City of Antioch
Sewer System Management Plan

2025 Update

FINAL

APRIL 2025

City Council Recertified: May 13, 2025
Resolution No. 2025/87
City WDID #5SSO10890

Prepared for:
CITY OF ANTIOCH
PUBLIC WORKS DEPARTMENT
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ABBREVIATIONS

ADWF	Average Dry Weather Flow
BMP	Best Management Practices
CCTV	Closed-Circuit Televising
Central San	Central Sanitation District
CIP	Capital Improvement Program
City	City of Antioch
CIWQS	California Integrated Water Quality System
CMMS	Computerized Maintenance Management System
CMOM	Capacity, Management, Operation, and Maintenance
CWEA	California Water Environment Association
DELTA	Delta Diablo
DOF	California Department of Finance
DS	Data Submitters
EPA	Environmental Protection Agency
FOG	Fats, Oil, and Grease
FSE	Food Service Establishments
GIS	Geographical Information System
GRD	Grease Removal Devices
LRO	Legally Responsible Official
MACP	Manhole Assessment and Certification Program
MPA	Municipal Pooling Authority
MRP	Monitoring and Reporting Program
NASSCO	National Association of Sewer Service Companies
OES	Office of Emergency Services
O&M	Operation & Maintenance
PACP	Pipeline Assessment and Certification Program
PM	Preventative Maintenance
RWQCB	Regional Water Quality Control Board
SERP	Spill Emergency Response Plan
SOP	Standard Operation Procedures
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
WDID	Waste Discharge Identification Number
WDR	Waste Discharge Requirements

1 Sewer System Management Plan Goal and Introduction

This section of the SSMP outlines the City's goals for managing, operating, and maintaining its sanitary sewer system.

1.1 Regulatory Context

This Sewer System Management Plan (2025 SSMP) is an update to the City of Antioch (City) Sewer System Management Plan prepared on October 2018 (2018 SSMP) [1]. The 2018 SSMP was prepared to satisfy the requirements of the State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems [2].

In December 2022, the SWRCB adopted Order WQ 2022-0103-DWQ, Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems (General Order), which updated, expanded, and clarified sections of the WDRs [3]. This General Order serves as a statewide waste discharge requirement and supersedes the previous SWRCB Order 2006-0003-DWQ and its subsequent amendments.

The 2025 SSMP was developed to comply with the requirements outlined in the current SWRCB General Order.

1.1.1 Purpose

The purpose of an SSMP is to document ongoing local sewer system management program activities, procedures, and decision-making. The 2025 SSMP addresses short-term and long-term system resilience through:

1. Proactive planning and decision-making;
2. Updated operations and maintenance activities and procedures;
3. Identification of high-risk system spill areas;
4. Implementation of capital improvements; and
5. Sufficient local budget to support staff resources, contractors, equipment, and training.

The 2025 SSMP presents a plan to reduce the overall volume of sanitary sewer overflows (SSOs) and prevent future occurrences of SSOs. The City shall develop and implement an updated SSMP to facilitate adequate local funding and management of its sanitary sewer system.

1.1.2 Background

The requirements for the SSMP are closely related to the Environmental Protection Agency (EPA) Capacity, Management, Operation, and Maintenance (CMOM) program and constitute the Best Management Practice (BMP) approach to regulating collection systems.

The 2025 SSMP requirements, as established in the General Order are as follows:

1. Sewer System Management Plan Goals and Introduction
2. Organization
3. Legal Authority

4. Operation and Maintenance Program
5. Design and Performance Provisions
6. Spill Emergency Response Plan
7. Sewer Pipe Blockage Control Program
8. System Evaluation and Capacity Assurance Plan and Capital Improvements
9. Monitoring, Measurement and Program Modifications
10. Internal Audits
11. Communication Program

Each of these elements is addressed in the following sections, including a description of the SWRCB requirement and any supporting information for that element. The WDRs have established an SSMP implementation schedule based on the size of the agency.

The SWRCB has established an SSO database that is part of the Central Integrated Water Quality System (CIWQS), a secure, online regulatory and water quality information management system. The SSO online database provides the City secure access for electronic reporting.

1.1.3 Goals

The City's goals are:

1. To properly and safely manage, operate, and maintain all portions of the City's wastewater collection system;
2. To provide adequate capacity to convey the peak wastewater flows to the wastewater treatment plant. Adequate capacity, for the purposes of the SSMP, is defined as the capacity to convey the peak wastewater flows that are associated with peak wet weather flows;
3. To minimize the frequency of SSOs;
4. To mitigate the impacts that are associated with any SSO that may occur; and
5. To meet all applicable regulatory notification and reporting requirements.

1.2 SSMP Update Schedule

Under the General Order, the City shall update its SSMP every six (6) years after the date of its last SSMP Update due date. The City shall conduct an internal program audit at a minimum frequency of once every three (3) years. The audits are due within six (6) months after the end of the 3-year audit period. The SWRCB has created a website for searching required due dates using the Waste Discharge Identification (WDID) number: https://www.waterboards.ca.gov/water_issues/programs/sso/lookup/. The SWRCB's WDID number for the City's collection system is 5SSO10890. **Table 1-1** summarizes the following due dates for the SSMP update and audit.

Table 1-1 – SSMP Update and Local Audits Schedule

System Name	WDID Number	SSMP Update Due Dates		Audit Due Dates	
		Current SSMP Update	Next SSMP Update*	Last Required 3-Year Audit Period	Next Required 3-Year Audit Period **
City of Antioch	5SSO10890	5/2/2025	5/2/2031	5/2/2024	5/2/2028

* Updates are due within (6) years after the required due date of the City's last Plan Update.
* The Audit Report is due within six (6) months after the end of the required 3-year audit period.

1.3 Sewer System Asset Overview

This section of the SSMP outlines the City's owned assets and service area.

1.3.1 Location

The City of Antioch is located in the eastern region of Contra Costa County, California, along the southern shore of the San Joaquin River. It lies approximately 45 miles northeast of San Francisco, 18 miles east of Concord, and 7 miles east of Pittsburg. Other nearby cities include Brentwood (10 miles southeast), Oakley (5 miles east), and Bay Point (10 miles west). Antioch is situated along State Route 4, providing regional connectivity to neighboring areas and access to the greater Bay Area.

1.3.2 Service Area Boundary

The San Joaquin River borders the City to the north and features a historic downtown area along the waterfront. As of February 2025, the service area contains approximately 35,596 parcels and 32,396 residential and commercial sewer lateral connections. Refer to **Figure 1-1** for a map of the study area that shows the City's service area boundary.

1.3.3 Population and Community Served

According to the California Department of Finance (DOF), the City's population for 2024 was estimated to be 115,632. The City's land use designations consist of residential neighborhoods, commercial and employment, mixed uses, public uses, and open space [4].

1.3.4 System Size

The City's wastewater collection system comprises 316.8 miles of gravity pipeline, which includes 19.2 miles of approved but not yet constructed lines. Additionally, the system consists of one small lift station, one small force main measuring 0.06 miles (321 linear feet), and 6,306 manholes and access points within the collection network.

Tables 1-2, 1-3, and **1-4** provide detailed information on the gravity sewer pipes maintained by the City. Additionally, the City is responsible for maintaining lower laterals equipped with backflow prevention devices at City easements.

For a comprehensive overview of the City's sanitary sewer system service area, refer to **Figure 1-1**.

Table 1-2 – Gravity Sewer System Size Distribution

Pipe Size (in)	Number of Pipe Segments	Pipe Length by Pipe Size (ft)	Percentage of the System
4	68	4,942.1	0.30%
6	3,032	731,790.7	43.75%
8	2,553	648,030.9	38.74%
10	265	65,857.5	3.94%
12	208	59,188.9	3.54%
14	3	1,008.8	0.06%
15	95	26,574.8	1.59%
16	9	1,766.4	0.11%
18	160	51,246.1	3.06%
20	6	1,273.7	0.08%
21	54	12,974.4	0.78%
24	38	10,907.1	0.65%
33	106	33,205.6	1.99%
36	10	2,886.5	0.17%
42	3	700.4	0.04%
48	5	1,186.8	0.07%
Unknown	85	19,160.7	1.15%
Total	6,700	1,672,701.4	100.00%

Table 1-3 – Gravity Sewer System Materials of Construction

Pipe Material	Number of Pipe Segments	Pipe Length by Pipe Size (ft)	Percentage of the System
Asbestos Cement Pipe (ACP)	15	3,314.8	0.20%
Ductile Iron Pipe (DIP)	56	7,811.0	0.47%
Polyvinyl Chloride (PVC)	582	122,640.0	7.33%
Reinforced Concrete Pipe (RCP)	33	9,204.4	0.55%
Steel Pipe (SP)	65	10,932.4	0.65%
Unknown	131	44,545.8	2.66%
Vitrified Clay Pipe (VCP)	5,818	1,474,253.0	88.14%
Total	6,700	1,672,701.4	100.00%

Table 1-4 – Inventory of Sewer Lines by Pipe Age

Period of Construction	Pipe Length by Pipe Size (ft)	Percentage of the System
2000 - current	295,572	17.67%
1980 -1999	918,086	54.89%
1960 -1979	426,254	25.48%
1940 - 1959	32,789	1.96%
1920 - 1939	0	0.00%
1900 - 1919	0	0.00%
Total	1,672,701	100.00%

1.3.5 Structures Diverting Storm Water to the Sewer System

There are no structures diverting storm water to the sewer system.

1.3.6 Data Management Systems

The City currently utilizes a Geographical Information System (GIS) and a Computerized Maintenance Management System (CMMS) to track information regarding the operation and maintenance of its wastewater sewer system. The City also reports SSOs to the SWRCB's online SSO database.

1.3.7 Sewer System Ownership and Operation Responsibilities

Wastewater transported through the City's collection system is discharged into the Delta Diablo conveyance system, where it undergoes final transport, treatment, and disposal. The City is responsible for maintaining approximately 168 miles sewer laterals (when a legal public clean out is present) that connect individual parcels to the mainline sewers. Additionally, the City maintains the gravity sewer main lines. Delta Diablo is responsible for the operation and maintenance of the sewage pumping stations located on Fulton Shipyard Road at Wilbur Avenue and Neroly Road at Wilbur Avenue, as well as all force mains within the City and the wastewater treatment facility.

The City is required to report all SSOs through CIWQS using its unique WDID, 5SSO10890. This WDID allows the City Council, customers, and other stakeholders to access specific information regarding the City's sewer performance records.

1.3.8 Service Connections

The estimated percentage of service connections for each land use are provided in **Table 1-5**.

Table 1-5 – Number of Service Connections

Land Use Designation	Estimated Percentage of Total Service Connection
Commercial	11.10%
Residential	88.59%
Industrial	0.30%
Total	100.00%

1.3.9 Unique Service Boundary Conditions and Challenge(s)

The sanitary sewer system is subject to a variety of unique service boundary conditions and operational challenges that influence the management, maintenance, and performance of the system. These conditions and challenges include, but are not limited to:

Geographical and Topographical Constraints
The service area includes steep terrain, which increases the risk of high-velocity flows, erosion of infrastructure, and complications in accessing certain sewer lines for maintenance or repair.

Portions of the system are located in low-lying areas that are prone to flooding during heavy rain events, increasing the risk of inflow and infiltration (I&I).

Jurisdictional Boundaries
Some portions of the system may fall under easements or run through private property, complicating access for inspections, repairs, or upgrades.

