of defective sewer mains could be designed. Capital Portfolio staff arranged for the completion of the design. Design is complete; however, construction is currently on hold.

Tara Hills Sewer Replacement Project
WCW worked with a consultant to ensure the replacement of defective sewer mains could be designed. Upon receiving completed design plans, Capital Portfolio staff solicited bids and facilitated construction for the necessary collection system work. Construction is complete; however, the closeout report remains.

Lakeside Force Main Sewer Replacement Project
Upon completing pertinent research, WCW staff determined that the referenced force main work would be necessary (analysis of the existing force main, resulting in a project leading to 2 reliable force mains leaving the lift station). Resolution of this project was significant as pressurized lines could potentially cause a high-level hazard for the public. Construction is complete; however, the closeout report remains.

Hilltop Green Force Main Sewer Replacement Project
Upon completing pertinent research, WCW staff determined that the referenced force main work would be necessary (analysis of the existing force main, resulting in a project leading to 2 reliable force mains leaving the lift station). Resolution of this project was

significant as pressurized lines could potentially cause a high-level hazard for the public. Construction is complete; however, the closeout report remains.

Various Lift Station Upgrades Project (Lakeside, McBryde, Park, Pinole Center & Sobrante Upgrades Project)
In conjunction with our Master Plan consultant and a separate lift station consultant, WCW staff determined that the referenced lift stations were in need of upgrades. The project-scoped work including the installation of generators provides an increased level of customer service and reliability. This project is complete.

WQRRP Effluent Valve Replacement Project
Our WQRRP is directly and indirectly subject to WDRs. Due to this, the continued operation and maintenance of it is very critical to keep our community safe and reduce the risk of violations. This project is complete.

WQRRP Effluent Electrical Systems Upgrade Project
Our WQRRP is associated with an NPDES permit. Due to this, it is important for the completion of this project to be facilitated. Design is currently 30% complete and the electrical issues will be resolved.

Future Corrective Action Project(s)

La Honda Force Main Sewer Replacement Project
This project will lead to the analysis of the existing pressurized sewer main and increase service reliability for the community. The results will either be confirmation that the existing force main is in good condition as well as the installation of a separate force main (dual) or the replacement of the existing force main as well as the installation of a separate force main (dual).

Foster Lane Sewer Realignment Project
This project will lead to the demolition of a lift station and the removal force mains that will be out of service, as well as the installation of sealed manhole lids and gravity sewer mains.

Clean and Green Project
Ongoing reduction of our carbon footprint and utilization of green energy is significant goal that has been set by our organization. This project will provide benefits for us as well as the community. Design is complete and construction is underway.

Force Main Assessments Project
This project will lead to the analysis of pressurized sewer mains within our service boundary and lead to future projects that will increase service reliability for the community.

Carriage Hills Lift Station Force Main Sewer Replacement Project
This project will lead to the analysis of the existing pressurized sewer main and increase service reliability for the community. The results will either be confirmation that the existing force main is in good condition as well as the installation of a separate force main (dual) or the replacement of the existing force main as well as the installation of a separate force main (dual).

Pinole Center Lift Station Force Main Sewer Replacement Project
This project will lead to the analysis of the existing pressurized sewer main and increase service reliability for the community. The results will either be confirmation that the existing force main is in good condition as well as the installation of a separate force main (dual) or the replacement of the existing force main as well as the installation of a separate force main (dual).

Carriage Hills Lift Station Upgrade Project
Lift stations are an important part of our sewer system as they allow for the collection of wastewater in lower-lying areas and subsequent transportation. The Capital Portfolio division is tasked with ensuring the necessary construction is completed.

La Honda Lift Station Upgrade Project
This project will result in improved customer service and reliability associated with the referenced lift station.

Tara Hills Lift Station Upgrade Project
This project will result in the completion of necessary improvements for the referenced lift station.

D'Avila Lift Station Upgrade Project
This project will result in electrical, mechanical, etc. work being performed including the installation of a generator for the referenced lift station.

La Paloma Odor Mitigation Project
This project will lead to resolution of the odor issue affecting the community. Required work will include removal of a manhole vortex, installation of a collection sewer main and installation of back up force main. Installation of odor control devices will be considered if the referenced methods do not significantly reduce the odors.

[END OF ELEMENT 8]

Element 9. Monitoring, Measurement and Program Modifications

Modifications

This element measures the effectiveness of the SSMP and describes the SSMP modification process. The parameters that indicate the success of the SSMP are the following: 1) the number of SSOs per one hundred (100) miles of sewer pipe, 2) the causes of the SSOs, and 3) the combined volume of the SSOs. Other parameters that describe the collection system maintenance and capital improvement program are tracked, but are not displayed in this document. These other parameters include, but are not limited to, customer service ratings, number of repairs made and response time to SSO events. This document's main performance indicator is the number of SSOs that have occurred.

Monitoring and Measurement

When an SSO occurs, several parameters are recorded. The CSO division is responsible for gathering SSO data.

Table 4 shows the ratio of SSOs per one hundred (100) miles of pipe, for the past five (5) years.

2018	2019	2020	2021	2022
1.2	6.7	2.8	2.0	4.0

Table 4: Number of SSOs per 100 Miles of pipe, from 2018 to 2022, for All Locations

Figure 23 is the graphical representation of the number of SSOs categorized by cause, from 2018 to 2022.

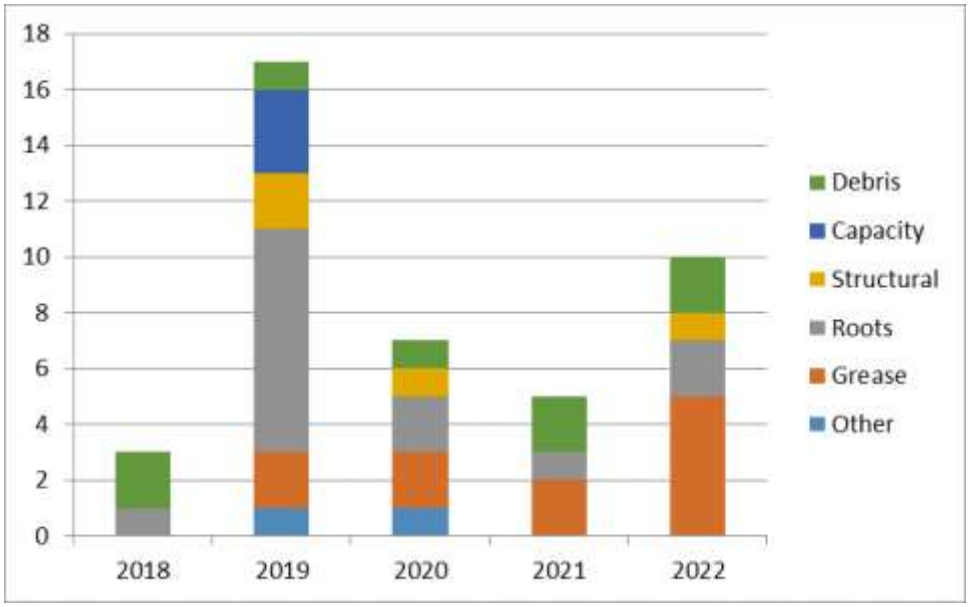

Figure 23: 2018-2022 Total Number of SSOs, by Year and Cause

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Table 5 shows the total number of SSOs by cause, from 2018 to 2022, in five (5) categories: grease, roots, structural, other and capacity.

	2018	2019	2020	2021	2022
Grease	0	1	1	0	0
Roots	0	2	2	2	5
Structural	1	8	2	1	2

[1]Other	0	2	1	0	1
Capacity	0	3	0	0	0
Debris	2	1	1	2	2

Table 5: 2018-2022 Total Number of SSOs by Year and Cause

Figure 24 shows the percent of overflows by cause from 2018 to 2022 in five (5) categories: grease, roots, structural, debris and other.

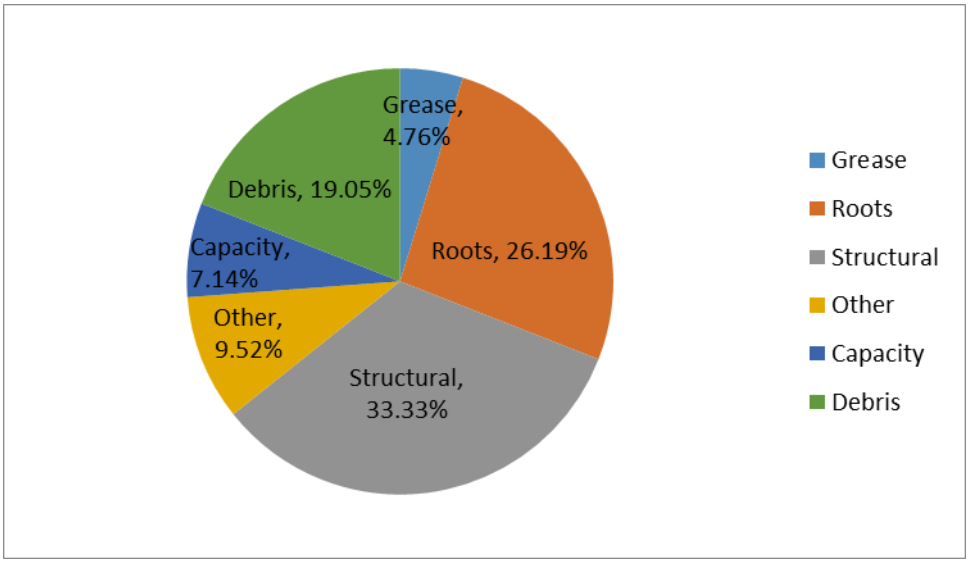


Figure 24: Percentage of Overflow Causes from 2018-2022

Figure 25 shows the percentage of SSOs, by estimated volume, from 2018 to 2022 in four (4) categories: less than ten (10) gallons, between ten (10) and one hundred (100) gallons, between one hundred and one (101) and one thousand (1,000) gallons, and greater than one thousand (1,000) gallons.

[1] The "Other" category includes, but is not limited to, contractor error, ground movement and vandalism.

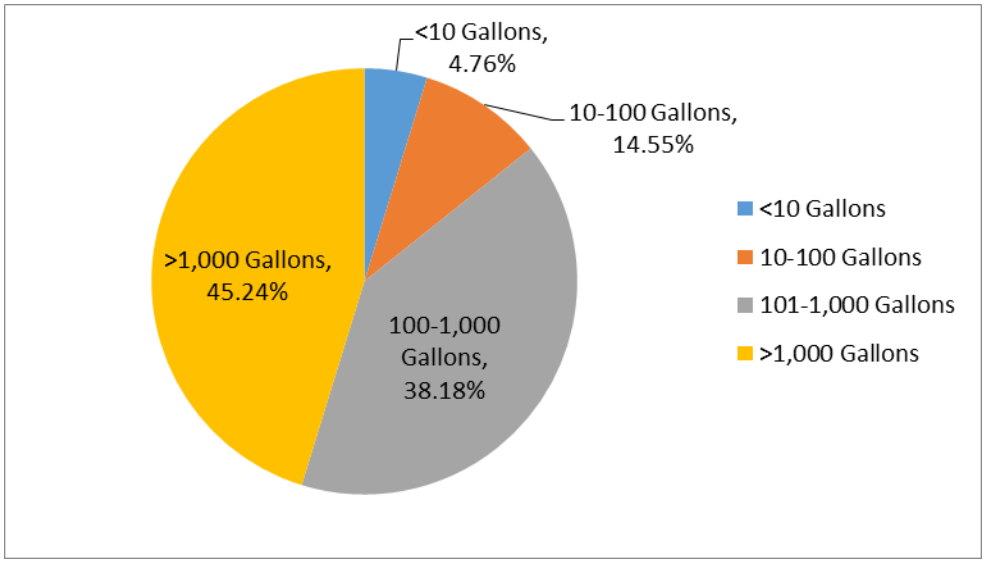


Figure 25: Percentage of Volume of Overflows from 2018-2022

Program Modifications

The Planning & Support Services division is primarily responsible for updating and reviewing the SSMP. Relevant collection system data is updated regularly.

Planning & Support Services and CSO staff will update and review the SSMP periodically. If major changes are made to the SSMP, the revised SSMP will require approval by the Board of Directors.

[END OF ELEMENT 9]

Element 10. SSMP Audits

In accordance with current Statewide WDR requirements, WCW conducts internal audits at a frequency of no less than once every two (2) years.

In accordance with Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements effective June 5, 2023, audits will be performed at least once every three (3) years.

The audits will continue to focus on evaluating the effectiveness of the SSMP and compliance with SSMP requirements, including identification of any deficiencies and/or deficiency resolutions. Reports of the audits will continue to be prepared and kept on file.

[END OF ELEMENT 10]

Element 11. WCW Communication and Outreach Program

The goal of the Communication Program is to increase public awareness, understanding, and support of the Strategic Plan (includes the organizational vision, mission, core values, strategic goals and objectives). Keeping the public informed, promoting pollution prevention, and encouraging feedback about our activities helps us to more efficiently and effectively manage our wastewater and environmental responsibilities. Elements of our communication program in all divisions of WCW include:

Board Meetings and Public Hearings

Per Resolution No. 2019-45, passed by the Board of Directors on July 17, 2019, all Board meetings are scheduled for the 1st and 3rd Wednesdays of each month with the following exceptions:

- First Wednesday in January
- Third Wednesday in August
- First Wednesday in September
- Third Wednesday in December

Meetings between March 2020 and May 2023 were held via Zoom. The public was encouraged to attend all Board meetings and public hearings to provide input.

WCW has resumed in-person meetings (in conjunction with the continued option of public attendance via Zoom). In-person Board meetings are held at WCW's Administration Office: 2910 Hilltop Drive, Richmond, California, 94806.

The main telephone number is: 510-222-6700.

Door Hangers

General

Blockages caused by FOG and wipes/rags are the leading cause of SSOs in the United States. To reduce the amount of SSOs related to the previously mentioned items, WCW concentrates its door hanger outreach efforts on large residential facilities, such as apartment complexes.

Flushed Trash Alert

"Flushed Trash Alert" door hangers are used to inform residents that wipes/rags have been found downstream of their facility. The door hangers provide information on proper wipes/rags disposal.

FOG

Door hangers are used to inform residents that FOG has been found downstream of their facility. The door hangers provide information on proper grease handling and disposal.

Environmental and Community Fairs

The Environmental Programs division takes part in a number of events, community fairs and special celebrations, such as the El Sobrante Stroll. Employees staff a booth to promote public awareness of wastewater issues, pollution prevention tips, and other topics important to WCW's wastewater conveyance and treatment. The EP division also makes presentations related to pollution prevention in wastewater at community meetings hosted by schools or civic organizations.

Letters

WCW has increased letter-based notification to the community. WCW's Administrative Services staff has and will continue to distribute letters to the community regarding projects and the PIPES Program.

Newsletter (The Lateral)

WCW has increased newsletter-based notification to the community. WCW's Administrative Services staff has and will continue to distribute this newsletter via e-mail, mail, social media platforms and WCW's website.

The Lateral is designed to facilitate connections with the public and enhance awareness about WCW, including the organization's role in protecting public health and the environment. It features many topics of customer interest including, but not limited to, online services, as well as SSO prevention measures such as keeping pipes clear of FOG and wipes.

Planning & Support Services & CSO Assistance for Customers

Due to the COVID-19 pandemic, an avenue for completing and submitting a remote permit application has been set up on WCW's website: https://www.wcwd.org/permit-application/. Although the state of emergency classification associated with COVID-19 has been discontinued, WCW has kept the remote permit application option available and open for customers.

Planning & Support Services staff issues permits and educates homeowners, builders, and plumbers on design standards for our collection system and private laterals.

Customers can also find information for ongoing or future projects, or make plan check and permit inquiries may also be sent to: Permits@wcwd.org.

In regards to fee estimates, permits, sewer lateral compliance inquiries for COCs that do not have active permits, plan checks or utility maps, customers can reach pertinent staff by calling: 510-222-6700, Option 3. Customers may also contact staff regarding these items by emailing: Permits@wcwd.org.

In regards to notices of violations, video inspection review status updates, sewer lateral compliance inquiries for COCs that have active permits, Underground Service Alert Requests (USAs), processing USAs and/or scheduling inspections, customers can reach pertinent staff by calling: 510-662-3627. Customers may also contact staff regarding these items by emailing: inspections@wcwd.org.

In regards to the PIPES Program, customers can reach pertinent staff by emailing: PipesProgram@wcwd.org.

Social Media

WCW continues to seek different ways to effectively connect with the community. Many proposed outreach ideas were gathered and evaluated with social media being the key idea for implementation. WCW established a presence on several social media platforms such as Facebook, LinkedIn, NextDoor and Twitter.

Site Visits

The EP Inspector conducts site visits to businesses to explain proper grease disposal or required industrial pre-treatment practices.

WQRRP Tours

WCW's WQRRP tour program was suspended due to the COVID-19 pandemic. It is active again and it shows students and members of the public the role our wastewater treatment plant plays in the community, particularly as it related to protecting our waterways. Pollution prevention from FOG and wipes were emphasized as part of that message.

The WQRRP is located at: 2377 Garden Tract Road, Richmond, California, 94801. The main telephone number is: 510-237-6603 (can be used to receive information regarding WQRRP tours).

WCW's Website

Our website (www.wcwd.org) provides current and detailed information on a wide variety of topics, such as WCW's structure, description of the wastewater treatment process, education programs for children, pollution prevention activities, current construction projects, employment opportunities, and public notices. Website viewers are encouraged to provide feedback, and a phone number for reporting a sewer spill is posted at the top of the homepage.

[END OF ELEMENT 11]

West County Wastewater

Sewer Spill Emergency Response Plan

Effective Date: _____

Revised Date: _____

Approved by: _____

Signature: _____

Date: _____

Prepared by: David Patzer
DKF Solutions Group, LLC
dpatzer@dkfsolutions.com

WEST COUNTY WASTEWATER

TABLE OF CONTENTS

1. PURPOSE

The purpose of the West County Wastewater (WCW) Spill Emergency Response Plan (SERP) is to support a prompt, orderly and effective response to spills (sanitary), reduce spill volumes, and collect information for prevention of future spills. A "spill" in this document is defined, by State Water Board Order No. WQ 2022-0103-DWQ as 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.

The SERP provides guidelines for WCW personnel to follow in responding to, cleaning up, reporting, and properly documenting spills that may occur within the WCW's service area. This SERP satisfies the State Water Board Order No. WQ 2022-0103-DWQ, which require wastewater collection agencies to have a Spill Emergency Response Plan.

Additionally, the SERP outlines procedures for responding to sanitary sewer spill backups into structures as required by the WCW's insurer. "Backup" is a term typically used by insurers to describe property damage resulting from exposure and contact to untreated or partially treated sewage.

2. POLICY

The WCW's employees are required to report all spills from agency owned sewer mains and publicly owned laterals found and to take the appropriate action to secure the spill area, properly report to the appropriate regulatory agencies, 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 protect the environment. The WCW's goal is to respond to sewer system spills as soon as possible following notification. The WCW will follow reporting procedures regarding sewer spills as set forth by the San Francisco Regional Water Quality Control Board and the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR).

3. DEFINITIONS AS USED IN THIS SERP

ANNUAL REPORT: An Annual Report (previously termed as Collection System Questionnaire in previous State Water Board Order No. 2006-0003-DWQ) is a mandatory report in which the WCW 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 WCW'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.

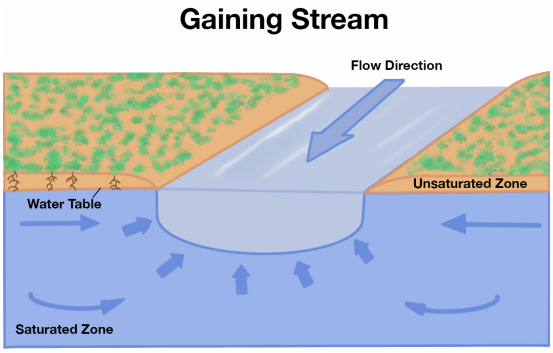
DRAINAGE CONVEYANCE SYSTEM: A drainage conveyance system is a publicly- or privately-owned separate storm sewer system, including but not limited to drainage canals, channels, pipelines, pump stations, detention basins, infiltration basins/facilities, or other facilities constructed to transport stormwater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

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.

FOG – Fats, Oils, and Grease: Refers to fats, oils, and grease typically associated with food preparation and cooking activities that can cause blockages in the sanitary sewer system.

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 the SWRCB Order, groundwater is hydrologically connected to a surface water when the groundwater feeds into the surface water. See image, right. 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 WCW'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 WCW, with authority to sign and certify submitted information and documents required by State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR).

MAINLINE SEWER: Refers to WCW wastewater collection system piping downstream of the sewer laterals that is not a private sewer lateral connection to a building.

MAINTENANCE HOLE OR MANHOLE: Refers to an engineered structure that is intended to provide access to a sanitary sewer for maintenance and inspection

NOTIFICATION OF A SPILL: Refers to the time at which the WCW becomes aware of a spill event through observation or notification by the public or other source.

NUISANCE: For the purpose of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR), 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.

PREVENTATIVE MAINTENANCE: Refers to maintenance activities intended to prevent failures of the wastewater collection system facilities (e.g. cleaning, CCTV, inspection).

PRIVATE LATERAL SEWAGE SPILL – Spills that are caused by blockages or other problems within a privately-owned lateral.

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.

PRIVATE SEWER LATERAL: A private sewer lateral is the privately-owned lateral that transports sewage from private property(ies) into a 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.

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 WCW;
- 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 the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR), sanitary sewer systems include only systems owned and/or operated by the WCW.

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.

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 storm-water or groundwater, conveyed in a sanitary sewer system.

SEWER BACKUP A sanitary sewer spill resulting from a sanitary sewer system overflow, operational failure, and/or infra-structure failure in a publicly owned sewer system, with an appearance point and subsequent discharge into a structure.

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 the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR) 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 the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR) 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 a WCW-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the WCW shall report all Category 1 spills per section 3.1 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR).

- **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 the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR) 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 the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR) 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 the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR) 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.

TRAINING: Training is in-house or external education and guidance needed that provides the knowledge, skills, and abilities to comply with the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR).

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.

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.

4. STATE REGULATORY REQUIREMENTS FOR ELEMENT 6, SPILL EMERGENCY RESPONSE PLAN

The Sewer System Management Plan (SSMP) must include an up to date Spill Emergency Response Plan (SERP) to ensure prompt detection of and response to spills to reduce spill volumes and collect information for prevention of future spills. The SERP 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 State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR), State law and regulations, and applicable Regional Water Board Orders;
- Ensure that appropriate staff and contractors implement the SERP 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 State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR); and
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update it as needed.

The Sewer System Management Plan is available to the public at https://www.wcwd.org/about-us/plans-documents/.

5. SPILL EMERGENCY RESPONSE PLAN OBJECTIVES

The Spill Emergency Response Plan includes measures to protect public health and the environment. The WCW will 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 discharges to waters of the State.

Additionally, WCW Staff will:

- Work safely;
- Properly document each spill event in a separate file including photos and/or video where applicable;
- Collect information for prevention of future spills;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the spill;
- Meet the regulatory reporting requirements;
- Evaluate the causes of failure related to spills;
- Perform post-spill response evaluation for adherence to procedures and effectiveness of response; and
- Revise response procedures, modify maintenance practices or provide additional training based on the results from the debrief and failure analysis of spills, if needed.

6. SPILL DETECTION AND NOTIFICATION

ref. State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR)*, ATTACHMENT D, Element 6, Page D-6*

The processes that are employed to notify the WCW of the occurrence of a spill include: observation by the public, receipt of an alarm, or observation by WCW staff during the normal course of their work.

6.1 LIFT STATION ALARMS

The WCW operates 17 wastewater lift stations. In the event of a station failure the SCADA alarm system is activated and the WCW is contacted. To prevent spills, wastewater from the wet well can either be pumped into a vacuum truck for disposal to a nearby sanitary sewer manhole or bypassed around the station into the sanitary sewer system.

6.2 PUBLIC OBSERVATION

Public observation is the most common way that WCW is notified of blockages and spills.
Contact numbers and information for reporting sewer spills and backups are on the WCW's website: http://www.wcwd.org. The WCW's telephone number for
reporting sewer problems is (510) 222-6700, option 1.

- Normal Work Hours: Calls are received at the main office. The main office will notify a Collec-tions Crew via phone and will send an email to the Collections Crew with caller information (name, address, phone, nature of complaint).

- After Hours: After hours calls are forwarded to an on-call service provider, which contacts the Standby Crew.

When calls are received, either during normal work hours or after hours, the individual receiving the call will collect and include in the spill event file, at a minimum, the following information to record the complaint:

- 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.

If the spill or backup is not in the WCW's service area the individual receiving the call provides the customer with the contact information for the responsible agency.

If the spill or backup is in the WCW service area, the Collections Crew (during business hours) or standby employee (after hours) will respond to the address of the complaint and do an investigation. If the complaint is not a spill, the crew members' findings and actions taken, if any, are logged into the WCW's Service Call Form. The information will be added to the Service Call or Overflow files when the employee returns to the WCW. If the complaint is a spill, the crew member will contact the Division Manager or a Field Supervisor, complete the complete the Sanitary Sewer Spill and Backup Response Workbook, and then enter the findings and actions taken into the Service Call or Overflow files.

6.3 WCW STAFF OBSERVATION

WCW Collections Systems Operations and Maintenance staff conducts periodic inspections of its sewer system facilities as part of their routine activities. Any problems noted with the sewer system facilities are reported to appropriate WCW staff that, in turn, responds to emergency situations. Work orders are issued to correct non-emergency conditions.

6.4 CONTRACTOR OBSERVATION

Contractors working on the WCW sewer system will be informed of contractor spill response procedures. Contractors working on behalf of property owners will be provided spill response information by WCW's Offices when they pull a permit. The following procedures are to be followed in the event that a contractor/plumber causes or witnesses a sanitary sewer spill. If the contractor/plumber causes or witnesses a spill they should:

1. Immediately notify the WCW at (510) 222-6700 and provide the following information if available:
    a. Date, time contractor first noticed the spill
    b. Description of the contractor's observation, including any information regarding whether the spill has reached surface waters or a drainage conveyance system
    c. Contractor's contact information

2. Protect storm drains.
3. Protect the public.
4. Direct ALL media and public relations requests to the Communications Specialist.

6.5 NO OBSERVATION

If there are no witnesses or no call was received for a spill, the WCW staff will contact nearby residences or business owners in the vicinity of the spill, in an attempt to obtain information that brackets a given start time that the spill began. This information will be collected and documented on the Sanitary Sewer Spill Report in the Sanitary Sewer Spill/Backup Response Workbook.

7. SPILL RESPONSE PROCEDURES *(Ref.* State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR)*, ATTACHMENT D Element 6 page D-6)*

7.1 SEWER SPILL/BACKUP RESPONSE SUMMARY

The WCW will respond to spills as soon as feasible following notification of a spill/backup.

If it is not possible that the spill/backup is due to a failure in the WCW-owned/maintained sewer lines the Collections Crew performs the following:

- Follows the instructions in the Sanitary Sewer Spill/Backup Response Workbook.
- If the customer is not home the Collections Crew completes the Door Hanger and leaves it on the customer's door.
- If the customer is home the Collections Crew:
    - Explains that the blockage is in the customer's lateral and the WCW does not have legal authority to maintain or perform work on privately owned laterals.
    - Recommends to the customer that they hire a licensed contractor to clear their line.
    - Gives the customer the Your Responsibilities as a Private Property Owner pages from the Sanitary Sewer Spill/Backup Response Workbook.

If it is possible that the spill/backup is due to a failure in the WCW-owned/maintained sewer lines the Collections Crew:

- Follows the instructions in the Sanitary Sewer Spill/Backup Response Workbook.
- Notifies the Field Supervisor or Collection Systems Operations Manager of the incident.
- Relieves blockage and cleans impacted areas.
- Forwards the completed Sanitary Sewer Spill/Backup Response Workbook to the Collection Systems Operations Manager or the Field Supervisors.

The Collection Systems Operations Manager or the Field Supervisors performs required regulatory reporting in accordance with the Sanitary Sewer Spill/Backup Response Workbook's Regulatory Reporting section.

If the overflow has impacted private property, the Collections Crew:

- Follows the instructions in the Sanitary Sewer Spill/Backup Response Workbook.
- Provides the customer with forms and information as indicated in the Sanitary Sewer Spill/Backup Response Workbook.
- Forwards the completed Sanitary Sewer Spill/Backup Response Workbook to the Collection Systems Operations Manager or the Field Supervisors.

The Collection Systems Operations Manager or the Field Supervisors notifies the HR Analyst of incident.

The HR Analyst or designee:

- Reviews incident reports, claim form and other incident information and forwards, as appropriate, to Carl Warren & Co.
- Communicates with claimant as appropriate.
- Communicates with Carl Warren & Co., to adjust and administer the claim to closure.
- Properly documents in writing all activities and communications before approving the final event file.

7.2 FIRST RESPONDER PRIORITIES

The first responder's priorities are:

- Prompt response to spills.
- To follow safe work practices.
- To respond promptly with the appropriate and necessary equipment.
- To reduce spill volume and contain the spill wherever feasible.
- To restore the flow as soon as practicable.
- With signage and caution tape wear feasible, minimize public access to and/or contact with the spilled sewage.
- To promptly notify the Field Supervisor or Collection Systems Operations Manager in event of a spill needing additional resources, and/or impacting environmentally sensitive areas.
- To promptly notify the Field Supervisor or Collections Systems Operations Manager will need to contact the Environmental Services Manager if the spill reached waters of the State.
- To return the spilled sewage to the sewer system.
- Ensure water quality samples are collected within 18 hours of being notified of a spill greater than 50,000 gallons.
- To restore the area to its original condition (or as close as possible). Collect information for the prevention of future spills.
- Properly document the spill and response activities on the forms provided in the Sanitary Sewer Spill/Backup Response Workbook, including photos and/or video where practicable.

7.3 SAFETY

The first responder is responsible for following safety procedures at all times. Special safety precautions must be observed when performing sewer work. There may be times when WCW personnel responding to a sewer system

event are not familiar with potential safety hazards peculiar to sewer work. In such cases it is appropriate to take the time to discuss safety issues, consider the order of work, and check safety equipment before beginning response activities.

If the first responders encounter access restrictions or unsafe conditions that prevent its compliance with spill response requirements or monitoring requirements in State Water Board Order No. WQ 2022-0103-DWQ (SSS-WDR), the WCW provides written documentation of access restrictions and/or safety hazards in the corresponding required report.

7.4 INITIAL RESPONSE

The first responder must respond to the site of the spill/backup and visually check for potential sewer stoppages. The first responder will:

- Note arrival time at the site of the spill/backup.
- Verify the existence of a public sewer system spill or backup.
- Identify and assess the affected area and extent of spill.
- Assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools.
- Contact caller if time permits.
- Document the spill according to the requirements described in Section 10 of this SERP, including taking photos and/or videos of overflowing manhole(s)/cleanout(s).
- Take steps to contain, recover, and return the spill to the sanitary sewer as feasible. For procedures refer to the Sanitary Sewer Spill/Backup Response Workbook.
- Protect surface waters to the extent practicable. For procedures refer to the Sanitary Sewer Spill/Backup Response Workbook.
- Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event.

7.5 INITIATE SPILL CONTAINMENT MEASURES

The first responder will attempt to contain as much of the spilled sewage as possible using the following steps:

- Determine the immediate destination of the overflowing sewage.
- Plug storm drains using air plugs, sandbags, and/or plastic mats to contain the spill, whenever appropriate. If spilled sewage has made contact with the storm drainage system, attempt to contain the spilled sewage by plugging downstream storm drainage facilities.
- Contain/direct the spilled sewage using dike/dam or sandbags.
- Vacuum retrieve sewage whenever practicable.
- Pump around the blockage/pipe failure.

Containment efforts will be documented. For procedures refer to the Sanitary Sewer Spill/Backup Response Workbook.

7.6 RESTORE FLOW

Using the appropriate cleaning equipment, set up downstream of the blockage and rod or hydro-clean upstream from a clear manhole. Attempt to remove the blockage from the system and observe the flows to ensure that the blockage does not reoccur downstream. This sentence should read as followed: If the blockage cannot be cleared within a reasonable time of arrival, or sewer requires construction repairs to restore flow, immediately contact Field supervisor or Collections systems Operations Manager, and initiate containment and/or bypass pumping.

7.7 EQUIPMENT

This section provides a list of specialized equipment that may be used to support this Spill Emergency Response Plan.

- *Closed Circuit Television (CCTV) Inspection Unit* – A CCTV Inspection Unit is required to determine the root cause for all spills from gravity sewers.
- *Camera* -- A digital or disposable camera (photo, video or phone) is required to record the conditions upon arrival, during clean up, and upon departure.
- *Emergency Response Trucks* -- A utility body pickup truck, or open bed is required to store and transport the equipment needed to effectively respond to sewer emergencies. The equipment and tools will include containment and clean up materials.
- *Portable Generators, Portable Pumps, Piping, and Hoses* – Equipment used to bypass pump, divert, or power equipment to mitigate a spill.
- *Combination Sewer Cleaning Trucks* -- Combination high velocity sewer cleaning trucks with vacuum tanks are required to clear blockages in gravity sewers, vacuum spilled sewage, and wash down the impacted area following the spill event.
- *Air plugs, sandbags and plastic mats*
- *Spill Sampling Kits*
- *Portable Lights*

8. RECOVERY AND CLEANUP *(Ref.* State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR)*, Element 6, ATTACHMENT D, Page D-6)*

The recovery and cleanup phase begins immediately after the flow has been restored and the spilled sewage has been contained to the extent possible. The spill recovery and cleanup procedures are described in the following sections.