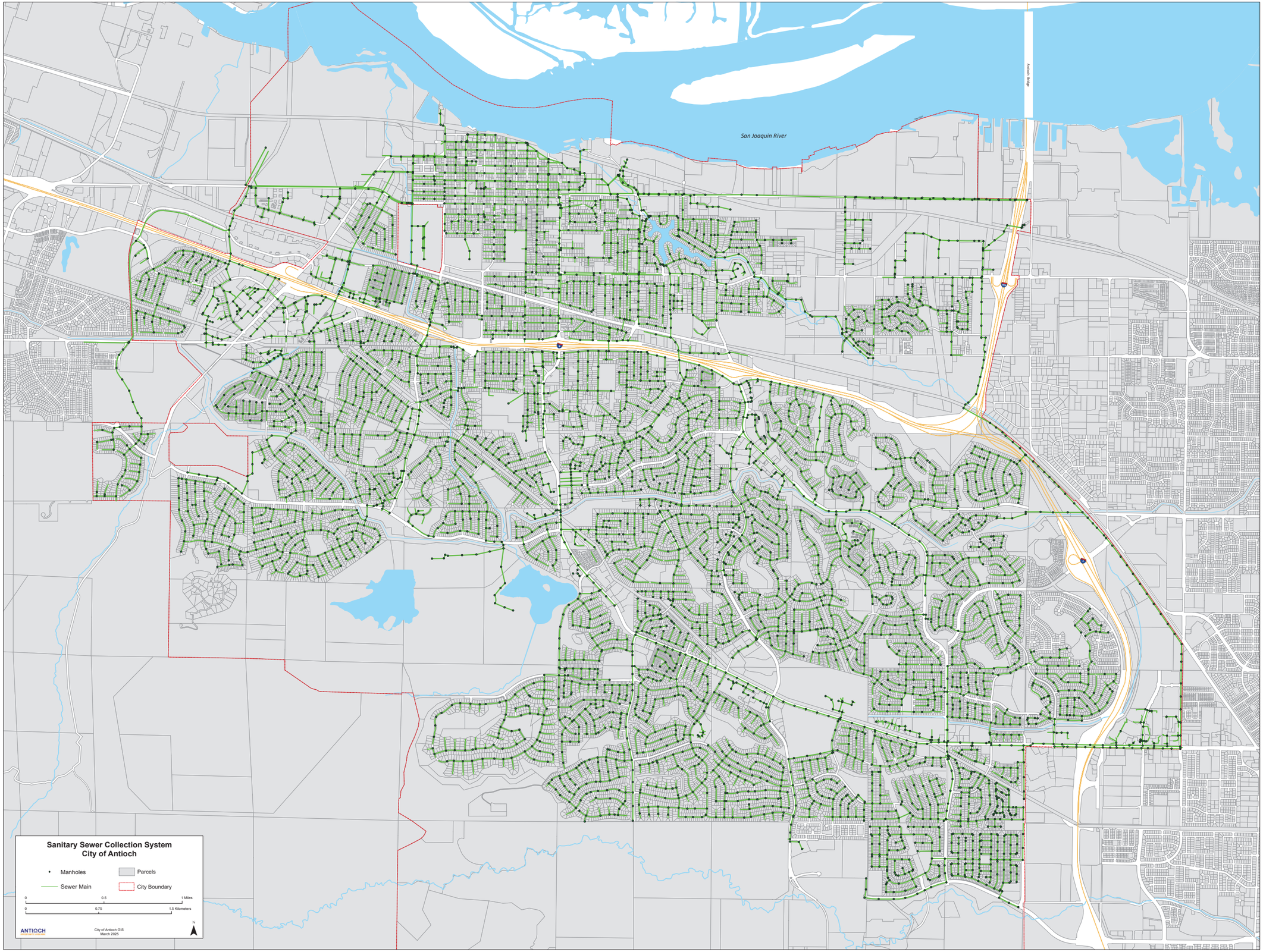
Aging Infrastructure
Certain segments of the sewer system are over 50 years old, making them more vulnerable to root intrusion, cracks, and structural failure.

Environmental Considerations
Portions of the sewer system run through environmentally sensitive areas, such as wetlands or habitat preserves, requiring special permitting and environmentally conscious practices during construction or repair.

Stringent state and federal environmental regulations impose strict limits on overflows and discharges, increasing compliance risks during peak wet weather events.

Operational Challenges
Limited access to certain sewer lines due to dense urban development or remote locations can delay routine maintenance and emergency response.

Wet weather events pose a major challenge due to increased I&I, which can overload the system and risk SSOs (Sanitary Sewer Overflows).


San Joaquin River
Antioch Bridge
Sanitary Sewer Collection System
City of Antioch
Manholes
Sewer Main
Parcels
City Boundary
0
0.5
1 Miles
0
0.75
1.5 Kilometers
N
ANTIOCH
City of Antioch GIS
March 2025

2 Organization

The purpose of this section of the SSMP is to identify City staff responsible for implementing the plan, responding to SSO events, and ensuring compliance with SSO reporting requirements. Additionally, this section designates the Legally Responsible Official (LRO) responsible for fulfilling the SWRCB requirements for preparing and certifying spill reports.

Regulatory Requirements
The 2025 SSMP must identify organizational staffing responsible and integral for implementing the local SSMP through an organization chart or similar narrative documentation that includes:

1. The name of the Legally Responsible Official as required in section 5.1 (Designation of a Legally Responsible Official) of the General Order;
2. The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific SSMP elements;
3. Organizational lines of authority; and
4. Chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. (For example, County Health Officer, County Environmental Health Agency, and State Office of Emergency Services).

2.1 Legally Responsible Official

The Director of Public Works /City Engineer holds the overall responsibility for developing, implementing, and maintaining the City's SSMP. The City has designated specific classifications as LROs, who are responsible for reporting and certifying all documents and SSO reports in the CIWQS, as required by the WDR.

Additionally, certain classifications are designated as Data Submitters (DS), who are authorized to input draft data into the CIWQS Online SSO Database on behalf of the City, provided they have received authorization from an LRO.

The City is required to notify the SWRCB within thirty (30) days of the addition or removal of any individual designated as an LRO or DS.

The City's authorized representative for all wastewater collection system matters is Scott Buenting, Director of Public Works/City Engineer. This individual is authorized to submit verbal, electronic, and written spill reports to the Regional Water Quality Control Board (RWQCB), SWRCB, Contra Costa County Health Services Agency, and the Office of Emergency Services (OES). Additionally, the Director of Public Works serves as the City's designated Legally Responsible Official and is authorized to certify electronic spill reports submitted to the SWRCB.

Additionally, the Collection System Technician and the Lead Collection Systems Worker serve as Data Submitters. They are authorized to submit verbal, electronic, and written spill reports to the RWQCB, SWRCB, Contra Costa County Health Services Agency, and OES.

2.2 Positions Responsible for Implementing SSMP Elements

Further details on City staff members responsible for the development, implementation, and maintenance of specific SSMP elements, including their job titles and contact information, are described in the following sections.

2.2.1 Director of Public Works/City Engineer

The Director of Public Works/City Engineer (Director of Public Works) is responsible for planning, directing, managing, and overseeing the activities and operations of the Public Works Department. These responsibilities encompass water treatment and distribution, wastewater collection, storm drain and channel maintenance, street maintenance, signage, striping, streetlight maintenance, fleet services, parks and facilities maintenance, geographic information systems, and marina operations. The role also includes engineering development, design review, and construction inspection for new development, facility expansion and improvement, and utility infrastructure rehabilitation. Additionally, the Director of Public Works is tasked with protecting and advancing the City's water rights, developing and implementing both short- and long-term departmental goals, coordinating assigned activities with other departments and external agencies, and providing high-level administrative support to the City Manager.

2.2.2 Deputy Director of Public Works/Maintenance

The Deputy Director of Public Works/Maintenance (Deputy Director) assists the Director of Public Works/City Engineer in planning, organizing, and managing all operations within the Public Works Department. This position plays a pivotal role in executing department goals, programs, and policies related to the City's water distribution, wastewater collection, storm drainage, streets, fleet maintenance, and capital improvement projects.

The Deputy Director provides leadership over divisions such as Engineering, Operations and Maintenance, and Utilities. The position is also responsible for implementing regulatory programs and ensuring compliance with federal, state, and local environmental regulations, including those related to the SSMP. Key duties include supervising division managers and technical staff, preparing and managing operating and capital budgets, and contributing to strategic planning and policy development.

Additionally, the Deputy Director supports public communication and engagement efforts, serves as a liaison to external agencies and the community, and may serve as the City's LRO for sewer system reporting in the absence of the Director. This position requires comprehensive knowledge of municipal infrastructure systems, environmental regulations, and the ability to coordinate complex projects and initiatives across multiple divisions and agencies.

2.2.3 Collection Systems Superintendent

The Collection Systems Superintendent (Collection Systems Superintendent) is responsible for directing, managing, supervising, and coordinating the activities and operations of the Collection Systems/NPDES Division within the Public Works Department. This includes overseeing the maintenance and repair of the City's wastewater and stormwater systems, facilities, and related equipment while ensuring compliance with state and federal regulations and requirements. The role involves coordinating assigned activities with other divisions, departments, and external agencies to maintain operational efficiency. Additionally, the Collection Systems Superintendent provides highly responsible and complex administrative support to the Director of Public Works and the Deputy Director.

In addition, the Collection Systems Superintendent serves as an LRO and is authorized to act as the City's LRO in the absence of the Director of Public Works and Deputy Director. The Collection Systems Superintendent is authorized to submit and certify verbal, electronic, and written spill reports to the SWRCB, RWQCB, County Health Services Agency, and OES.

2.2.4 Collection Systems Supervisor

The Collection Systems Supervisor is responsible for supervising, assigning, reviewing, and participating in the work of staff engaged in the maintenance and repair of the City's wastewater and stormwater systems, facilities, and related equipment. This role ensures compliance with local, state, and federal regulations and codes while maintaining work quality and adherence to established policies and procedures. The supervisor coordinates assigned activities with other City divisions, contractors, and external agencies, overseeing and inspecting projects to ensure contract compliance. Additionally, the position involves maintaining accurate work records, including timecards and work orders, serving as a technical resource for assigned work crews, and performing complex and technical tasks related to the assigned area of responsibility. The Collection Systems Supervisor plays a critical role in ensuring the effective maintenance and regulatory compliance of the City's wastewater and stormwater infrastructure.

2.2.5 Collection Systems Technician

The Collection Systems Technician is responsible for installing hardware and software, providing end-user support for personal computer systems, and assisting with the administration of the data network. Additionally, this role is responsible for entering sewer system-related data, including verbal and electronic spill reports, into the reporting systems for the RWQCB, SWRCB, Contra Costa County Health Services Agency, and the State of California OES database system.

2.2.6 Lead Collection Systems Worker

The Lead Collection Systems Worker is responsible for leading, overseeing, reviewing, and participating in the more complex and specialized tasks performed by staff in the maintenance, operation, and repair of the City's wastewater collection system and lift stations. This role involves operating a variety of maintenance and construction equipment, including a pressurized hydro cleaner and sewer vacuum truck, while carrying out technical tasks related to assigned areas of responsibility. When assigned to NPDES, the Lead Collection Systems Worker also plans, assigns, reviews, and evaluates the work of crews engaged in storm channel and storm drain maintenance activities, including construction, maintenance, and repair. Additionally, this role oversees contract work, participates in hands-on fieldwork, and performs other related duties as assigned.

2.2.7 Collection System Worker I & II

Collection Systems Worker I and II perform a range of semi-skilled and skilled tasks related to the maintenance, operation, and repair of the City's wastewater collection system and lift stations. These roles also involve operating various maintenance and construction equipment, including a pressurized hydro cleaner and sewer vacuum truck, to ensure the effective functioning of the wastewater infrastructure.

2.2.8 Sewer Camera Truck Operator

Under the general supervision of the Collection Systems Supervisor, this position is responsible for directing and personally performing a variety of tasks related to the Closed-Circuit Televising (CCTV) of the City's wastewater collection and storm systems, along with their associated appurtenances. The role involves regularly carrying out technical tasks relevant to CCTV operations, requiring knowledge and proficiency in the use of CCTV equipment, heavy machinery, vehicles, power tools, and hand tools utilized for televising, maintenance, cleaning, and repair of the City's wastewater and storm collection systems. This position also requires an understanding of safety equipment, procedures, and best practices to ensure adherence to established safe work protocols and procedures. Additionally, the individual in this role may serve as a crew leader, overseeing and guiding team operations as needed.

2.2.9 Contractors

The City currently utilizes service contracts for root foaming and roach control, which external contractors provide. Additionally, the City maintains an emergency response services contract with an external contractor, which is engaged as needed for emergency response assistance.

2.3 Contact Information and Organization Chart

The Director of Public Works is responsible for overseeing the implementation, periodic auditing, and maintenance of the City's SSMP. While the Director of Public Works retains ultimate oversight, these responsibilities may be delegated to designated staff members as appropriate.

Other City staff members responsible for the development, implementation, and maintenance of specific SSMP elements, along with their respective job titles and contact information, are listed in **Table 2-1**.

Table 2-1 – Responsible Officials for SSMP Implementation and Maintenance

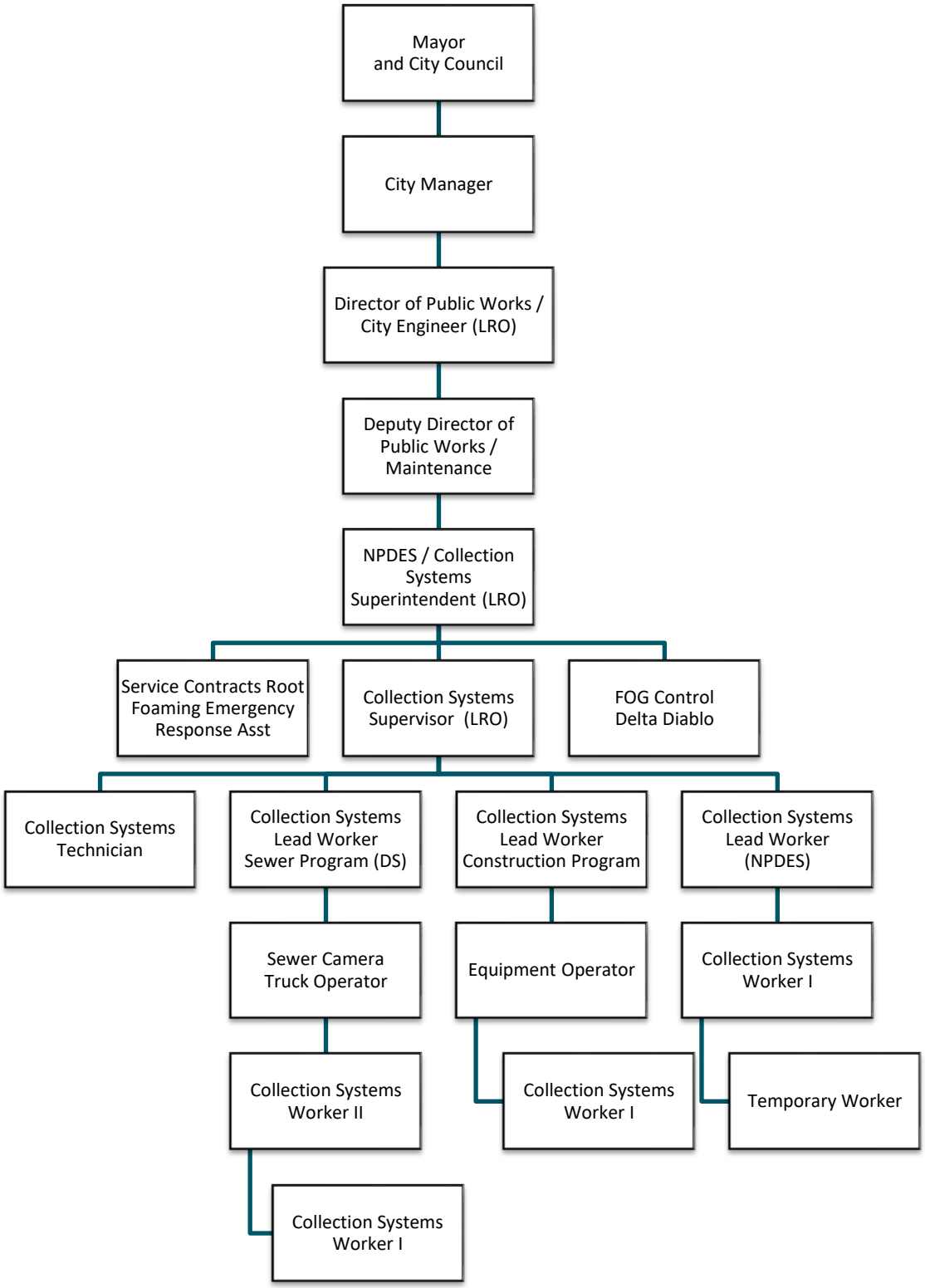
SSMP Element	Legally Responsible Official	Name	Phone Number	Email Address
Introduction	Director of Public Works/City Engineer	Scott Buenting	925-779-6958	sbuenting@antiochca.gov
I - Goals	Director of Public Works/City Engineer	Scott Buenting	925-779-6958	sbuenting@antiochca.gov
II - Organization	Director of Public Works/City Engineer	Scott Buenting	925-779-6958	sbuenting@antiochca.gov
III - Legal Authority	City Attorney	Derek Cole	925-779-7015	dcole@ci.antioch.ca.us
IV - O&M Program	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov

SSMP Element	Legally Responsible Official	Name	Phone Number	Email Address
V - Design & Performance Provisions	Director of Public Works/City Engineer	Scott Buenting	925-779-6958	sbuenting@antioch.ca.gov
VI - Spill Emergency Response Plan	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov
VII - Sewer Pipe Blockage Control Program	City Clean Water Program Delta	Darrell Cain	925-756-1915	darrellc@deltadiablo.org
VIII - System Evaluation and Capacity Assurance Plan	Director of Public Works/City Engineer	Scott Buenting	925-779-6958	sbuenting@antioch.ca.gov
IX - Monitoring, Measurement, and Program Modifications	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov
X - SSMP Program Audits	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov
XI - Communication	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov
Attachment A - Criteria for Rating Cleaning Results	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov
Attachment B - Decision Matrix for CCTV Return Frequency	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov
Attachment C - Marina Pump Station Inspection & Maintenance Checklist Form	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov

SSMP Element	Legally Responsible Official	Name	Phone Number	Email Address
Attachment D - Equipment and Parts Inventory	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov
Attachment E - Spill Emergency Response Plan	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov
Attachment F - Public Outreach Materials	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov
Attachment G - Approved Grease Haulers Lists	NPDES/Collection Systems Superintendent	Toby Beach	925-779-6962	tbeach@antiochca.gov

The organization lines of authority are provided in **Figure 2-1**.

Figure 2-1 – Antioch Public Works Collection Systems Organization Chart



2.4 Chain of Communication for Reporting SSOs

The City's SSO response begins with identifying whether the issue originates from a City-owned main or a private lateral. For private spills, field staff document the incident with photos, notify the property owner, provide educational materials, and recommend hiring a plumber. If the owner is unavailable, staff leave a door hanger and voicemail. Unresolved or escalated cases may involve supervisor review and coordination with health or enforcement agencies. If directed, City crews may clear private blockages and record time and equipment for cost recovery.

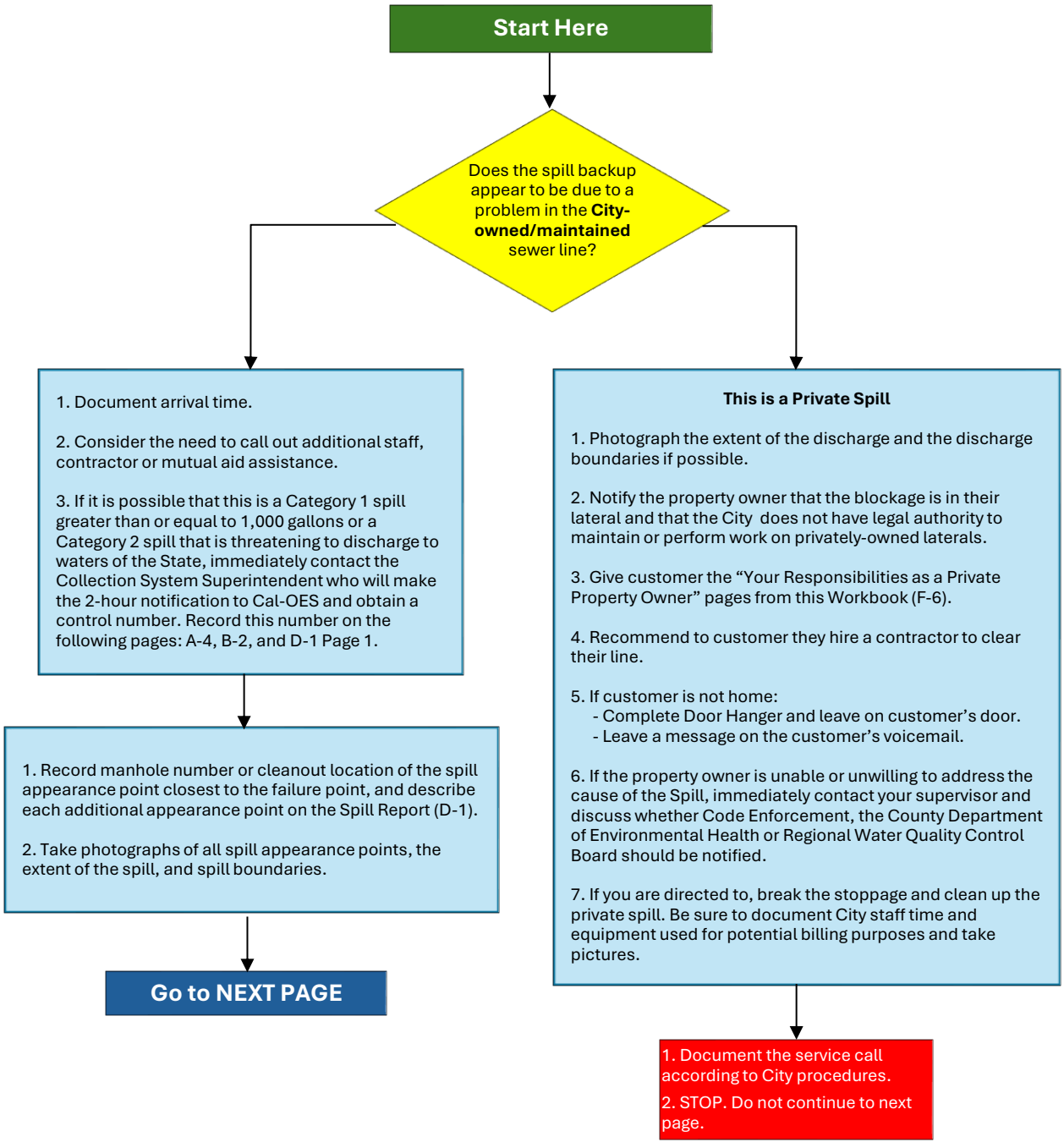
For City system spills, responders log arrival time, assess severity, and mobilize additional resources if needed. Spills over 1,000 gallons or threatening surface waters require immediate notification to Cal-OES. Staff initiate containment, document the site extensively, and prioritize protection of sensitive areas such as storm drains, schools, and intersections. Containment may involve vacuum trucks, mats, pumps, and barriers.