8.1 ESTIMATE THE FLOW AND VOLUME OF SPILLED SEWAGE

A variety of approaches exist for estimating the volume of a sanitary sewer spill. The Collections Crew members should use the method most appropriate to the sewer overflow in question and reference the Sanitary Sewer Spill/Backup Response Workbook which provides four (4) methods:

- Eyeball Estimation Method
- Duration and Flow Rate Calculation Method
- Area/Volume Method
- Upstream Connections Method

In addition, the following will be documented on the Sewer Spill Report form:

1. 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;
2. Estimated total spill volume exiting the system;
3. Description and photographs of the extent of the spill and spill boundaries;
4. 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 that reached the drainage conveyance system;
    - 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;
    - Estimated spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water.
5. Estimated total spill volume recovered.

8.2 RECOVERY OF SPILLED SEWAGE

Vacuum up and/or pump the spilled sewage and wash down water and discharge it back into the sanitary sewer system. Thoroughly recover and dispose of sewage and wash down water.

8.3 CLEAN-UP AND DISINFECTION

Clean up procedures will be implemented to reduce the potential for human health issues and adverse environmental impacts associated with a spill event. The procedures described are for dry weather conditions and will be modified as required for wet weather conditions. Where cleanup is beyond the capabilities of WCW staff, a cleanup contractor will be used.

Private Property

WCW crews are responsible for the cleanup when the property damage is minor in nature and is outside of private building dwellings, such as in front, side and backyards, easements, etc. In all other cases, affected property owners will be offered the service of a water damage restoration contractor to complete the cleanup and restoration. If the overflow into property is the definite cause of WCW system failure, the property owner will be offered the service of a water damage restoration contractor to complete the cleanup and restoration. In both cases, property owners may submit a claim form.

Hard Surface Areas

Collect all signs of sewage solids and sewage-related material either by protected hand or with the use of rakes and brooms. Wash down the affected area with clean water and/or deozyme or similar non-toxic biodegradable surface disinfectant until the water runs clear. The flushing volume will be approximately three times the estimated volume of the spill. Take steps to contain and vacuum up the wastewater. Allow area to dry. Repeat the process if additional cleaning is required.

Landscaped and Unimproved Natural Vegetation

Collect all signs of sewage solids and sewage-related material either by protected hand or with the use of rakes and brooms. Wash down the affected area with clean water until the water runs clear. The flushing volume will be approximately three times the estimated volume of the spill. Either contain or vacuum up the wash water so that none is released. Allow the area to dry. Repeat the process if additional cleaning is required.

Natural Waterways

The Department of Fish and Wildlife will be notified by CalOES for spills greater than or equal to 1,000 gallons. For all spills contact Contra Costa Environmental Health and any other impacted agency in the jurisdiction of the spill.

Wet Weather Modifications

Collect all signs of sewage solids and sewage-related material either by protected hand or with the use of rakes and brooms. Omit flushing and sampling during heavy storm events (i.e., sheet of rainwater across paved surfaces) with heavy runoff where flushing is not required and sampling would not provide meaningful results.

8.4 PUBLIC NOTIFICATION

Signs will be posted and barricades put in place to keep vehicles and pedestrians away from contact with spilled sewage. Contra Costa County Environmental Health instructions and directions regarding placement and language of public warnings will be followed. Additionally, the Collection Systems Operations Manager or designee will direct posting in consultation with the County Environmental Health, as necessary, will use their best judgment regarding supplemental sign placement in order to protect the public and local environment. Signs will not be removed until directed by Contra Costa County Environmental Health or the Collection Systems Operations Manager or designee will direct posting in consultation with the County Environmental Health, as necessary.

Creeks, streams and beaches that have been contaminated as a result of a spill will be posted at visible access locations until the risk of contamination has subsided to acceptable background bacteria levels. Document the number and location of posted signs. The area and warning signs, once posted, will be checked every day to ensure that they are still in place. Photographs of sign placement will be taken.

In the event that an overflow occurs at night, the location will be inspected first thing the following day. The field crew will look for any signs of sewage solids and sewage-related material that may warrant additional cleanup activities.

When contact with the local media is deemed necessary, the Communications Specialist or their designee will provide the media with all relevant information.

9. WATER QUALITY *(Ref.* State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR)*, Element 6, Attachment A - DEFINITIONs page A-5, Attachment E1 2.3 through 2.4 pages E1-5 through E1-8)*

9.1 SURFACE WATERS OF CONCERN

The following waters of the State are in the WCW's service area:

- San Francisco Bay
- San Pablo Creek
- Wildcat Creek
- Garrity Creek
- Rheem Creek
- Pinole Creek

9.2 WATER QUALITY SAMPLING AND TESTING

For sewage spills in which an estimated 50,000 gallons or greater are discharged into a surface water, the WCW will conduct the following water quality sampling as soon as possible but no later than **18 hours** after the WCW'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 9.5 (Receiving Water Sampling Locations) below, if sewage discharges to a surface water via a drainage conveyance system; and/or
- Each of the three receiving water sampling locations in section 9.5 (Receiving Water Sampling Locations) below;

If the receiving water has no flow during the duration of the spill, the WCW must report "No Sampling Due To No Flow" for its receiving water sampling locations.

The WCW staff will collect water quality samples in accordance with State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR).

The WCW staff collecting the samples will follow the WCW Spill Emergency Response Plan Water Quality Sampling Standard Operating Procedures that provides specific instructions on sample collection, preservation, Chain of Custody procedures and how to coordinate sample delivery and analysis with the WCW or contract lab.

The WCW Laboratory or contract lab shall analyze the collected receiving water samples for the following constituents:

- Ammonia, and
- Appropriate bacterial indicator(s) per the applicable Basin Plan water quality objectives, including one or more of the following from the table below, unless directed otherwise by the Regional Water Board: *ref. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan), November 5, 2019*

Water Quality Objectives for Bacteria[a]

Beneficial Use	Fecal Coliform[a] (MPN/100mL)	Total Coliform[a] (MPN/100mL)	Enterococcus (CFU/100mL)g	E. coli (CFU/100mL)[g]
Water Contact Recreation			geometric mean < 30 STV < 110	geometric mean < 100 STV < 320
Shellfish Harvesting[b]	median < 14 90th percentile < 43	median < 70 90th percentile < 230[c]		
Non-contact Water Recreation[d]	mean < 2000 90th percentile < 4000	geometric mean < 100		
Municipal Supply: Surface Water[e]	geometric mean < 20			
Municipal Supply: Groundwater		< 1.1[f]		

Notes:

a. Based on a minimum of five consecutive samples equally spaced over a 30-day period.

b. Source: National Shellfish Sanitation Program.

c. Based on a five-tube decimal dilution test or 300 MPN/100 ml when a three-tube decimal dilution test is used.

d. Source: Report of the Committee on Water Quality Criteria, National Technical Advisory Committee, 1968.

e. Source: California Department of Public Health recommendation.

f. Based on multiple tube fermentation technique; equivalent test results based on other analytical techniques, as specified in the National Primary Drinking Water Regulation, 40 CFR, Part 141.21(f), revised June 10, 1992, are acceptable.

g. Numeric values are from Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California based on Section 7958 of Title 17 of the California Code of Regulations, 69FR 67217 et seq., and 40 CFR Part 131.41 (effective date December 16, 2004). The Enterococcus objective applies to marine and estuarine waters where the salinity is greater than 1 part per thousand more than 5 percent of the time. The E. coli objective applies to freshwaters where the salinity is equal to or less than 1 part per thousand 95 percent or more of the time. The geometric mean for enterococcus and E. coli is computed weekly for all samples in a 6-week interval. There is no fecal coliform objective to protect water contact recreation for inland surface waters, enclosed bays, or estuaries, but a fecal coliform objective protecting this use remains in the California Ocean Plan. The STV is the statistical threshold value and shall not be exceeded by more than 10 percent of the samples collected in a calendar month.

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 WCW shall collect and analyze additional samples as required by the applicable Regional Water Board Executive Officer or designee.

9.3 LAB SELECTION

Analytical Lab
Samples collected for spill response and background monitoring purposes will be analyzed at WCW laboratory or a contract lab, which are accredited through the California State Water Resources Control Board Environmental Laboratory Accreditation Program (ELAP). ELAP provides evaluation and accreditation of environmental testing laboratories to ensure the quality of analytical data used for regulatory purposes to meet the requirements of the State's drinking water, wastewater, shellfish, food, and hazardous waste programs. The State agencies that monitor the environment use the analytical data from these accredited labs. The ELAP-accredited laboratories have demonstrated capability to analyze environmental samples using approved methods.

Getting Samples to the Lab
At all times, sample hold times identified below will be observed in accordance with the following:

Analytical Parameter	Maximum Holding Time	Required Container Type	Required Preservative	Minimum Amount
Ammonia (NH3 as N); SM 4500NH3 B/C or B/G	28 days	Plastic / Glass	H_2SO_4 pH <2 +0-6°C	200 mL
Coliform, Total / Fecal; SM 9221 B/E	8 hours – wastewater/storm-water 30 hours – drinking water	Plastic (sterile)	$Na_2S_2O_3$ + 0-10°C; No regulatory temp. req. for drinking water)	100 mL
Coliform, Total / E.Coli; SM 9223 B (Present/Absent or Quantitray)	30 hours – drinking water	Plastic (sterile)	$Na_2S_2O_3$ + 0-10°C; No regulatory temp. req. for DW	100 mL
Enterococcus by Enterolert	8 hours	Plastic (sterile)	$Na_2S_2O_3$ + 0-10°C	100 mL

Once samples are collected, they will be transported by staff or the contract lab courier service to the lab to be processed.

9.4 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 State Water Board Order

No. WQ 2022-0103-DWQ (SSSWDR), 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 State Water Board Order No. WQ 2022-0103-DWQ (SSS-WDR) 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).

9.5 RECEIVING WATER SAMPLING LOCATIONS

Receiving water samples shall be collected 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.

and/or 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.
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.

9.6 STREAM VELOCITY MEASUREMENTS

If sampling is performed after the spill has stopped, the velocity of the impacted surface water must be determined to estimate spill travel time and select an accurate Downstream sample location. One way to measure the spill travel time is to use a velocity probe (such as a Global Water FP111-S Flow Probe) to determine the rate of flow in the water body. In cases where a water velocity probe is used, the manufacturer's instructions will be followed. When a stream velocity meter is not used, manual calculation and the stopwatch method are also appropriate measuring techniques.

[1] The WCW 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.

9.7 SAMPLE TYPES

Grab Samples

Grab samples are appropriate for the characterization of surface waters at a particular time and place, to provide information about minimum and maximum concentrations, and to allow for the collection of variable sample volume.

Grab samples may be collected directly into the sample container, or a clean decontaminated intermediate container may be used if a wading sample is not possible or safe. If an intermediate container is used, when in the field, double rinse the sampling device (bucket, automatic sampler) with sample water prior to collecting the sample and be sure to discard rinse water downstream of where sample will be collected. If samples are collected in a bucket and distributed into a consolidation collection container, swirl the contents of the bucket as it is being poured into the consolidation collection container to avoid settling of solids (and pour in back-and-forth pattern – *e.g.*, 1-2-3-3-2-1).

- Grab Sample: A grab sample is defined as an individual sample collected at a given time. Grab samples represent only the condition that exists at the time the sample is collected (US EPA 1977).

- Surface Grab Sample: A sample collected at the water surface (i.e., skimming) directly into the sample container or into an intermediate container such as a clean bucket. A single or discrete sample collected at a single location.

Field Blanks

Field Blanks are used to evaluate the potential for contamination of a sample by site contaminants from a source not associated with the sample collected (e.g., airborne dust, etc.). Sterile, deionized water is taken into the field in a sealed container. This is the stock water. The stock water is then poured into the sample container. The containers and sample submission forms are labeled as "Field Blank." The same template selected for the test samples should be used. Field blanks are subject to the same holding time limitations as samples. The appropriate FIELD QC box on the sample Chain of Custody form should be checked.

9.8 SAMPLE LABELING AND CHAIN OF CUSTODY PROCEDURES

At a minimum, the following grab samples will be collected:

- Field Blank: See Section 9.7 for discussion.
- Upstream: A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.
- Source: A point in the receiving water where sewage initially enters the receiving water. See Section 9.6 for information on determining velocity of the surface water in order to determine the Source sample location.
- "Downstream" of spill: A point in the receiving water, downstream of the point of sewage discharge, where the spill material is fully mixed with the receiving water. This location will vary with the velocity of the surface water to be sampled (*see Section 9.6)*.

- A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.

Sample labels shall be completed for each sample, using waterproof ink.

Photos or video of each sample location will be taken, properly labeled with date, time, and view direction and a map of the photo locations completed. Photos and videos shall include relevant landmarks to identify sampling locations and their surroundings.

Due to the evidentiary nature of samples collected during enforcement investigations, possession must be traceable from the time the samples are collected until they are analyzed. To maintain and document sample possession, a Surface Water Sample Chain of Custody Record (see Sewer Spill/Backup Response Workbook) must be completed. A sample is under custody if:

- It is in your possession, or
- It is in your view, after being in your possession, or
- It was in your possession and under your control to prevent tampering, or
- It is in a designated secure area.

As few people as possible should handle samples. The person taking the samples is personally responsible for the care and custody of the samples collected until they are transferred or dispatched properly.

Samples are accompanied by a chain of custody record. When transferring the possession of samples, the individuals relinquishing and receiving will sign, date, and note the time on the record. This record documents sample custody transfer from the sampler, often through another person, to the analyst at the laboratory. The samples are typically transferred to the sample-receiving custodian at the laboratory.

9.9 SAMPLING EQUIPMENT

The following are examples of sampling equipment used by the WCW:

- Sampling pole with fixed container
- Sampling pole with removable container
- Sampling pail and rope
- Stream velocity meter
- Grab-n-Go Sample Kit

9.10 GRAB-N-GO SAMPLING KIT

The WCW maintains a Grab-n-Go sampling kit located at the lab. The kit is inspected quarterly by the Senior Environmental Compliance Inspector. Additionally, any WCW employee utilizing the kit is responsible for decontaminating sampling equipment and field monitoring devices and replenishing the kit.

Spill Sample Collection Kit Inventory:

- Cooler
- Surface Water Sampling SOP (in Sewer Spill/Backup Response Workbook)
- Ice Pack
- 5 Ammonia sample bottles

- 15 Bacti sample bottles
- Minimum of 20 blank sample bottle labels
- Digital camera or smart phone camera
- Latex gloves
- Safety glasses/goggles
- Waterproof Pen
- Surface Water Sampling Worksheet (in Sewer Spill/Backup Response Workbook)
- Chain of Custody form (in Sewer Spill/Backup Response Workbook)

9.11 DECONTAMINATION PROCEDURES

Removing or neutralizing contaminants from sampling equipment minimizes the likelihood of sample cross contamination, reduces or eliminates transfer of contaminants to clean areas, and prevents the mixing of incompatible substances.

Gross contamination can be removed by physical decontamination procedures. These abrasive and non-abrasive methods include the use of brushes, air and wet blasting, and high- and low- pressure water cleaning.

The decontamination procedures for the sample types and sampling equipment (other than sample bottles, which are provided to Collections Crew in a "ready to be used" condition by the lab) used at the WCW may be summarized as follows:

1. Physical removal
2. Tap water rinse
3. Air dry

9.12 SAMPLING PROCEDURES

9.12.1 Sample Location and Identification Procedures

Samples will be collected by WCW Environmental Services or Lab. It is impossible to establish hard and fast rules concerning sampling locations. However, the following general guidelines should be applied whenever surface waters are sampled:

- The sampling location should be far enough upstream or downstream of confluences or point sources so that the surface water and spill volume is well mixed. Natural turbulence can be used to provide a good mixture.
- Samples should be collected at a location where the velocity is sufficient to prevent deposition of solids, and to the extent practical, should be in straight reach having uniform flow. All flow in the reach should be represented, so divided flow areas should be avoided, and samples should be taken towards the middle of the reach where feasible.
- Sampler must always stand downstream of the collection vessel, and sample "into the current." Care must be taken to avoid introducing re-suspended sediment into the sample.

9.12.2 Surface Water Sampling Standard Operating Procedure (SOP)

The Surface Water Sampling SOP, Section G in the Sewer Spill/Backup Response Workbook, provides step-by-step procedures to collect samples and deliver them for analysis in accordance with State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR), Element 6.

9.12.3 Follow Up Sampling

Sampling will be repeated every 24 hours, or as directed by the RWQCB or the Contra Costa County Environmental Health, until such time as one of the following criteria have been met:

- The Contra Costa County Environmental Health or the RWQCB indicates follow up sampling is no longer required, or
- Both the ammonia and bacteria levels downstream are approximately equal to or less than the upstream levels.

9.13 SAFETY AND ACCESS EXCEPTIONS

If the WCW encounters access restrictions or unsafe conditions that prevents its compliance with spill response requirements or monitoring requirements in State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR), the WCW shall provide documentation of access restrictions and/or safety hazards in the corresponding required report.

Personal safety of staff engaged in any fieldwork activity (e.g. in transit, walking or hiking, and any field activities while at the sample site) is of primary importance. Staff should never place themselves in dangerous or risky situations. Any hazards that are known by field personnel should be communicated to other members of the field crew.

Fieldwork should be postponed if there is indication that engagement in the field activity could cause bodily harm. Working during lightning storms, in heavy vegetation or poison oak, near aggressive wildlife or domestic animals, traversing steep or rugged terrain, unstable slopes or creek banks, near swiftly moving water or potential flash flood conditions, or during snowy weather is not considered "normal risk." If any member of the field crew is uncomfortable with a reasonable self-determined hazardous field condition, it is that person's responsibility to bring this to the attention of the onsite field supervisor or their supervisor. A "reasonable self-determined hazardous field condition" is defined as other than normal risk. Supervisors shall not dismiss any person's spoken concerns that field conditions are too hazardous to complete the work assignment.

The person taking the samples must have adequate protection, including protective clothing. They must wear gloves, as protection against chemical and/or bacteriological hazards, while they are sampling or handling samples that are known or suspected to be hazardous (e.g. visible solids or sheens, downstream from sewage spills, etc.), or if hands have open wounds. The type of gloves worn shall be determined by the sampling circumstance and type of pollutants expected – for instance longer gloves are needed when samples must be taken well below the surface.

When in a boat or wading in a stream and where the danger of drowning exists, a personal floatation device shall be worn at all times in addition to following the other requirements of Title 8 CCR 1602 Working Over or Near Water. Other protective measures shall be taken in accordance with WCW safety procedures.

Upon arrival at a sampling site, safety equipment such as signs, cones, lights, etc. shall be set out as appropriate. Vehicles shall be parked in locations and directions to minimize traffic disruption and avoid sample contamination. Photos should be ultimately taken of the placement of all safety equipment and signage.

The following guidelines apply to all fieldwork by WCW staff.

- No sample or measurement is worth the risk of injury.
- All staff shall use proper personnel protective gear as appropriate for the incident (e.g., life preservers, gloves, goggles, etc.)
- Field sampling crews should consist of at least two members unless otherwise approved by a supervisor.
- Be conscious of the whereabouts of rattlesnakes, mountain lions, and other dangerous animals.
- Open body wounds are entry sites for infection; take the necessary precautions for self-protection.
- If there is storm activity in the work area, wait for safer conditions to develop or postpone the sampling.
- Do not sample at night without approval from your supervisor.
- Do not trespass on private property or posted restricted public lands without prior permission and written approval from property owner or administrator.
- If strange or suspicious looking people are in the work area, either wait for them to leave or postpone the work to a later time. Do not force confrontations with strangers and back away from any confrontations with the public. Be courteous and understanding of public concerns of the situation.
- Take the necessary precautions against exposure to harmful weather conditions such as heat, wind, snow, cold, rain, etc.
- Carefully evaluate a given on-site situation to determine if the task can be performed safely.
- Streams will not be entered unless the responding employees have the necessary protective footwear (e.g. rubber boots, waders) and the footwear does not pose an additional risk to worker safety (e.g. waders filling with water if the employee slips in the stream).
- Streams will not be entered if deemed unsafe to so by the most senior employee on the responding crew and if entered, will only be done so in accordance with Title 8 CCR Section 1602 Work Over or Near Water.

9.14 SPILL TECHNICAL REPORT: 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 Collection Systems Operations Manager 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. WCW's response to the spill:
   - Chronological narrative description of all actions taken by the WCW 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 9.2.
   - Laboratory results, including laboratory reports;
   - Detailed location map illustrating all water quality sampling points; and
   - Other regulatory agencies receiving sample results (if applicable).
5. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

10. NOTIFICATION, REPORTING, MONITORING AND RECORDKEEPING REQUIREMENTS

ref. ORDER WQ 2022-0103-DWQ Attachment E-1 and E-2

10.1 REPORTING REQUIREMENTS

All reporting required in State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR) must be submitted electronically to the online CIWQS Sanitary Sewer System Database (https://ciwqs.waterboards.ca.gov), unless specified otherwise in State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR). 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 the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR).

The WCW 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.

Refer to APPENDIX A for detailed reporting requirements by spill category.

10.2 REGULATOR REQUIRED NOTIFICATIONS

10.2.1 Spill Category 1: Spills to Surface Waters

Spill Requirement	Due	Method
Notification	**Within two (2) hours** of the WCW'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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))
Monitoring	• Conduct spill-specific monitoring (sampling the impacted surface water); • 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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))
Reporting	• Submit Draft Spill Report **within three (3) business days** of the WCW'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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))

10.2.2 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 WCW's knowledge of a Category 2 spill of 1,000 gallons or greater 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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))

Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))
Reporting	• Submit Draft Spill Report **within three (3) business days** of the WCW'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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))

10.2.3 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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))
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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))

10.2.4 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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))

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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))

10.2.5 WCW Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the WCW's knowledge of a spill of 1,000 gallons or greater, from an WCW- 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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))
Monitoring	Conduct visual monitoring.	(Section 2 of Attachment E1 of the State Water Board ORDER WQ 2022-0103-DWQ)
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 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))

10.3 COMPLAINT RECORDS

The WCW maintains records of all complaints received whether or not they result in sanitary sewer overflows. These complaint records include, but are not limited to, records documenting how the WCW 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;

All complaint records will be maintained, in the Service Call Files, for a minimum of five years whether or not they result in a spill. Spill files (field notes, spill/Backup Response Workbook) are kept in the Overflow Files.

11. POST-SPILL ASSESSMENTS OF SPILL RESPONSE ACTIVITIES

(ref. State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR)*, Element 6, ATTACHMENT D, Page D-6)*

Every spill event is an opportunity to evaluate the WCW adherence to response and reporting procedures and effectiveness of the response. Each spill event is unique, with its own elements and challenges including volume, cause, location, terrain, climate, and other parameters.

As soon as possible after spill events all the participants, from the person who received the call to the last person to leave the site, will meet to review the procedures used and to discuss what worked and where improvements could be made in responding to and mitigating future spill events. The results of the debriefing will be documented and tracked to ensure the action items are completed as scheduled.

11.1 FAILURE ANALYSIS INVESTIGATION

The objective of the failure analysis investigation is to determine the "root cause" of the spill and to identify corrective action(s) needed that will reduce or eliminate future potential for the spill to recur or for other spills to occur.

The investigation will include reviewing all relevant data to determine appropriate corrective action(s) for the line segment. The investigation may include:

- Reviewing and completing the Sanitary Sewer Spill Report and any other documents related to the incident
- Reviewing the incident timeline and other documentation regarding the incident
- Reviewing communications with the reporting party and witness
- Reviewing volume estimate, volume recovered estimate, volume estimation assumptions and associated drawings
- Reviewing available photographs
- Interviewing staff that responded to the spill
- Reviewing past maintenance records
- Reviewing past CCTV records,

- Conducting a CCTV inspection to determine the condition of all line segments immediately following the spill and reviewing the video and logs,
- Reviewing any Fats, Oils, Roots and Grease (FROG) related information or results
- Post spill debrief records
- Interviews with the public at the spill location

The product of the failure analysis investigation will be the determination of the root cause and the identification and scheduling of the corrective actions. The Collection System Failure Analysis Form (in Sanitary Sewer Spill/Backup Response Workbook) will be used to document the investigation.

12. SPILL RESPONSE TRAINING

(ref. State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR)*, Element 6, Attachment D 4.3 page D-5 and Element 6 page D-6*

This section provides information on the training that is required to support this Spill Emergency Response Plan.

12.1 INITIAL AND ANNUAL REFRESHER TRAINING

All WCW personnel who may have a role in responding to, reporting, and/or mitigating a sewer system spill will receive training on the contents of this SERP. All new employees will receive training before they are placed in a position where they may have to respond. Current employees will receive annual refresher training on this SERP and the procedures to be followed. The WCW will document all training.

Affected employees will receive annual training on the following topics by knowledgeable trainers:

- The requirements of State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR), Element 6
- The WCW's Spill Emergency Response Plan procedures and practice drills
- Containment and cleanup methods
- Researching and documenting Sanitary Sewer Spill Start Times
- Skilled estimation of spill volume for field operators
- Electronic CIWQS reporting procedures for staff submitting data
- State Water Resources Control Board Employee Knowledge Expectations
- Spill Emergency Response Water Quality Sampling Standard Operating Procedures

Through SWRCB Employee Knowledge Expectations training, the employee will be able to answer the following:

1. Please briefly describe your name and job title.
2. Please describe for us approximately when you started in this field and how long you have worked for your agency.

3. Please expand on your current position duties and role in responding in the field to any spill complaints.

4. Please describe your SOPs used to respond/mitigate spills when they occur.

5. Describe any training your agency provides or sends you to for conducting spill volume estimates.

6. We are interested in learning more about how your historical spill response activities have worked in the field. We understand from discussions with management earlier that you use the SERP from the SSMP. Please elaborate on how you implement and utilize the procedures in the plan.

7. Historically, before any recent changes, can you please walk us through how you would typically receive and respond to any spill complaints in the field?

8. Can you tell us who is responsible for estimating spill volumes discharged? If it is you, please describe how you go about estimating the spill volume that you record on the work order/service request forms?

9. What other information do you collect or record other than what is written on the work order form?

10. Describe if and when you ever talk with people that call in spills (either onsite or via telephone) to further check out when the spill might have occurred based on what they or others know? If you do this, can you tell us where this information is recorded?

11. We understand you may be instructed to take pictures of some sewer spills/backups into structures. Other than these spills, when else would you typically take any pictures of a spill?

12. Please walk us through anything else you'd like to add to help us better understand how your field crews respond and mitigate spill complaints.

12.2 SPILL RESPONSE DRILLS

Periodic training drills or field exercises will be held to ensure that employees are up to date on these procedures, equipment is in working order, and the required materials are readily available. The training drills will cover scenarios typically observed during sewer related emergencies (e.g. mainline blockage, mainline failure, water quality sampling, and lateral blockage). The results and the observations during the drills will be recorded and action items will be tracked to ensure completion.

12.3 SPILL TRAINING RECORD KEEPING

Records will be kept of all training that is provided in support of this SERP for 5 years. The records for all scheduled training courses and for each overflow emergency response training event will include date, time, place, content, name of trainer(s), names and titles of attendees, brief narrative description of the training, including training method(s) and training materials and/or equipment used.

12.4 CONTRACTORS WORKING ON WCW SEWER FACILITIES

All contractors working on WCW sewer facilities will be required to follow the spill response instructions on the Sanitary Sewer Spill Response Instructions for Contractors (Appendix C). Additional training may be required depending on the nature of the work on any or all of the following:

- The requirements of State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR), Element 6
- Communication procedures to WCW in the event a spill is caused or witnessed
- The WCW's Spill Emergency Response Plan procedures and practice drills
- Skilled estimation of spill volume for field operators
- Electronic CIWQS reporting procedures for staff submitting data

13. SEWER BACKUP INTO/ONTO PRIVATE PROPERTY CLAIMS HANDLING POLICY

It is the policy of the WCW that a claims form shall be offered to anyone wishing to file a claim. The following procedures will be observed for all sewer overflows/backups into/onto private property:

- WCW staff will offer a WCW claim form irrespective of fault whenever it is possible that the sanitary sewer backup may have resulted from an apparent blockage in the WCW-owned sewer lines or whenever a WCW customer requests a claim form. The claim may later be rejected if subsequent investigations into the cause of the loss indicate the WCW was not at fault.
- It is the responsibility of the Collections Crew to gather information regarding the incident and notify the Collection Systems Operations Manager or the Field Supervisors or their designee.
- It is the responsibility of the HR Analyst or their designee to review all claims and to oversee the adjustment and administration of the claim to closure.

14. AUTHORITY

This SERP is written in accordance with the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR).

15. APPENDICES

A. Reporting Requirements by Spill Category
B. Door Hanger
C. Sanitary Sewer Spill Response Instructions for Contractors
D. Sanitary Sewer Spill/Backup Response Workbook

APPENDIX A:

Reporting Requirements by Spill Category

REPORTING REQUIREMENTS FOR INDIVIDUAL CATEGORY 1 SPILL REPORTING

Draft Spill Report

Within three (3) business days of the WCW's knowledge of a Category 1 spill, the WCW 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 WCW contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the WCW was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the WCW 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:
    a. Description of the drainage conveyance system transporting the spill;
    b. Photographs of the drainage conveyance system entry location(s);
    c. Estimated spill volume fully recovered from the drainage conveyance system;
    d. Estimated spill volume remaining within the drainage conveyance system;
    e. Description and photographs of all discharge point(s) into the surface water;
    f. Estimated spill volume that discharged to surface waters; and
    g. Estimated total spill volume recovered.

Certified Spill Report

Within 15 calendar days of the spill end date, the WCW 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.

(Category 1 continued)

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report:

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:
    a. 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
    b. 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:
    a. Observed impacts on aquatic life,
    b. Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill,
    c. Responsible entity for closing/restricting use of water body, and
    d. 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.

(Category 1 continued)

Amended Certified Spill Reports

The WCW 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 WCW shall certify the amended report.

After **90 calendar days**, the WCW 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.

REPORTING REQUIREMENTS FOR INDIVIDUAL CATEGORY 2 SPILL REPORTING

Draft Spill Report

Within three (3) business days of the WCW's knowledge of a Category 2 spill, the WCW 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 WCW contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the WCW was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the WCW 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. Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable; and
12. Estimated total spill volume recovered.

Certified Spill Report

Within 15 calendar days of the spill end date, the WCW 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:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;

(Category 2 continued)

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.

Amended Certified Spill Reports

The WCW 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 WCW shall certify the amended report.

After **90 calendar days**, the WCW 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.

REPORTING REQUIREMENTS FOR INDIVIDUAL CATEGORY 3 SPILL REPORTING

Monthly Certified Spill Reporting

The WCW 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 WCW contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the WCW 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:
    a. Description of the drainage conveyance system transporting the spill;
    b. Photographs of the drainage conveyance system entry locations(s);
    c. Estimated spill volume fully recovered from the drainage conveyance system; and
    d. Estimated spill volume discharged to a groundwater infiltration basin 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:
    a. 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
    b. 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.);

(Category 3 Continued)

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:
    a. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
    b. 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.

Amended Certified Spill Reports

Within 90 calendar days of the certified Spill Report due date, the WCW 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 WCW 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.

REPORTING REQUIREMENTS FOR INDIVIDUAL CATEGORY 4 SPILL REPORTING

Monthly Certified Spill Reporting

The WCW 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.

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 WCW shall:

- Maintain records per section 4.4. of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR). The WCW 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 WCW-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the WCW shall report all Category 1 spills per section 3.1 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR).

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 WCW-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the WCW 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 Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR)) for the designated month.

If a spill starts in one calendar month and ends in a subsequent calendar month, and the WCW has no further spills of any category, in the subsequent calendar month, the WCW shall certify "no-spills" for the subsequent calendar month.

If the WCW has no spills from its systems during a calendar month, but the WCW voluntarily reported a spill from a private lateral or a private system, the WCW shall certify "no-spills" for that calendar month.

If the WCWs has spills from its owned and/or operated laterals during a calendar month, the WCW shall not certify "no spills" for that calendar month.

APPENDIX B:

Door Hanger

WCW
WEST COUNTY WASTEWATER

90 DAY FOG Away

FATS, OILS, GREASE

FOG CLOG!

Fats, oils and grease (FOG) are causing sewage spills and blockages in sewer mains on your street.

Commit to ending these clogs! FOG should never go down the drain. It hardens and builds up in pipes and pumps, eventually blocking sewer lines. Read the back of this card and vow to become FOG-free over the next 90 days and beyond to prevent future sewer backups and overflows.

FOG includes:

- Cooking oils & grease
- Cooked meats
- Salad dressing
- Sauces & gravy
- Avocado
- Cheese, yogurt & sour cream
- Butter, shortening & mayonnaise

WEST COUNTY WASTEWATER

www.wcwd.org
(510) 222-6700 | info@wcwd.org

WCW
WEST COUNTY WASTEWATER

90 DAY FOG Away
FATS, OILS, GREASE

West County Wastewater's field crew is working to keep your home safe from a sewage overflow caused by FOG in your neighborhood.