Crews address the blockage, clean the area, and collect debris, with follow-up sampling and shoreline cleanup required if surface waters are impacted. When spills reach drainage systems, responders seal the system, recover sewage, and flush with three times the spill volume.

If private property is affected, staff complete a First Responder Form, provide claim information and lodging if needed, and document cleanup consent or refusal. Restoration teams may assist, and disinfecting efforts are carefully managed to avoid stormwater contamination. Final steps include completing the City's official Spill Report, compiling documentation, and notifying the City Attorney's Office and relevant regulatory agencies.

For additional information regarding the City's chain of communication, refer to the Spill Emergency Response Plan located in **Attachment E,** Section C, page 1-4. A visual representation of the communication structure for reporting spills is also provided in **Figure 2-2.**

Figure 2-2 – Antioch Public Works Chain of Communication



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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.

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.

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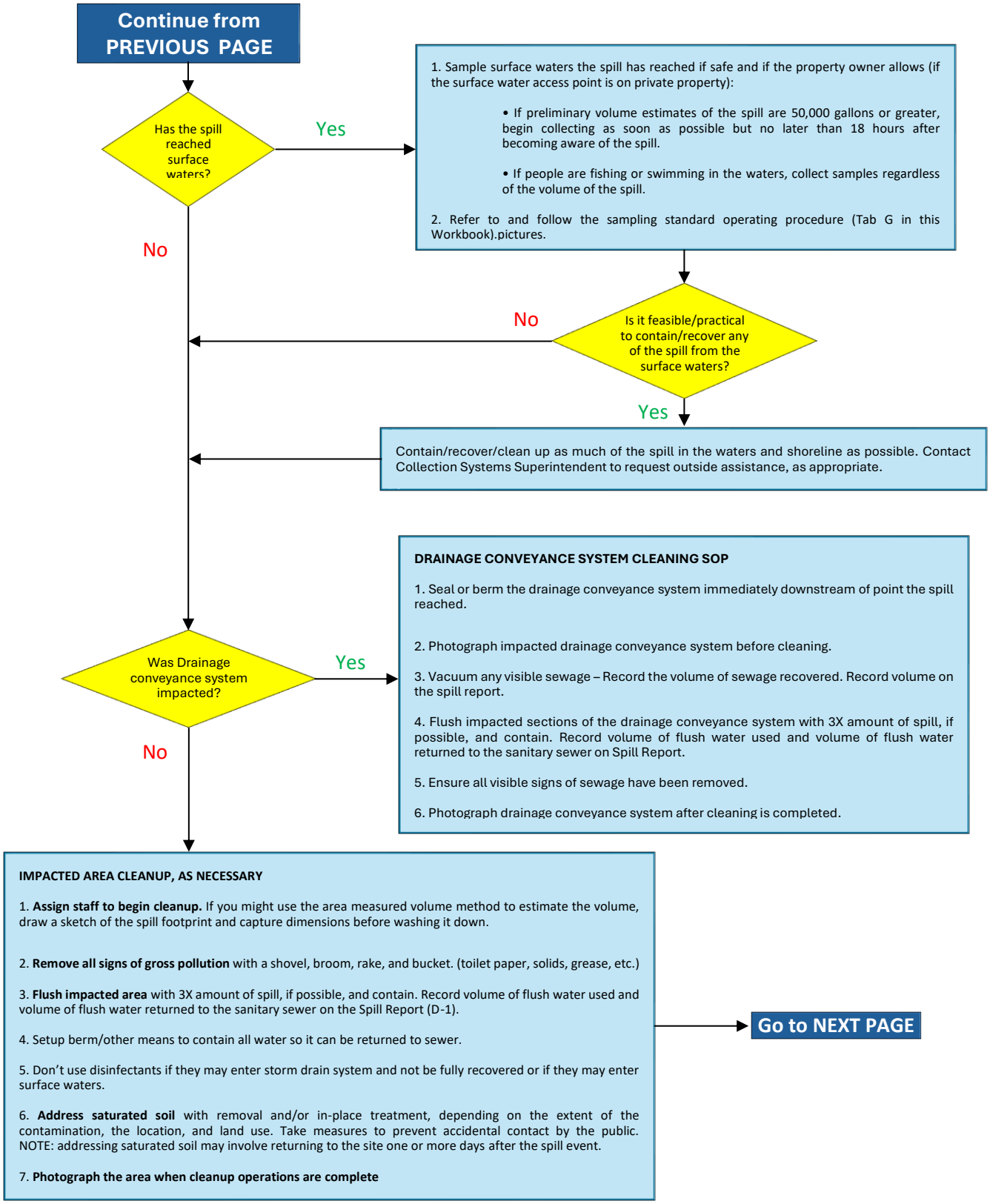
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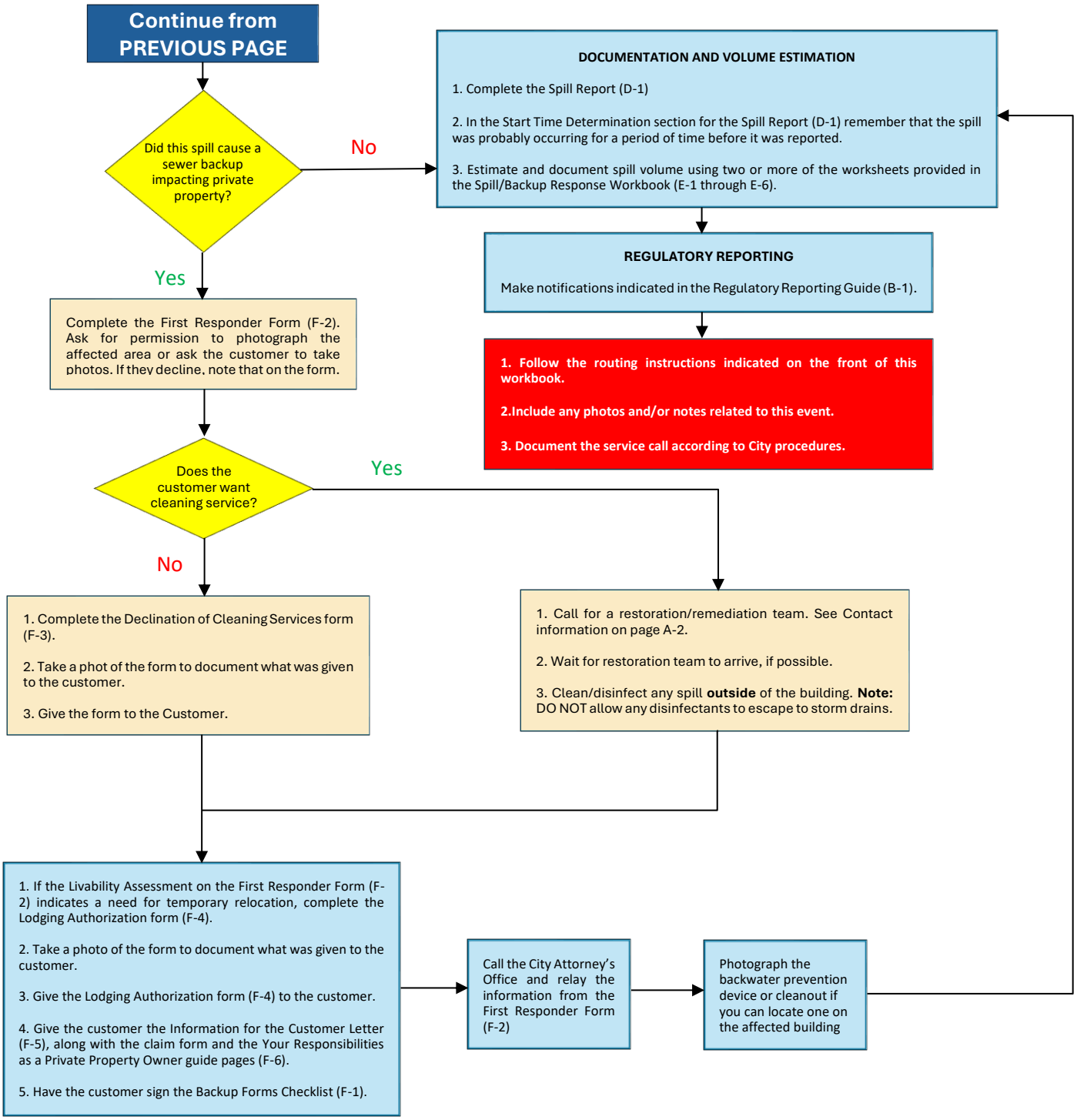
Has the spill reached surface waters?
Yes
No
1. Sample surface waters the spill has reached if safe and if the property owner allows (if the surface water access point is on private property):
• If preliminary volume estimates of the spill are 50,000 gallons or greater, begin collecting as soon as possible but no later than 18 hours after becoming aware of the spill.
• If people are fishing or swimming in the waters, collect samples regardless of the volume of the spill.
2. Refer to and follow the sampling standard operating procedure (Tab G in this Workbook).pictures.
Is it feasible/practical to contain/recover any of the spill from the surface waters?
No
Yes
Contain/recover/clean up as much of the spill in the waters and shoreline as possible. Contact Collection Systems Superintendent to request outside assistance, as appropriate.
Was Drainage conveyance system impacted?
Yes
No
DRAINAGE CONVEYANCE SYSTEM CLEANING SOP
1. Seal or berm the drainage conveyance system immediately downstream of point the spill reached.
2. Photograph impacted drainage conveyance system before cleaning.
3. Vacuum any visible sewage – Record the volume of sewage recovered. Record volume on the spill report.
4. Flush impacted sections of the drainage conveyance system with 3X amount of spill, if possible, and contain. Record volume of flush water used and volume of flush water returned to the sanitary sewer on Spill Report.
5. Ensure all visible signs of sewage have been removed.
6. Photograph drainage conveyance system after cleaning is completed.
IMPACTED AREA CLEANUP, AS NECESSARY
1. Assign staff to begin cleanup. If you might use the area measured volume method to estimate the volume, draw a sketch of the spill footprint and capture dimensions before washing it down.
2. Remove all signs of gross pollution with a shovel, broom, rake, and bucket. (toilet paper, solids, grease, etc.)
3. Flush impacted area with 3X amount of spill, if possible, and contain. Record volume of flush water used and volume of flush water returned to the sanitary sewer on the Spill Report (D-1).
4. Setup berm/other means to contain all water so it can be returned to sewer.
5. Don't use disinfectants if they may enter storm drain system and not be fully recovered or if they may enter surface waters.
6. Address saturated soil with removal and/or in-place treatment, depending on the extent of the contamination, the location, and land use. Take measures to prevent accidental contact by the public. NOTE: addressing saturated soil may involve returning to the site one or more days after the spill event.
7. Photograph the area when cleanup operations are complete
Go to NEXT PAGE


Continue from PREVIOUS PAGE
Did this spill cause a sewer backup impacting private property?
No
Yes
DOCUMENTATION AND VOLUME ESTIMATION
1. Complete the Spill Report (D-1)
2. In the Start Time Determination section for the Spill Report (D-1) remember that the spill was probably occurring for a period of time before it was reported.
3. Estimate and document spill volume using two or more of the worksheets provided in the Spill/Backup Response Workbook (E-1 through E-6).
REGULATORY REPORTING
Make notifications indicated in the Regulatory Reporting Guide (B-1).
1. Follow the routing instructions indicated on the front of this workbook.
2.Include any photos and/or notes related to this event.
3. Document the service call according to City procedures.
Complete the First Responder Form (F-2). Ask for permission to photograph the affected area or ask the customer to take photos. If they decline, note that on the form.
Does the customer want cleaning service?
Yes
No
1. Call for a restoration/remediation team. See Contact information on page A-2.
2. Wait for restoration team to arrive, if possible.
3. Clean/disinfect any spill outside of the building. Note: DO NOT allow any disinfectants to escape to storm drains.
1. Complete the Declination of Cleaning Services form (F-3).
2. Take a phot of the form to document what was given to the customer.
3. Give the form to the Customer.
1. If the Livability Assessment on the First Responder Form (F-2) indicates a need for temporary relocation, complete the Lodging Authorization form (F-4).
2. Take a photo of the form to document what was given to the customer.
3. Give the Lodging Authorization form (F-4) to the customer.
4. Give the customer the Information for the Customer Letter (F-5), along with the claim form and the Your Responsibilities as a Private Property Owner guide pages (F-6).
5. Have the customer sign the Backup Forms Checklist (F-1).
Call the City Attorney's Office and relay the information from the First Responder Form (F-2)
Photograph the backwater prevention device or cleanout if you can locate one on the affected building

3 Legal Authority

This section of the SSMP outlines the City's legal authority to comply with the SSMP requirements, as specified in its Municipal Code and agreements with other agencies.

Regulatory Requirements
The 2025 SSMP must include copies or an electronic link to the City's current sewer system use ordinances, services agreements, and/or legally binding procedures to demonstrate the City possesses the necessary legal authority to:

1. Prevent illicit discharges into its sanitary sewer system from inflow and infiltration (I&I); unauthorized stormwater; chemical dumping; unauthorized debris; roots; fats, oils, and grease; and trash, including rags and other debris that may cause blockages;
2. Collaborate with storm sewer agencies to coordinate emergency spill responses, ensure access to storm sewer systems during spill events, and prevent unintentional cross connections of sanitary sewer infrastructure to storm sewer infrastructure;
3. Require that sewer system components and connections be properly designed and constructed;
4. Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned and/or maintained by the City;
5. Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures; and
6. Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

3.1 Municipal Code

The Antioch Municipal Code provides the majority of necessary legal authority for the sewer collection system. The Municipal Code is posted on the City's website and can be found using the following electronic link.

- City's Municipal Code Link: https://codelibrary.amlegal.com/codes/antioch/latest/overview

In addition, the City works cooperatively with Delta Diablo on all elements of the Sewer Pipe Blockage Control Program and coordinates all program requirements in conjunction with Delta Diablo's most recent District Code (Delta Code). The critical references to the Delta Code provide additional authority for administering the Program. The Delta Code can be found using the following electronic link.

- Delta Code Link: https://deltadiablo.specialdistrict.org/files/8d0b985bb/DistrictCode.pdf

The City's legal authorities are summarized in **Table 3-1**.

Table 3-1 – Legal Authority

Requirement	Legal Authority Reference	Meets Order WQ 2022-0103-DWQ Requirements?
Prevent illicit discharges into the wastewater collection system	AMC 6-4.108; DD 2.28.065	Yes
Limit the discharge of fats, oils, and grease and other debris that may cause blockages	AMC 6-4.109; DD 2.28.650	Yes
Collaborate with storm sewer agencies to coordinate emergency spill responses	AMC 9-4.622	Yes
Ensure access for maintenance, inspection, or repairs for portions of the service lateral owned or maintained by the City	AMC 6-4.115	Yes
Require property installation, testing, and inspection of new and rehabilitated sewers	AMC 9-4.702	Yes
Require that sewers and connections be properly designed and constructed	AMC 9-4.605	Yes
Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned and/or maintained by the City	AMC 6-4.115	Yes
Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures	AMC 1-2.07; 5-1.103; 5-1.201; 6-4.210; DD 2.28.430 to .510 and .665	Yes
Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance	AMC 9-4.605	Yes

4 Operations and Maintenance Program

This section of the SSMP provides an overview of the City's sewer system operations and maintenance program. It is also intended to provide a checklist to support future SSMP audits.

Regulatory Requirements
To meet the requirements in the General Order, the 2025 SSMP must:

1. Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities within the sewer system service area boundaries;
2. Provide a scheduling system and data collection system for preventative operation and maintenance activities conducted by staff and contractors;
3. Provide in-house and external training on a regular basis for sanitary sewer system operations and maintenance staff for contractors; and
4. Provide an inventory of sewer system equipment, including identification of critical replacement and spare parts.

4.1 Updated Map of Sanitary Sewer System

The City uses GIS, which includes information on its wastewater collection system assets, including gravity line segments, manholes, pumping facilities, and force mains. The City also has information on its GIS for its storm drainage system. The GIS information is available to appropriate City staff. An up-to-date map of the sanitary sewer system showing the sewer facilities within the service area boundary is shown in **Figure 1-1**.

Field crews have access to electronic GIS maps that are accessed via tough book computers and/or tablets. These maps are accessed on the City's web portal or by logging onto their CMMS. If access to the City's web portal or CMMS is unavailable, the crew can revert back to hard copies stored in their vehicles. These GIS maps are updated annually. Corrections that are identified by the field crews are noted on their portable device and submitted to the main office for review. Corrections and new facilities are incorporated into the maps during the annual update.

A copy of the GIS map of the City's wastewater collection system can be obtained from the City's website and via following the link: https://www.antiochca.gov/public-works-department/geographic-info-systems/geographic-info-systems-gis-gallery/.

4.2 Preventive Operation and Maintenance Activities

The elements of the City's sewer system Operation and Maintenance (O&M) Program include:

1. Proactive, preventive, and corrective maintenance of gravity sewers, upper laterals, and lower laterals;
2. Ongoing CCTV inspection program to determine the condition of the gravity sewers;
3. Rehabilitation and replacement of sewers that are in poor condition; and
4. Periodic inspection and preventive maintenance for the lift stations and force mains.

The collection system organization chart for implementing the City's O&M program is shown in **Figure 2-1**. The details of the program are explained in the following sections.

4.2.1 Gravity Sewers

The City is responsible for the operation and maintenance of its wastewater collection system, including the lower laterals that connect private upper laterals from residences and buildings. Maintenance activities include CCTV inspections, root cutting, and lateral replacement during mainline sewer projects to ensure proper system function. To support these efforts, a dedicated CCTV inspection crew proactively inspects wastewater collection system facilities, investigates stoppages and SSOs, and conducts condition assessments for the Capital Improvement Program (CIP). Over the past ten years, all gravity sewer main lines 10 inches in diameter or smaller have undergone inspections and CCTV assessments.

To ensure system reliability, the City conducts visual inspections of its wastewater collection system facilities during significant storm events. These inspections focus on sewers with known hydraulic limitations, pump stations, siphons, and creek crossings to identify potential vulnerabilities and mitigate risks. Additionally, the wastewater collection system staff maintains a prioritized list of known structural deficiencies, organized based on the Pipeline Assessment and Certification Program (PACP) Quick Rating System. High-priority structural deficiencies are repaired as soon as possible, either by the City's sewer repair crew or an external contractor on an as-needed basis.

The City implements a proactive sewer cleaning program, ensuring that all sewer pipelines smaller than 24 inches are cleaned at least once every three years. Additionally, preventive cleaning is conducted for pipelines with a history of recurring issues (hot spots) on a quarterly schedule. Approximately 73,625 linear feet, 4% of the sewer system, is currently included in the hot spot cleaning program.

All cleaning operations follow the evaluation criteria outlined in **Attachment A**, Criteria for Rating Cleaning Results, to assess and document the materials removed during the cleaning process. Large-diameter pipelines, 24-inches and larger, are cleaned by City crews or external contractors as needed. The City's cleaning operations are designed to restore any pipeline to at least 90% of its original capacity. A pipe segment remains in the hot spot program until it achieves three consecutive cleaning results classified as clear or light. This process ensures that problem areas are continuously monitored and maintained to prevent blockages and system failures.

The City also conducts more frequent cleaning for line segments that have been determined to require a higher frequency of cleaning. All high-frequency lines are cleaned on a quarterly basis. **Table 4-1** provides detailed information on hot spot pipe cleaning for all pipes included in the program as of December 2014, while **Table 4-2** summarizes high-frequency line statistics.

Table 4-1 – Historical Line Cleaning Summary

Calendar Year	Pipeline Cleaning, Linear Feet	Collection System Linear Feet of Pipe	Percentage of System
2018	1,066,167	1,636,272	65.16
2019	965,209	1,636,272	58.99
2020	1,131,155	1,672,701	67.62
2021	783,106	1,672,701	46.82
2022	825,957	1,672,701	49.38
2023	689,703	1,672,701	41.23
2024	942,376	1,672,701	56.34
Total	6,403,673	1,672,701	385.54
Annual Average	914,810	N/A	N/A

Table 4-2 – High-Frequency Cleaning Mainlines

High Frequency Lines Cleaning Frequency, months	Number of Pipe Segments	Total Length of Pipe per Frequency, linear feet	Total Annual Pipe Cleaning, linear feet
Quarterly	289	70,679	282,716
Totals	289	70,679	282,716

To further enhance system maintenance, the City conducts inspections and condition assessments of all manholes in the wastewater collection system at least once every three years. These assessments follow the Manhole Assessment and Certification Program (MACP) condition rating criteria established by National Association of Sewer Service Companies (NASSCO). The results are used to identify necessary improvements and to develop prioritized capital renewal and replacement projects within the five-year capital improvement program.

The City has committed to inspecting and grading approximately 25 miles of gravity sewer main lines located within 200 feet of water bodies, which include streams, creeks, rivers, ponds, impoundments, lagoons, wetlands, or bays (excluding storm drainage channels). The City is also inspecting gravity sewer main lines exceeding 10 inches in diameter (excluding force mains) and grading all 25 miles of sewer mains using the PACP rating scale by NASSCO. The City is in the process of establishing return frequencies for CCTV assessments before the next SSMP audit, utilizing the Decision Matrix for CCTV Return Frequency based on the PACP Rating System, which is included in **Attachment B**.

To address issues identified during CCTV inspections or sewer cleaning operations, the City maintains a sewer repair crew responsible for resolving minor defects in priority order. Significantly defective gravity sewer main lines, those rated 4 or 5 on the PACP scale, located within 200 feet of water bodies or in critical habitat areas for endangered species, receive the highest priority for repair and replacement. Major repairs that exceed the City's in-house capabilities are contracted to private contractors for completion.

As part of its ongoing televising and grading activities, the City follows a structured timeline for repairing and replacing identified defects. Gravity sewer main lines rated as Grade 5 on the PACP scale will be

repaired or replaced within two years of their determination, while lines rated as Grade 4 will be addressed within four years. For Grade 3 sewer main lines, the City will assess the necessity of repairs and prioritize them accordingly, following a similar ranking system.

The City has recently completed CCTV inspection of all gravity sewer main lines, excluding force mains. Following the completion of this effort, the City has reinitiated the CCTV inspection cycle for all gravity sewer main lines, with exceptions made for sewer mains that have either undergone CCTV inspection within the past ten years or have been constructed, replaced, or repaired within the past twenty years. This ongoing program supports proactive asset management and helps ensure the continued integrity and performance of the sewer collection system.