Follow these steps to protect yourself, your neighbors and the environment from FOG. ***Only soap and water should go down the drain!***

- Pour small amounts of FOG into a covered, disposable container and throw it into the garbage
- Soak up remaining oils and grease with paper towels and dispose of them in the green waste bin or garbage
- Before you wash dishes, scrape remaining food and FOG into the compost, green waste or garbage bin
- Use sink strainers to catch food waste while washing dishes, then empty it into the compost, green waste or garbage bin
- Large amounts of FOG should be disposed of at your local household hazardous waste facility
- Take a 90 Day FOG Away vow to develop habits that will lead to a lifetime of plumbing happiness. Go to 90DayFogAway.com.

See an overflow? Report it immediately! Call (510) 222-6700.

www.wcwd.org
(510) 222-6700 | info@wcwd.org

WEST COUNTY WASTEWATER

WCW
WEST COUNTY WASTEWATER

WHAT NOT TO FLUSH

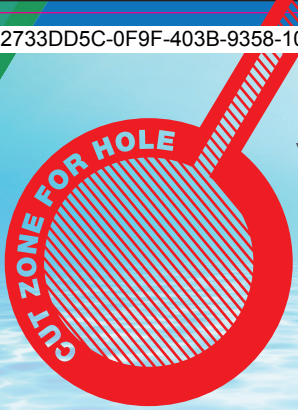
Toilets aren't trashy; can it instead!
Wipes and other flushed items are causing sewage spills and blocked sewer mains on your street.

We need your help!

ONLY toilet paper should be flushed. Other items do not break down easily and can clog pipes, jam pumps, and disrupt wastewater treatment systems, causing overflows and backups. Read the back of this card and learn **What Not to Flush.**

www.wcwd.org
(510) 222-6700 | info@wcwd.org

WEST COUNTY WASTEWATER



WCW
WEST COUNTY WASTEWATER

WHAT NOT TO FLUSH

West County Wastewater's field crew is working to keep your home safe from a sewage overflow caused by flushed trash in your neighborhood.

Avoid messy clogs and expensive plumbing repairs. Protect your home, your neighborhood and the environment. Only toilet paper should be flushed down the toilet!

What Not to Flush:

- ✘ Wipes
- ✘ Floss
- ✘ Cotton Balls
- ✘ Hygiene Products
- ✘ Hair
- ✘ Medications *(dispose of at a hazardous waste facility or pharmaceutical drop off location)*
- ✘ Everything else!

Change your wiping ways!

Wipes are one of the leading causes of sewer backups – even ones labeled "flushable"! Keep your pipes clean and clear of wipes and all other items.

See an overflow?
Report it immediately!
Call (510) 222-6700.

www.wcwd.org
(510) 222-6700 | info@wcwd.org

WEST COUNTY WASTEWATER

APPENDIX C:

Sewer Spill Response Instructions for Contractors

Sewer Spill Response Instructions for Contractors

For contractors working on the sanitary sewer system the WCW expects them to have, at all worksites, spill response materials necessary to block drainage conveyance system entry points near the work area and surface waters.

Additionally, contractor must be trained on spill response materials and equipment.

The following procedures are to be followed in the event that a contractor/plumber causes or witnesses a sanitary sewer spill. If the contractor/plumber causes or witnesses a spill they should:

1. Immediately notify the WCW at (510) 222-6700 and provide the following information if available:
   - Date, time contractor first noticed the spill
   - Description of the contractor's observation, including any information regarding whether the spill has reached surface waters or a drainage conveyance system
   - Contractor's contact information
2. Protect storm drains.
3. Protect the public.
4. Direct ALL media and public relations requests to the Communications Specialist at (510) 222-6700 or 510-390-4844.

APPENDIX D:

Sewer Spill/Backup Response Workbook

West County Wastewater

Sewer Spill/Backup Response Workbook

WEST COUNTY WASTEWATER

INSERT TAB:
Tab A: Start Here

Sanitary Sewer Spill/Backup Response Workbook

See the following page for contact information as needed.

☐ Make immediate notifications:

- If this spill is discharging or threatening to discharge greater than or equal to 1,000 gallons to waters of the State, immediately contact CalOES at (800) 852-7550 within 2 hours and obtain a control number. Record this number on the following pages: A-4, B-2, and D-1 Page 1.
- If there is a backup into a residence/business that may be due to a problem in the WCW's sewer, notify the Field Supervisor or Collection Systems Operations Manager at (510) 662-3617 or (510) 812-9988.
- For media inquiries/requests contact the Communications Specialist at (510) 222-6700 or (510) 390-4844.

☐ Refer to the Regulatory Reporting Guide in this Workbook for additional reporting requirements.

COLLECTIONS CREW:	CHAIN OF CUSTODY
☐ Refer to the Spill Event Checklist (A-4), follow the instructions on the Spill/Backup Response Flowchart (C-1), and complete forms in this Workbook as indicated. ☐ Complete the chain of custody record (to the right) and deliver this workbook to the Collection Systems Operations Manager or the Field Supervisors.	Print Name: Initial: Date:

COLLECTION SYSTEMS OPERATIONS MANAGER OR THE FIELD SUPERVISORS:	CHAIN OF CUSTODY
☐ Review the Spill Event Checklist (A-4) and the forms in this Workbook. Contact the Collections Crew for additional information if necessary. ☐ Confirm that all required regulatory notifications have been made (B-1). ☐ If this was a Sewer Backup, follow instructions on the Backup Forms Checklist (F-1). ☐ Complete the Post Spill Assessment (H-1) and Collection System Failure Analysis Form (H-2). ☐ Complete the Chain of Custody record (right) and forward Workbook to Data Submitter	Print Name: Initial: Date:

DATA SUBMITTER:	CHAIN OF CUSTODY
☐ Refer to Spill Event Checklist (A-4) Data Submitter Responsibilities ☐ Complete the chain of custody record (to the right) and deliver this workbook to a Legally Responsible Official (see A-2 for LROs).	Print Name: Initial: Date:

LEGALLY RESPONSIBLE OFFICIAL:	CHAIN OF CUSTODY
☐ Refer to Spill Event Checklist (A-4) Data Submitter Responsibilities ☐ Complete the chain of custody record (to the right) and file this Workbook with the spill file.	Print Name: Initial: Date:

Contact Information

Contact	Description	Telephone/Email/Address
Alpha Lab Caltest Lab	Water quality sample analysis	(925) 828-6226 262 Rickenbacker Cir Livermore, CA 94551 (707) 258-4000 1885 North Kelly Road Napa, CA 94558
CAL/OES	California Office of Emergency Services	(800) 852-7550
Carl Warren and Co Attn: Alan Dialon	Assistance with sewer backup customers	(909) 763-4320 or (855) 763-5898 2300 Clayton Road, Concord, CA 94520 adialon@carlwarren.com
Contra Costa County Sheriff		(510) 234-3242
City of San Pablo	Contact for spills in their city limits	(510) 215-3000
Communications Specialist	Media inquiries/requests	(510) 222-6700 or 510-390-4844
Collection Systems Operations Manager	CalOES 2-hour notification and other regulatory notifications Outside Assistance / Mutual Aid	(510) 662-3617 or (510) 812-9988
Contra Costa County Environmental	○ Notifications ○ Sign placement guidance	(925) 608-5500
Human Resources Analyst		(510) 222-6700
San Francisco Regional Water Quality Control Board		(510) 622-2300
San Pablo Police		510-314-7070
State Water Resources Control Board	Walter Mobley	(916) 323-0878 Walter.Mobley@waterboards.ca.gov
Stege Sanitary		(510) 524-4667
Veolia Water		(510) 412-2001
WCW Resource Recovery Plant		(510) 237-6603

Internal Notifications in Case of Cat 1 or Cat 2 Spill:

Name	Job Title	Telephone
Gordon Times	Collection Systems Operations Manager	(510) 662-3617 or (510) 812-9988
Michael Savanna	Infrastructure and Planning Director	(510) 680-0707
Andrew Clough	General Manager	(510) 815-4525
Joe Neugebauer	Environmental Services Manager	(510) 812-8274
Angela Andrews	Capital Portfolio manager	(510) 778-0491
Judy Chen	Planning and Support Services Manager	(510) 390-3236

Authorized Personnel:

The following are authorized to perform regulatory reporting of spills:

Job Title	Telephone	Check if LRO
Collection Systems Operations Manager	(510) 662-3617 or (510) 812-9988	✓
Field Supervisor 1	(510) 812-4156 or (707) 389-6110	
Field Supervisor 2	(510) 778-0568 or (925) 914-9683	
Planning and Support Services Manager	(510) 390-3236	

The WCW's Legally Responsible Official (LRO) is authorized to electronically sign and certify spill reports in CIWQS.

NOTE: All references to "SSWDR" refer to State Water Board Order No. WQ 2022-0103-DWQ.

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.

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

- **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 SSWDR 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**

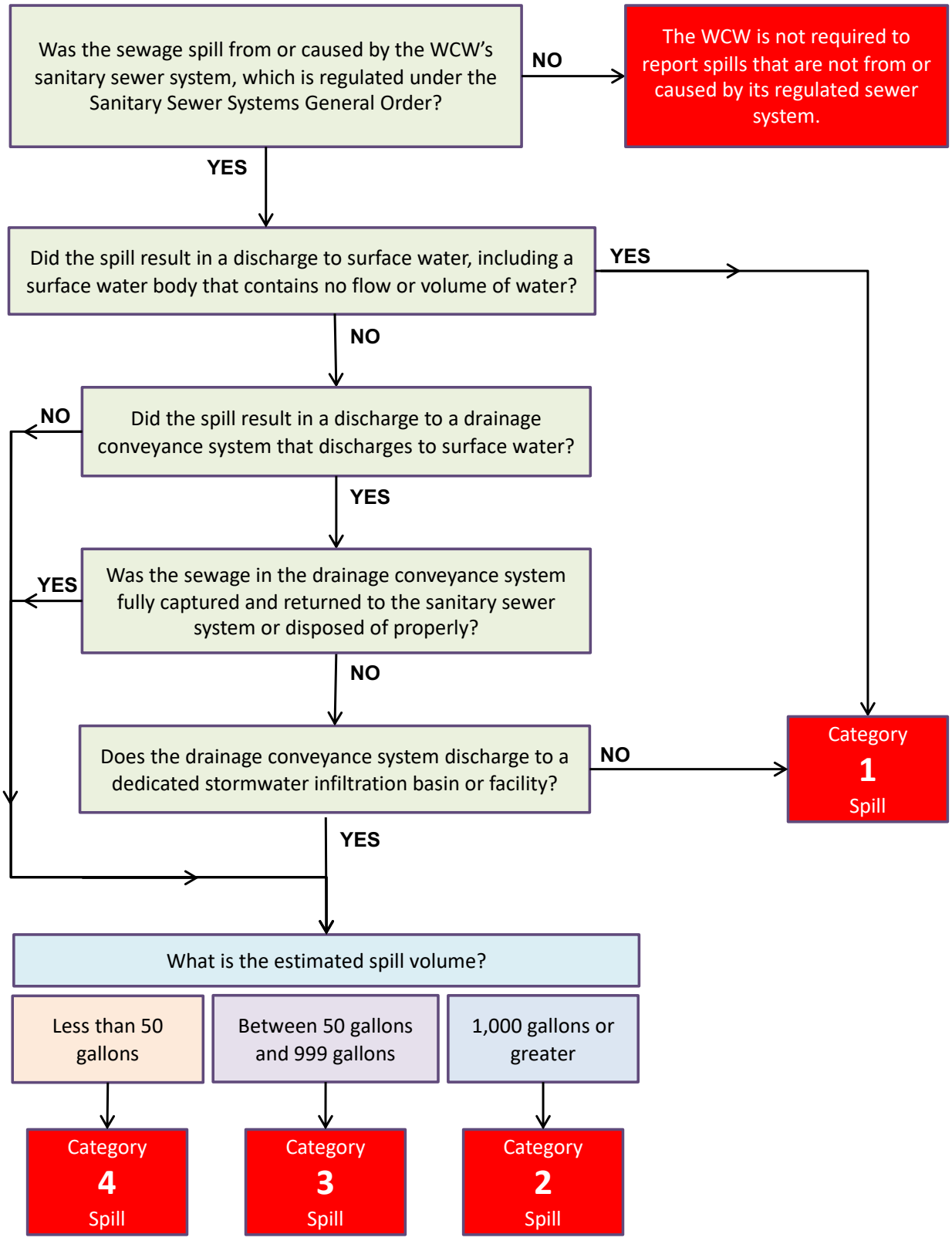
  A Category 3 spill is a spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a sanitary sewer system regulated under SSWDR that does not discharge to a surface water. A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of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

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.

INSTRUCTIONS: Answer each question in order and stop at the red box once you have determined the category.



Spill Event Checklist A-4

Date of Spill: _____ Spill Location/Name: _____
CIWQS Event ID #: _____ Category? ☐ 1 ☐ 2 ☐3 ☐4 OES#: _____
Property Damage? ☐ Yes ☐ No Service Request #: _____

COLLECTIONS CREW RESPONSIBILITIES

- ☐ Effort made to contain and return a portion/all to the sanitary sewer
- ☐ Pictures/video taken of spill
- ☐ Pictures taken of affected/unaffected area
- ☐ If property damage, start that process
- ☐ Pictures taken of containment efforts
- ☐ If spill is Cat 1 > 1000 gallons or Cat 2 > 1000 gal threatening to discharge to waters of the State: OES Control #_____
- ☐ Were surface waters impacted?
- ☐ Impacted waters identified?
- ☐ Assess and document spill location and spread including photos
- ☐ Spill Report Form Complete (includes fields for all required fields in CIWQS, and a sketch of spill)
- ☐ Volume Estimation Worksheet(s) done
- ☐ Start Time Determination Form done
- ☐ Follow Water Quality Monitoring and Sampling procedures

COLLECTION SYSTEMS OPERATIONS MANAGER OR THE FIELD SUPERVISORS RESPONSIBILITIES

- ☐ Map of where samples were taken, if applicable
- ☐ For Cat 1 Spills 50,000 gallons or larger, coordinate sample collection within 18 hours of becoming aware of the spill.
- ☐ Ensure Technical Report is written
- ☐ Initial review of forms is complete (ensure consistency of dates, times, volumes, and other data)
- ☐ Review of photos and videos (label/date)
- ☐ Start folder for all documentation for this spill event. Put everything in it (Spill Report, Field Reports, Worksheets/Forms, follow-up work orders, notes, photos, drawings, CIWQS print outs, emails, etc.)
- ☐ Conduct Post Spill Assessment & complete form (H-1)
- ☐ Failure Analysis
  - TV to determine cause
  - Review Asset History
- ☐ Determine next steps to prevent recurrence
- ☐ Document findings and next steps on Spill Report

DATA SUBMITTER RESPONSIBILITIES

- ☐ Submit Draft in CIWQS w/in 3 business days (for Categories 1 and 2 only)
- ☐ Print CIWQS Draft hard copy and email
- ☐ Review CIWQS, spill Report, Worksheets, CMMS, and any other documentation to ensure data is consistent (e.g. dates, times, volumes, cause, follow-up action, etc.
- ☐ Attach photos, forms etc. to CIWQS
- ☐ Attach Technical Report to CIWQS, if applicable
- ☐ Submit Ready to Certify in CIWQS (with sufficient time for LRO review)
- ☐ Print CIWQS Ready to Certify and email
- ☐ Hand Workbook to LRO and complete Chain of Custody form

LRO RESPONSIBILITIES

- ☐ LRO review Workbook and CIWQS verify accurate and consistent data
- ☐ Certify in CIWQS (within 15 calendar days for Categories 1 & 2, 30 days after the month for Category 3 & 4)
- ☐ Print Certified CIWQS and email
- ☐ Any changes? Change in CIWQS and hard copies and explain changes, print our current version
- ☐ Move completed Workbook and spill folder to spill files
- ☐ If any changes are made to SSMP
  - Update SSMP and link on CIWQS to SSMP
  - Add change to SSMP Change Log
  - Consider need to re-certify SSMP

INSERT TAB:
Tab B: Regulatory Reporting

Regulatory Reporting Guide

The WCW's Legally Responsible Officials (LROs) are authorized to electronically sign and certify spill reports in CIWQS. See contact information for LROs on page A-2.

Deadline	Category 1 Spill*	Category 2 Spill++	Category 3 Spill++	Category 4 Spill++
2 hours after awareness of spill	Within two (2) hours of the WCW's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to Waters of the State, notify CalOES and obtain a notification control number.	Within two (2) hours of the WCW's knowledge of a Category 2 spill of 1,000 gallons or greater threatening to discharge to Waters of the State, notify CalOES and obtain a notification control number.	-	-
Within 18 hours of awareness of spill	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.	-	-	-
As soon as possible	Notify the City of San Pablo for spills within their city limits. Notify the Department Directors, Deputy General Manager and General Manager			
3 Business Days after awareness of spill	Submit Draft Spill Report in the CIWQS database.	Submit Draft Spill Report in the CIWQS database.	-	-
15 Days after the spill end date	Submit Certified Spill Report within 15 calendar days of the spill end date. (Submit Amended Spill Report, as needed, within 90 calendar days after the spill end date.)	Submit Certified Spill Report within 15 calendar days of the spill end date. (Submit Amended Spill Report, as needed, within 90 calendar days after the spill end date.)	-	-
Within **30 calendars days** after the end of the calendar month in which the spill occurs	-	-	Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database (Submit Amended Spill Report, as needed, within 90 calendar days after the Certified Spill Report due date.)	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.
45 days after 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	-	-	-
By February 1st after the end of the calendar year in which the spills occur.	-	See + note below.	-	Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database.

* A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill.

++. See following page for notes.

++ Agency owned lateral spills (Cat 2-4) to be reported by Feb 1 of the following year.

- **Monthly Spill Reporting of 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 for the designated month.

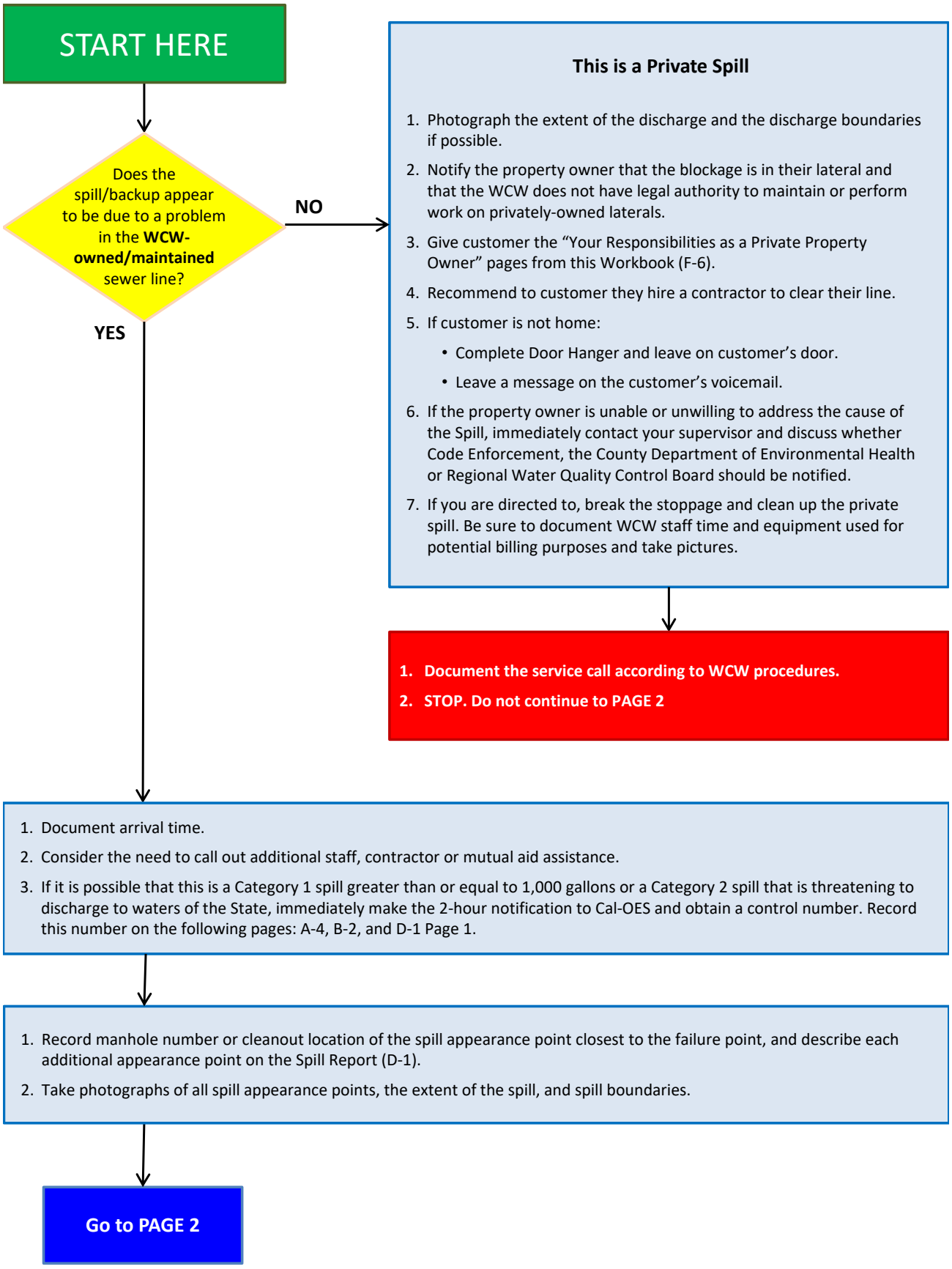
- **Annual Certified Spill Reporting of Category 4 and/or Lateral Spills:** For all Category 4 spills and spills from its owned and/or operated laterals that are caused by a failure or blockage in the lateral and that do not discharge to a surface water, the Enrollee shall annually upload and certify 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.

Regulatory Reporting/Notifications Log B-2

Agency/Firm Contacted	Individual Spoken to:	Date	Time	Notes
CalOES				Control Number:

INSERT TAB:
Tab C: Flowchart

Spill/Backup Response Flowchart



Continue from PAGE 1

BEGIN DIVERSION AND CONTAINMENT, AS NECESSARY

1. DIVERT AWAY FROM SENSITIVE AREAS:

a. Cover unplugged storm drains w/mats, or use dirt/other material to divert sewage away from sensitive areas (e.g., schools, playgrounds, intersections, etc.)

b. ENSURE PUBLIC CONTACT DOES NOT OCCUR. Use cones/barricades to isolate area.

c. Erect WCW Sewer Spill Notification Signage

2. CONTAIN SPILL & RETURN TO SYSTEM, IF POSSIBLE:

a. As practical, plug or block drainage conveyance system entry locations or use rubber mats to cover basin inlet and divert flow to a downstream sanitary sewer manhole (*barricade manhole if left open and monitor after barricade)* or area suitable to capture the spill for later collection.

If any amount has already reached the drainage conveyance system, trace it downstream to a dry manhole and block it from entering surface waters. i.e., plugs, sandbags, or vacuum truck.

b. If you are confident that you can capture the spill in the drainage conveyance system, trace it downstream to a dry manhole and then divert the spill to the drainage conveyance system for later recovery and return to the sanitary sewer.

c. Use bypass pumps to pump around blockage until it can be removed.

d. Divert to low area of ground where it can be collected later.

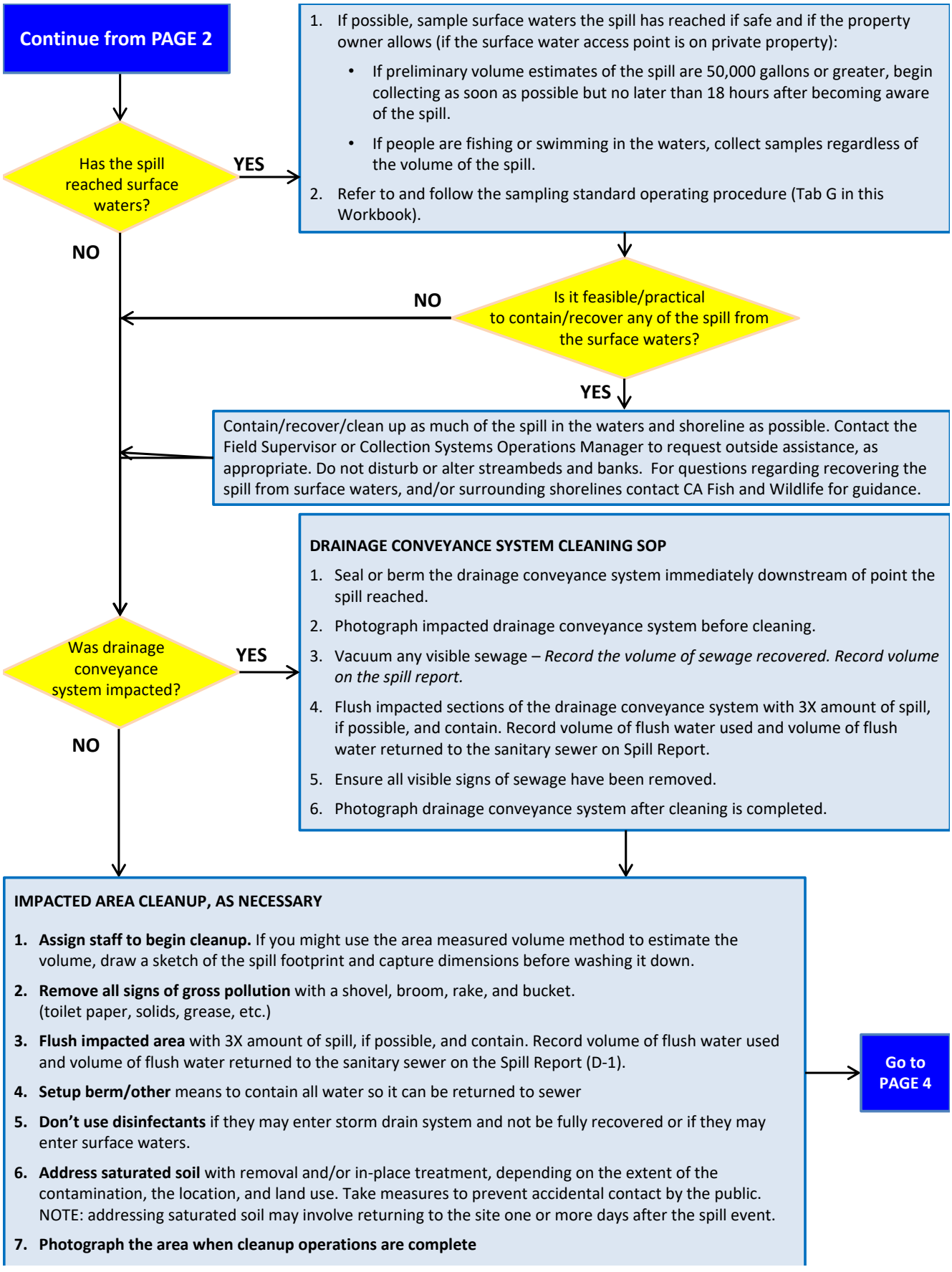
3. PHOTOGRAPH each drainage conveyance system entry location.

ADDRESS CAUSE OF SPILL/BACKUP ASAP

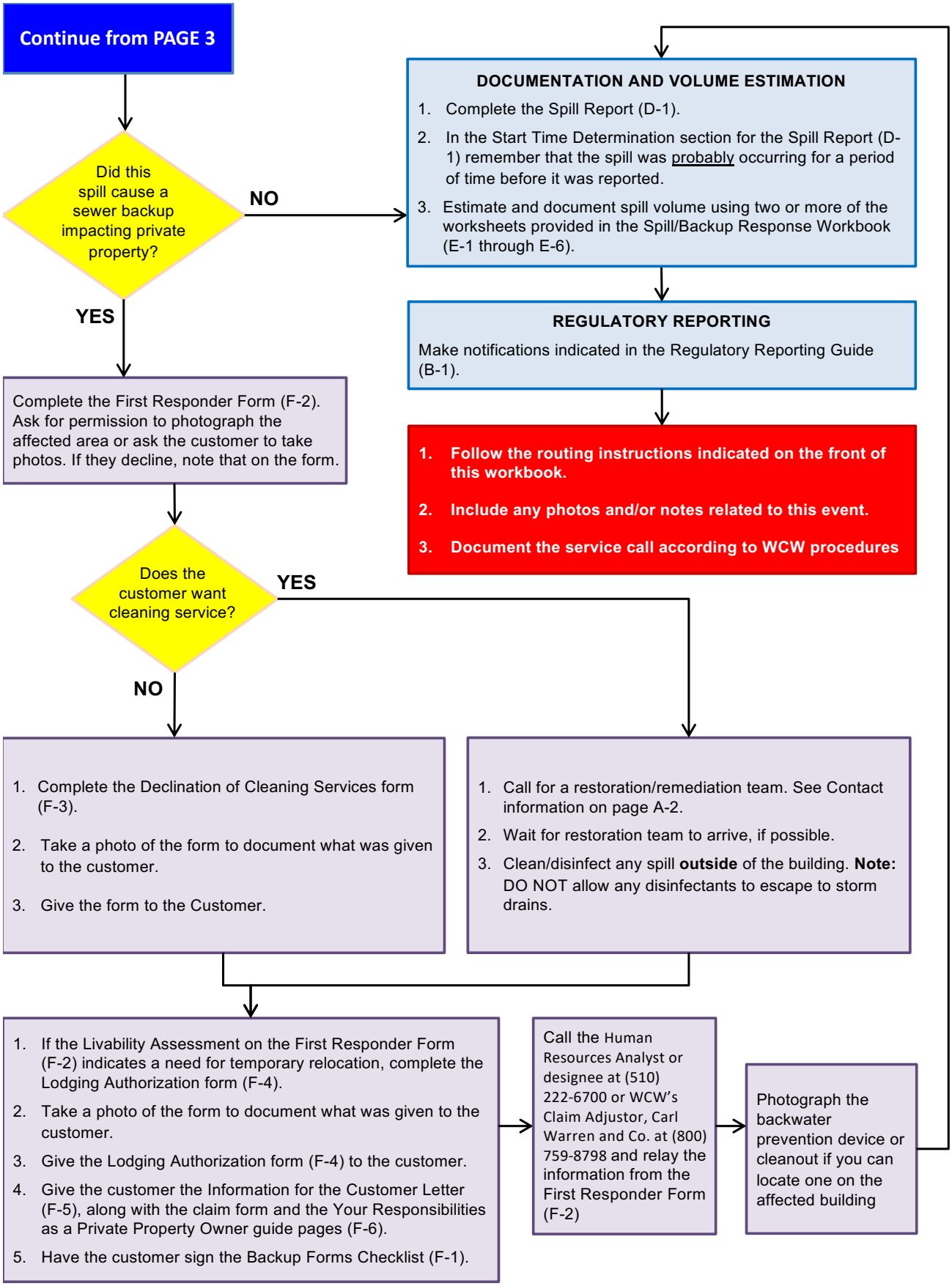
1. For spill/backups not related to a pump station, relieve the stoppage. Note the distance of the obstruction from the manhole and catch/remove debris that could cause another stoppage. After flow has returned to normal, clean the pipe thoroughly. Consider televising (CCTV) the affected line.
2. For pump station related spill/backups refer to that station's Emergency Response Plan.
3. Photograph staff activities while clearing the blockage.

Go to PAGE 3

Spill/Backup Response Flowchart



Spill/Backup Response Flowchart



INSERT TAB:
Tab D: Spill Report

Sanitary Sewer Spill Field Report

Check spill category (see A-3 for definitions): ☐CATEGORY 1 ☐CATEGORY 2 ☐CATEGORY 3 ☐CATEGORY 4

CalOES NOTIFICATION*		
Date:	Time:	Assigned Control Number:

Names of the Persons Completing this Report	Contact Information

PHYSICAL LOCATION DETAILS	
Spill location name:	
Location description:	
Address of spill:	
City:	Cross Street:
Regional Water Quality Control Board: **San Francisco**	County:

DATE/TIME
Date and time the WCW was notified of, or self-discovered, the spill: _____
Operator arrival time: _____

PHOTOGRAPHS

Photos must be taken during the spill event. At a minimum, the following photos must be taken:

- ○ Appearance point closest to the failure point
- ○ Extent of the spill and spill boundaries
- ○ Entry location of each drainage conveyance system the sewage entered
- ○ All discharge points into surface waters
- ○ Location(s) of clean up

Where are photographs stored?

* Within two (2) hours of the WCW's knowledge of a Category 1 or Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State, notify CalOES and obtain a notification control number.

SPILL ORIGINATION	
Description and GPS coordinates of the system location where the spill originated*: *Include manhole number or cleanout location of the spill appearance point closest to the failure point as applicable.*	
Latitude:	Longitude:
Number of additional appearance points:	
Spill appearance points: (Check all that apply) ☐ Backflow Prevention Device ☐ Combined Sewer Drain Inlet (Combined Collection System Only) ☐ Force Main ☐ Gravity Mainline ☐ Inside Building/Structure ☐ Lateral Clean Out (Private) ☐ Lateral Clean Out (Public) ☐ Lower Lateral (Private) ☐ Lower Lateral (Public) ☐ Manhole ☐ Other Sewer System Structure ☐ Pump Station ☐ Upper Lateral (Private) ☐ Upper Lateral (Public) ☐ Other, describe:	
Describe each spill appearance point:	
Check to confirm photos were taken of all appearance points: ☐	

* Note: 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 "Describe each spill appearance point" description section above. Take photos of spill appearance point(s).