To efficiently manage operations, the City utilizes CMMS to track complaints, plan and initiate work, generate work orders, and document completed work. The system provides electronic work orders for crews and responding personnel, which are later reviewed for accuracy and closed in the CMMS system for future management reporting.

Additionally, the City maintains standard operating procedures (SOPs) for collection system equipment. These SOPs ensure consistency and efficiency in operating, maintaining, and repairing wastewater collection system infrastructure.

4.2.2 Pump Stations & Force Mains

The City implements a regularly scheduled inspection and maintenance program for the pump stations it operates and oversees. In addition to routine maintenance, the City conducts an annual comprehensive condition assessment of the entire pump station facility and force main system utilizing the Lift Station Condition Assessment Checklist.

A copy of the Marina Pump Station Inspection/Maintenance Checklist Form and the Lift Station Condition Assessment Checklist are provided in **Attachment C**.

The City also performs regular inspections of the force main alignment to identify any potential force main failures and assesses the discharge manhole for signs of corrosion where the flow exits the force main. Refer to **Table 4-3** for a summary of operative pump stations and refer to **Table 4-4** for a summary of existing force mains.

Table 4-3 – Summary of Pump Stations

Pump Station Name	Location	No. Pumps	Pump HP/each	Pump Manufacturer	Design Flow, gpm	Standby Generation, KW
Marina	5 Marina Place	2	2	Ebarra	20-180	None

Table 4-4 – Summary of Force Main Assets

Pump Station Name	Force Main Asset Information			
	Date Installed	Length (LF)	Size (in)	Material
Marina	1988	321	4	PVC

4.2.3 Non-Routine Maintenance

Non-routine maintenance activities involve investigating and addressing complaints related to various sewer system issues. These include manhole overflows, missing or shifted manhole covers, excessively noisy manhole covers, residential plumbing problems, pump station malfunctions, unexpected sewer odors, and similar concerns. Complaints received by the Public Works Department are promptly investigated, and appropriate measures are taken to identify and resolve the underlying problems, ensuring the continued functionality and safety of the sewer system. All complaints are logged into the CMMS system, including the final disposition of the complaint, as required by the WDR.

4.2.4 Private Sewer Laterals

On December 16, 2014, City staff presented an ordinance to the City Council that aimed to clearly define lateral responsibilities and potentially establish a mandatory inspection and/or repair program for privately-owned sewer laterals. At that time, the City Council tabled the matter, indicating that any reconsideration would require an affirmative vote by the City Council to bring it back for further discussion and potential action.

4.2.5 Root Foaming

The City contracts annually for root foaming treatment on specific pipeline segments known to experience root intrusion issues. This process typically involves an initial cutting of the roots, followed by the application of root foam two to three months later as new root growth begins to emerge. This method has proven to be a beneficial component of the City's overall maintenance program and will continue to be utilized as long as it remains an effective strategy for managing root intrusion within the collection system.

4.2.6 Rehabilitation and Replacement Program

The City maintains an ongoing sewer rehabilitation and replacement program to address deficiencies within the wastewater collection system as conditions warrant. A copy of the City's 5-Year CIP can be found on the City's website at the link provided here: **https://www.antiochca.gov/fc/capital-improvements/adopted-2024-2029-five-year-capital-improvement-program.pdf**. The selection of projects for inclusion in the CIP is based on prioritization from CCTV condition assessments and input from field crews who identify problem areas through cleaning operations.

The Antioch 5-Year Capital Improvement Program 2024-2029 outlines the City's approach to sewer pipeline renewal and replacement. According to the report, there is a current backlog of approximately $6.5 million in sewer pipelines, existing infrastructure, and trash capture devices.

4.3 Training Program

4.3.1 City Staff

The City utilizes a comprehensive training approach for its wastewater collection system staff, incorporating a combination of in-house training sessions, equipment manufacturer training, on-the-job training (including periodic job rotation), and participation in conferences, seminars, and other professional development opportunities. These training programs ensure that staff remain proficient in system operations, maintenance procedures, regulatory compliance, and emerging industry best practices. A summary of recurring training opportunities is provided in **Table 4-5**.

Table 4-5 – Training Opportunities

Sponsor	Event	Timeframe	References
California Water Environment Association	Annual Conference	April	www.cwea.org
	Northern Regional Training Conference	September	
	Northern Regional Safety Training	October	
	Bay Area Collection Systems Committee	Monthly / Quarterly	
	Specialty Conferences	Periodic	
Tri-State Conference	Annual Conference	August	www.tristateseminar.com
Water Environment Federation	Collection System Specialty Conference	Spring	http://www.wef.org/ConferencesTraining/ConferenceEvents/CollectionSystems/
California State University, Sacramento	Methods for Evaluating and Improving Collection System Performance		http://www.gateway.calstate.edu/extension/professional_development.cfm
City of Antioch	SSMP and SERP Training with field exercises	Annual or as needed to assure compliance	Antioch Sewer System Management Plan
California State University, Sacramento	Videos, manuals, home study courses	www.owp.csus.edu	California State University, Sacramento
City of Antioch	Tailgate and safety sessions and employee on the job mentoring		City of Antioch

4.3.2 Training Resources (Materials)

The City conducts annual training for all wastewater collection system employees on the SSMP, including the Spill Emergency Response Plan (SERP) discussed in Section 6. This training may consist of classroom instruction and/or field exercises focused on volume estimation and overflow containment procedures. Additionally, following a large SSO, the City conducts debriefings and training based on the findings of the SSO debrief and failure analysis as outlined in Section 6.

Each employee is expected to receive approximately 40 hours of wastewater collection system training annually, supplemented by field mentoring from experienced long-term employees.

The City mandates that wastewater collection system employees holding the position of Collection Systems Operator I or higher obtain Collection System Maintenance certification from the California

Water Environment Association (CWEA). Employees in these positions will also be trained in CIWQS reporting procedures to accurately submit data SSOs.

To maintain certification, employees must complete 12 hours of training every two years as part of the renewal process, ensuring continued professional development and regulatory compliance.

4.3.3 Staff Contracted for City Projects

The City's contract language mandates that contractors working in or near the wastewater collection system provide emergency response training for their employees. This ensures that all personnel involved in the system's maintenance and operations are adequately prepared and compliant with industry standards.

Furthermore, the City's standard specifications will require that contractors submit an acceptable emergency response plan or certify that their plan meets or exceeds the City's SERP.

To reinforce compliance and preparedness, emergency response procedures and requirements are incorporated into pre-construction meetings and monthly progress meetings with contractors, ensuring readiness for potential wastewater system emergencies.

4.4 Equipment and Parts Inventory

The lists of the City's major sewer system equipment inventory and the critical sewer system replacement are provided in **Attachment D**. These lists are updated semi-annually.

5 Design and Performance Provisions

The Design and Performance Provisions section of an SSMP ensures that new sewer system components and rehabilitated infrastructure are properly designed, constructed, and tested. This section establishes standards and requirements to maintain system integrity, prevent failures, and support long-term performance by presenting the City's Design and Construction Standards.

Regulatory Requirements
The 2025 SSMP must include the following items as appropriate and applicable to the City's system:

1. Updated design and construction standards and specifications for the construction, installation, repair, and rehabilitation of existing and proposed system infrastructure components, including but not limited to pipelines, pump stations, and other system appurtenances. If existing design criteria and construction standards are deficient to address the necessary component-specific hydraulic capacity as specified in Section 8 (System Evaluation and Capacity Assurance Plan and Capital Improvements), the procedures must include component-specific evaluation of the design criteria.
2. Procedures and standards for the inspection and testing of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances.

5.1 Updated Design and Construction Standard and Specifications

The City adheres to the design and construction standards established by the Central Contra Costa Sanitation District's (Central San) Standard Specifications for Design and Construction. These standards apply to sewer design and construction activities conducted by private individuals, public agencies, and businesses within the City. The Central San Standard Specifications are available on their website at the following link:

- Link to Central San Standards and Specifications: https://www.centralsan.org/standard-specifications-and-approved-materials

The City's Municipal Code (updated December 2024) is available on the City's website at the following link:

- Link to City's Municipal Code: https://codelibrary.amlegal.com/codes/antioch/latest/overview

The purpose of the Design Standards is to provide design engineers with comprehensive guidelines on the requirements and preferences for facilities that will ultimately be conveyed to the City for ownership, operation, and maintenance. These standards outline the types of facilities and equipment deemed acceptable by the City and include provisions for inspection and testing prior to final acceptance. Additionally, the Standard Specifications address requirements for the repair and rehabilitation of existing facilities to ensure compliance with the City's operational and maintenance expectations.

5.2 Procedure and Standards

Procedures, protocols, and standards for inspection and testing of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances are discussed in Section 33 of the Central San Standard Specifications.

6 Spill Emergency Response Plan

The Spill Emergency Response Plan (SERP) section of an SSMP outlines procedures to quickly and effectively respond to sewer spills. It focuses on minimizing environmental impacts, protecting public health, and ensuring proper containment, cleanup, notification, and documentation of spills.

Regulatory Requirements
To meet the requirements in the General Order, the SSMP must:

1. Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner;
2. 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;
3. Comply with the notification, monitoring and reporting requirements of the General Order, State law and regulations, and applicable Regional Water Board Orders;
4. Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained;
5. Address emergency system operations, traffic control and other necessary response activities;
6. Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system;
7. Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State;
8. Remove sewage from the drainage conveyance system;
9. Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving water;
10. Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery;
11. Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event;
12. Conduct post-spill assessments of spill response activities;
13. Document and report spill events as required in this General Order; and
14. Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the plan as needed.

6.1 Goals

The City's goals with respect to responding to SSOs are:

- Work safely;
- Respond quickly to minimize the volume of the SSO;
- Eliminate the cause of the SSO;
- Prevent sewage system overflows or leaks from entering the storm drain system or receiving waters to the maximum extent practicable;
- Contain the spilled wastewater to an extent feasible;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the SSO/restore flows;

- Meet the regulatory reporting requirements;
- Evaluate the causes of failure related to certain SSOs;
- Revise response procedures resulting from the debrief and failure analysis of certain SSOs; and
- Return all/portion of the flow to the sanitary sewer system.

6.2 Authority

The regulatory requirements the SERP corresponds to include:

- Health & Safety Code Sections 5410-5416
- California Water Code Section 13271
- Fish & Wildlife Code Sections 5650-5656
- State Water Resources Control Board Order No. 2022-0103-DWQ

6.3 SERP Stand-Alone Document

The City maintains a SERP that outlines procedures and responsibilities for responding to sanitary sewer overflows and other sewer-related emergencies. A copy of the City's SERP is provided in **Attachment E**.

7 Sewer Pipe Blockage Control Program

The Sewer Pipe Blockage Control Program section of an SSMP focuses on identifying, preventing, and mitigating blockages in the sewer system. It includes measures like regular cleaning, root control, and public education to reduce blockages caused by fats, oils, grease, debris, and other materials.

Regulatory Requirements
The 2025 SSMP must include procedures to evaluate the City's service area and identify and address system-specific pipe blockages caused by roots, fats, oils, grease, rags, and debris. The procedures must include, at minimum:

1. An implementation plan and schedule for a public education outreach program that promotes proper disposal of pipe-blocking substances;
2. A plan and schedule for the disposal of pipe-blocking substances generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of substances generated within a sanitary sewer system service area;
3. The legal authority to prohibit discharges to the system and identify measures to prevent spills and blockages;
4. Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, best management practices requirements, record keeping and reporting requirements;
5. Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the fats, oils, and grease ordinance;
6. An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning maintenance schedule for each section; and
7. Implementation of source control measures for all sources of fats, oils, and grease discharged to the sanitary sewer system for each section identified in (6) above.