SPILL DESTINATION (Check all that apply)	
Final spill destination(s): ☐ Drainage Conveyance System That Discharges to Surface Water ☐ Surface Water ☐ Building or Structure ☐ Drainage Conveyance System ☐ Groundwater Infiltration Basic or Facility ☐ Paved Surface ☐ Street/Curb and Gutter ☐ Unpaved Surface ☐ Other, describe:	
Description of the spill event destination(s) including GPS coordinates if available that represent the full spread and reach of the spill.	
Latitude:	Longitude:
Latitude (if needed):	Longitude (if needed):
Latitude (if needed):	Longitude (if needed):
Latitude (if needed):	Longitude (if needed):
Check to confirm photos were taken of spill destination/boundaries: ☐	

SPILL VOLUME

Estimated total spill volume exiting the system: _____ gallons

Did the spill reach a drainage conveyance system? ☐ YES ☐ NO If yes:

- Estimated time the spill reached the drainage conveyance system: _____
- Distance from drainage conveyance system to entry point to surface waters: _____ feet
- Method to determine travel time from point of entry to drainage conveyance system to receiving waters:

  _____

  _____

  _____
- Describe the drainage conveyance system transporting the spill: _____

  _____

  _____

Estimated spill volume fully recovered from the drainage conveyance system: _____ gallons
Estimated spill volume remaining within the drainage conveyance system: _____ gallons

Check to confirm photos taken of entry location of drainage conveyance system the sewage entered: ☐

Did the spill reach surface water? ☐ YES ☐ NO
If yes:

- Estimated time the spill entered the surface water: _____
- Distance from spill appearance point to entry point to surface water: _____ feet
- Method to determine travel time to receiving waters: _____

  _____

  _____
- Describe all discharge points: _____

  _____

  _____

Estimated spill volume that discharged to surface waters: _____ gallons
Estimated total spill volume recovered: _____ gallons

Check to confirm photos were taken of the following, as applicable: all discharge points into surface waters, waterbody bank erosion, floating matter, water surface sheen, discoloration of receiving water, any notable impacts to the receiving water: ☐

Did the spill discharge to a groundwater infiltration basin or facility? ☐ YES ☐ NO
If yes,

- Estimated time the spill entered the groundwater infiltration basin or facility: _____
- Estimated spill volume discharged to the groundwater infiltration basin or facility: _____ gallons

Estimated spill volume that did NOT reach drainage conveyance system, surface water, or groundwater infiltration basin or facility: _____ gallons

Estimated Total Spill Volume Recovered: _____ gallons

SPILL VOLUME (continued)
Method and explanation of volume estimation methods used: (Check all that apply) ☐ Eyeball Estimate (worksheet included in Spill/Backup Response Workbook) ☐ Counting Upstream Connections (worksheet included in Spill/Backup Response Workbook) ☐ Duration and Flow Rate (worksheet included in Spill/Backup Response Workbook) ☐ Measured Volume (worksheet included in Spill/Backup Response Workbook) ☐ Other (provide worksheet/calculations)
Description of how the spill volume estimations were calculated, including at a minimum, the methodology, assumptions and types 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):

SPILL START TIME and END TIME DETERMINATION

Were there witnesses to the spill? ☐ YES ☐ NO If yes, provide Spill Witness Statements below:

Witness 1 Name:	Witness 1 Contact Information:

Where did they see sewage spill from? ☐ Manhole ☐ Inside Building ☐ Vent/Clean Out ☐ Catch Basin ☐ Wet Well/Lift Station ☐ Other (describe):

When did the witness notice the sewage spilling? _____ AM / PM Date _____ /_____ /_____

Witness description of spill and affected area:

Is it currently spilling? ☐ YES ☐ NO

When did the witness last observe **NO Spill** occurring? _____ AM / PM Date _____ /_____ /_____

Did the witness notice if the spill had reached the storm drain or surface waters?

Comments:

Witness 2 Name:	Witness 2 Contact Information:

Where did they see sewage spill from? ☐ Manhole ☐ Inside Building ☐ Vent/Clean Out ☐ Catch Basin ☐ Wet Well/Lift Station ☐ Other (describe):

When did the witness notice the sewage spilling? _____ AM / PM Date _____ /_____ /_____

Witness description of spill and affected area:

Is it currently spilling? ☐ YES ☐ NO

When did the witness last observe **NO Spill** occurring? _____ AM / PM Date _____ /_____ /_____

Did the witness notice if the spill had reached the storm drain or surface waters?

Comments:

Witness 3 Name:	Witness 3 Contact Information:

Where did they see sewage spill from? ☐ Manhole ☐ Inside Building ☐ Vent/Clean Out ☐ Catch Basin ☐ Wet Well/Lift Station ☐ Other (describe):

When did the witness notice the sewage spilling? _____ AM / PM Date _____ /_____ /_____

Witness description of spill and affected area:

Is it currently spilling? ☐ YES ☐ NO

When did the witness last observe **NO Spill** occurring? _____ AM / PM Date _____ /_____ /_____

Did the witness notice if the spill had reached the storm drain or surface waters?

Comments:

SPILL START TIME and END TIME DETERMINATION (continued)

Are the volume of the spill and rate of flow known? ☐ YES ☐ NO

If yes, divide volume by rate of flow to get duration of spill event:

_____ Gallons ÷ _____ GPM = _____ Minutes
Spill Volume | Flow Rate | Spill Duration

Subtract the duration from the spill end date/time to establish the spill start date/time:

_____ — _____ = _____
Spill End Date/Time | Duration | Spill Start Time

Method to determine flow rate:

Solids Present? ☐ None or small amount (indicates recent start)
☐ Significant amount of buildup

Staining? ☐ None (indicates recent start)
☐ Minor
☐ Significant

Distance sewage has traveled from spill point:

Spill Start Time:

Spill End Date and Time:

How was end time determined?
- ☐ Broke stoppage
- ☐ Turned pump station back on
- ☐ Other, explain:

Description of the methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time.

SPILL CAUSE (check all that apply)
☐ Air Relief Valve (ARV)/Blow Off Valve (BOV)/Backwater Valve Failure
☐ Construction Diversion Failure
☐ Collection System Maintenance Failure (Specify Below)
☐ Damage by Others Not Related to CS Construction/Maintenance (Specify Below)
☐ Debris from Construction
☐ Debris from Lateral
☐ Debris-General
☐ Debris-Rags
☐ Debris-wipes/Non-disposables
☐ Flow Exceeded Capacity (Separate CS Only)
☐ Fats, Oils and Grease (FOG)
☐ Inappropriate Discharge to CS
☐ Natural Disaster (Specify Below)
☐ Operator Error (Specify Below)
☐ Pipe Structural Problem/Failure – Installation
☐ Pipe Structural Problem/Failure – Controls
☐ Pump Station Failure – Power
☐ Pump Station Failure – Mechanical
☐ Pump Station Failure – Controls
☐ Rainfall Exceeded Design, I and I (Separate CS Only)
☐ Root Intrusion
☐ Siphon Failure
☐ Surcharged Pipe (Combines CS Only)
☐ Vandalism (Specify Below)
☐ Other, specify:

SYSTEM FAILURE LOCATION	
System failure location: ☐ Air Relief Valve (ARV)/Blow Off Valve (BOV) Failure ☐ Force Main ☐ Gravity Mainline ☐ Lower Lateral ☐ Manhole ☐ Pump Station Failure – Controls ☐ Pump Station Failure – Mechanical ☐ Pump Station Failure – Power ☐ Siphon ☐ Upper Lateral (Specify Below) ☐ Other, specify:	
Description of the pipe material at the failure location: ☐ Copper ☐ Galvanized Steel ☐ Polyvinyl Chloride (PVC) ☐ Acrylonitrile Butadiene Styrene (ABS) ☐ Cross-Linked Polyethylene (PEX) ☐ Cast Iron ☐ Vitrified Clay ☐ Concrete ☐ Ductile Iron ☐ Fiberglass ☐ Other, specify:	
Estimated age of sewer asset at the point of blockage or failure (if applicable):	years
Diameter of sewer pipe at the point of blockage or failure:	inches

SPILL IMPACT
Description of the impact of the spill:

STORM EVENT
Was spill associated with a storm event? ☐ YES ☐ NO

SPILL RESPONSE ACTIVITIES (check all that apply)
☐ Cleaned Up (Specify Below) ☐ Mitigated Effects of Spill (Specify Below) ☐ Contained All or Portion of Spill ☐ Restored Flow ☐ Returned All Spill to Sanitary Sewer System ☐ Returned Portion of Spill to Sanitary Sewer System ☐ Property Owner Notified ☐ Other Enforcement Agency Notified ☐ Other, specify:
Description of spill response activities including description of immediate spill containment and cleanup efforts:

SPILL CORRECTIVE ACTION (check all that apply)
☐ Added Sewer to Preventive Maintenance Program ☐ Adjusted Schedule/Method of Preventive Maintenance ☐ Enforcement Action Against FOG Source ☐ Inspected Sewer Using CCTV to Determine Cause ☐ Plan Rehabilitation or Replacement of Sewer ☐ Repaired Facilities or Replaced Defect ☐ Other, specify:
Refer to Collection System Failure Analysis Report for details about: • 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. • Schedule of major milestones Check to confirm completion of each report: ☐ Post-Spill Assessment ☐ Collection System Failure Analysis
Spill response completion date:

INVESTIGATION
Detailed narrative of investigation and investigation findings of cause of spill:
Is the WCW conducting an ongoing investigation? ☐ YES ☐ NO If yes, reasons for an ongoing investigation: If yes, expected date of completion of investigation: _____

SURFACE WATERS (Complete for Category 1 Spills Only)		
Name of receiving water body	Type of receiving water body: Stream, Ocean, Wetland, Slough, Estuary, River, Lake, Reservoir, Vernal Pool, Wash, or Other (specify)	Description of the water body(s), including but not limited to: ○ Observed impacts on aquatic life, ○ Public access impact(s): public closure, restricted public access, temporary restricted use, and/or other (specify below) ○ Responsible entity for closing/restricting use of water body, and ○ Number of days closed/restricted as a result of the spill.

MUNICIPAL INTAKE (Complete for Category 1 and 2 Spills Only)		
Was the spill located within 1,000 feet of a municipal surface water intake?	☐ YES	☐ NO
Describe:		

WATER SAMPLING
Were water quality samples collected? ☐ YES ☐ NO ☐ N/A If yes, identify sample locations:
Identify parameters the water quality samples were analyzed for: (Check all that apply) ☐ Total Coliform Bacteria ☐ Fecal coliform bacteria ☐ E-coli ☐ Ammonia ☐ Other, specify:

INSERT TAB:
Tab E: Volume Estimation

Miscellaneous Computations & Examples

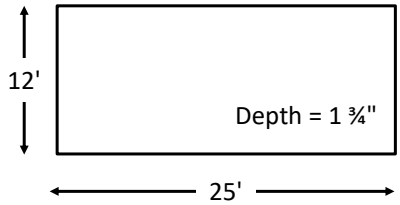
To convert inches to feet (NOTE: for the purposes of this worksheet, the unit of measurement will be in feet for formula examples)	Divide the inches by 12 or use the chart on the right. **Example 1:** 27" ÷ 12 = 2.25' **Example 2:** 1¾" = ?' 1" (0.08') + ¾" (0.06') = 0.14'
Volume of one cubic foot	7.48 gallons of liquid
Area: Two-dimensional measurement represented in square feet (SQ/FT or ft^2)	Square/rectangle: Area = Length x Width Circle: Area = $\pi \times r^2$ (where $\pi \approx 3.14$ and r = radius = ½ diameter) Triangle: Area = ½ (Base x Height)
Volume: Three-dimensional measurement represented in cubic feet (CU/FT or ft^3)	Rectangle/square footprint: Volume = Length x Width x Depth Circle footprint (cylinder): Volume = $\pi \times r^2$ x Depth (where $\pi \approx 3.14$ and r = radius = ½ diameter) Triangle footprint: Volume = ½ (Base x Height) x Depth
Depth: Wet Stain on Concrete or asphalt surface	If the depth is not measurable because it is only a wet stain, use the following estimated 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") These were determined to be a reasonable depth to use on the respective surfaces through a process of trial and error. One gallon of water was poured onto both asphalt and concrete surfaces. Once the area was determined as accurately as possible, different depths were used to determine the volume of the wetted footprint until the formula produced a result that (closely) matched the one gallon spilled. This process was repeated several times.
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. Use that number in your formula to determine volume.

Miscellaneous Computations & Examples (continued)

Convert Inches to Feet	
Inches	**Feet**
1/8"	0.01'
1/4"	0.02'
3/8"	0.03'
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'

Area/Volume of a Rectangle or Square

Formula: Length x Width x Depth = Volume in **cubic feet**



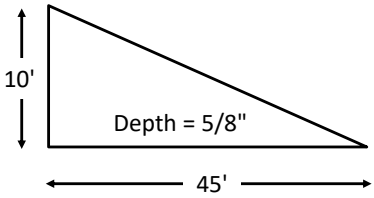
25' X 12' X 0.14' = **42 Cubic Feet**
Length Width Depth Volume

Multiply the volume by 7.48 gallons to determine the volume in **gallons**:

42 ft³ X 7.48 = **314.16 gallons**
Volume gal/ft³ Volume

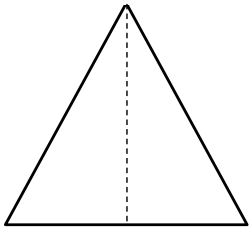
Area/Volume of a Right Triangle

Formula: Base x Height x Depth = Volume in **cubic feet**



0.5 X 45' X 10' X 0.05' x 7.48 = 84.15 gallons
Base Height Depth gal/ft³ Volume

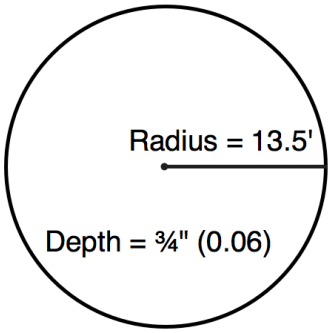
For isosceles triangles (two sides are equal lengths), break it down into two right triangles and compute area as you would for the right triangle.



Area/Volume of a Circle

Formula: π x r² x Depth = Volume in **cubic feet**

The radius is ½ the diameter, which is a straight line passing from side to side through the center of a circle.



13.5' X 13.5' X 3.14 X 0.06' x 7.48 = 256.8 gallons
Radius Radius π Depth gal/ft³ Volume

Volume Estimation: Eyeball Estimation Method (for ≤100 gallons) E-2

Spill Date: _____ Location: _____

This method is invalid if surface conditions are wet (due to rainfall, irrigation, etc.) DO NOT use this method under these circumstances.

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)/barrel(s)	How many of this size?	Multiplier	Estimated Spill Volume
		x 1 gallon	
		x 5 gallons	
		x 32 gallons	
		x 55 gallons	
		x ___ gallons	
		Estimated Total Spill Volume:	

STEP 5: List assumptions made to arrive at the total estimated spill volume:

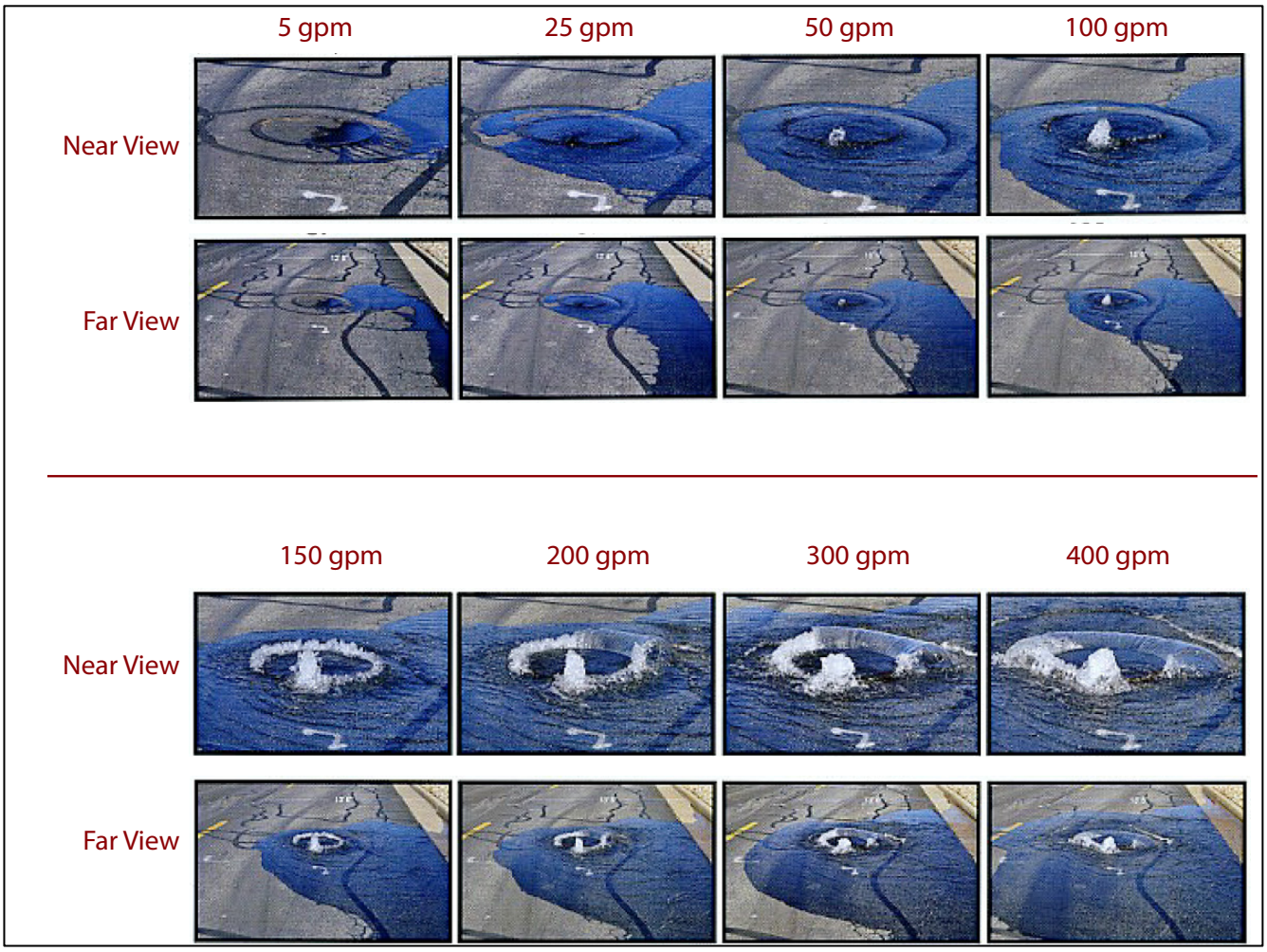
STEP 6: Take photographs. Where are photographs stored?

The following photos must be taken: appearance point closest to the failure point, extent of the spill and spill boundaries, the entry location of each drainage conveyance system the sewage entered, all discharge points into surface waters (Category 1 spill only), and location(s) of clean up.

Volume Estimation: Duration and Flow Rate Comparison Method

Spill Date: _____ Location: _____

Compare the spill to reference images below to estimate flow rate of the current spill. **NOTE: If the manhole cover in your picture has vent holes or more than one pry hole, do not use these pictures for comparison.**



SSCSC Manhole Spill Gauge: CWEA Southern Section Collections Systems Committee. Spill Simulation courtesy of Eastern Municipal Water District.

Describe which reference photo(s) were used and any additional factors that influenced applying the reference photo data to the actual spill:

Flow Rate Based on Photo Comparison: _____ gallons per minute (gpm)

(Continued on next page)

Start Date and Time	1.
End Date and Time	2.
Spill Event Total Time Elapsed (subtract Line 1 from Line 2. Show in minutes.)	3.
Average Flow Rate GPM (Account for diurnal flow pattern)	4.
Total Volume Estimated Using Duration and Flow Method (Line 3 x Line 4)	5.

List assumptions made to arrive at the total estimated spill volume:

Take photographs. Where are photographs stored?

The following photos must be taken: appearance point closest to the failure point, extent of the spill and spill boundaries, the entry location of each drainage conveyance system the sewage entered, all discharge points into surface waters (Category 1 spill only), and location(s) of clean up.

Volume Estimation: Area/Volume Method

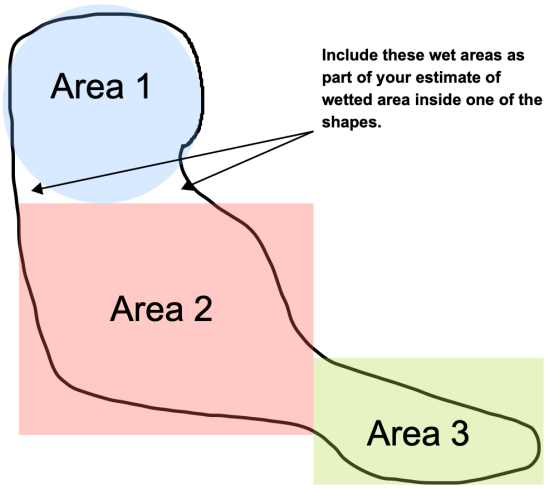
Spill Date: _____ Location: _____

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. Label/identify each sketch outline area (Area 1, Area 2, etc.) See example below.

EXAMPLE:



Dimensions: 2.5' diameter
+/- 100% of the surface inside the circle is wet

Dimensions: 8' x 6'
+/- 80% of the surface inside the rectangle is wet

Dimensions: 6' x 3'
+/- 60% of the surface inside the rectangle is wet

STEP 3: Calculate the area of the footprint by completing the table below for each area in Step 2. Measure actual depth of standing sewage whenever possible. When depth varies, measure several representative sample points and determine the average. If the depth is not measurable because it is only a wet stain, use the following estimated 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")

Rectangles:

Area # (from labeled drawing)		Length	X	Width	X	% Wet	=	Area	X	Depth	=	Volume
	→	ft	X	ft	X	%	=	ft^2	X	ft	=	ft^3
	→	ft	X	ft	X	%	=	ft^2	X	ft	=	ft^3
	→	ft	X	ft	X	%	=	ft^2	X	ft	=	ft^3

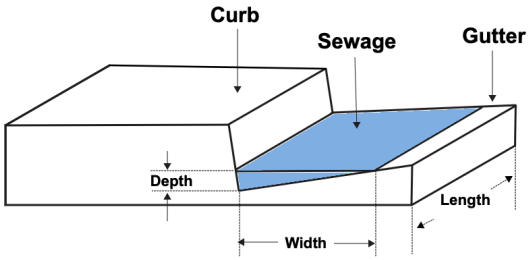
Circles:

Area # (from labeled drawing)		π	X	Radius	X	Radius	X	% Wet	=	Area	X	Depth	=	Volume
	→	3.14	X	ft	X	ft	X	%	=	ft^2	X	ft	=	ft^3
	→	3.14	X	ft	X	ft	X	%	=	ft^2	X	ft	=	ft^3
	→	3.14	X	ft	X	ft	X	%	=	ft^2	X	ft	=	ft^3

STEP 4: If part of the spill is in a gutter, use the formula below to calculate the volume:

_____ X _____ X _____ X 0.5 = _____ ft^3

Length Depth Width **Volume**



STEP 5: Calculate Total Spill Volume (sum of all of the volume calculations above): _____ ft^3

STEP 6: Convert from cubic feet to gallons by multiplying by 7.48.

_____ ft^3 x 7.48 gallons = _____ gallons

spill volume in cubic feet **Total estimated volume**

STEP 7: List assumptions made to arrive at the total estimated spill volume. Adjust estimation up for moderate to severe cracking and/or roughness of surface (General Rule 20% to 40%):

STEP 8: Take photographs. Where are photographs stored?

The following photos must be taken: appearance point closest to the failure point, extent of the spill and spill boundaries, the entry location of each drainage conveyance system the sewage entered, all discharge points into surface waters (Category 1 spill only), and location(s) of clean up.

Volume Estimation: Upstream Connections Method E-5

Spill Date: _____ Location: _____

Attach and/or reference system map and identify location of spill and buildings contributing to spill.

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: This volume estimation method utilizes daily usage data based on flow rate studies of several jurisdictions in California. Column A shows how an average daily usage of 180 gallons per day is distributed during each 6-hour period. Adjust the table as necessary to accurately represent the actual data.

Complete Column E by entering the number of minutes the spill was active during each 6-hour time period. Multiply column D times Column E to calculate the gallons spilled during each time period. Add the numbers in Column F together for the Total Estimated spill Volume per EDU.

	Flow Rate Per EDU				**Spill**	
	A	**B**	**C**	**D**	**E**	**F**
Time Period	Gallons per Period	Hours per period	A÷B = Gallons per Hour	C÷60 = Gallons per Minute	Minutes spill was active during period	D × E = Gallons spilled per period
6am-noon	72	6	12	0.20		
noon-6pm	36	6	6	0.10		
6pm-midnight	54	6	9	0.15		
midnight-6am	18	6	3	0.05		
Total Estimated Spill Volume per EDU:						

STEP 3: Multiply the Estimated spill Volume per EDU from Step 2 by the number of EDUs from Step 1.

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

STEP 4: 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).

Total Estimated spill Volume: _____ gallons

STEP 7: List assumptions made to arrive at the total estimated spill volume:

STEP 8: Take photographs. Where are photographs stored?

The following photos must be taken: appearance point closest to the failure point, extent of the spill and spill boundaries, the entry location of each drainage conveyance system the sewage entered, all discharge points into surface waters (Category 1 spill only), and location(s) of clean up.

Drawing Worksheet

INSERT TAB:
Tab F: Backup Forms

Backup Forms Checklist (Backup Only) F-1

Complete this form only if there is a backup into a residence or business.

Instructions to Collections Crew:

1. Take photo of each form before giving it to the customer for documentation.
2. Tear forms listed below out of this workbook and hand to customer. *Leave this page (F-1) and the First Responder Form (F-2) in this workbook, do not give to Customer.*
3. Check each item that was provided to the customer.
4. Have customer sign below.

Forms/Documents:

- ☐ Form F-3: Declination of Cleaning Services
- ☐ Form F-4: Lodging Authorization
- ☐ Form F-5: Customer Information Letter
- ☐ Form F-6: Your Responsibilities as a Private Property Owner
- ☐ Form F-7: Claim Form

Forms Provided to:

_____
Customer Name

_____
Customer Signature

_____
Date

Check here if customer declines to sign: ☐

Formularios / Documentos:

- ☐ F-3: Declinación de los Servicios de Limpieza
- ☐ F-4: Autorización de Alojamiento
- ☐ F-5: Carta de Información del Cliente
- ☐ F-6: Sus Responsabilidades Como Propietario de Una Propiedad Privad
- ☐ F-7: Formulario de Reclamación

Formularios Proporcionados a:

_____
Nombre del cliente

_____
Firma del cliente

_____
Fecha

Marque aquí si el cliente se niega a firmar: ☐

Forms Provided by: _____ _____ _____
Employee Name Initial Date

Instructions to Collection Systems Operations Manager or the Field Supervisors:

Send photos, including the photos of the documents given to the customer, and a copy of the First Responder form to the Human Resources Analyst.

First Responder Form (Backup Only)

Complete this form only if there is a backup into a residence or business.

Fill out this form as completely as possible.
Ask customer if you may enter the home. If so, take photos of all damaged and undamaged areas.

PERSON COMPLETING THIS FORM: Name: _____ Title: _____	PHONE: DATE: TIME:
TIME STAFF ARRIVED ON-SITE:	
DOES THE CUSTOMER WANT THE WCW TO CALL FOR CLEANING SERVICE? ☐ Yes ☐ No If no, give the customer the Cleaning Declination Form and have them sign here: _____ If customer called a cleaning contractor, provide name and contact number:	
RESIDENT NAME: ☐ Owner ☐ Renter ADDRESS: PHONE:	IF RENT, PROPERTY MANAGER(S): OWNER: ADDRESS: PHONE:

# OF PEOPLE LIVING AT RESIDENCE:		
Approximate Age of Home:	# of Bathrooms:	# of Rooms Affected:
Numbers of Photographs or Videos Taken: ☐ Photographs _____ ☐ Video _____ ☐ Customer did not provide or allow photographs	Where are photos/video stored?	
Is nearest upstream manhole visibly higher than the drain/fixture that spilled? ☐ Yes ☐ No		
Does property have a Property Line Cleanout or BPD? ☐ Cleanout ☐ BPD ☐ Neither ☐ Unknown		
If yes, was the Property Line Cleanout/BPD operational at the time of the spill? ☐ Yes ☐ No ☐ Unknown		
Have there ever been any previous spills at this location? ☐ Yes ☐ No ☐ Unknown		
Has the resident had any plumbing work done recently? ☐ Yes ☐ No ☐ Unknown *If YES, please describe:*		

GO TO PAGE 2

LIVABILITY ASESSMENT

- Is there insufficient non-contaminated living space for residents to stay during cleaning including a functioning and non-contaminated bathroom? ☐ Yes ☐ No
- Are there any residents that are pregnant, are children, have severe allergies/asthma, have respiratory problems, and/or have a compromised immune system? ☐ Yes ☐ No
- Is the area a childcare or extended care facility? ☐ Yes ☐ No
- Is the food preparation area contaminated? ☐ Yes ☐ No
- Is it currently after 8pm, or if it is currently before 8pm will the cleaning and disinfection be completed after 10pm? ☐ Yes ☐ No

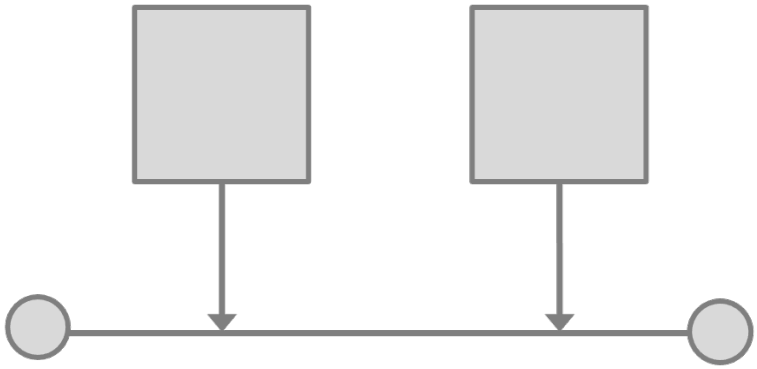
If the answer to any of the questions above is YES, complete the Lodging Authorization form.

If temporary lodging was offered by the WCW check one: ☐ Accepted ☐ Rejected

SANITARY SEWER LINE BLOCKAGE LOCATION

PLEASE CHECK THE BOXES THAT DESCRIBE YOUR OBSERVATIONS:	
Building Cleanout Was: ☐ Non-Existent ☐ Full ☐ Empty	Property Line Cleanout was ☐ Non-Existent ☐ Full ☐ Empty

On the diagram below, place an X where in the mainline or lateral you believe the problem occurred.



Did sewage go under buildings? ☐ Yes ☐ No ☐ Unsure

Recommended Follow-Up Action(s):

Declination of Cleaning Services (Backup Only) F-3

Customer Information		
NAME:	ADDRESS:	TELEPHONE:

ON (date)	AT (time)	Approximately (quantity)	GALLONS OF: ☐ Sewage ☐ Grey Water ☐ Toilet Bowl Water ☐ Odor ☐ Other (describe):

Spilled from (or odor emanating from)
☐ Toilet ☐ Shower/Tub ☐ Washer ☐ Other (describe):

The spill affected the following areas *(check one):*
☐ Bathroom ☐ Bedroom ☐ Hallway ☐ Garage
☐ Kitchen ☐ Crawlspace ☐ Other (specify):

The spill affected the following flooring: **and/or additional materials:**
☐ Tile ☐ Wood Flooring ☐ Area Rugs ☐ Towels
☐ Linoleum ☐ Carpet ☐ Clothing ☐ Other (specify):
☐ Other (specify):

This Form Completed By: Name: _____ **Date:** _____
(Write legibly) Title: **Time:**

CUSTOMER, please read the following and sign below. I/We acknowledge that West County Wastewater (WCW) has offered to provide professional cleaning and decontamination services to remediate the sewage backup and/or spill described above and that we declined the offer. We further understand and acknowledge that because we have declined, any necessary remediation activities will be conducted without WCW assistance, and that the WCW will not accept responsibility for work performed by persons other than those engaged by the WCW. The WCW will also not accept responsibility for any charges related to this incident that are not usual and customary. Refer to "Your Responsibilities as a Private Property Owner" (Page F-6) for recommendations regarding spill cleanup.

CLIENTE, por favor lea lo siguiente y firme a continuación. Yo/Nosotros reconocemos que West County Wastewater (WCW) se ha ofrecido a proporcionar servicios profesionales de limpieza y descontaminación para remediar la reserva de aguas residuales y/o derrame descrita anteriormente y que rechazamos la oferta. Además, entendemos y reconocemos que debido a que hemos rechazado, cualquier actividad de remediación necesaria se llevará a cabo sin la asistencia de WCW, y que WCW no aceptará responsabilidad por el trabajo realizado por personas que no sean las contratadas por WCW. La WCW tampoco aceptará responsabilidad por ningún cargo relacionado con este incidente que no sea habitual y habitual. Consulte "Sus Responsabilidades Como Propietario De Una Propiedad Privada" (Página F-6) para obtener recomendaciones sobre la limpieza de derrames.

Customer Signature / Firma del cliente *:		**Date:**
The information above was explained to the customer by the following employee:	**Name:**	**Title:**
	Signature:	**Date:**

**Note to responders: if customer declines to sign this form, then have a co-worker sign here as a witness:*

Name: _____ *Signature:* _____ *Date:* _____

Lodging Authorization (Backup Only) F-4

INSTRUCTIONS TO EMPLOYEE:

1. Complete this form if the Livability Assessment on the First Responder Form indicates a need for temporary relocation and the customer accepts the offer.
2. Notify the Field Supervisor or Collection System Operations Manager who will make arrangements via telephone and pay for the hotel with a credit card.
3. Complete the voucher as instructed by the Field Supervisor or Collection System Operations Manager.
4. Take a photo of the form for records and then give it to the customer.
5. Indicate if they accept or reject the offer of temporary relocation on the First Responder Form (F-2).

INSTRUCTIONS TO RESIDENT:

West County Wastewater recommends that you temporarily relocate to one of the hotels listed below for your safety and convenience while your residence is being cleaned. Please note that this emergency authorization is granted under the following conditions:

1. This authorization provides for one (1) night's lodging at one of the hotels listed below.
2. The authorization is good for **room and tax ONLY**. Phone, food, mini-bar and other incidental charges will be your responsibility.
3. Additional nights and/or other allowances/incidentals may be discussed by contacting the Human Resources Analyst or designee at (510) 222-6700 or WCW's Claim Adjustor, Carl Warren and Co. at (800) 759-8798.

INSTRUCCIONES PARA EL RESIDENTE:

West County Wastewater recomienda que se traslade temporalmente a uno de los hoteles enumerados a continuación por su seguridad y comodidad mientras se limpia su residencia. Tenga en cuenta que esta autorización de emergencia se concede bajo las siguientes condiciones:

1. Esta autorización prevé una (1) noche de alojamiento en uno de los hoteles que se enumeran a continuación.
2. La autorización es válida para habitación e impuestos SOLAMENTE. Teléfono, comida, minibar y otros cargos incidentales serán su responsabilidad.
3. Las noches adicionales y / u otras asignaciones / imprevistos pueden discutirse comunicándose con el the Human Resources Analyst or designee at (510) 222-6700 or WCW's Claim Adjustor, Carl Warren and Co. at (800) 759-8798.

VOUCHER

Good for one (1) night's stay on (date): _____ Number of Affected Residents: _____

Customer's Name: _____

Field Supervisor's Name: _____ Phone Number: _____

Courtyard by Marriott
3150 Garrity Way
Richmond, CA 94806
(510) 262-0700

Extended Stay America
3170 Garrity Way
Richmond, CA 94806
(510) 222-7383

Customer Information Letter (Backup Only) F-5 (English)

Dear Property Owner:

We recognize that sewer backup incidents can be stressful and require immediate response while all facts concerning how an incident occurred are still unknown. Rest assured that we do all we can to prevent this type of event from occurring in the first place. Nevertheless, occasionally tree roots or other debris in the sewer lines causes a backup into homes immediately upstream of the blockage. At this time WCW is investigating the cause of this incident.

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

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

Depending on the extent of the backup our Collections Crew may advise you to consider relocating temporarily while the living area is cleaned. In that case, WCW will arrange for lodging for you for one night. Please see the Lodging Authorization form for details.

To discuss this matter, contact the Human Resources Analyst or designee at (510) 222-6700. To submit a claim for damages contact WCW's Claim Adjustor, Carl Warren and Co. at (800) 759-8798.

Sincerely,
West County Wastewater

Estimado Propietario:

Reconocemos que los incidentes de la red de alcantarillado pueden ser estresantes y requieren una respuesta inmediata, mientras que todos los hechos relacionados con la forma en que ocurrió el incidente aún son desconocidos. Tenga la seguridad de que haremos todo lo posible para evitar que este tipo de evento ocurra en primer lugar. Sin embargo, ocasionalmente las raíces de los árboles u otros residuos en las líneas de alcantarillado causan una copia de seguridad en los hogares inmediatamente antes del bloqueo. En este momento el WCW está investigando la causa de este incidente.

Si se determina que el WCW es responsable del incidente, nos comprometemos a limpiar y restaurar su propiedad, ya proteger la salud de las personas afectadas durante el proceso de remediación.

El contratista de limpieza proporcionado por el Distrito ha sido seleccionado debido a su adhesión a los protocolos establecidos que están diseñados para garantizar a todas las partes servicios de limpieza exhaustivos, rentables y rápidos. También tiene derecho a seleccionar su propio contratista de limpieza, pero el WCW no garantiza el pago de los honorarios / gastos incurridos y se reserva el derecho de disputar los honorarios / gastos que se consideren no habituales y habituales.

Dependiendo de la extensión de la copia de seguridad, nuestro Collections Crew puede aconsejarle que considere reubicarse temporalmente mientras se limpia la sala de estar. En ese caso, el WCW organizará el alojamiento para usted por una noche. Consulte el formulario de autorización de alojamiento para obtener más detalles.

Para discutir este asunto, comuníquese con el Human Resources Analyst o designee al (510) 222-6700. Para presentar un reclamo por daños comuníquese con la WCW's Claim Adjustor, Carl Warren y Co. al (800) 759-8798.

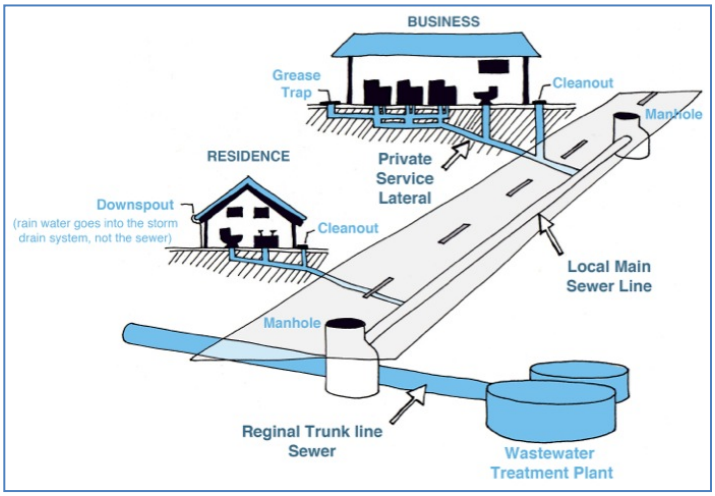
Sinceramente,
The West County Wastewater

How a Sewer System Works

A property owner's sewer pipes are called ***service laterals*** and are connected to larger local main and regional trunk lines. Service laterals run from the connection at the home to the connection with the public sewer. Depending on your location, a portion of the lateral is the responsibility of the property owner and must be maintained by the property owner.

How do sewage spills happen?

Sewage spills occur when the wastewater in underground pipes spills through a manhole, cleanout, or broken pipe. Most spills are relatively small and can be stopped and cleaned up quickly, but left unattended they can cause health hazards, damage to homes and businesses, and threaten the environment, local waterways, and beaches. Common causes of sewage spills include grease build-up, tree roots, broken/cracked pipes, missing or broken cleanout caps, undersized sewers, and groundwater/rainwater entering the sewer system through pipe defects and illegal connections.



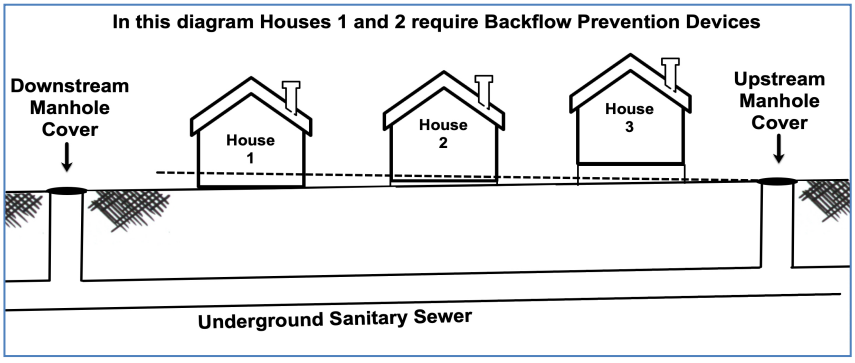
Prevent most sewage backups with a Backflow Prevention Device

This type of device can help prevent sewage backups into homes and businesses. If you don't already have a Backflow Prevention Device, contact a professional plumber or contractor to install one as soon as possible.

Is my home required to have a backflow prevention device?

Section 710.1 of the Uniform Plumbing Code (U.P.C.) states: *"Drainage piping serving fixtures which have flood level rims located below the elevation of the next upstream manhole cover or private sewer serving such drainage piping **shall** be protected from backflow of sewage by installing an approved type of backwater valve."* The intent of Section 710.1 is to protect the building interior from mainline sewer spills or surcharges.

Additionally, U.P.C. 710.6 states: *"Backwater valves **shall** be located where they will be accessible for inspection and repair at all times and, unless continuously exposed, shall be enclosed in a masonry pit fitted with an adequately sized removable cover."*



Spill cleanup inside the home:

For large clean ups, a professional cleaning firm should be contacted to clean up impacted areas, If you hire a contractor, it is recommended to get estimates from more than one company. Sometimes, homeowner's insurance will pay for the necessary cleaning due to sewer backups. Not all policies have this coverage, so check with your agent.

If you decide to clean up a small spill inside your home, protect yourself from contamination by observing the following safety measures. Those persons whose resistance to infection is compromised should not attempt this type of clean up.

Other Tips:

Seek immediate attention if you become injured or ill during or after the cleanup process.

- Keep children and pets out of the affected area.
- Turn off heating/air conditioning systems
- Wear rubber boots, rubber gloves, and goggles during cleanup.
- Discard items that cannot be washed and disinfected (such as: mattresses, rugs, cosmetics, toys, etc.)
- Remove and discard drywall and insulation that has been contaminated with sewage or flood waters.
- Thoroughly clean all hard surfaces (such as flooring, concrete, molding, wood and metal furniture, countertops, appliances, sinks and other plumbing fixtures) with hot water and laundry or dish detergent.
- Help the drying process with fans, air conditioning units, and dehumidifiers.
- After completing cleanup, wash your hands with soap and water. Use water that has been boiled for 1 minute (allow the water to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water & detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a Laundromat until your onsite wastewater system has been professionally inspected and serviced.

Spill cleanup outside the home:

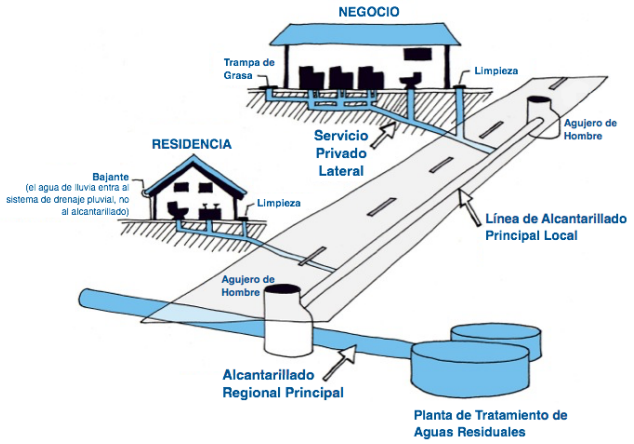
- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard surfaces areas such as asphalt or concrete, it is safe to use a 2% bleach solution, or ½ cup of bleach to 5 gallons of water, but don't allow it to reach a storm drain as the bleach can harm the environment.
- After cleanup, wash hands with soap and water. Use water that has been boiled for 1 minute (allow to cool before washing your hands) OR use water that has been disinfected (solution of 1/8 teaspoon of household bleach per 1 gallon of water). Let it stand for 30 min. If water is cloudy, use ¼ teaspoon of household bleach per 1 gallon of water.
- Wash clothes worn during cleanup in hot water and detergent (wash apart from uncontaminated clothes).
- Wash clothes contaminated with sewage in hot water and detergent. Consider using a laundromat until your onsite wastewater system has been professionally inspected and serviced.

Cómo funciona un sistema de alcantarillado

Las tuberías de alcantarillado de un propietario se denominan servicios laterales y están conectadas a líneas troncales principales y regionales locales más grandes. Los servicios laterales se ejecutan desde la conexión en el hogar hasta la conexión con el sistema de alcantarillado del Distrito. Estos laterales son responsabilidad del propietario y deben ser mantenidos por el propietario.

¿Cómo ocurren los derrames de aguas residuales?

Los derrames de aguas residuales ocurren cuando las aguas residuales en las tuberías subterráneas se desbordan a través de un pozo de acceso, limpieza o tubería rota. La mayoría de los derrames son relativamente pequeños y se pueden detener y limpiar rápidamente, pero si se los deja desatendidos, pueden causar riesgos para la salud, dañar viviendas y negocios y amenazar el medio ambiente, las vías fluviales locales y las playas. Las causas comunes de derrames de aguas residuales incluyen acumulación de grasa, raíces de árboles, tuberías rotas / agrietadas, tapas de limpieza faltantes o rotas, alcantarillas de tamaño insuficiente y aguas subterráneas / pluviales que ingresan al sistema de alcantarillado a través de defectos en las tuberías y conexiones ilegales.



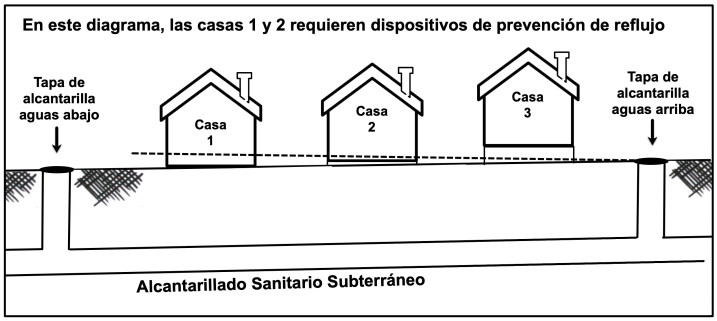
Prevenga la mayoría de las copias de seguridad de aguas residuales con un dispositivo de prevención de reflujo

Este tipo de dispositivo puede ayudar a prevenir las copias de seguridad de aguas residuales en hogares y empresas. Si aún no tiene un dispositivo de prevención de reflujo, comuníquese con un plomero o contratista profesional para instalar uno lo antes posible.

¿Se requiere que mi hogar tenga un dispositivo de prevención de reflujo?

La Sección 710.1 del Código Uniforme de Plomería (UPC) establece: “Los accesorios de tuberías de drenaje que tienen llantas de nivel de inundación ubicadas debajo de la elevación de la siguiente boca de alcantarilla corriente arriba o la alcantarilla privada que atiende dicha tubería de drenaje deben protegerse contra el reflujo de aguas residuales al instalar un tipo de válvula de evacuación ”. La intención de la Sección 710.1 es proteger el interior del edificio de los desagües o sobrecargas de alcantarillado de la línea principal.

Adicionalmente, U.P.C. 710.6 dice: Las válvulas de aguas residuales deben ubicarse donde puedan ser inspeccionadas y reparadas en todo momento y, a menos que estén continuamente expuestas, deben estar encerradas en un pozo de mampostería equipado con una cubierta removible del tamaño adecuado.



Limpieza de derrames dentro de la casa:

Para grandes limpiezas, se debe contactar a una empresa de limpieza profesional para limpiar las áreas afectadas. Si contrata a un contratista, se recomienda obtener estimaciones de más de una compañía. A veces, el seguro del propietario de vivienda pagará la limpieza necesaria debido a las reservas de alcantarillado. No todas las pólizas tienen esta cobertura, así que consulte con su agente.

Si decide limpiar un pequeño derrame dentro de su casa, protéjase de la contaminación observando las siguientes medidas de seguridad. Aquellas personas cuya resistencia a la infección esté comprometida no deben intentar este tipo de limpieza.

Busque atención inmediata si se lesiona o se enferma durante o después del proceso de limpieza.

Otros consejos:

- Mantenga a los niños y mascotas fuera del área afectada.
- Apague los sistemas de calefacción / aire acondicionado
- Use botas de goma, guantes de goma y gafas durante la limpieza.
- Deseche los artículos que no se puedan lavar y desinfectar (como: colchones, alfombras, cosméticos, juguetes, etc.)
- Retire y deseche los paneles de yeso y el aislamiento contaminado con aguas residuales o aguas de inundación.
- Limpie a fondo todas las superficies duras (como pisos, concreto, molduras, muebles de madera y metal, mostradores, electrodomésticos, fregaderos y otros accesorios de plomería) con agua caliente y ropa o detergente para platos.
- Ayude al proceso de secado con ventiladores, unidades de aire acondicionado y deshumidificadores.
- Después de completar la limpieza, lávese las manos con agua y jabón. Use agua que haya sido hervida por 1 minuto (deje que el agua se enfríe antes de lavarse las manos) O use agua que haya sido desinfectada (solución de 1/8 cucharadita de lejía doméstica por 1 galón de agua). Dejar reposar durante 30 min. Si el agua está turbia, use ¼ cucharadita de lejía de uso doméstico por 1 galón de agua.
- Lave la ropa usada durante la limpieza con agua caliente y detergente (lave aparte de la ropa no contaminada).
- Lavar la ropa contaminada con aguas residuales en agua caliente y detergente. Considere usar una lavandería hasta que su sistema de aguas residuales en el sitio haya sido inspeccionado y reparado profesionalmente.

Limpieza de derrames fuera de la casa:

- Mantenga a los niños y las mascotas fuera del área afectada hasta que se haya completado la limpieza.
- Use botas de goma, guantes de goma y gafas protectoras durante la limpieza del área afectada.
- Limpie los sólidos de alcantarillado (material fecal) y colóquelos en un inodoro o bolsa doble que funcione correctamente y colóquelos en un contenedor de basura.
- En áreas de superficies duras como el asfalto o el concreto, es seguro usar una solución de lejía al 2%, o ½ taza de lejía a 5 galones de agua, pero no permita que llegue a un drenaje de tormenta ya que la lejía puede dañar la ambiente.
- Después de la limpieza, lávese las manos con agua y jabón. Use agua que haya sido hervida por 1 minuto (deje enfriar antes de lavarse las manos) O use agua que haya sido desinfectada (solución de 1/8 cucharadita de cloro por 1 galón de agua). Dejar reposar durante 30 min. Si el agua está turbia, use ¼ cucharadita de lejía de uso doméstico por 1 galón de agua.
- Lave la ropa usada durante la limpieza con agua caliente y detergente (lave aparte de la ropa no contaminada).
- Lavar la ropa contaminada con aguas residuales en agua caliente y detergente. Considere usar una lavandería hasta que su sistema de aguas residuales en el sitio haya sido inspeccionado y reparado profesionalmente.

GOVERNMENT CLAIM FORM

West County Wastewater
2910 Hilltop Drive
Richmond, CA 94806
(510) 222-6700

This form is provided pursuant to Government Code Sections 910 et seq. and shall be used by any person presenting a claim to West County Wastewater under Government Code Section 810 et seq. If additional space is needed please attach additional sheets.

******Please return this claim form and all attachments to WCW at the address stated above.******

A. THE NAME AND POST OFFICE ADDRESS OF THE CLAIMANT:

B: THE POST OFFICE ADDRESS TO WHICH THE PERSON PRESENTING THE CLAIM DESIRES NOTICES TO BE SENT:

DAYTIME TELEPHONE:

EVENING TELEPHONE:

TELEPHONE:

C. THE DATE, PLACE, AND OTHER CIRCUMSTANCES OF THE OCCURRENCE OR TRANSACTION WHICH GAVE RISE TO THE CLAIM ASSERTED:

DATE OF OCCURRENCE:

TIME OF OCCURRENCE:

PLACE OF OCCURRENCE:

CIRCUMSTANCES:

D. A GENERAL DESCRIPTION OF THE INDEBTEDNESS, OBLIGATION, INJURY, DAMAGE OR LOSS INCURRED SO FAR AS IT MAY BE KNOWN AT THE TIME OF PRESENTATION OF THE CLAIM:

E. THE NAME OR NAMES OF THE PUBLIC EMPLOYEE OR EMPLOYEES CAUSING THE INJURY, DAMAGE, OR LOSS, IF KNOWN

F. AMOUNT OF CLAIM: $
(if less than $10,000.00)

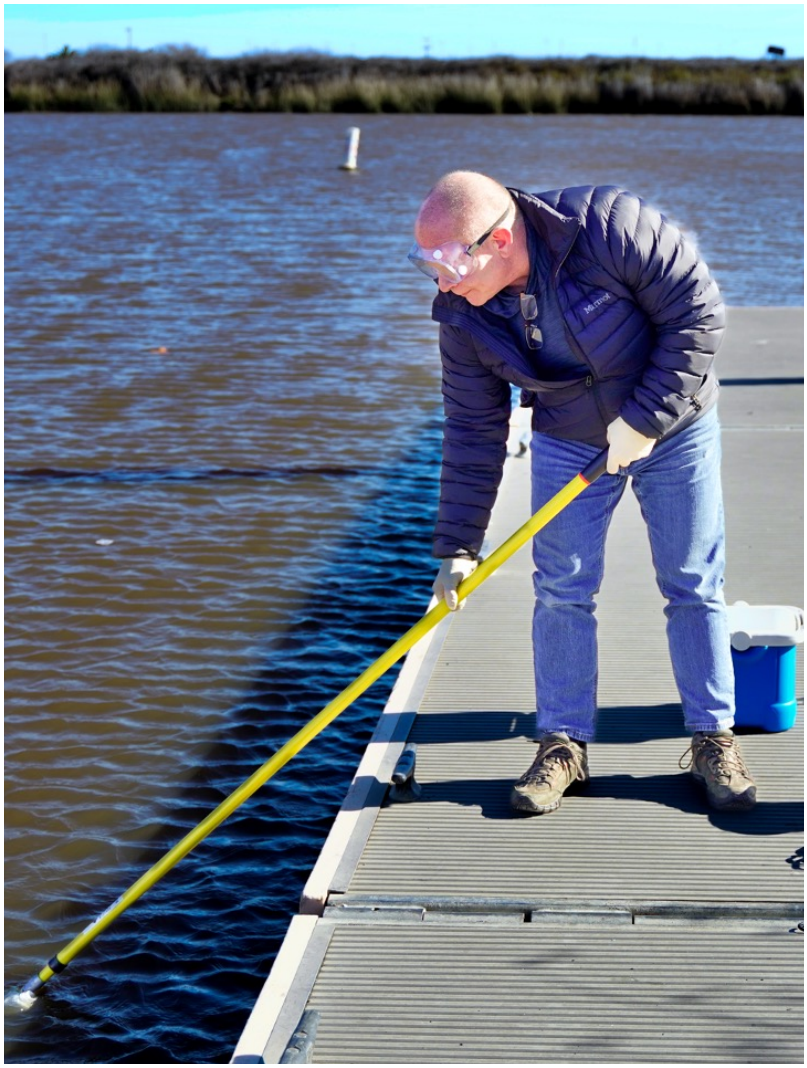
JURISDICTION OF CLAIM: __ MUNICIPAL COURT (CLAIMS TO $25,000)
__ SUPERIOR COURT (CLAIMS OVER $25,000)

BASIS OF COMPUTATION:

SIGNATURE OF CLAIMANT OR REPRESENTATIVE: _____ DATE: _____

For your protection California law requires the following to appear on this form: Section 72 of the Penal Code provides that “every person who, with intent to defraud, presents for allowance or for payment to any State Board or Officer, or to any county, town, city, district, ward, or village, board or officer authorized to allow or pay the same if genuine, any false or fraudulent claim, bill, account, voucher, or writing, is guilty of a felony”.

INSERT TAB:
Tab G: SAMPLING SOP



Process:	***Surface Water Sampling***
Personnel Required:	• 2
Personal Protective Equipment:	• Safety Glasses • Chemical Resistant Gloves • Steel-toed Safety Shoe • Waterproof Boots (if needed) • Traffic Vest/Jacket (when vehicular traffic present)
License Required:	• None required
Common Hazards:	• Drowning or submersion • Slip, trip, and fall • Exposure • Insect/Wildlife • Weather • Boat/Watercraft • Physical Strain or Injury
Safe Operation Guidelines:	• Wear proper PPE • Be aware of currents, depth, and unstable banks • Do not eat, drink or smoke while sampling • Avoid cross-contamination • Label all samples clearly

Lab Contact Information	Alpha Lab 262 Rickenbacker Cir Livermore, CA 94551 (925) 828-6226 Caltest Analytical Laboratories 1885 North Kelly Road Napa, CA 94558 (707) 258-4000 ext. 30 (707) 319-1943 (after hours)

Surface water sampling helps to ensure water quality by identifying areas of concern and potential failure mechanisms that may impact surface waters or stormwater infrastructure in the service area.

Minimize Impacts

Surface water sampling allows for the proper evaluation of potential contamination following a sanitary sewer spill.

Having a thorough understanding of the service area and its various challenges can help responders be better prepared to minimize the impacts of a spill on local surface waters and stormwater infrastructure.

Before beginning the sampling process there are several important steps that must be taken to ensure that the samples collected are representative of the water quality in the area being monitored.

These steps include:

1. **Gathering the necessary equipment:**
    - The surface water sampling worksheet, chain of custody, sampling pole, sample containers, and PPE are essential tools that must be prepared and organized before sampling can begin. The Spill Emergency Response Sampling Kit should have all the sample containers and necessary paperwork.
2. **Donning appropriate personal protective equipment:**
    - To protect against exposure to potentially harmful contaminants and the sulfuric acid preservative in the Ammonia sample bottles, workers must wear gloves, eye protection, and other personal protective equipment, as needed.
3. **Determining the point of spill entry into the waterway:**
    - It's important to locate the point at which any spill entered the waterway in order to collect the required samples: point of entry into the surface water, downstream, and upstream.

The approximate stream velocity and time since the spill flow to the surface water stopped should be determined to calculate the appropriate distance to move downstream to collect:

1. **The downstream sample,**
2. **Move upstream to collect the spill entry point sample,**
3. **And move further upstream to collect the upstream or reference sample.**

Personal Protective Equipment

Personal Protective Equipment (PPE) should be used when conducting surface water sampling. The PPE that is required includes:

- Gloves
- Eye Protection
- Steel Toe safety shoes/waterproof boots (if needed)
- Traffic Vest (when vehicular traffic is present)

Sampling Equipment

In addition to PPE, other sampling equipment is necessary:

- Sample Bottles & Containers
- Spill Emergency Response Kit
- Sampling Pole, or
- Sampling Cup with Chain
- Manhole Pick

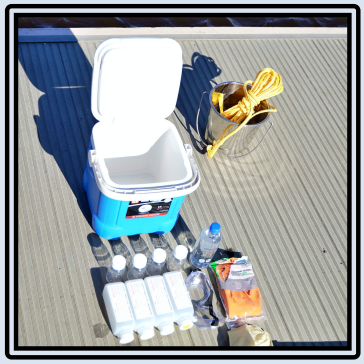
The use of PPE and proper sampling equipment is important for the safety of the sampler and for ensuring accurate and reliable sampling results.

Test Type	Spill Area	Sample Locations		
		Downstream of Spill	Upstream of Spill	Drainage Conveyance System (as applicable)
Ammonia/ Nitrogen	1 pint with H2SO4	1 pint with H2SO4	1 pint with H2SO4	1 pint with H2SO4
Enterococcus	1 bacti bottle	1 bacti bottle	1 bacti bottle	1 bacti bottle
Fecal Coliforms	1 bacti bottle	1 bacti bottle	1 bacti bottle	1 bacti bottle
e. Coli	1 bacti bottle	1 bacti bottle	1 bacti bottle	1 bacti bottle

Water samples must be collected in different bottles for various tests and then transported in a Spill Emergency Response Kit with ice packs.

For each of the three sampling sites (plus drainage conveyance system as applicable), one bottle is needed for ammonia/nitrogen testing, and one bacti bottle is required for each type of bacteria being tested.

Surface Water Sampling – Preparation

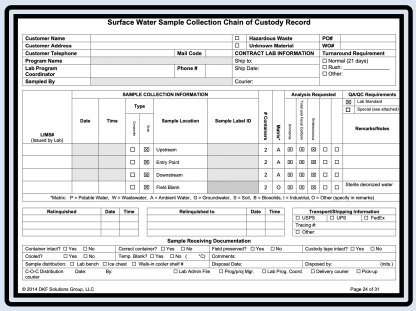


Step 1 of 4

Prepare the Spill Emergency Response Sampling Kit for sample storage by adding an instant ice pack, ice pack, or ice to keep the samples cold during transport to the lab.

Step 2 of 4

Identify the point of the spill where the wastewater entered the waterway and take a photograph of this location with a reference point in the picture.



Surface Water Sample Collection Chain of Custody Record

Step 3 of 4

Begin completing the ***Surface Water Sampling Worksheet*** to record the relevant information about the sampling location and collected samples.

Step 4 of 4

To determine which direction is upstream and downstream for sample collection, you should observe the direction of water movement from the point of discharge.

The purpose of this procedure is to provide a standard for collecting surface water samples to assess water quality, avoid contamination, and ensure that samples can be accurately labeled and transported to the lab for processing. If access restrictions or unsafe conditions prevent sample collection, document the restrictions and/or hazard conditions on the Surface Water Sampling Worksheet and via photographs.

Notes:

Start by collecting downstream samples first.

In order to determine where the downstream sample is located in a stream, creek, or river, you will need to determine the velocity of the surface water. This can be accomplished through the use of a stream velocity meter or by measuring off a distance along the bank and timing how long it takes for a floating object to travel that distance.

Use the formula on the *Surface Water Sampling Worksheet* to calculate the stream velocity. Once known, determine the time that the spill **has not been** entering the surface water.

This, along with the stream velocity, will inform you how far downstream you need to travel to collect the downstream sample.

Step 1 of 12

Don the appropriate PPE from your sampling kit. This should include chemical resistant gloves, steel toe safety shoes or waterproof boots (if necessary), and safety glasses.

Step 2 of 12

Label all sample containers with their location (refer to table on G-8), your name, and the date and time they are collected. Record this information on the surface water sampling worksheet.

Step 3 of 12

Take photos of each sample location and ensure a reference point is visible in each photo. In the photo (left), the dock and sign serve as excellent reference points.

Step 4 of 12

Gather supplies, including sampling cup/chain and dipper, etc. before collecting samples.

Step 5 of 12

Rinse sampling cup before collecting samples.

Step 6 of 12

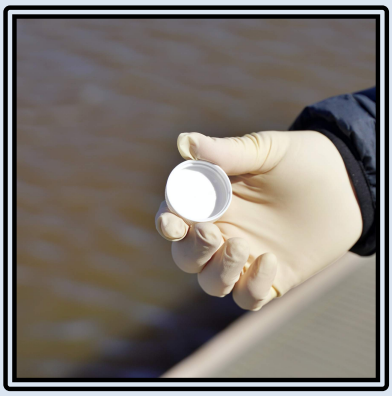
Sweep the sampling cup on a chain or dipper upstream and out of the water without disturbing the bottom sediment. Remember to avoid skin contact.

Step 7 of 12

Transfer sample from sampling cup to sampling bottle. Remove the seal from the Ammonia sample container just prior to transferring your sample, as applicable.

To reduce the likelihood of contamination, remove the cap immediately before transferring the sample.

When filling the ammonia nitrogen sample bottle, don't overfill it because it contains sulfuric acid.



Step 8 of 12

To prevent sample contamination, do not allow the inside of the cap to touch anything while you are obtaining the sample.

Step 9 of 12

Fill the Ammonia sample bottle to the fill line, and immediately replace the cap. If there is no clear fill line, fill it to the “neck” of the bottle.

Step 10 of 12

Repeat Step 6 as needed and transfer sample from sampling cup to the Bacteria sample containers allowing water to gently flow into the bottle just to the fill line. Replace the cap immediately. Be careful not to touch the inside of the cap or bottle with your gloved hands.

Step 11 of 12

Place all samples in the Spill Emergency Response Kit on the ice pack. To ensure accurate analysis, the Bacti samples must be transported to the lab within 6 hours of the time of collection.

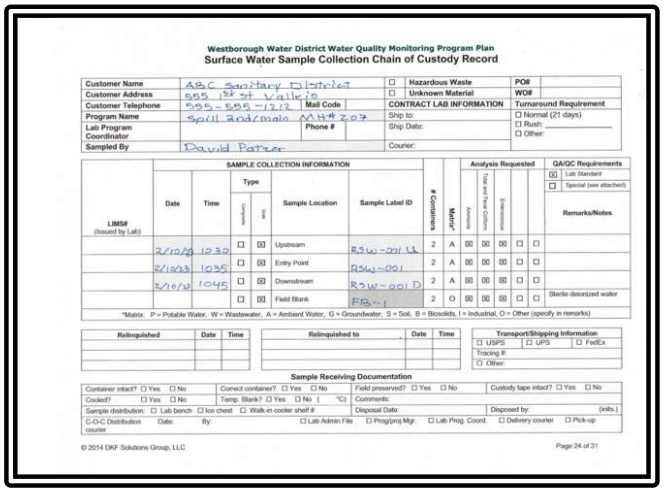
Step 12 of 12

Complete Chain of Custody form.

Step 1 of 4: Documentation

All samples must be labeled with their location, your name, and the date and time they were collected. Refer to the state requirements found on the last page of this document. Record this information on the chain of custody form and the surface water sampling worksheet.