7.1 Public Education and Outreach Program

The City partners with Delta Diablo and participates as a permittee in the Contra Costa Clean Water Program (CCCWP). On November 21, 2017, a notice from Delta Diablo was posted on the City's website advising residents on the proper disposal of unwanted food waste, fats, oils, and grease, which helped to promote environmental awareness and protect the local wastewater system. Additional information regarding fats, oil, and grease (FOG) can be found on the Delta Diablo website. Delta Diablo and the City's crew provide information on proper disposal practices for FOG to residents who have experienced FOG-related blockage or SSO. A copy of the notice and public outreach materials are provided in **Attachment F**.

Currently, blockages and SSOs caused by FOG appear to originate primarily from residential sources. To address this issue, Delta Diablo will develop educational materials as the foundation for a targeted public education and outreach program. These materials will be distributed by Delta Diablo and the City to both commercial and residential sources connected to sewers that are prone to FOG-related stoppages and SSOs. This initiative aims to reduce FOG contributions and improve the sewer system's performance.

7.2 Disposal of Pipe Blocking Substances

A list of facilities in the San Francisco Bay Area that accept grease from grease haulers is provided in **Attachment G**. This list will be provided to commercial grease haulers regularly working within the service area. Additionally, lists of grease haulers approved by the East Bay Municipal Utility District (EBMUD) and the Sacramento Regional County Sanitation District (SRCSD) are included in **Attachment G**.

The City will update the list of acceptable FOG disposal facilities annually to ensure it remains current. At present, there is no indication that additional grease disposal facilities are needed to manage the FOG generated within the City's service area.

7.3 Legal Authority to Prohibit Discharges

The City's Municipal Code establishes the legal foundation for the Sewer Pipe Blockage Control Program, as outlined in Section 3 – Legal Authority. Additionally, Delta Diablo maintains its own legal authority for inspections and enforcement through its District Code, specifically in Sections 2.28.650 et seq.

7.4 Requirements to Install Grease Removal Devices

Delta Diablo and the City have jointly developed standard specifications for installing and sizing Grease Removal Devices (GRDs). As part of its Code Enforcement responsibilities, the City is tasked with reviewing proposed development plans to ensure compliance with these requirements and verifying that GRDs are properly installed during new construction and remodel projects.

In addition, Delta Diablo and the City have established common maintenance standards for GRDs. Food Service Establishments (FSEs) that are identified as discharging significant amounts of grease are monitored through discharge permits administered by Delta Diablo.

The City and Delta Diablo distribute educational materials and flyers as part of a targeted public outreach program to address SSOs originating from residential and commercial sources. These materials are directed explicitly toward users located in areas with a history of FOG-related blockages to help mitigate the occurrence of future SSOs.

Delta Diablo also maintains a dedicated FOG webpage that outlines the impacts of FOG on the sewer collection system and the environment while offering practical guidance to the public. This includes the following recommended practices for preventing FOG-related blockages and overflows:

- Posting "No Grease" signs above sinks and dishwashers;
- Collecting and recycling cooking oil;
- "Dry wiping" pots, pans, and kitchen equipment prior to cleaning;
- Maintaining grease traps on a regular schedule;
- Inspecting grease interceptors regularly to ensure grease and solids do not exceed 25% of interceptor depth;
- Using absorbent paper under fryer baskets;
- Using absorbents (e.g., rice hulls, cat litter) to clean up oil and grease spills; and
- Avoiding the use of emulsifiers or solvents, other than dishwashing detergents.

Delta Diablo and the City's activities will include distributing placards and literature to promote BMPs and providing observations and recommendations during facility inspections to further encourage compliance with BMPs.

7.5 Authority to Inspect, Enforcement, and Staffing

Delta Diablo will conduct periodic inspections of permitted FSEs located in identified FOG hot spot areas. These inspections will ensure compliance with BMPs, verify that GRDs are properly installed, and confirm adherence to operational and maintenance requirements.

The frequency of inspections will be determined by each facility's historical performance, with poorly performing establishments being inspected more frequently. All FSEs will be inspected at least once every three years. Additionally, the City will strive to report newly established businesses to Delta Diablo on a monthly basis.

7.5.1 Staffing

The City and Delta Diablo will periodically evaluate the staffing needs for inspecting and enforcing the FOG ordinance. This assessment will ensure adequate resources are available to support the effective implementation and enforcement of the ordinance.

7.5.2 Enforcement Actions

Delta Diablo and the City will collaborate to identify FSEs contributing to FOG-related blockages or SSOs. In such cases, Delta Diablo will conduct facility inspections to determine the source of the FOGs. If an FSE is found to be in violation of the requirements of the Sewer Pipe Blockage Control Program—including failure to maintain an interceptor or trap as required under Delta Code §2.28.660—the City has the authority to initiate enforcement actions in accordance with Delta Code §2.28.665.

Enforcement actions may include:

- Verbal warnings;
- Written warnings;
- Administrative orders (which may include fines); and
- Disconnection from the public sewer system.

These enforcement measures are supported by the City's authority to require proper maintenance, prohibit decanting or illegal discharge of waste, and mandate documentation of compliance. Failure to comply—such as not maintaining equipment, failing to implement best management practices, or failing to follow lawful directives from the City or Delta Diablo—may result in escalating enforcement, as allowed by ordinance. These measures are designed to ensure FSE compliance, prevent blockages, and protect public health and the environment.

7.6 Identification of System Sections Subject to Blockages

The City's 2018-2023 SSMP Audit identifies SSOs attributed to FOG blockages occurring between January 2018 and June 2023. In accordance with regulatory requirements, the City also uploads data on all reported SSOs to the SWRCB CIWQS website, including SSOs occurring as recently as 2024, to ensure accurate and up-to-date data management. The locations of blockage-related SSOs from 2021 to 2024 are shown in **Figure 7-1**. A copy of the City's 2018-2023 SSMP Audit is available on the City's website and a link is provided here: https://www.antiochca.gov/fc/public-works/SSMP-Audit-2018-2023.pdf

7.7 FOG Preventative Maintenance

The City's preventive maintenance programs currently prioritize problematic sewer line segments. The ongoing identification of FSEs and FOG hot spots will serve as the foundation for the Sewer Pipe Blockage Control Program, ensuring that FOG sources contributing to blockages or SSOs are included in the program. The results of sewer cleaning operations will be used to adjust and optimize sewer cleaning frequencies.

City staff will provide Delta Diablo's Sewer Pipe Blockage Control Program Inspectors with timely notifications whenever gravity sewers experience FOG-related blockages or SSOs.

To enhance program effectiveness, Delta Diablo and the City will collaborate to update FOG hot spot areas on an annual basis. Preventive maintenance for gravity sewers within identified FOG hot spot areas will be performed at a frequency sufficient to minimize recurring FOG-related blockages and SSOs.

Legend

Types of SSOs

- Root Intrusion - 16 total
- Grease Deposition - 10 total
- Debris-General - 11 total
- Operator Error - 1 total
- Pipe Structural Problem/Failure - 4 total

N

0 0.42 0.85 1.7 2.55 3.4 Miles

City of Antioch, Bureau of Land Management, Esri, HERE, Garmin

FIGURE 7-1

City of Antioch, California

Locations of SSOs from 2021 to 2024

BLACK WATER CONSULTING ENGINEERS

8 System Evaluation, Capacity Assurance and Capital Improvements

The System Evaluation and Capacity Assurance Plan section of an SSMP ensures the sewer system has adequate capacity to handle current and future flows. It includes assessing system performance, identifying capacity deficiencies, and planning for necessary upgrades or expansions to prevent overflows and maintain reliability.

Regulatory Requirements
The 2025 SSMP must include a system evaluation that includes:

1. Routine evaluation and assessment of system conditions;
2. Capacity assessment and design criteria;
3. Prioritization of corrective actions; and
4. A capital improvement plan.

8.1 System Evaluation and Condition Assessment

In February 2014, the Wastewater Collection System Master Plan (Master Plan) was updated to incorporate revised peak wet weather design flows based on modified base wastewater flow projections. This Master Plan provided a comprehensive analysis of the City's wastewater collection system, supporting its ongoing efforts to upgrade sewer infrastructure. The planning effort included a detailed assessment of the trunk sewer system, utilizing flow monitoring data, rainfall records, and a hydraulic model to evaluate both existing conditions and projected expansion of the City's service area over the next twenty years in accordance with the General Plan.

Additionally, the Master Plan assessed renewal and replacement needs for the City's sewer system, based on an analysis of pipe age and material types, as outlined in Section 4 of this SSMP.

The City is in the process of updating the Master Plan to evaluate the sewer collection system and identify capacity improvements needed to support existing and future development through buildout.

8.2 Capacity Assessment and Design Criteria

The capacity-related design criteria, including base wastewater flow and peaking factors, are detailed in Section 5 of this SSMP and the City's Master Plan [5]. These criteria establish the foundational parameters for evaluating and ensuring the capacity and performance of the wastewater collection system.

8.3 Prioritization of Corrective Action

The City is currently updating its Master Plan to incorporate findings from the condition and capacity assessments, which will inform the prioritization of corrective actions.

8.4 Capital Improvement Plan

The City's CIP for sewer main capacity enhancements is available on the City's website and at the link provided here: https://www.antiochca.gov/fc/capital-improvements/adopted-2024-2029-five-year-capital-improvement-program.pdf. This program outlines planned projects designed to address capacity needs within the wastewater collection system and provides a structured schedule with completion dates for recommended wastewater improvement projects.

The City of Antioch's 2024–2029 CIP includes five key wastewater and storm drain projects. The Sewer Facility Rehabilitation Program and Sewer Main Improvements Program (Projects 7736 and 7724) are ongoing, citywide efforts aimed at rehabilitating aging sewer lines and upgrading system capacity based on the Master Plan, each funded at $600,000 over five years. The Sewer Main Trenchless Rehabilitation project (Project 7923) uses cost-effective trenchless methods like pipe bursting and cured-in-place lining to replace deteriorated pipelines while minimizing surface disruption, with a total allocation of $950,000. The Northeast Antioch Annexation Infrastructure project (Project 7745), funded at $3.5 million, will construct new underground water and sewer infrastructure along key streets in the annexation area and may also include storm drainage, curb, gutter, and lighting improvements. Lastly, the Trash Capture Devices project (Project 7750), with $900,000 in NPDES funding, will install full trash capture devices citywide to prevent debris from entering the storm drain system, ensuring compliance with MS4 stormwater permit regulations.

To complete these projects, the City will utilize both internal and external funding sources. In addition to revenue generated from ratepayers, the City will pursue grant opportunities and low-interest loan options available through programs such as the Regional Early Action Planning (REAP) Grants and the Clean Water State Revolving Fund (CWSRF) to support infrastructure improvements.

9 Monitoring, Measurement, and Program Modifications

The Monitoring, Measurement, and Program Modifications section of an SSMP ensures continuous improvement by tracking program effectiveness and system performance. It involves collecting data, evaluating progress toward goals, and making necessary adjustments to enhance the management and operation of the sewer system.

Regulatory Requirements
To meet the requirements in the General Order, the SSMP must include the following:

1. Maintain relevant information, including audit findings, to establish and prioritize appropriate Plan activities;
2. Monitor the implementation and measure the effectiveness of each Plan element;
3. Assess the success of the preventative operation and maintenance activities;
4. Update plan procedures and activities, as appropriate, based on results of monitoring and performance evaluations; and
5. Identify and illustrate spill trends, including spill frequency, locations, and estimated volumes.