Chain of Custody Record



Westborough Water District Water Quality Monitoring Program Plan
Surface Water Sample Collection Chain of Custody Record

Customer Name	ABC Sanitary District	☐ Hazardous Waste	PO#
Customer Address	555 2nd St Valleio	☐ Unknown Material	WO#
Customer Telephone	555-555-1212 Mail Code	CONTRACT LAB INFORMATION	Turnaround Requirement
Program Name	Spill Analysis MH# 207	Ship to:	☐ Normal (21 days)
Lab Program Coordinator	Phone #	Ship Date:	☐ Rush: ____
Sampled By	David Potter	Courier:	☐ Other:

LIMS# (Issued by Lab)	Date	Time	Type: Composite	Type: Grab	Sample Location	Sample Label ID	# Containers	Matrix*	Analysis Requested	QA/QC Requirements	Remarks/Notes
	2/10/23	1230	☐	☒	Upstream	RSW-001 U	2	A	☒ ☒ ☒ ☐ ☐	☒ Lab Standard ☐ Special (see attached)	
	2/10/23	1035	☐	☒	Entry Point	RSW-001	2	A	☒ ☒ ☒ ☐ ☐		
	2/10/23	1045	☐	☒	Downstream	RSW-001 D	2	A	☒ ☒ ☒ ☐ ☐		
			☐	☒	Field Blank	FB-1	2	O	☒ ☒ ☒ ☐ ☐		Sterile deionized water

*Matrix: P = Potable Water, W = Wastewater, A = Ambient Water, G = Groundwater, S = Soil, B = Biosolids, I = Industrial, O = Other (specify in remarks)

Relinquished	Date	Time	Relinquished to	Date	Time	Transport/Shipping Information
						☐ USPS ☐ UPS ☐ FedEx
						Tracing #:
						☐ Other:

Sample Receiving Documentation

Container intact? ☐ Yes ☐ No	Correct container? ☐ Yes ☐ No	Field preserved? ☐ Yes ☐ No	Custody tape intact? ☐ Yes ☐ No
Cooled? ☐ Yes ☐ No	Temp. Blank? ☐ Yes ☐ No (°C)	Comments:	
Sample distribution: ☐ Lab bench ☐ Ice chest ☐ Walk-in cooler shelf #		Disposal Date:	Disposed by: (initls.)
C-O-C Distribution Date: By:	☐ Lab Admin File ☐ Prog/proj Mgr. ☐ Lab Prog. Coord. ☐ Delivery courier ☐ Pick-up courier		

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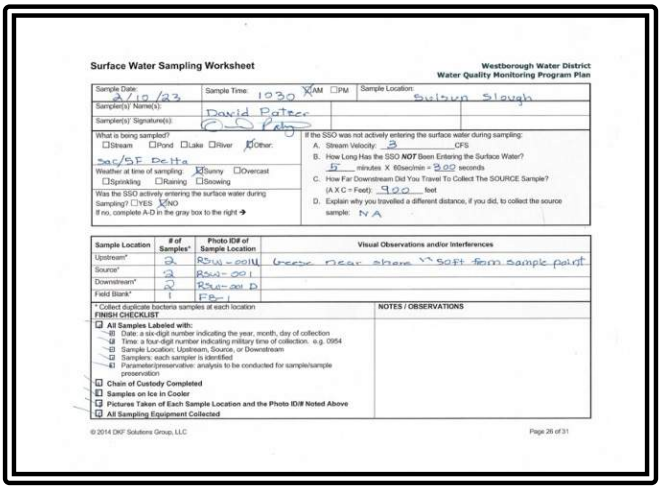
Surface Water Sampling Worksheet



Surface Water Sampling Worksheet
Westborough Water District
Water Quality Monitoring Program Plan

Sample Date: 2/10/23	Sample Time: 1030 ☒AM ☐PM	Sample Location: Sutton Slough	
Sampler(s) Name(s):	David Potter		
Sampler(s)' Signature(s):			

What is being sampled? ☐Stream ☐Pond ☐Lake ☐River ☒Other: Sac/SF Pe.Ha
Weather at time of sampling ☒Sunny ☐Overcast ☐Sprinkling ☐Raining ☐Sleeting
Was the SSO actively entering the surface water during Sampling? ☐YES ☒NO
If no, complete A-D in the gray box to the right →

If the SSO was not actively entering the surface water during sampling:
A. Stream Velocity: .5 CFS
B. How Long Has the SSO *NOT* Been Entering the Surface Water? 5 minutes X 60sec/min = 300 seconds
C. How Far Downstream Did You Travel To Collect The SOURCE Sample? (A X C = Feet): 900 feet
D. Explain why you travelled a different distance, if you did, to collect the source sample: N A

Sample Location	# of Samples*	Photo ID# of Sample Location	Visual Observations and/or Interferences
Upstream*	2	RSW-001U	Grass near shore ~5 ft from sample point
Source*	2	RSW-001	
Downstream*	2	RSW-001 D	
Field Blank*	1	FB-1	

* Collect duplicate bacteria samples at each location

FINISH CHECKLIST — NOTES / OBSERVATIONS

☒ All Samples Labeled with:
☒ Date: a six-digit number indicating the year, month, day of collection
☒ Time: a four-digit number indicating military time of collection. e.g. 0954
☒ Sample Location: Upstream, Source, or Downstream
☒ Samples: each sampler is identified
☒ Parameter/preservative: analysis to be conducted for sample/sample preservation
☒ Chain of Custody Completed
☒ Samples on Ice in Cooler
☒ Pictures Taken of Each Sample Location and the Photo ID/# Noted Above
☒ All Sampling Equipment Collected

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Step 2 of 4: Contact the Lab

Contact Caltest first. Make sure they can analyze the bacti samples within 8 hours of the time they were collected. If not, contact Alpha Lab. See contact information in section G-2 above. Inform the lab that the following samples require processing: ammonia-nitrogen, total/fecal coliform, e. Coli, and/or enterococcus. Provide any additional information the lab may require.

Step 3 of 4: Transport Samples

Place the samples in the Spill Emergency Response Kit on the ice pack and transport them to the lab within 6 hours of collection time. Complete the chain of custody form by signing off the document to the lab staff and making sure to note the time in the proper fields. Lab staff should be able to assist you with this and ensure all samples are properly secured during transport.

Step 4 of 4: Post Warning Signs

If directed by your supervisor or the county environmental health division, post warning signs in the affected area. Keep track of sign locations and remove warning signs and lift restrictions only when authorized to do so.

The Enrollee shall collect receiving water samples at the following locations:

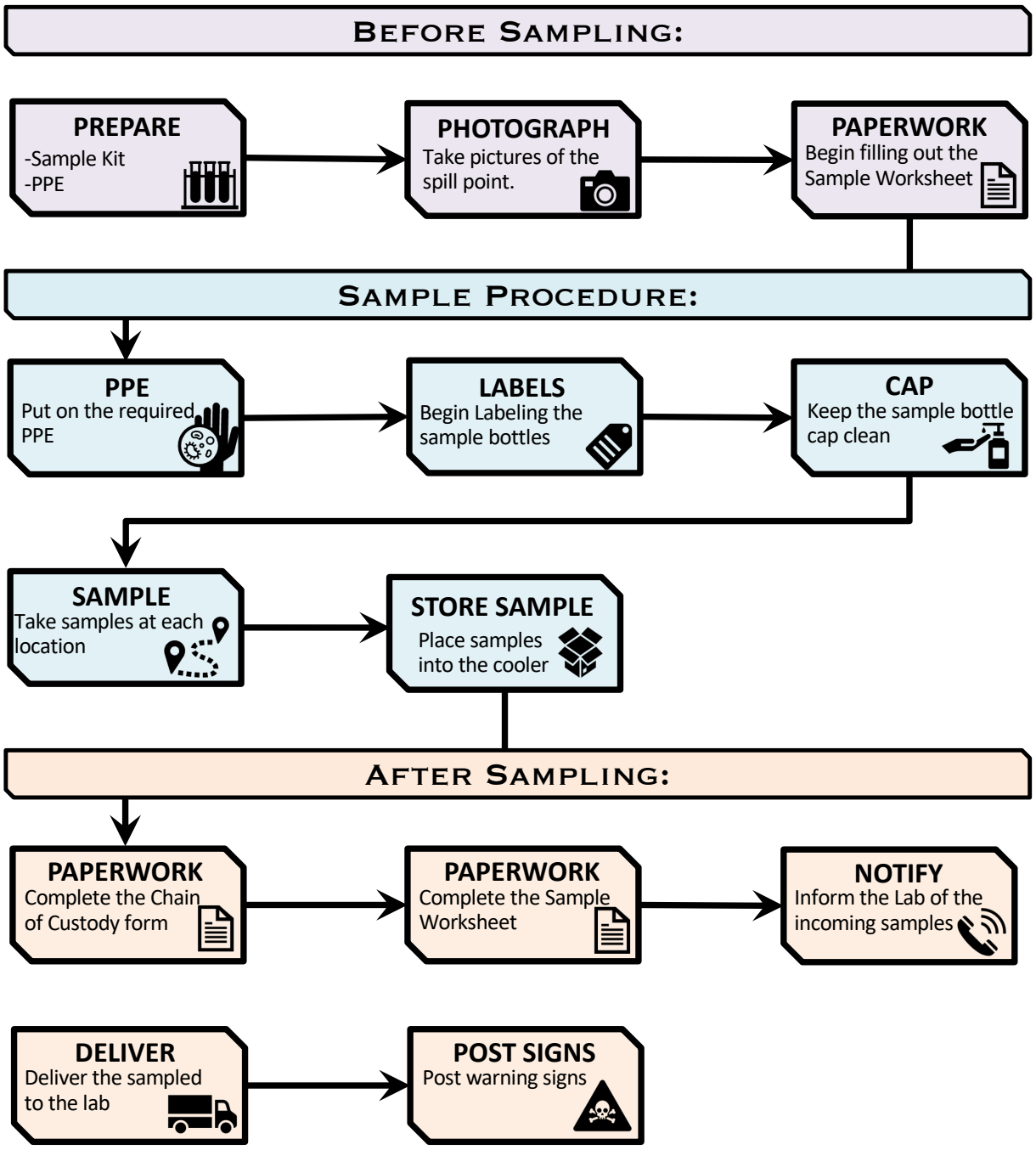
Sampling of Flow in Drainage Conveyance System (DCS) Prior to Discharge

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.
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.



Surface Water Sampling Worksheet

Sample Date:	Sample Time: ☐AM ☐PM	Sample Location:
Sampler(s)' Name(s):		
Sampler(s)' Signature(s):		

What is being sampled?

☐Stream ☐Pond ☐Lake ☐River ☐Other:

Weather at time of sampling:

☐Sunny ☐Overcast ☐Sprinkling ☐Raining

Was the spill actively entering the surface water during Sampling?

☐YES ☐NO If no, complete A-D in the gray box to the right.

If the spill was not actively entering the surface water during sampling:

A. Stream Velocity: _____CFS

B. How Long Has the spill ***NOT*** Been Entering the Surface Water?

_____ minutes X 60sec/min = _ seconds

C. How Far Downstream Did You Travel To Collect The SOURCE Sample?

(A X C = Feet): _____ feet

D. Explain why you travelled a different distance, if you did, to collect the source sample:

Sample Location	Sample Label	# of Samples*	Photo ID# of Sample Location	Visual Observations and/or Interferences
Drainage Conveyance	DCS-001	4		
Source*	RSW-001	4		
Upstream*	RSW-001U	4		
Downstream*	RSW-001D	4		

FINISH CHECKLIST	NOTES / OBSERVATIONS
☐ **All Samples Labeled with:** ☐ Date: a six-digit number indicating the year, month, day of collection ☐ Time: a four-digit number indicating military time of collection. e.g. 0954 ☐ Sample Location: Drainage Conveyance, Source, Upstream, or Downstream ☐ Samplers: each sampler is identified ☐ Parameter/preservative: analysis to be conducted for sample/sample preservation ☐ **Chain of Custody Completed** ☐ **Samples on Ice in Spill Emergency Response Kit** ☐ **Pictures Taken of Each Sample Location and the Photo ID/# Noted Above** ☐ **All Sampling Equipment Collected**	

Surface Water Sample Chain of Custody Record

G-11

Customer Name	West County Wastewater			☐	**Hazardous Waste**	**PO#**	
Customer Address	2910 Hilltop Drive, Richmond			☐	**Unknown Material**	**WO#**	
Customer Telephone		**Zip Code**	94806	**CONTRACT LAB INFORMATION**		**Turnaround Requirement**	
Program Name				Ship to:		☐ Normal (21 days)	
Lab Program Coordinator		**Phone #**		Ship Date:		☐ Rush: _____	
Sampled By				Courier:		☐ Other:	

LIMS# (Issued by Lab)	**SAMPLE COLLECTION INFORMATION**						**# Containers**	**Matrix***	**Analysis Requested**					**QA/QC Requirements**	
	Date	**Time**	**Type**		**Sample Location**	**Sample Label ID**			Ammonia	Total and Fecal Coliform	Enterococcus	E. coli		☒	Lab Standard
			Composite	Grab										☐	Special (see attached)
														Remarks/Notes	
			☐	☒	Drainage Conveyance	DCS-001	4	A	☒	☒	☒	☒	☐		
			☐	☒	Entry Point	RSW-001	4	A	☒	☒	☒	☒	☐		
			☐	☒	Upstream	RSW-001U	4	A	☒	☒	☒	☒	☐		
			☐	☒	Downstream	RSW-001D	4	A	☒	☒	☒	☒	☐		

*Matrix: P = Potable Water, W = Wastewater, A = Ambient Water, G = Groundwater, S = Soil, B = Biosolids, I = Industrial, O = Other (specify in remarks)

Relinquished	**Date**	**Time**

Relinquished to	**Date**	**Time**

Transport/Shipping Information		
☐ USPS	☐ UPS	☐ FedEx
Tracing #:		
☐ Other:		

Sample Receiving Documentation

Container intact? ☐ Yes ☐ No	Correct container? ☐ Yes ☐ No	Field preserved? ☐ Yes ☐ No	Custody tape intact? ☐ Yes ☐ No
Cooled? ☐ Yes ☐ No	Temp. Blank? ☐ Yes ☐ No (°C)	Comments:	
Sample distribution: ☐ Lab bench ☐ Ice chest ☐ Walk-in Spill Emergency Response Kit shelf #		Disposal Date:	Disposed by: (inits.)
C-O-C Distribution Date: By: ☐ Lab Admin File ☐ Prog/Proj Mgr. ☐ Lab Prog. Coord. ☐ Delivery courier ☐ Pick-up courier			

INSERT TAB:
Tab H: POST-SPILL

SPILL LOCATION
Spill location name:
Address of spill:

NOTIFICATION AND COMMUNICATION PROCEDURES	
Were notification procedures adhered to?	☐ Yes ☐ No
Were notification procedures effective?	☐ Yes ☐ No
RESPONSE PROCEDURES	
Were response time goals met?	☐ Yes ☐ No
Were safety procedures adhered to?	☐ Yes ☐ No
Were safety procedures effective?	☐ Yes ☐ No
Were initial response procedures adhered to?	☐ Yes ☐ No
Were initial response procedures effective?	☐ Yes ☐ No
Were containment procedures adhered to?	☐ Yes ☐ No

RESPONSE PROCEDURES (continued)	
Were containment procedures effective?	☐ Yes ☐ No
Were clean up and recovery procedures adhered to?	☐ Yes ☐ No
Were clean up and recovery procedures effective?	☐ Yes ☐ No
Were sewer back up procedures adhered to?	☐ Yes ☐ No
Were sewer back up procedures effective?	☐ Yes ☐ No
Were chain of custody procedures adhered to?	☐ Yes ☐ No
Was failure analysis investigation performed and documented?	☐ Yes ☐ No
REPORTING AND NOTIFICATION PROCEDURES	
Were reporting and notification timeline requirements met?	☐ Yes ☐ No

DOCUMENTATION	
Was spill file created?	☐ Yes ☐ No
Was QA/QC performed to ensure field data matched CIWQS data?	☐ Yes ☐ No

RECOMMENDED CHANGES
☐ N/A

ATTENDEES	

FACILITATED BY	
	Date:

OFFICE USE ONLY

Incident Report #		Prepared By	
Spill/Backup Information			
Cause			
Summary of Historical Spills/Backups/Service Calls/Other Problems			
Date	Cause	Date Last Cleaned	Crew
Records Reviewed By:		Record Review Date:	
Summary of CCTV Information			
CCTV Inspection Date		File Name/Number	
CCTV File Reviewed By		CCTV Review Date	
Observations			

Go to Page 2

Recommendations					
✓	Type	Specific Actions	Who is Responsible?	Completion Deadline	Who Will Verify Completion?
	No Changes or Repairs Required	n/a	n/a	n/a	n/a
	Repair(s)/ Replacement				
	Construction				
	Capital Improvement(s)				
	Change(s) to Maintenance Procedures/ Schedules				
	Change(s) to Spill Response Procedures				
	Training				
	Misc.				
Comments/Notes:					
Reviewed By:				Review Date:	

2023
Sewer System Management Plan Audit

West County Wastewater

October 2023

Internal 2023 SSMP Audit Certification
(Updated October 2023)

We hereby certify, as the Legally Responsible Official (LRO) and the Director of Infrastructure & Planning (I&P) of West County Wastewater (WCW), that the following Sewer System Management Plan (SSMP) was performed in compliance with State Water Resources Control Board Order No. 2006-0003-DWQ and all subsequent amendments including the most recent amendment [Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements (effective June 5, 2023)]

LRO Printed Name: Gordon Times

LRO Signature: DocuSigned by: Gordon Times 1AFAF73D7595467...

Director of I&P Printed Name (Certifier): Michael Savannah

Director of I&P Signature: DocuSigned by: Michael Savannah C0B6CFD3E33F4D5...

Table of Contents

List of Acronyms

Acronym	Full / Extended Term
ADWF	Average Dry Weather Flow
BBP	Bloodborne Pathogens
BMP	Best Management Practice
CASA	California Association of Sanitation Agencies
CalOSHA	California Occupational Safety and Health Administration
CCTV	Closed-Circuit Television
CIP	Capital Improvement Program
CIWQS	California Integrated Water Quality System
COIN	Context, Observation, Impact and Need
CSM	Collection System Maintenance
CSMFO	California Society Municipal Finance Officers
CSO	Collection System Operations
CSRMA	California Sanitation Risk Management Authority
CWEA	California Water Environment Association
EAP	Emergency Action Plan
EC	Environmental Compliance
ELAP	Environmental Laboratory Accreditation Program
ESRI	Environmental Systems Research Institute
FOG	Fats, Oils and Grease
FSE	Food Service Establishment
GHS	Globally Harmonized System
GIS	Geographical Information System
HAZWOPER	Hazardous Waste Operations and Emergency Response
HCS	Hazardous Communication Standard
I/I or I&I	Inflow & Infiltration
LRO	Legally Responsible Officer
MGD	Million Gallons per Day
MSDS	Material Safety Data Sheet
NACWA	National Association of Clean Water Agencies
NASSCO	National Association of Sewer Service Companies
NOV	Notice of Violation
NPDES	National Pollution Discharge Elimination System
O&M	Operations & Maintenance
PIPES	Public Incentive Program for Efficiency of Sewers
PM	Preventive Maintenance
PPE	Personal Protective Equipment
SCBA	Self-Contained Breathing Apparatus
SERP	Spill Emergency Response Plan
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board

UPC	Uniform Plumbing Code
WCW	West County Wastewater
WDR	(General) Waste Discharge Requirements
WEFTEC	Water Environment Federation Technical Exhibition & Conference
WQRRP	Water Quality & Resource Recovery Plant

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List of Terms

Blockage – An object that partially or completely impedes flow through a sewer pipeline. The blockage can be caused by debris, grease buildup, root intrusion, partial collapse or full collapse of the pipeline. A blockage is also known as a stoppage.

Capital Improvement Program (CIP) – A program that identifies and prioritizes system deficiencies and implements short-term and long-term rehabilitation actions, to address each deficiency.

California Water Environment Association (CWEA) – The statewide association of wastewater professionals that trains and certifies wastewater professionals, disseminates technical information and promotes policies to protect and enhance the environment. The organization's website can be accessed through this link: http://www.cwea.org.

FOG Control Program – A program implemented at the discretion of WCW, based on SSOs caused by FOG discharge into the sewer system. The primary goals of the program are: 1. Elimination of FOG discharge into the sewer system and 2. Elimination of SSOs caused by the discharge of FOG into the sewer system.

Geographical Information System (GIS) – A system that creates, manages, analyzes, and maps various types of data. Data is stored in a database and visualized in web-based applications.

Infiltration – The seepage of groundwater into a sewer system, including service connections. Seepage frequently occurs through defective or cracked pipes, pipe joints, connections or manhole walls and joints.

Inflow – The discharged rainfall or storm water which enters into a sewer system through roof leaders, cellars, yard and area drains, foundation drains, cross connections from the storm system or street wash waters or through holes in manhole covers. Inflow differs from infiltration in that it is a direct discharge into the sewer rather than a leak through defects in the sewer.

Lateral or Private Lateral – The privately-owned sewer pipeline that conveys wastewater from a user's structure into WCW's sewer system. The upper lateral extends from the building to the property line (or easement line). The lower lateral extends from the property or easement line to the connection to the main. The property is owner is responsible for obtaining sewer lateral compliance and maintenance of the entire sewer lateral (upper lateral and lower lateral or from the cleanout nearest to the house up to and including the connection to WCW's sewer system.

Master Plan – The 2014 Master Plan is a comprehensive plan for all WCW assets, including the collection system, the WQRRP, and other WCW Facilities. The planning period for the Collection System Master Plan is twenty (20) years, ending in 2032.

Monitoring and Reporting Program - The program used by WCW to monitor, maintain records, report issues and provide necessary notification to the public.

Public Incentive Program for Efficiency of Sewers (PIPES) – The PIPES Program is intended to reduce the number of SSOs that send raw sewage directly into nearby creeks or storm drains that eventually discharge pollution into San Francisco Bay. It is offered to eligible property owners located within the boundaries of WCW to help defray a portion of the cost of partially or completely replacing pre-approved defective sewer laterals. The PIPES Program Guide can be accessed here: https://www.wcwd.org/wp-content/uploads/2023/05/PIPES-Program-Guide-rev-05-04-2023_comb-4-Fillable_May2023.pdf.

Sanitary Sewer Overflow (SSO) – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system, including overflows or releases that reach waters of the United States, overflows or releases that do not reach waters of the United States, and backups into buildings and/or private property caused by conditions within the publicly owned portion of the sewer system.

Sewer System Management Plan (SSMP) – A series of documented programs that specifies means and methods a collection system owner/operator utilizes to conduct daily business. Each SSMP is unique for an individual discharger. The plan includes provisions to provide proper and efficient management, operation, and maintenance of the sanitary sewer system, while taking risk management and cost benefit into consideration.

Spill Emergency Response Plan (SERP) – This document identifies measures that are needed to respond to SSOs in a way that maximizes the protection of public health and the environment.

State Water Resources Control Board (SWRCB) – Also called the State Board. This agency developed and passed the Statewide Waste Discharge Requirements for collection systems and maintains the SSO reporting web site.

Statewide Waste Discharge Requirements – The Statewide General Waste Discharge Requirements for Sanitary Sewer Systems was adopted by the SWRCB to provide a structure and guidance for SSMP development as well as other discharge requirements.

Pertinent orders are shown below:

- Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements
- Order No. R2-2019-0017 – Nutrient Discharges
- Order No. R2-2019-0003 – Waste Discharge Requirements
- Order No. R2-2017-0042 – Amendment of Waste Discharge Requirements
- Order No. R2-2017-0041 – Waste Discharge Requirements for Hg and PCB Discharges to SF Bay

- Order No. R2-2016-0008 – Alternate Monitoring and Reporting Requirements
- Order No. WQ 2013-0058-EXEC – Statewide Waste Discharge Requirements
- Order No. 2006-0003-DWQ – Statewide Waste Discharge Requirements

Stoppage – See Blockage.

Strategic Plan – The Strategic Plan includes the organizational vision, mission, core values, strategic goals and objectives. The Strategic Plan can be accessed here: https://www.wcwd.org/wp-content/uploads/2023/06/WCW-FY-2023-STRATEGIC-PLAN-UPDATE.23-060.pdf.

System Evaluation and Capacity Assurance Plan – A required component of an agency's SSMP that provides hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event.

West County Wastewater (WCW) – The organization formed in 1921 which is responsible for the collection and treatment of wastewater from unincorporated areas of El Sobrante, portions of the City of Pinole and the City of Richmond, as well as the entire City of San Pablo. WCW's boundary map (Figure 1), can be found on page 2-2.

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List of Positions

"Secretary to the District/District Clerk" – Provides information updates to the Board and arranges for emergency meetings, if necessary.

"Capital Portfolio Manager" – Oversees the delivery of projects within WCW's boundaries.

"Collection System Manager" – Manages field O&M activities, provides relevant information to agency management, prepares and implements contingency plans, leads emergency responses, investigates and reports SSOs, and trains field crews.

"Director of Infrastructure and Planning" – Prepares wastewater collection system planning documents; manages capital improvement delivery system, documents new and rehabilitated assets, and coordinates the development and implementation of the SSMP.

"Environmental Services Manager" – Works on applicable permits, laws, and regulations.

"Field Crews" – Performs preventive maintenance activities, mobilizes and responds to notification of stoppages and SSOs (mobilizes sewer cleaning equipment, by-pass pumping equipment, and portable generators).

"General Manager" – Establishes policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as a public information officer.

"Inspector" – Ensures that new and rehabilitated assets meet agency standards, works with field crews to handle contractor-caused emergencies, and provides verbal reports to the Collection System Manager.

"Laboratory Manager" – Assigns staff to perform SSO and WQRRP sample analyses.

"Maintenance Manager" – Assigns staff to maintain WQRRP equipment and lift stations.

The CSO division provides routine and emergency support for equipment and vehicles. This division also provides maintenance, repair, SSO reporting and SSO response services. This division is also responsible for scheduling maintenance based on several factors including, but not limited to capacity, grease, offset and root-related issues.

The Planning & Support Services division handles permit issuance, sewer inspections, plan reviews and fee assessment for new development and sewer projects affecting existing sewer lines. This division is also responsible for maintaining GIS data and providing access to the data on a map.

The Capital Portfolio division handles the design and construction of capital projects related to collection system capacity upgrades, extensions and repairs.

The Environmental Programs (EP) division is significantly involved in mitigating FOG and

FOG-related issues.

The LRO is responsible for certifying all reports required by the SWRCB Order No. 2006-003 and all subsequent amendments including the most recent amendment [Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements (effective June 5, 2023)].

The Collection System Manager is the authorized representative for reporting SSOs to the SWRCB and other agencies, as applicable.

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List of Tables

List of Figures

Executive Summary

The 2023 SSMP audit is a required biennial audit of WCW's SSMP.

In accordance with Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements effective June 5, 2023, the SSMP audit process will become a triennial process.

The completion of the audit allows WCW to evaluate all deficiencies in the collection system and SSMP and recommend mitigation actions. The audit also facilitates accomplishment of WCW's Strategic Plan (includes the organizational vision, mission, core values, strategic goals and objectives).

The Strategic Plan can be accessed here:
https://www.wcwd.org/wp-content/uploads/2023/06/WCW-FY-2023-STRATEGIC-PLAN-UPDATE.23-060.pdf.

Background

The audit described in Element 10 of the SSMP is currently performed at least once every two (2) years.

In accordance with Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements effective June 5, 2023, audits will be performed at least once every three (3) years.

The audit process ensures the accuracy of information contained in each element, as well as the effectiveness of proposed mitigation measures.

Summary

Upon completing its review of all eleven (11) elements, the multi-divisional audit team determined that the SSMP was effective and that the collection system was adequately maintained.

The 5-yr running average for SSOs in 2022 is lower than it was in 2020. There was a decrease in SSOs from 2020 to 2021 and an increase in SSOs from 2021 to 2022.

Several miles of pipes have been CCTV'd and over 40,000 linear feet of deficient sewer mains have been replaced. In addition to this, the completion of the I/I study and the continuance of the PIPES Program has allowed WCW to reduce the amount of I/I in the collection system. Customers have replaced over 18,000 linear feet of deficient sewer lateral piping.

A majority of the SSMP was permitted to remain in-tact with minor updates being incorporated. The awards, organization chart, project and SSO language was modified to accurately reflect our situation at the end of 2022.

Section 1. Purpose and History

Purpose

The purpose of the SSMP audit is to improve the effectiveness and implementation of WCW's SSMP, as well as compliance with the SWRCB's requirements.

A brief description is contained in Element 10 of the most recent SSMP and the details are provided in Attachment B of the referenced SSMP.

As part of the audit, all eleven (11) elements of the SSMP were reviewed:

1. Awards and Goals
2. Organization
3. SERP
4. FOG Control Program
5. Legal Authority
6. Operation and Maintenance Program
7. Design and Construction Standards
8. Capacity Management
9. Monitoring, Measurement and Program Modifications
10. SSMP Audits
11. WCW Communication and Outreach Program

The 2nd to last audit process began on December 11, 2018 and ended on May 2, 2019. Members of the audit team developed several key edits over the course of five (5) meetings. The edits were incorporated in the most recent version of the SSMP which was adopted by WCW's Board on May 15, 2019 (WCW Resolution No. 2019-33).

The previous audit process began on December 14, 2020 and ended on May 19, 2021. Members of the audit team developed several key edits over the course of two (2) meetings.

This audit process began on January 11, 2023 and ended on September 6, 2023. Members of the audit team developed several key edits over the course of two (2)

meetings. The edits were incorporated in the most recent version of the SSMP which was adopted by WCW's Board on November 15, 2023.

General SSMP and Audit History

The table below shows WCW's SSMP and audit history:

General SSMP and Audit History		
Action	**SSMP Audit**	**Comments**
SSMP Update & Board Adoption	November 3, 2009	Date of SSMP adoption by WCW's Board (Resolution No. 11-03-09K)
SSMP Audit	February 9, 2015	Date of audit completion
SSMP Update & Board Adoption	May 6, 2015	Date of SSMP adoption by WCW's Board (Resolution No. 2015-38)
SSMP Audit	May 2, 2019	Date of audit completion
SSMP Update & Board Adoption	May 15, 2019	Date of SSMP adoption by WCW's Board (Resolution No. 2019-33)
SSMP Audit	May 19, 2021	Date of audit completion
SSMP Update & Board Adoption	November 15, 2023	Date of SSMP adoption by WCW's Board

Table 1: SSMP and Audit History

2023 Editing Process

WCW held several audit meetings to discuss the SSMP.

2023 Meetings

The meetings were held on:

1. Tuesday, January 31, 2023
2. Tuesday, February 28, 2023

Prior to the 1st Meeting

Prior to the 1st 2023 SSMP audit meeting, SMEs were provided with a copy of the current plan, and asked to read the plan in detail with particular emphasis on the areas for which they were responsible. In addition, they were asked to provide edits and/or suggested changes to the plan content or to confirm the ongoing relevance and accuracy of the plan. The Administrative Services Department was consulted for staffing and organization chart-related information. The Infrastructure and Planning Department was consulted for inflow/infiltration, SERP, project, SSO, sewer system and standard-related information. The WQRRP Department was consulted for WQMP, Equipment and Replacement Part Inventory List, and Lift Station-Specific Pump, Motor, VFD and Generator Inventory List-related information. The changes were implemented and the revised SSMP was provided to meeting attendees for review and input.

1st Meeting

During the 1st meeting, attendees were asked to provide comments prior to February 21, 2023 (7 days before the 2nd meeting). The changes were reviewed for accuracy and implemented.

2nd Meeting

During the 2nd meeting, attendees confirmed the SSMP was sufficiently revised and could be certified by the LRO and the Director of Infrastructure & Planning.

Meetings attendees for both meetings included the Deputy General Manager and representatives from several divisions within the Infrastructure and Planning department:

1. Andrew Clough (Acting General Manager)
2. Angela Andrews (Capital Portfolio Manager)
3. Armondo Hodge (Engineer III)
4. Judy Chen (Planning and Support Services Manager)
5. Gordon Times (Collection System Manager)
6. Michael Savannah (Director of Infrastructure & Planning)

2023 Consulted SMEs

SMEs included representatives from several divisions across the organization:

1. Aaron Winer (Director of Water Quality & Resource Recovery)
2. Angela Andrews (Capital Portfolio Manager)
3. Armondo Hodge (Engineer III)
4. Claudia Anderson (Administrative Assistant)
5. Geraldine Gonzales (Laboratory Manager)
6. Gordon Times (Collection System Manager)
7. Kate Gibbs [Communications Specialist (Associate Management Analyst)]
8. Joe Neugebauer (Environmental Services Manager)
9. Justin Lovell (Director of Administrative Services)
10. Mohammad Ghoury (GIS Program Analyst)
11. Michael Savannah (Director of Infrastructure & Planning)
12. Sarah Williamson (Records Program Manager)
13. Tanya Williams (Senior Human Resources Analyst)

2023 SSMP Edits by Element

Edits include:

1. Element 1 (updates to the following references: awards and collections system info)
2. Element 2 (updates to the following reference: organization chart)
3. Element 3 (reviewed and confirmed the following reference: overflow response chart and SSO & Backup Response Plan)
4. Element 4 (reviewed and confirmed FOG Control Program contents)
5. Element 5 (updates to the following reference: legal authority)
6. Element 6 (updates to the following reference: resources and funds)

7. Element 7 (updates to the following reference: construction standards)
8. Element 8 (updates to the following references: corrective action plan for sewer segments with capacity issues and a table of scheduled lift station, sewer installation projects to be completed between 2021 and 2025, Master Plan – I/I identification and reduction evaluation program information in the SSMP was updated to reflect the current sub-basin monitoring situation and findings)
9. Element 9 (updates to the following references: Charts, graphs and tables – items containing 2016-2020 information were updated to reflect 2018-2022 information)
10. Element 10 (reviewed and updated audit timelines)
11. Element 11 (reviewed and updated Communication Plan contents)
12. Attachment A (updates to the following reference: WQMP)
13. Attachment B (updates to the following references: meetings and SSMP element edits)
14. Attachment D (updates to the following reference: "Equipment and Replacement Part Inventory List")
15. Attachment E (updates to the following reference: "Lift Station-Specific Pump, Motor, VFD and Generator Inventory List")

[END OF SECTION 1]

Section 2. System Overview

Formed in 1921 in Contra Costa County, California, WCW is an independent organization as it is not financially responsible for any other governmental entity nor is it a component unit of another governmental entity.

WCW currently provides wastewater collection and treatment service to approximately 102,000 residents within unincorporated areas of El Sobrante, a portion of the City of Richmond, the City of San Pablo and a portion of the City of Pinole.

The services are efficiently provided within the 16.9-sq. mi. collection system service area (Figure 1, page 2-2) by operating a maintaining a 258-mile network of collection system piping (252 miles of gravity sewer mains and 6 miles of force mains), as well as a treatment plant that processes 6.9 million gallons ADWF.

The treatment plant has been named the WQRRP and is located at 2377 Garden Tract Road, Richmond, CA 94801.

The Master Plan and the annually-renewed Capital Improvement Budget and Plan contain descriptions of upcoming collection system improvement projects. The impact of land use changes, population growth, regulatory changes, revenue forecasts, and information about sewer mains and pump stations are considered during the preparation of the documents.

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Figure 1: Service Area

[END OF SECTION 2]

Section 3. SSMP Effectiveness and SSO Data

WCW continues to improve the SSMP's effectiveness as well as our operational effectiveness. The improvements can be confirmed the completion of projects which improve our collection system, as well as the reduction in our 5-yr running average of SSOs since the last audit (from 4.0 down to 3.3). The referenced projects improve the condition of sewer lines which have previously been deemed to be deficient in quality (typically deterioration of capacity deficiencies).

Total SSOs per One Hundred (100) Miles			
Year	**1-Yr**	**Running Average (Since 2014)**	**5-Yr Running Average (Since 2018)**
2014	6.0	6.0	--
2015	5.6	5.8	--
2016	3.6	5.0	--
2017	5.6	5.2	--
2018	1.2	4.4	4.4
2019	6.7	4.8	4.5
2020	**2.8**	**4.5**	**4.0**
2021	**2.0**	**4.2**	**3.7**
2022	**4.0**	**4.1**	**3.3**

Table 2: 2014-2022 SSOs per One Hundred (100) Miles

[END OF SECTION 3]

Section 4. SSMP Audit Checklist, Recommended Updates & Revisions

SSMP Audit Checklist

The checklist below determines whether the information contained in WCW's eleven (11) SSMP elements is sufficient.

		YES	NO	REMARKS (IF NECESSARY)
ELEMENT 1 – AWARDS AND GOALS				
A.	Is the Strategic Plan (including the organizational vision, mission, core values, strategic goals and objectives) stated in the SSMP still appropriate and accurate?	☒	☐	
B.	Does the Strategic Plan concerning sewer system management provide a comprehensive goal for the effective and efficient management and operation of WCW's collection system?	☒	☐	
ELEMENT 2 – ORGANIZATION				
A.	Is WCW's organization chart current?	☒	☐	
B.	Is the chain of communication for SSO response and reporting current?	☒	☐	
C.	Is the contact information for key WCW personnel current?	☒	☐	
ELEMENT 3 – SERP				
A.	Is WCW's SSO and Backup Response Plan effective and current? Note: Updates are important is the Plan establishes procedures for emergency response, notification, and reporting.	☒	☐	
B.	Has WCW staff been properly trained on the procedures of the SSO and Backup Response Plan?	☒	☐	
C.	Based on recent experience, does the SSO and Backup Response Plan provide effective guidance in handling SSOs and safeguarding public health and the environment?	☒	☐	

ELEMENT 4 – FOG CONTROL PROGRAM				
A.	Does WCW's FOG Control Program include efforts to educate the public on the proper handling and disposal of FOG?	☒	☐	
B.	Does WCW's FOG Control Program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?	☒	☐	
C.	Are requirements for grease removal devices, BMPs, record keeping and reporting established in WCW's FOG Control Program?	☒	☐	
D.	Does WCW have sufficient legal authority to implement and enforce the FOG Control Program?	☒	☐	
E.	Is the current FOG Control Program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?	☒	☐	
ELEMENT 5 – LEGAL AUTHORITY				
Does the SSMP contain excerpts from WCW's Code documenting WCW's legal authority to:				
A.	Prevent illicit discharges?	☒	☐	
B.	Require proper design and construction of sewers and connections?	☒	☐	
C.	Ensure access for maintenance, inspection or repairs for portions of the sewer lateral owned or maintained by WCW?	☒	☐	WCW does not own any part of the private sewer lateral.
D.	Limit discharges of FOG?	☒	☐	
E.	Enforce any violation of its sewer ordinances?	☒	☐	

ELEMENT 6 – OPERATIONS AND MAINTENANCE PROGRAM				
	Mapping			
A.	Does WCW reference the current process and procedures for maintaining WCW's wastewater collection system maps?	☒	☐	
B.	Are WCW's wastewater collection system maps complete, current and sufficiently detailed?	☒	☐	
	Resource and Budget			
C.	Does WCW reference the current process and procedures for maintaining WCW's wastewater collection system maps?	☒	☐	
	Preventive Maintenance			
D.	Does the SSMP describe current preventive maintenance activities and the system for prioritizing the cleaning of sewer lines?	☒	☐	
E.	Based upon information in the Annual SSO Report, are WCW's preventive maintenance activities sufficient and effective in minimizing SSOs and blockages?	☒	☐	
	Rehabilitation and Replacement			
F.	Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP?	☒	☐	
G.	Is there an established cleaning methodology used to address regular and high maintenance lines for mains?	☒	☐	
H.	Is there a five (5)-year CIP showing a list of projects anticipated in the future? Is there a CIP for years beyond five (5) years? Is it current?	☒	☐	
I.	Is there a program to establish priorities for projects in the five (5)-year CIP and beyond?	☒	☐	
J.	Is there a method for addressing emergency or high priority repairs for individual pipe(s) that are not part of the CIP?	☒	☐	
K.	Is there an established training on SSO protocol that is provided to contractors working on WCW's collection system?	☒	☐	

	Maintenance Equipment			
L.	Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system and document the procedures of inventory management?	☒	☐	
M.	Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?	☒	☐	
	Training and Certification			
N.	Is adequate training being provided to staff to maintain a knowledgeable and safe workforce?	☒	☐	
O.	Are maintenance personnel properly certified by CWEA to perform their work and is this documented in the SSMP?	☒	☐	
ELEMENT 7 – DESIGN AND CONSTRUCTION STANDARDS				
A.	Does the SSMP contain current design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?	☒	☐	
B.	Does the SSMP document current procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and the rehabilitation and repair of existing sewer lines?	☒	☐	
ELEMENT 8 – CAPACITY MANAGEMENT				
A.	Has WCW evaluated the hydraulic deficiencies in the system, established sufficient design criteria and recommended both short and long term capacity enhancement and improvement projects?	☒	☐	
B.	Does WCW's CIP establish a schedule of approximate completion dates for both short and long-term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?	☒	☐	

ELEMENT 9 – MONITORING, MEASUREMENT & PROGRAM MODIFICATIONS				
A.	Are the performance parameters shown for each of the SSMP elements adequate for monitoring the effectiveness of each SSMP element?	☒	☐	
B.	Are the methods for measuring each of the performance parameters sufficient to properly evaluate the success of each SSMP element?	☒	☐	
C.	Does the description of the process for modifying the SSMP continue to be valid?	☒	☐	
D.	Is there a record showing the revision history of the SSMP, including the items revised, the date the revision was made, and identifying the person that made the revision?	☒	☐	
ELEMENT 10 – SSMP AUDITS				
A.	Was this SSMP audit performed within two (2) years of the last audit or SSMP adoption date (whichever occurred latest) and kept on file per SWRCB 2006-0003-DWQ amended by SWRCB 2013-0058-EXEC? In accordance with Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements effective June 5, 2023, will future audits be performed at least once every three (3) years?	☒	☐	
B.	Will this SSMP audit be made public through WCW's website?	☒	☐	
C.	Has the SSMP audit and checklist provided an avenue for thorough review and improvement of the SSMP?	☒	☐	

ELEMENT 11 – WCW COMMUNICATION AND OUTREACH PROGRAM				
A.	Is the contact person listed for communication regarding the SSMP current?	☒	☐	
B.	Does WCW's website contain the most current SSMP?	☒	☐	
C.	Do WCW's stakeholders have the most current SSMP?	☒	☐	
D.	Does the SSMP mention WCW's current outreach efforts?	☒	☐	

Table 3: 2021 SSMP Audit Checklist

Recommended Updates & Revisions

For each "NO" box marked in the SSMP audit checklist (shown in the sub-section above), there are recommended updates & revisions below. Additionally, each will come with a timeline of resolution and incorporation back into the next SSMP.

[END OF SECTION 4]

Section 5. 2021 & 2022 SSO Data

The tables below contains 2021 & 2022 SSO data.

	2021	2022
<10 gallons	0	0
10-100 gallons	0	1
101-1,000 gallons	4	3
>1,000 gallons	1	6
Total	**5**	**10**

Table 4: 2021 & 2022 Overflows by Volume

	2021	2022
Grease	0	0
Roots	2	5
Structural	1	2
[1]Other	0	1
Capacity	0	0
Debris	2	2
Total	**5**	**10**

Table 5: 2021 & 2022 SSOs by Cause

[1] The "Other" category includes, but is not limited to, contractor error, ground movement and vandalism.

Section 6. Efforts to Prevent SSOs

The table below reflects the SSO prevention efforts undertaken by WCW in 2021 & 2022.

Description of Efforts	2021	2022	Total
Service calls investigated	133	114	**247**
Preventive maintenance completed (linear feet)	2,055,671	1,540,324	**3,595,995**
TV inspections completed (linear feet)	168,896	252,103	**420,999**
Amount of pipe replaced (linear feet)	0	43,588	**43,588**
Discharger inspections completed	108	121	**229**

[END OF SECTION 6]

Section 7. Capital Improvement Project Activities

2021 & 2022 Accomplishments

In 2021 & 2022, WCW accomplished the following:

1. Priority Pipes 3rd Application Project, 3.1
    a. 100% construction
2. Basin 7 Inflow & Infiltration Sewer Replacement Project
    a. 100% construction
3. Tara Hills Sewer Replacement Project
    a. 100% construction
4. Lakeside Force Main Sewer Replacement Project
    a. 100% construction
5. Hilltop Green Force Main Sewer Replacement Project
    a. 100% construction
6. Various Lift Station Upgrades Project
    a. 100% construction
7. WQRRP Effluent Valve Replacement Project
    a. 100% construction
8. WQRRP Effluent Electrical Systems Upgrade Project
    a. 30% design

2023 Accomplishments (Future/Planned)

In 2023, WCW plans to accomplish the following:

1. La Paloma Odor Mitigation Project
    a. 30% design
2. Foster Lane Sewer Replacement Project
    a. 100% design
3. Tara Hills Lift Station Upgrade Project
    a. 90% design
4. La Honda Lift Station Upgrade Project
    a. 90% design
5. D'Avila Lift Station Upgrade Project
    a. 90% construction
6. Carriage Hills Lift Station Upgrade Project
    a. 90% design
7. Replacements of several currently unidentified force mains

[END OF SECTION 7]

Section 8. Training Activities

2021 & 2022 Training Activities

In 2021 & 2022, WCW staff attended webinars, conferences and tailgate meetings related to the following:

2021

1. January
    a. Bloodborne Pathogens and Other Potentially Infectious Material (CalOSHA)
    b. CSRMA | Personal Protective Equipment: Proper Dress for the Job
    c. CSRMA Confined Space (CalOSHA)
    d. CSRMA Fire Extinguishers (CalOSHA)
    e. CSRMA HazMat Incident: The Role of the First Responder (CalOSHA)
    f. CSRMA Injury and Illness Prevention Plan (CalOSHA)
    g. CSRMA Sodium Hydroxide
    h. Fire Prevention Plans (CalOSHA)
    i. Lockout/Tagout: Accident Prevention with Effective LOTO (CalOSHA)
    j. Respiratory Protection: Safe Selection, Use and Maintenance (CalOSHA)
    k. WCWD Emergency Action Plan: District Offices and CSO (CalOSHA)
    l. WCWD Hazard Communication & GHS (CalOSHA)

2. February
    a. Annual Respiratory Protection Training
    b. Bloodborne Pathogens
    c. Hearing Conservation Program

3. March
    a. ADP Custom Reporting Training
    b. All About Portable Samplers Training
    c. Anti-Harassment Training for All Employees-California (SB1343)
    d. Anti-Harassment Training for Supervisors and Managers-California (SB1343/AB1825)
    e. CSRMA Overview Training
    f. CWEA COVID-19 Updates
    g. Diversity Assessment
    h. HDPE Pipe Training
    i. Hybrid, Agile, Waterfall Training
    j. IAS ELAP Personnel Competence Training
    k. Intro to Data Analysis Training
    l. Labtopia Data Integrity & Ethics Training
    m. Leadership and Culture Series
    n. Managing COVID-19 Issues: Now and What's Next
    o. Managing People Training
    p. Mointoring Total Phosphorus $ Total Nitrogen Matters Webinar
    q. One-on-One Monday.Com training with Grace
    r. Phishline Training

s. Project Management Institute Professional Development
t. SkillPath: How to write effective polices.
u. TNI 2016Quality System Documentation
v. Tyler Technology Mall Copy of General Ledger Object Codes Training
w. WCWD Overflow Emergency Response Training
x. XIO Cloud Based Lift Station Monitoring Training

4. April
   a. ADP Comp benefits Training
   b. ArcGIS web application training April 19th
   c. Asbestos Awareness Training
   d. Basic Electrical Concepts
   e. Cal-OSHA workplace safety registration
   f. CSRMA Chemical Hygiene
   g. CSRMA Developing Leadership Skills
   h. CWEA TNI Training on Data Ethics and Integrity
   i. Data management and reporting
   j. Design Build Institute
   k. EEOC Training Institute: COVID-19, Vaccines and Safety 5.5.2020
   l. Employee Expectations
   m. Hazardous Waste Handler
   n. HR Maximize Performance through Evaluation April 15th
   o. Operation of new Effluent
   p. Project Management for Wastewater
   q. Removing/Replacing Primary Clarifier to/from Service
   r. Removing/Replacing Sedimentation Basin to/from Service
   s. Show FOG who's boss
   t. Training with Sylvia Foreman G/L export file template
   u. Water and Wastewater Infrastructures Design Built Conference April 12th through 14th
   v. Water Industry Fire Extinguisher Safety
   w. Water Industry Fire Prevention Safety
   x. Water Industry Office Safety
   y. Women in Leadership

5. May
    a. Annual C.4/C.5 Stormwater Inspection Training Workshop
    b. Certificate in Smart Communities
    c. CSRMA Electrical Safety Training
    d. CSRMA Near Miss Reporting
    e. Fall Protection Training
    f. Hazardous Waste Handler Training
    g. Heat Illness Training
    h. LIMS System Training w/lab
    i. Operation of Jerome Meter/Conducting a Plant Odor Survey
    j. Project Stabilization Labor Agreement Training
    k. Tailgate Safety Training: Global Harmonized Training
    l. Tailgate Safety Training: Safety Training on PPE
    m. The Insightful Leader Live: Why People Resist New Ideas—and How to Innovate Anyway
    n. Webinar: Every Employee is a Chief Experience Officer
    o. Women in Leadership

6. June
    a. A Mindful Approach to Workplace Wellness," and two lab trainings = The Importance of QC in an ELAP Laboratory and Understanding the Microbiology Methods and Equipment
    b. Anti-harassment Training
    c. CSRMA Emergency Action Plan (CalOSHA)
    d. CSRMA HazMat Incident: The Role of the First Responder (CalOSHA)
    e. CSRMA Near Miss Reporting
    f. CSRMA Traffic Safety Training: Temporary Traffic Control
    g. Employee Expectations
    h. EPA Region 9 Pretreatment 101 Webinar
    i. LCW webinar – Managing the Marginal Employee
    j. LIMS training – w/ Geraldine and Lab staff
    k. Recycled water reliability upgrade which covered starting up the plant, normal operations and troubleshooting
    l. Retaining Talent in the New World of Work (CPSHR)
    m. Session 1: Strategic Alignment and Milestones Workshop w/ Carson Johns
    n. Tailgate training on outdoors in warm climates
    o. Tailgate training on slips, trips and falls.
    p. Teledyne ISCO – PFAS Sampling strategies webinar
    q. Three days of ELAP Accreditation Conference, EPA MUR, PFAS Sampling, Master MS Teams
    r. Women in Leadership

7. July
    a. Business Writing
    b. Creating a Modern Government Workforce
    c. CSRMA Fire Extinguishers (CalOSHA)
    d. CSRMA HazMat Incident: The Role of the First Responder (CalOSHA)
    e. CSRMA Hotwork
    f. CSRMA Hydrogen Peroxide
    g. CSRMA Office Safety
    h. CSRMA Water Sampling Part 1: Collecting Water Samples
    i. CSRMA Water Sampling Part 2: Remote Sampling
    j. Data Integrity and Ethics Training
    k. Disclosure Obligations for Public Offerings
    l. Excavation/Competent Person Training
    m. LCW webinar Embracing Generational Diversity and Succession Planning
    n. Lockout/Tagout: Accident Prevention with Effective LOTO (CalOSHA)
    o. Pipe Bursting Webinar
    p. Respiratory Protection: Safe Selection, U
    q. se and Maintenance (CalOSHA)
    r. Session 2: Prioritizing Workloads and Maintaining Productivity Workshop with Carson Johns
    s. Session 3: Conscious Inclusion/Implicit Bias Workshop w/ Carson Johns
    t. Six Sigma Online Training
    u. Tailgate Safety Training/Meeting: COVID-19
    v. Tailgate Safety Training: Driving
    w. Water Industry Eye Safety
    x. Water Industry Fire Extinguisher Safety
    y. Water Quality Monitoring Plan (CSRMA)

8. August
    a. BACWA/ Lab TNI Standard Training Series
    b. CalOES Progress & Expenditure of Funds Report Training
    c. CalPERS Open Enrollment Training for Employers
    d. CSRMA Tactical Communication Skills When Dealing with the Public
    e. CWEA Nitrification & Denitrification
    f. DKF Webinar: Do You Need to Know Your Cal/OSHA Training Requirements
    g. Emergency Shower and Eyewash Webinar
    h. Fall Protection
    i. Grammar and Business Writing
    j. LCW Webinar- Exercising your Management Rights
    k. Scrum Master Training and VFD LabLynx LIMS training
    l. Tailgate training on toxic gas formation at WWTPs, focused mainly on Hydrogen Sulfide.
    m. TPC Training: VFDs and How They Work
    n. Training on Laboratory Data Integrity and Ethics
    o. Women in Leadership

9. September
    a. All Aboard for Onboarding Success – CPS HR Consulting
    b. Anti-Harassment Training
    c. BACWA Lab/ TNI Regulations training
    d. COVID-19 Vaccination Guidance: Top Considerations for Employers
    e. CSDA Annual Conference
    f. CSRMA Back Safety: Putting Back Safety First
    g. CSRMA Cal/OSHA Record keeping
    h. CSRMA Lockout/Tagout (CalOSHA)
    i. CSRMA-Root Causes of Discrimination, Harassment, and Retaliation Claims
    j. DKF COVID-19 Training
    k. Employee Engagement: Applying Lessons Learned to the New Workplace
    l. Employee Expectations
    m. How to Become an Exceptional Leader (CPSHR)
    n. IAS Implementing Effective Corrective Actions in an ELAP Lab
    o. Interpreting the new CalPERS report – CSMFO
    p. LCW webinar – Supervisor's Guide to Understanding and Managing Employees' Rights
    q. LMS Training
    r. Microsoft Project
    s. Project Management (CPSHR)
    t. Project Management and Process Improvement trainings
    u. Time Management
    v. Weekly LabLynx LIMS training
    w. Women in Leadership

10. October
    a. Anti-Harassment Training for All Employees - California (SB1343)
    b. BACWA Lab/ TNI Regulations training
    c. CPS HR Training: Introduction to Project Management
    d. CSRMA Cal/OSHA Record Keeping (CalOSHA)
    e. CSRMA Lockout/Tagout (CalOSHA)
    f. CWEA Northern Safety Day
    g. CWEA PFAS Summit #1 recorded webinar
    h. CWEA Biosolids and Renewable Energy Seminar
    i. Data Science for Collection System Maintenance
    j. Davenport Institute for public engagement and civic leadership
    k. eBuilder Training
    l. Employee Expectations
    m. General Office Ergonomics
    n. Hazard Spill Prevention, Control & Countermeasures Plan
    o. Hazardous Materials Business Plan
    p. Hazardous Waste Management Program

q. LCW Webinar on Finding the Facts: Employee Misconduct & Disciplinary Investigations
r. LCW: Employee Misconduct and Disciplinary Investigation
s. MMANC (Municipal Management Association of Northern California) conference
t. New OSHA Regulations, Jetter History and Best Practices, Vactor Best Practices, Traffic Control
u. Outsmart Disaster Resiliency Clinic: Tips and Tools for Immediate Preparedness for Your Business
v. Safety Tailgate about Head Protection
w. Sewer Summit and Northern Safety Day
x. Traffic Control, Onboarding a New Collections Worker, Conducting Pre/Post Combo Unit Commercial Vehicle Inspection, Developing Your Leadership Skills
y. Understanding Employee Leave
z. Verbal Judo: Effective Communication
aa. Women in Leadership

11. November
    a. Accident Kits Safety Tailgate
    b. CPS HR Training: Communicating Effectively
    c. CPS HR Training: Communicating Effectively
    d. ESRI Training: Managing Geospatial Data Using ArcGIS
    e. Excel Power User
    f. GIS Training
    g. Icompass Training
    h. New Team Leader Roundtable Group (Session 1 of 6) -- The Road to Success Starts with YOU
    i. Pepperdine Public Engagement Weeks
    j. Powered Cart & Low Speed Vehicle Safety
    k. Presentation Skills Training & Coaching
    l. Project Management: Facilities Management- Task Sequencing and Scheduling in Facilities Management
    m. Project Management: Requirements Management- Providing Compliant Services
    n. Project Management: Stakeholder Engagement- Case Study Managing Internal and External Stakeholders
    o. Public Outreach
    p. The Disability Interactive Process

12. December
    a. Electrifying Your Facility or Fleet for Added Value

2022

1. January
    a. General Office Ergonomics

2. February
    a. CSRMA Bloodborne Pathogens and Other Potentially Infectious Material (CalOSHA)
    b. CSRMA COVID-19 Exposure Control and Disease Preparedness Response Plan Training
    c. First Aid/CPR/AED: In-Person Training
    d. CSRMA New Employee Orientation for Field Workers
    e. Employee Expectations
    f. Anti-Harassment Training for All Employees - California (SB1343)

3. March
    a. CORE DISC Training

4. April
    a. Anti-Harassment Training for All Employees - California (SB1343)
    b. CSRMA | COVID-19 Exposure Control and Disease Preparedness Response Plan Training
    c. CSRMA | Injury and Illness Prevention Program
    d. Employee Expectations
    e. New Employee Safety Orientation | Collections Workers

5. May
    a. Anti-Harassment Training for Supervisors and Managers-California (SB1343/AB1825)
    b. Confined Space/Entrant Attendant Training
    c. CSRMA Fall Protection (CalOSHA)
    d. CSRMA Heat Illness Prevention (CalOSHA)
    e. CSRMA Office Ergonomics

6. June
    a. Anti-Harassment Training for All Employees - California (SB1343)
    b. CSRMA | COVID-19 Exposure Control and Disease Preparedness Response Plan Training
    c. CSRMA Emergency Action Plan (CalOSHA)
    d. CSRMA Fire Extinguishers (CalOSHA)
    e. CSRMA Fire Prevention Plans (CalOSHA)
    f. CSRMA Injury and Illness Prevention Plan (CalOSHA)
    g. Hazard Communication
    h. New Employee Expectations (Updated)

7. July
    a. Anti-Harassment Training for All Employees - California (SB1343)

b. CSRMA | COVID-19 Exposure Control and Disease Preparedness Response Plan Training
c. CSRMA Electrical Safety
d. CSRMA Fire Extinguishers (CalOSHA)
e. CSRMA Injury and Illness Prevention Plan (CalOSHA)
f. Employee Expectations (Updated)

8. August
    a. Anti-Discrimination, Harassment, Bullying, Retaliation Policy- ADP
    b. Anti-Harassment Training for All Employees - California (SB1343)
    c. Anti-Harassment Training for Supervisors and Managers - California (SB1343/AB1825)
    d. CSRMA | COVID-19 Exposure Control and Disease Preparedness Response Plan Training
    e. CSRMA Emergency Action Plan (CalOSHA)
    f. CSRMA Fire Extinguishers (CalOSHA)
    g. CSRMA Fire Prevention Plans (CalOSHA)
    h. CSRMA Injury and Illness Prevention Plan (CalOSHA)
    i. Employee Expectations
    j. Hazard Communication
    k. Laserfiche End-User Cloud Training
    l. Phishline Training: "Account Takeover & Lateral Phishing Attack"

9. September
    a. Accident Prevention Signs and Tags: In-Person Training
    b. Acetylene/Oxygen Cutting/Welding: In-Person Training
    c. Aerial Lift Devices: In-Person Training
    d. Anti-Harassment Training for All Employees - California (SB1343)
    e. Asbestos (Building O&M) Class IV Awareness: In-Person Training
    f. Batteries: Replacing and Recharging: In-Person Training
    g. Bloodborne Pathogens
    h. Confined Space Entry
    i. Confined Space Entry Rescue: In-Person Training
    j. Confined Space/Entrant Attendant Training
    k. COVID-19 Exposure Control and Disease Preparedness Response Plan Training
    l. CSRMA | Accident Prevention Signs and Tags
    m. CSRMA Fire Prevention Plans (CalOSHA)
    n. CSRMA Injury and Illness Prevention Plan (CalOSHA)
    o. Esri GIS- The Power of Maps
    p. Fall Protection Operations Level: In-Person Training
    q. Fire Extinguisher Safety
    r. Fire Extinguishers
    s. First Aid/CPR/AED: In-Person Training
    t. Flagging/Traffic Control: In-Person Training
    u. Forklift Authorization: In-Person Training

v. Hazardous Waste Management: In-Person Training
w. HAZWOPER Emergency Response FRO Level: In-Person Training
x. HAZWOPER First Responder (FRA) Awareness Level: In-Person Training
y. LWC-Maximizing Supervisory Skills for the First Line Supervisor Part 1
z. Maximizing Supervisory Skills for the First Line Supervisor: Part II
aa. Phishline Training: "Removable Media"
bb. Respiratory Protection
cc. Spill Prevention Control and Countermeasures
dd. WCWD Emergency Action Plan: WWTP (CalOSHA)
ee. WCWD Hazard Communication & GHS (CalOSHA)
ff. WCWD Lockout Tagout (CalOSHA)

10. October
    a. Anti-Harassment Training for All Employees - California (SB1343)
    b. CSRMA | COVID-19 Exposure Control and Disease Preparedness Response Plan Training
    c. CSRMA Emergency Action Plan (CalOSHA)
    d. CSRMA Fire Extinguishers (CalOSHA)
    e. CSRMA Fire Prevention Plans (CalOSHA)
    f. CSRMA Injury and Illness Prevention Plan (CalOSHA)
    g. Hazard Communication
    h. How Miscommunication Happens
    i. LCW- Difficult Conversations
    j. Leadership Conference for Women in Water/Wastewater Conference hosted by EUCI
    k. New Employee Expectations
    l. Phishline Training: "Travel and Out of Office"
    m. Tango - Guides creation

11. November
    a. Collection System Maintenance Training
    b. ESRI Infrastructure Management & GIS Conference
    c. Phishline Training: "Public WiFi"

12. December
    a. Phishline Training: "Internet of Things"

2023 Training Activities (Future/Planned)

In 2023, WCW staff plans to attend webinars, conferences and tailgate meetings related to the following:

1. January
    a. Hearing Conservation
    b. Phishline Training: "Sensitive Data"
    c. Vector Solutions: "Anti-Harassment Training"

2. February
    a. Asbestos Awareness
    b. Asbestos Transite Pipe
    c. Bloodborne Pathogens
    d. First Aid / CPR / AED
    e. Phishline Training: "Catfishing"

3. March
    a. Forklift & Industrial Powered Trucks – Authorization
    b. Respiratory Protection – Annual Fit Testing
    c. Respiratory Protection
    d. Respiratory Protection – Medical Evaluation
    e. USA: Underground Marking & Locating

4. April
    a. Hazardous Waste Management
    b. Mobile Cranes and Tower Cranes - Certification

5. May
    a. Confined Space – Awareness
    b. Confined Space – Entrant / Attendant Training
    c. Confined Space – Non Entry Rescue
    d. Confined Space Entry – Supervisor Training
    e. Fall Protection – Operations Level
    f. Heat Illness

6. June
    a. Flagging / Traffic Control
    b. Illness and Injury Prevention program

7. July
    a. Electrical Safety (Low Voltage) – Awareness
    b. Fire Extinguisher

8. August
    a. None

9. September
    a. Excavation / Trenching / Shoring – Excavation Competent Person
    b. Lockout / Tagout Awareness for Affected Employees
    c. Lockout / Tagout Training for Authorized Employees

10. October
    a. Sewer Overflows and Backups

11. November
    a. Spill Prevention Control and Countermeasures

12. December
    a. None

[END OF SECTION 8]

Section 9. SSMP Change Log

Full Change Log

Month Updated	Updater(s)	Item	Comments
February 2015	Beverli Marshall (Business Services Manager) & Michael Savannah (Senior Engineering Technician)	Missing mission statement tie-in.	Added organizational mission statement.
February 2015	Beverli Marshall (Business Services Manager) & Michael Savannah (Senior Engineering Technician)	Missing awards information.	Added awards obtained by the organization.
February 2015	Beverli Marshall (Business Services Manager) & Michael Savannah (Senior Engineering Technician)	Missing organizational contact information.	Updated position names and descriptions. Also added an org. chart.
February 2015	Marc Raynor (Collection System Supervisor) & Michael Savannah (Senior Engineering Technician)	Missing trainings and collection system plans.	Added OERP, Pump Station Emergency Response Plan, SSO & Backup Response Plan.

February 2015	Cecil Viloria (Senior Engineering Technician), Marc Raynor (Collection System Supervisor), Michael Savannah (Senior Engineering Technician)& Steve Linsley (EC Supervisor)	Missing legal authority, maintenance schedule and source control information.	Added Ordinance tie-in, method of identifying sewer segments for more frequent cleaning and source control.
February 2015	Michael Savannah (Senior Engineering Technician), Ken Cook (Engineering Services Manager) & Ken Deibert (Senior Engineer)	Missing legal authority element.	Added full legal authority element (list of legal mechanisms and locations).
February 2015	Cecil Viloria (Senior Engineering Technician), Marc Raynor (Collection System Supervisor), Michael Savannah (Senior Engineering Technician), Ken Cook (Engineering Services Manager) & Ken Deibert (Senior Engineer)	Missing operation and maintenance program element.	Added organizational budgets, mapping programs, training programs and pictures of sewer maintenance equipment.
February 2015	Michael Savannah (Senior Engineering Technician), Ken Cook (Engineering Services Manager) & Ken Deibert (Senior Engineer)	Missing design and construction standards element.	Added language from WCW standards.

February 2015	Michael Savannah (Senior Engineering Technician), Ken Cook (Engineering Services Manager) & Ken Deibert (Senior Engineer)	Missing wastewater model information, as well as assess replacement or rehabilitation information.	Added language regarding the Carollo model and MasterPlan. Also added a list of assets to be replaced or rehabilitated.
February 2015	Michael Savannah (Senior Engineering Technician), Ken Cook (Engineering Services Manager) & Ken Deibert (Senior Engineer)	Missing SSO information.	Added charts and graphs related to SSOs.
February 2015	Beverli Marshall (Business Services Manager) & Michael Savannah (Senior Engineering Technician)	Missing several aspects of organizational communication to external stakeholders.	Added door hanger and website information.
May 2019	Armondo Hodge (Engineer III)	Missing internal certification page.	Added internal certification page for the LRO and the Director of Infrastructure Planning.
May 2019	Armondo Hodge (Engineer III)	Missing lists of acronyms, terms, tables and figures.	Added the referenced lists for clarification purposes.
May 2019	Armondo Hodge (Engineer III)	Missing executive summary.	Added the executive summary for clarification purposes.

May 2019	Armondo Hodge (Engineer III)	Missing recent awards.	Updated the awards section to match what was reflected on the organizational website.
May 2019	Armondo Hodge (Engineer III), Claudia Anderson (Secretary), Deborah Muchmore (HR Advisor), Elsie Okeyo (HR Team Member), Glenn Lazof (Interim Administrative Services Supervisor)	Position name changes and organization chart changes.	Updated the staff directory and organization chart.
May 2019	Armondo Hodge (Engineer III), John Haig (Interim I&P Department Manager), Ken Deibert (Senior Engineer), Michael Savannah (Senior Project Manager / Interim Capital Program Manager) & Mick Cabral (Attorney)	Missing a couple of legal enforcement avenues.	Updated the legal authority section.
May 2019	Armondo Hodge (Engineer III), Dean Prater (Finance Supervisor) & Glenn Lazof (Interim Administrative Services Supervisor)	Budget/funding avenues needed to be clarified and staffing numbers were inaccurate due to changes.	Updated the funding and resources section of the Operation and Maintenance Program element.

May 2019	Armondo Hodge (Engineer III), John Haig (Interim I&P Department Manager), Ken Deibert (Senior Engineer) & Michael Savannah (Senior Project Manager / Interim Capital Program Manager)	Available avenues of project-related construction management services have been increased.	Updated language stating that construction management and inspection services may be performed by a consultant whose services have been procured by WCW.
May 2019	Armondo Hodge (Engineer III), Keith Reynolds (Project Manager) & Michael Savannah (Senior Project Manager / Interim Capital Program Manager)	Available avenues of viewing maps have been increased. Schedule of project completion dates and the timeline for the State-mandated project has been added.	Added interactive map link, schedule of expected project completion dates and corrective action plan for the State-mandated project.
May 2019	Armondo Hodge (Engineer III) & Gordon Times (Collection System Supervisor / Acting General Manager)	Pertinent SSO data had changed since the last SSMP update.	Updated SSO information to reflect the five (5) years of data that is most applicable to the SSMP.
May 2019	Armondo Hodge (Engineer III) & Gordon Times (Collection System Supervisor / Acting General Manager)	The OERP was not attached as a stand-alone document.	Added the OERP as Attachment A.

January 2021	Angela Andrews (Capital Portfolio Manager), Armondo Hodge (Engineer III), Claudia Anderson (Secretary), Geraldine Gonzales (Laboratory Manager), Gordon Times (Collection System Manager), Joe Neugebauer (Environmental Services Manager), Justin Lovell (Director of Administrative Services), Michael Savannah (Director of Infrastructure & Planning), Tanya Williams (HR Analyst)	Outdated information for the awards, goals, I/I study, SSO data and outreach sections.	Updated the SSMP to include 2019 & 2020 information.

January 2021	Armondo Hodge (Engineer III)	Outdated references ("Administrative Services Department Manager", "Collection System Supervisor", "Engineering", "Environmental Programs Manager", "Infrastructure & Planning Department Manager", "Laboratory Supervisor", "Senior Engineer", "Water Quality & Resource Recovery Department Manager", "Water Pollution Control Plant", "WCWD", "West County Wastewater District", and "WPCP")	Updated referenced items. "Administrative Services Department Manager" has been changed to "Director of Administrative Services", "Collection System Supervisor" has been changed to "Collection System Manager", "Engineering" has been changed to "Planning & Support Services", "Environmental Programs Manager" has been changed to "Environmental Services Manager", "Infrastructure & Planning Department Manager" has been changed to "Director of Infrastructure & Planning", "Laboratory Supervisor" has been changed to "Laboratory Manager", "Senior Engineer" has been changed to "Planning & Support

			Services Manager", "Water Pollution Control Plant" has been changed to "Water Quality and Resource Recovery Plant", "Water Quality & Resource Recovery Department Manager" has been changed to "Director of Water Quality & Resource Recovery", "WCWD" has been changed to "WCW", "West County Wastewater District" has been changed to "West County Wastewater", and "WPCP" has been changed to "WQRRP".
January 2021	Armondo Hodge (Engineer III), Geraldine Gonzales (Laboratory Manager) and Joe Neugebauer (Environmental Services Manager)	The OERP included the only 1 of the primary SSO indicators for waterways and did not include the 2nd. The OERP was also missing specific WCW Code Title 9 references regarding legal authority.	Updated the OERP (Attachment A) to include enterococcus sampling and WCW Code Title 9 references.

January 2021	Armondo Hodge (Engineer III) and Gordon Times (Collection System Manager)	The SSMP audit did not include a checklist	Updated the audit (Attachment B) to include the checklist. Also added additional collection system monitoring data such as CCTV and discharge inspections.
January 2023	Claudia Anderson (Administrative Assistant)	Position name changes and organization chart changes	Updated the organization chart
January 2023	Gordon Times (Collection System Manager)	Outdated vehicle, flow monitoring and SSO information	Updated the vehicle information in "Element 6. O&M Program" and "Attachment D (Equipment and Replacement Part Inventory)", updated the flow monitoring information in "Element 8. Capacity Management" and updated the SSO information in "Element 9. Monitoring, Measurement and Program Modifications" as well as "Attachment B [SSMP Audit (2023)]"

January 2023	Angela Andrews (Capital Portfolio Manager), Armondo Hodge (Engineer III), Keith Reynolds (Senior Project Manager), Ken Deibert (Engineer III) and Will Silver (Project Manager)	Outdated future project and completed project-related information	Updated the future project and completed project-related information in "Element 8. Capacity Management" and "Attachment B [SSMP Audit (2023)]"
January 2023	Mark Harris (Maintenance & Operations Manager)	Outdated lift station specific-related information	Updated the lift station specific-related information in the "Attachment E (Lift Station-specific Pump, Motor, VFD and Generator Inventory List)"
January 2023	Mohammad Ghoury (GIS Program Analyst)	Outdated GIS information	Updated the PIPES GIS information in the "List of Terms", "Executive Summary" and "Element 6. O&M Program"
January 2023	Mohammad Ghoury (GIS Program Analyst)	Outdated GIS information	Updated the PIPES GIS information in the "Executive Summary"
January 2023	Kate Gibbs [Communications Specialist (Associate Management Analyst)]	Outdated Board meeting, outreach and customer service information	Updated the Board meeting, outreach and customer service information in "Element

			11. WCW Communication and Outreach Program"
May 2023	Armondo Hodge (Engineer III)	Outdated PIPES Program Guide link	Updated the PIPES Program Guide link in the "List of Terms"
May 2023	Armondo Hodge (Engineer III)	Outdated Ordinance name, Title number and name as well as Chapter and name references	Updated the Ordinance name, Title number and name as well as Chapter and name references in "Element 4. FOG Control Program"
May 2023	Armondo Hodge (Engineer III)	Outdated Ordinance name, Title number and name as well as Chapter and name references	Updated the Ordinance name, Title number and name as well as Chapter and name references in "Element 5. Legal Authority"
May 2023	Geraldine Gonzales (Laboratory Manager) and Joe Neugebauer (Environmental Services Manager)	Outdated FOG and sampling information.	Updated the FOG, sampling information and GIS information in the SERP (Attachment A).
September 2023	Gordon Times (Collection System Manager)	Modified the name of the Overflow Emergency Response Plan (OERP) to the Spill Emergency Response Plan (SERP).	Changed "Overflow Emergency Response Plan (OERP)" name to "Spill Emergency Response Plan".

[END OF SECTION 9]

Section 10. SSMP Audits

In accordance with the current Statewide WDR requirements, WCW will conduct internal audits, at a frequency of no less than once every two (2) years.

In accordance with Order No. WQ 2022-0103-DWQ – Statewide Waste Discharge Requirements effective June 5, 2023, audits will be performed at least once every three (3) years.

The audits will continue to focus on evaluating the effectiveness of the SSMP, compliance with SSMP requirements including identification of any deficiencies and/or deficiency resolutions. Reports of the audits will be prepared and kept on file.

[END OF SECTION 10]

Section 11. Improvements

WCW has made several significant improvements in regards to communication efforts and I/I reduction.

Communication Efforts

The goal of the communication efforts is to increase public awareness, understanding, and support of the Strategic Plan (includes the organizational vision, mission, core values, strategic goals and objectives). Keeping the public informed, promoting pollution prevention, and encouraging feedback about our activities helps us to more efficiently and effectively manage our wastewater and environmental responsibilities. Elements of our communication program in all divisions of WCW include:

Board Meetings and Public Hearings

Meetings between March 2020 and May 2023 were held via Zoom. The public was encouraged to attend all Board meetings and public hearings to provide input.

WCW has resumed in-person meetings (in conjunction with the continued option of public attendance via Zoom).

Letters

WCW has increased letter-based notification to the community. WCW's Administrative Services staff has and will continue to distribute letters to the community regarding projects and the PIPES Program.

Newsletter (The Lateral)

WCW has increased newsletter-based notification to the community. WCW's Administrative Services staff has and will continue to distribute this newsletter via e-mail, mail, social media platforms and WCW's website.

The Lateral is designed to facilitate connections with the public and enhance awareness about WCW, including the organization's role in protecting public health and the environment. It features many topics of customer interest including, but not limited to, online services, as well as SSO prevention measures such as keeping pipes clear of FOG and wipes.

Planning & Support Services & CSO Assistance for Customers

Due to the COVID-19 pandemic, an avenue for completing and submitting a remote permit application has been set up on WCW's website: https://www.wcwd.org/permit-application/.

Planning & Support Services staff issues permits and educates homeowners, builders, and plumbers on design standards for our collection system and private laterals.

Customers can also find information for ongoing or future projects, or make plan check and permit inquiries may also be sent to: Permits@wcwd.org.

In regards to fee estimates, permits, sewer lateral compliance inquiries for COCs that do not have active permits, plan checks or utility maps, customers can reach pertinent staff by calling: 510-222-6700, Option 3. Customers may also contact staff regarding these items by emailing: Permits@wcwd.org.

In regards to notices of violations, video inspection review status updates, sewer lateral compliance inquiries for COCs that have active permits, Underground Service Alert Requests (USAs), processing USAs and/or scheduling inspections, customers can reach pertinent staff by calling: 510-662-3627. Customers may also contact staff regarding these items by emailing: inspections@wcwd.org.

In regards to the PIPES Program, customers can reach pertinent staff by emailing: PipesProgram@wcwd.org.

Social Media

WCW continues to seek different ways to effectively connect with the community. Many proposed outreach ideas were gathered and evaluated with social media being the key idea for implementation. WCW established a presence on several social media platforms such as Facebook, LinkedIn, NextDoor and Twitter.

Site Visits

The EP Inspector conducts site visits to businesses to explain proper grease disposal or required industrial pre-treatment practices.

WQRRP Tours

WCW's WQRRP tour program was suspended due to the COVID-19 pandemic. It is active again and it shows students and members of the public the role our wastewater treatment plant plays in the community, particularly as it related to protecting our waterways. Pollution prevention from FOG and wipes were emphasized as part of that message.

The WQRRP is located at: 2377 Garden Tract Road, Richmond, California, 94801. The main telephone number is: 510-237-6603 (can be used to receive information regarding WQRRP tours).

WCW's Website

Our website (www.wcwd.org) provides current and detailed information on a wide variety of topics, such as WCW's structure, description of the wastewater treatment process,

education programs for children, pollution prevention activities, current construction projects, employment opportunities, and public notices. Website viewers are encouraged to provide feedback, and a phone number for reporting a sewer spill is posted at the top of the homepage.

I/I Reduction

WCW continues to seek ways to reduce I/I which can lead to untreated wastewater being discharged into San Francisco Bay, causing environmental damage, increased wastewater treatment expenses, as well as costly fines for violations of our discharge permit.

I/I Study

The I/I consultant, V&A Engineering completed its four (4)-year study. The findings of the study were:

1. Priority 1: Severe I/I basins upstream from bottleneck nodes
    a. 3F, 7A, 7B, 7D, 8F, 24E, 26A, 26B, 26D & 26E
2. Priority 2: High I/I basins upstream from bottleneck nodes
    a. 3C, 3D, 7F/7G, 8C1/8C2, 8D/8E, 15H, 15J, 24D & 26C
3. Priority 3: Severe I/I basins with no observed bottleneck nodes
    a. 24F
4. Priority 4: High I/I basins with no observed bottleneck nodes
    a. 24A & 24C
5. Priority 5: Moderate I/I basins upstream from bottleneck nodes
    a. 3E, 3G, 6A, 15E, 15F, 15G & 15K
6. Priority 6: Moderate I/I basins upstream from bottleneck nodes
    a. 4E, 8B, 15B, 15D, 24B & 24G

WCW staff evaluated the findings and formulated a plan to resolve the issues. One of the major ideas developed from the review was the PIPES Program. This customer-friendly program offers incentives to property owners who replace their defective sewer laterals in accordance with WCW and PIPES Program rules.

Resolution 2020-28 approved the commencement of the program and the addition of $400,000 to the budget, beginning in Fiscal Year (FY) 2021, to fund this program on a recurring basis.

The program was officially rolled out on November 2, 2020 and is still active.

High and severe I/I areas are being targeted for outreach and higher PIPES Program incentives are being offered for replacement of laterals in those areas.

The other major idea was to target high I/I areas for prioritized project-related construction.

Completed Projects (Sewer)

WCW staff has completed construction for several projects in 2021 and 2022 that were designed to reduce I/I. The pertinent projects are listed in the table below:

Completed Projects (Sewer Construction) in 2021 and 2022	
Project Name	**Scope**
Priority Pipes 3rd Application Project, 3.1	Installation of approx. 17,000 LF of sewer mains (replacement)
Basin 7 Inflow & Infiltration Sewer Replacement Project	Installation of approx. 21,000 LF of sewer mains (replacement)
Tara Hills Sewer Replacement Project	Installation of approx. 650 LF of sewer mains (replacement)
Lakeside Force Main Sewer Replacement Project	Installation of approx. 3,100 LF of sewer mains (replacement + dual force main installation)
Hilltop Green Force Main Sewer Replacement Project	Installation of approx. 1,750 LF of sewer mains (replacement + dual force main installation)

[END OF SECTION 11]

Rehabilitation and Replacement Plan

West County Wastewater

October 2023

Rehabilitation and Replacement Plan Details

2014-2022 Collection System Rehabilitation and Replacement Plan

Introduction

WCW's 2014-2022 collection system rehabilitation and replacement plan was formed in conjunction with Carollo. The plan is detailed in the Master Plan and summarized within this attachment.

Factors

As mentioned in 2014 Master Plan, WCW's 5-year (short-term) strategy is to continue to replace pipes with risk scores greater than 0.35 or Remaining Useful Lives (RULs) of less than five (5) years.

Risk

Risk = criticality x vulnerability

Criticality

Criticality = consequence of failure

Asset criticality was based on the weighted factors below:

1. *Category #1: Protect public and employee health and safety (30%)*
    a. Negligible = 1 (Pipes serving < 100 EDUs)
    b. Low = 4 (Pipes serving 100-500 EDUs)
    c. Moderate = 7 (Pipes serving < 500-1,000 EDUs)
    d. Severe = 10 (Pipes serving > 1,000 EDUs or within 500 feet of a critical facility)

2. *Category #2: Protect the environment or regulatory compliance (30%)*
    a. Negligible = 1 (No pipes)
    b. Low = 4 (Pipes not within a protected habitat or 250 feet of a waterway)
    c. Moderate = 7 (Uphill from a waterway or within 250 feet of a waterway)
    d. Severe = 10 (Pipes in a protected natural habitat)

3. *Category #3: Provide excellent customer service (ability to respond) (20%)*
    a. Negligible = 1 (Pipes within 2 miles of the CSO building)
    b. Low = 4 (Pipes greater than 2 miles away from the CSO building)
    c. Moderate = 7 (Pipes defined as being hard to access)
    d. Severe = 10 (Pipes > 12 feet deep or > 12 inches in diameter)

4. *Category #4: Cost-effectiveness (financial impact) (20%)*
    a. Negligible = 1 (6-inch pipes)
    b. Low = 4 (8-inch pipes)
    c. Moderate = 7 (10-inch pipes)
    d. Severe = 10 (12-inch pipes and larger)

Vulnerability

Vulnerability = likelihood of failure

Vulnerability is estimated as the inverse of the number of years of service life remaining. The number of years of service life remaining is estimated based on the asset's original useful life, or designed service life, adjusted for current condition and/or age.

Useful lives were determined based on industry standard guidelines (e.g., AWWA, WEF, ASCE, and the IIMM, O&M records and discussions between WCW and Carollo.

Results

The risk analysis suggests that 1% of the collection system should be considered for replacement each year (2020-2034).

2023 Collection System Rehabilitation and Replacement Plan (Pipe Prioritization)

Introduction

WCW's 2023 collection system rehabilitation and replacement plan is a 100-point maximum formula-based internally-created method. The Collection System Manager is responsible for reporting defective pipelines and providing subsequent reports (CCTV or otherwise to P&SS). The GIS Program Analyst I receives the information and places it in the GIS. An Engineer III receives the information from the GIS Program Analyst and uses it to create a comprehensive pipe ID table with project importance ratings and other pertinent information such as encroachment permit agencies.

Factors

There are 10 factors evaluated when determining what rating should be associated with each project. The sum of the points calculated for projects should be compared with each other to determine which project has the highest importance/priority.

Imminent Failure Assessment of the Worst Conditioned Project-related Pipe Based on Visual or CCTV-based Inspections (max score: 15)

No or unknown = 0 points
Yes = 15 points

Age of the Oldest Project-related Pipe (max score: 5)

20 years old or less or unknown = 0 points
21-30 years old = 1 point
31-40 years old = 2 points
41-50 years old = 3 points
Over 50 years old = 5 points

Capacity/SSO Information as related to Any Project-related Pipe (max score: 10)

0%-20% capacity or unknown = 0 points
21%-39% capacity = 1 point
40%-59% capacity = 2 points
60%-79% capacity = 5 points
80%-100% capacity and/or SSO = 10 points

Location Based on Any Project-related Pipe (max score: 10)

More than 500 feet away from all waterbodies and not in a landslide area nor a fault zone or unknown = 0 points
Within 500 feet of a waterway/waterbody or in a landslide area, fault zone or environmentally-sensitive area = 5 points
Within 500 feet of a waterway/waterbody and in a landslide area, fault zone or environmentally-sensitive area = 10 points

I/I Basin Based on Any Project-related Pipe (max score: 15)

N/A: No basin = 0 points
Priority 6: Moderate inflow basins, no observed bottleneck = 1 point
Priority 5: Moderate inflow basins upstream from bottleneck nodes = 3 points
Priority 4: High inflow basins, no observed bottleneck nodes = 5 points
Priority 3: Severe inflow basins, no observed bottleneck nodes = 7 points
Priority 2: High inflow basins upstream from bottleneck nodes = 10 points
Priority 1: Severe inflow basins upstream from bottleneck nodes = 15 points

NASSCO Scoring Based on the Worst Project-related Pipe, Manhole or Other Appurtenance that is Scored by Using This System (max score: 10)

Unknown = 0 points
Follows the 1-5 NASSCO Ranking = (1-5 Ranking) x 2 points

Pipe Exposure / Unintentionally Uncovered Pipe (max score: 15)

Pipe that is not Exposed/Covered = 0 points
Pipe that is Exposed/Unintentionally Uncovered = 15 points

Government Agency-mandated Work (max score: 10)

Not Mandated by a Government Agency = 0 points
Mandated by a Government Agency = 10 points

CIP Association (max score: 10)

Not CIP = 0 points
Future CIP = 10 points

Total Score Range: 1 point to 100 points

Equipment and Replacement Part Inventory List

West County Wastewater

October 2023

Equipment and Replacement Part Inventory

Introduction

CSO division provides routine and emergency services to maintain WCW's collection system. Maintenance provides routine and emergency services to maintain WCW's lift stations. Spare pumps are located at several of WCW's lift stations as well as the WQRRP. The table provided in the subsection below is a list of all equipment described in the previous sentences.

Equipment and Replacement Part Inventory List

Equipment No. (General)	Equipment No. (WCWD/SN)	Quantity (No.)	Equipment Name / Identifying Characteristics
1	109	1	1994 GMC Box Van
2	125	1	2001 Ford Super Duty Cutaway-TV Van
3	121	1	2007 Case 580 Super M Backhoe
4	216	1	2008 MQ Power Portable Generator
5	217	1	2008 MQ Power Portable Generator
6	208	1	2009 Lincoln Ranger 225 Welder
7	104.1	1	2011 International 800-HPR-TV Hydroflusher
8	107	1	2011 International Harvester Rodder (4000 4400 LP)
9	127	1	2012 International Vactor Jetter (4000 4300)
10	134	1	2013 Bobcat E42 Mini-Excavator
11	128	1	2016 Ford Econoline E450 TV Van
12	132	1	2016 Ford F550 Dump Truck
13	136	1	2018 Freightliner Vactor Truck
14	133	1	2016 Multiquip LT6K Light Tower
15	135	1	2017 Mix King Concrete Mixing Trailer
16	136	1	2018 Frieghtline 114SD Dump Truck
17	137	1	2017 Vactor USJET Jetter Trailer
18	138	1	2018 Freightliner 122SD Dump Truck
19	140	1	2019 Freightliner 114SD Dump Truck
20	141	1	2018 Cargo Trailer
21	119	1	1992 Ziernon Flatbed Trailer
22	117	1	1997 Jeep Cherokee
23	118	1	2001 Dodge Pickup Truck
24	102	1	2007 Ford F-150 Truck
25	122	1	2016 Case 580 Backhoe
26	142	1	2018 Ford F-350 Service Truck
27	147	1	2019 Freightliner/TSE/Rodder M2 106
28	148	1	2020 Isuzu NPR Box Truck
29	150	1	2020 Ford F-150 Truck
30	124	1	2010 Wells Cargo Trailer

31	141	1	2014 Cargo Trailer
32	100	1	2019 Mazda C7
33	100A	1	2008 Camry Hybrid
34	102	1	2007 Ford F150 Super Cab
35	103	1	2011 Toyota Tacoma Access Cab
36	139	1	2015 Buick Enclave
37	142	1	2018 Ford F350 Truck
38	151	1	2021 Ford F250 Truck
39	152	1	2020 Freightliner 1085D Jetter/Vactor
40	153	1	2016 Toyota Tacoma Access Cab
41	106	1	Location: WQRRP 2005 Dodge Ram 2500 ST
42	111	1	Location: WQRRP 2000 Ford Taurus
43	111E	1	Location: WQRRP 2014 Ford C-Max
44	112	1	Location: WQRRP 2005 Chevy Silverado C3500 Truck
45	113	1	Location: WQRRP 2002 GMC C-Series PU Truck
46	129	1	Location: WQRRP 2010 Ford F150 Super Cab Truck
47	130	1	Location: WQRRP 2005 Dodge Grand Caravan SE
48	131	1	Location: WQRRP 2011 Ford Ranger Truck
49	154	1	Location: WQRRP 2019 Ford F-150 Truck
50	155	1	Location: WQRRP 2020 Ford F-150 Truck
51	156	1	Location: WQRRP 2020 Ford F-550 Truck
52	312	1	Location: WQRRP 2017 Ford F-350 Truck
53	314	1	Location: WQRRP 2018 Ford F-250 Truck
54	3127.095-0096	1	Location: Fitzgerald Lift Station **Spare** Flygt Pump (10 HP / 230 VAC)
55	XFP155J-CB2	1	Location: Hilltop Green Lift Station **Spare** Sulzer Pump (139.4 HP / 480 VAC)
56	2256493 / T20B34	1	Location: La Honda Lift Station **Spare** Fairbanks Morse Pump
57	3202.095. 5314	1	Location: Lakeside Lift Station **Spare** Flygt Pump (50 HP)

58	NP6020.091 MT	1	Location: McBryde Lift Station Flygt Pump (5.5 HP / 240 VAC)
59	3153.095-0215	1	Location: North Rancho Lift Station **Spare** Flygt Pump (15 HP / 230 VAC)
60	3153.095-0005	1	Location: North Rancho Lift Station **Spare** Flygt Pump (20 HP)
61	3153.095 / 1960036	1	Location: North Rancho Lift Station **Spare** Flygt Pump (20 HP)
62	6020.091-0017	1	Location: Park Lift Station **Spare** Flygt Pump (50 HP)
63	K3X1-071647	1	Location: Tara Lift Station **Spare** Fairbanks Morse Pump
64	3127.070-0067	2	Location: WQRRP **Spare** Flygt Pump (7.5 HP / 460/230 VAC)
65	3171.095-0016	1	Location: WQRRP **Spare** Flygt Pump (30 HP / 460/230 VAC)

Table 1: Equipment and Replacement Part Inventory List

Lift Station-Specific Pump, Motor, VFD and Generator Inventory List

West County Wastewater

October 2023

Lift Station-Specific Generator and Pump Inventory

Introduction

WCW has compiled a list of pumps, motors, drives and generators located at each of the lift stations. The tables provided in the subsections below are lists of all equipment described in the previous sentence.

Lift Station-Specific Pump List

Equipment No. (General)	Equipment No. (WCWD/SN)	Quantity (No.)	Equipment Name / Identifying Characteristics
Atlas			
1	3300.091 S004002S	2	Flygt Pumps (88 HP / 460 VAC / 1770 RPM / 107 AMP)
2	3152.091	1	Flygt Pump (480 VAC)
Bella Flora			
3	F7056BHCC 51S	2	Yeoman Pump - Submersible (7.5 HP / 230 VAC)
Carriage Hills			
4	3152.091-9144	2	Flygt Pumps (23 HP / 480 VAC)
D'Avila			
5	5413K	1	Fairbanks Morse Pump (Size 4)
6	20756	1	Fairbanks Morse Pump (Size 4)
Fitzgerald			
7	3127.09-1560083	2	Flygt Pumps (10 HP / 230 VAC)
Hilltop Green			
8	XFP155J-CB2	2	Sulzel Pumps (139.4 HP / 480 VAC)
La Honda			
9	2256493	1	Fairbanks Morse Pump
10	K3TI-059700-0	1	Fairbanks Morse Pump

Lakeside			
11	3202.095-5314 S2030052	3	Flygt Pumps (50 HP / 489 GPM / 460 VAC)
McBryde			
12	NP6020.091 MT	2	Flygt Pumps (5.5 HP / 125 GPM / 240 VAC)
North Rancho			
13	3153.095-1340052	2	Flygt Pumps (15 HP / 230 VAC)
Parchester			
14	3170.090	2	Flygt Pumps (20 HP / 480 VAC)
Park			
15	NP6020.091 MT	2	Flygt Pumps (5.5 HP / 180 GPM / 240 VAC)
Pinole Center			
16	3171.091	2	Flygt Pumps (25 HP / 480 VAC)
Point Pinole			
17	3201.091	2	Flygt Pumps (47 HP / 460 VAC)
Sobrante			
18	3127 SN249	2	Flygt Pumps (11 HP / 170 GPM / 230 VAC)
Tara Hills			
19	1015866	1	Fairbanks Morse Pump
20	K3W1-070864X-0	1	Fairbanks Morse Pump
21	K4A1-072619	1	Fairbanks Morse Pump

Table 1: Lift Station-Specific Pump List

Lift Station-Specific Motor List

Equipment No. (General)	Equipment No. (WCWD/SN)	Quantity (No.)	Equipment Name / Identifying Characteristics
D'Avila			
1	QVZKU	2	Fairbanks Motors (7.5 HP / 230 VAC)
La Honda			
2	C184T17FC 19E	1	GE Motors (5 HP / 230 VAC)
3	AEVANECF	1	GE Motors (5 HP / 230 VAC)
Tara Hills			
4	SK405DBB6 40S	1	GE Motor (125 HP / 480 VAC)
5	SKS444DT2 26	1	GE Motor (150 HP / 480 VAC)
6	5C3524R2	1	Fairbanks Motor (125 HP / 480 VAC)
7	OV680370	1	**Spare** GE Motor (150 HP / 480 VAC)

Table 2: Lift Station-Specific Motor List

Lift Station-Specific VFD List

Equipment No. (General)	Equipment No. (WCWD/SN)	Quantity (No.)	Equipment Name / Identifying Characteristics
Hilltop Green			
1	SVX 9000 (Type SPX150A1-4A1N2)	2	Eaton VFD
Lakeside			
1	ABB ACQ 580-31	3	ABB VFD

Table 3: Lift Station-Specific VFD List

Lift Station-Specific Stationary Generator List

Equipment No. (General)	Equipment No. (WCWD/SN)	Quantity (No.)	Equipment Name / Identifying Characteristics
Atlas			
1	D100P1 F3917A/001	1	Olympian (Caterpillar) (125 kVA / 100 kW / 277/480 VAC / 150.4 A / 1800 rpm)
Bella Flora			
2	DGBB-5773051 H060961569	1	Waukesha (Generac) (43.7 kVA / 35 kW / 277/460 VAC / 52.6 A / 1800 rpm)
Carriage Hills			
3	98A02414-5 2041459	1	Waukesha (Generac) (156.25 kVA / 80 kW / 277/480 VAC / 188 A / 1800 rpm)
Hilltop Green			
4	96A01419-5 2086-69	1	Waukesha (Generac) (437.5 kVA / 200 kW / 277/480 VAC / 52.6 A / 1800 rpm)
Lakeside			
5	K0150124Y21	1	Waukesha (Generac) (250 kVA / 150 kW / 277/480 VAC / 200 A / 1800 rpm)
McBryde			
6	2D18HPLY3 3009363068	1	Waukesha (Generac) (13 kVA / 10 kW / 120/240 VAC / 30 A / 1800 rpm)
Park			
7	2D18HPLY3 300936067	1	Waukesha (Generac) (13 kVA / 10 kW / 120/240 VAC / 31 A / 1800 rpm)

Pinole Center			
8	96A01418-5 2026568	1	Waukesha (Generac) (156.25 kVA / 80 kW / 277/480 VAC / 188.15 A / 1800 rpm)
Point Pinole			
9	D100P1 / GEN SET 103576/02 F0269A/001	1	Olympian (Caterpillar) (125 kVA / 100 kW / 277/480 VAC / 150.4 A / 1800 rpm)
Sobrante			
10	 3006342378	1	Waukesha (Generac) (30 kVA / 28 kW / 240/460 VAC / 43 A / 1800 rpm)
Tara Hills			
11	DQBB-5557345 E020373682	1	Cummins (437 kVA / 350 kW / 240/460 VAC / 607.2 A / 1800 rpm)

Table 4: Lift Station-Specific Generator List

DocuSign

Certificate Of Completion

Envelope Id: 2733DD5C0F9F403B9358102EE52BCA03
Status: Completed
Subject: Complete with DocuSign: SSMP -- 10-18-2023 (w_attachments).pdf
Source Envelope:
Document Pages: 288
Signatures: 4
Certificate Pages: 5
Initials: 0
AutoNav: Enabled
EnvelopeId Stamping: Enabled
Time Zone: (UTC-08:00) Pacific Time (US & Canada)

Envelope Originator:
Areej Al Bahrani
2910 Hilltop Dr
Richmond, CA 94806
aalbahrani@wcwd.org
IP Address: 73.231.245.125

Record Tracking

Status: Original
12/11/2023 5:11:34 PM
Holder: Areej Al Bahrani
aalbahrani@wcwd.org
Location: DocuSign

Status: Original
12/13/2023 9:40:42 AM
Holder: Sarah Williamson
swilliamson@wcwd.org
Location: DocuSign

Signer Events	Signature	Timestamp
Gordon Times gtimes@wcwd.org Security Level: Email, Account Authentication (None)	DocuSigned by: Gordon Times 1AFAF73D7595467... Signature Adoption: Pre-selected Style Using IP Address: 12.41.78.146	Sent: 12/11/2023 5:26:36 PM Viewed: 12/12/2023 11:02:29 AM Signed: 12/13/2023 7:37:18 AM
Electronic Record and Signature Disclosure: Not Offered via DocuSign		
Michael Savannah MSavannah@wcwd.org Security Level: Email, Account Authentication (None)	DocuSigned by: Michael Savannah C0B6CFD3E33F4D5... Signature Adoption: Pre-selected Style Using IP Address: 174.195.86.254	Sent: 12/13/2023 7:37:21 AM Viewed: 12/13/2023 9:40:12 AM Signed: 12/13/2023 9:40:35 AM
Electronic Record and Signature Disclosure: Not Offered via DocuSign		

In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp

Agent Delivery Events	Status	Timestamp

Intermediary Delivery Events	Status	Timestamp

Certified Delivery Events	Status	Timestamp

Carbon Copy Events	Status	Timestamp
Areej Al Bahrani aalbahrani@wcwd.org Security Level: Email, Account Authentication (None)	COPIED	Sent: 12/13/2023 9:40:42 AM Viewed: 12/13/2023 9:40:42 AM Signed: 12/13/2023 9:40:42 AM
Electronic Record and Signature Disclosure: Accepted: 9/26/2023 12:38:27 PM ID: f430ba2d-989a-41e2-9544-1328815cfe70		

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	12/11/2023 5:26:36 PM
Certified Delivered	Security Checked	12/13/2023 9:40:12 AM
Signing Complete	Security Checked	12/13/2023 9:40:35 AM
Completed	Security Checked	12/13/2023 9:40:35 AM

Payment Events	Status	Timestamps

Electronic Record and Signature Disclosure

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