9.1 Maintaining Relevant Information

The City records all reported SSOs and submits them to the SWRCB CIWQS database. SSOs from the CIWQS database are reviewed and incorporated into the SSMP audit, which is required to be evaluated every three years. These audits provide the City with important information to evaluate the effectiveness of the SSMP and identify areas for improvement.

9.2 Monitoring of SSMP Elements

A summary of the monitoring of the SSMP elements is provided in **Table 9-1**.

Table 9-1 – Monitoring of SSMP Elements

SSMP Element	Monitoring
Goals	Update as needed
Organization	Update as needed
Legal Authority	Update as needed
Operations and Maintenance Program	Annual review of program
Design and Performance Provisions	Update as needed
Spill Emergency Response Plan	Update as needed
Sewer Pipe Blockage Control Program	Annual review of program
System Evaluation and Capacity Assurance and Capital Improvements	Review of program every 1-5 years
Monitoring, Measurement, and Program Modifications	Ongoing
Internal Program Audits	Update every 3 years
Communication Program	Update as needed

9.3 Assess Preventive Maintenance Activities

The effectiveness of the sewer system's operation and maintenance will be evaluated through a comprehensive review of historical SSOs, maintenance activities, and staff input. This assessment will utilize performance metrics, SSO trends, and maintenance records to identify any system deficiencies needing correction.

Primarily, the City will utilize the following performance indicators to evaluate the effectiveness of its SSMP and the performance of its wastewater collection system:

- **Total Number of SSOs:** A comprehensive count of all reported Sanitary Sewer Overflows (from gravity sewers and lower laterals).
- **SSOs by Cause:** A breakdown of SSOs categorized by specific causes, including roots, grease, debris, pipe failure, capacity issues, pump station failures, and other factors.
- **Contained Sewage Proportion:** The percentage of spilled sewage successfully contained/recovered compared to the total volume spilled.
- **Volume Discharged to Surface Water:** The total volume of spilled sewage that reaches surface water.

These metrics will provide a clear and quantifiable assessment of system performance and SSMP implementation.

Based on data collected from January 2018 to December 2024, **Table 9-2** shows the City's wastewater collection system performance.

Table 9-2 – Baseline Performance January 2018 through December 2024

Metric	2018	2019	2020	2021	2022	2023	2024
Miles of Lines							
Mains	309.8	309.8	309.8	309.8	309.8	309.8	309.8
Laterals	162.7	162.7	162.7	162.7	162.7	162.7	162.7
Pressure Sewers	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Total	**479.5**	**479.5**	**479.5**	**479.5**	**479.5**	**479.5**	**479.5**
Number of SSO							
Mains	3	3	2	3	6	-	-
Laterals	15	26	21	12	8	5	1
Manholes	1	-	-	-	1	2	4
Total	**19**	**29**	**23**	**15**	**15**	**7**	**5**
SSO Rate/100 miles/year							
Mains	0.97	0.97	0.65	0.97	1.94	-	-
Laterals	9.22	15.98	12.91	7.38	4.92	3.07	0.61
Total	**3.96**	**6.05**	**4.80**	**3.13**	**3.13**	**1.46**	**1.04**
Volume, gallons							
Mains	10596	165	543	180	3091	-	-
Laterals	413	1,064	1,093	305	109	43	132
Manholes	608	-	-	-	36691	225	405
Total	**11617**	**1229**	**1636**	**485**	**39891**	**268**	**537**
Portion Recovered							
Mains	3309	165	543	134	3091	-	-
Laterals	373	1,064	1,093	305	109	43	132
Manholes	-	-	-	-	36691	225	405
Total	**3682**	**1229**	**1636**	**439**	**39891**	**268**	**537**
Percent Recovered							
Mains	31%	100%	100%	74%	100%	-	-
Laterals	90%	100%	100%	100%	100%	100%	100%
Manholes	0%	-	-	-	100%	100%	100%
Total	**32%**	**100%**	**100%**	**91%**	**100%**	**100%**	**100%**
Portion to Surface Water							
Mains	7287	-	-	46	-	-	-
Laterals	40	-	-	-	-	-	-
Manholes	608	-	-	-	-	-	-
Total	**7935.0**	**-**	**-**	**46**	**-**	**-**	**-**
Average Volume, gallons/SSO							
Mains	3532	55	272	60	515	-	-
Laterals	28	41	52	25	14	9	132
Manholes	608	-	-	-	36691	113	101
Total	**611**	**42**	**71**	**32**	**2659**	**38**	**107**

9.4 Plan Updates Procedures

As listed in **Table 9-1**, each element of the SSMP will be reviewed on a regular basis and will be adjusted accordingly. This SSMP is required to be updated every six (6) years to maintain current information and adjust the specific programs as necessary to meet the goals stated in Section 1. The LRO is responsible for completing the audit every three (3) years to assess the effectiveness of the various elements of the SSMP. Significant information, such as contact numbers, names, chain of communication, etc., will be updated as required. The annual assessments or audits will be utilized to determine whether additional changes need to be made to the SSMP.

9.5 SSO Trends

Historical SSOs will be reviewed to assist the City with determining whether adjustments to the operation and maintenance program and CIP are necessary. Provided below in **Figure 9-1** through **Figure 9-5** are visual depictions of SSO trends from 2018 to 2024.

Figure 9-1 – SSO Overflows by City Asset

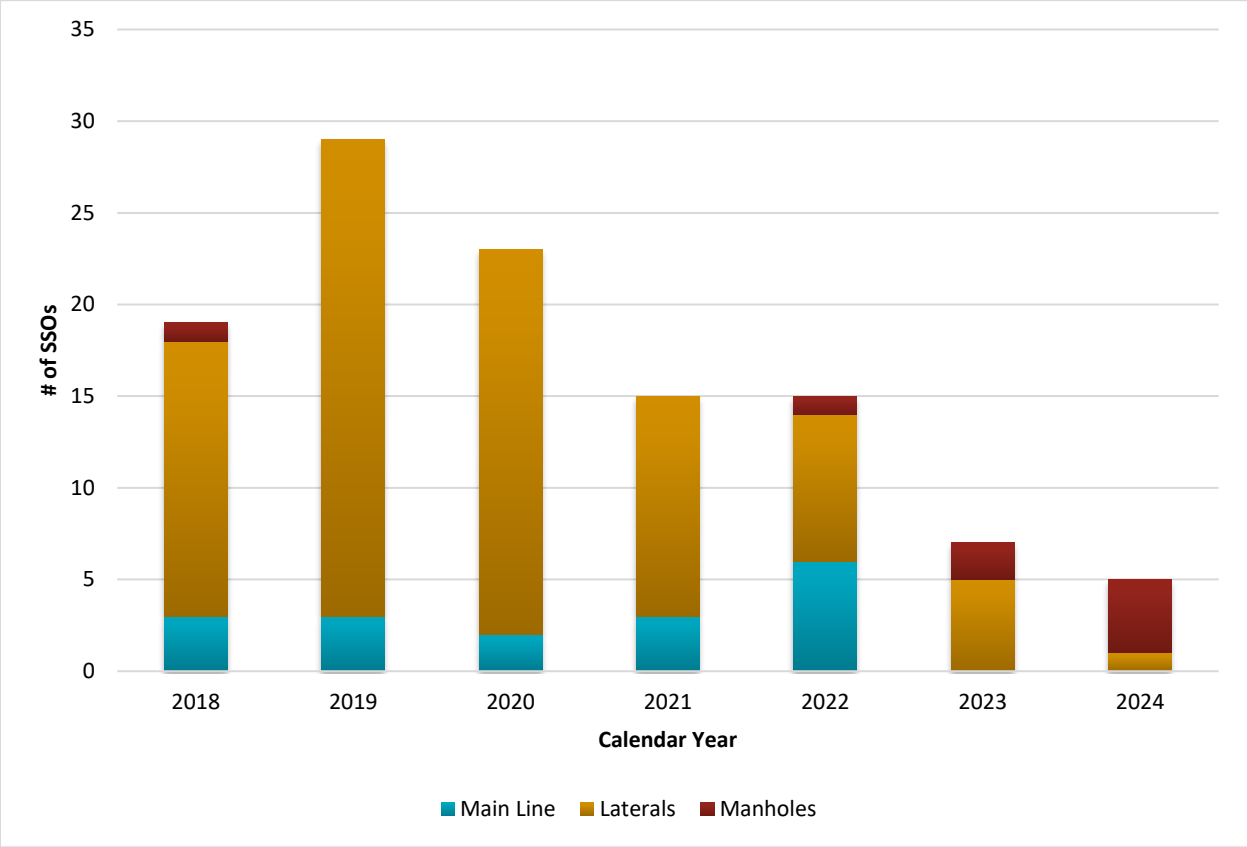


Figure 9-2 – Number of Overflows by Cause

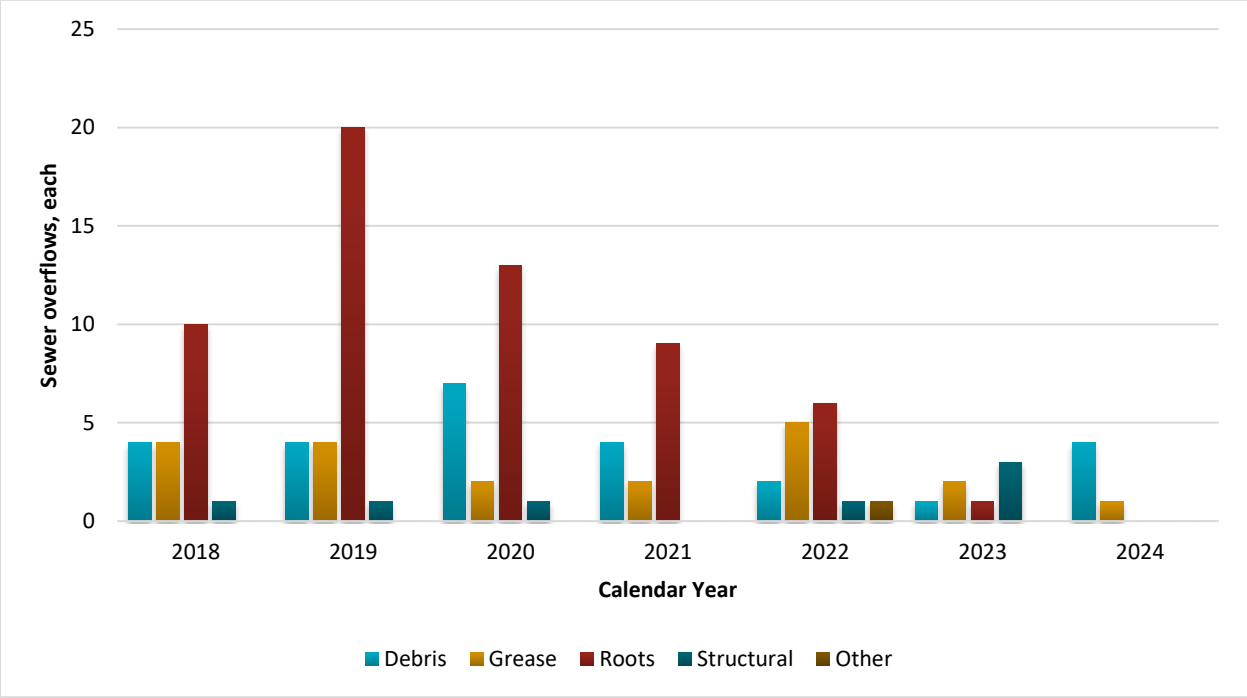
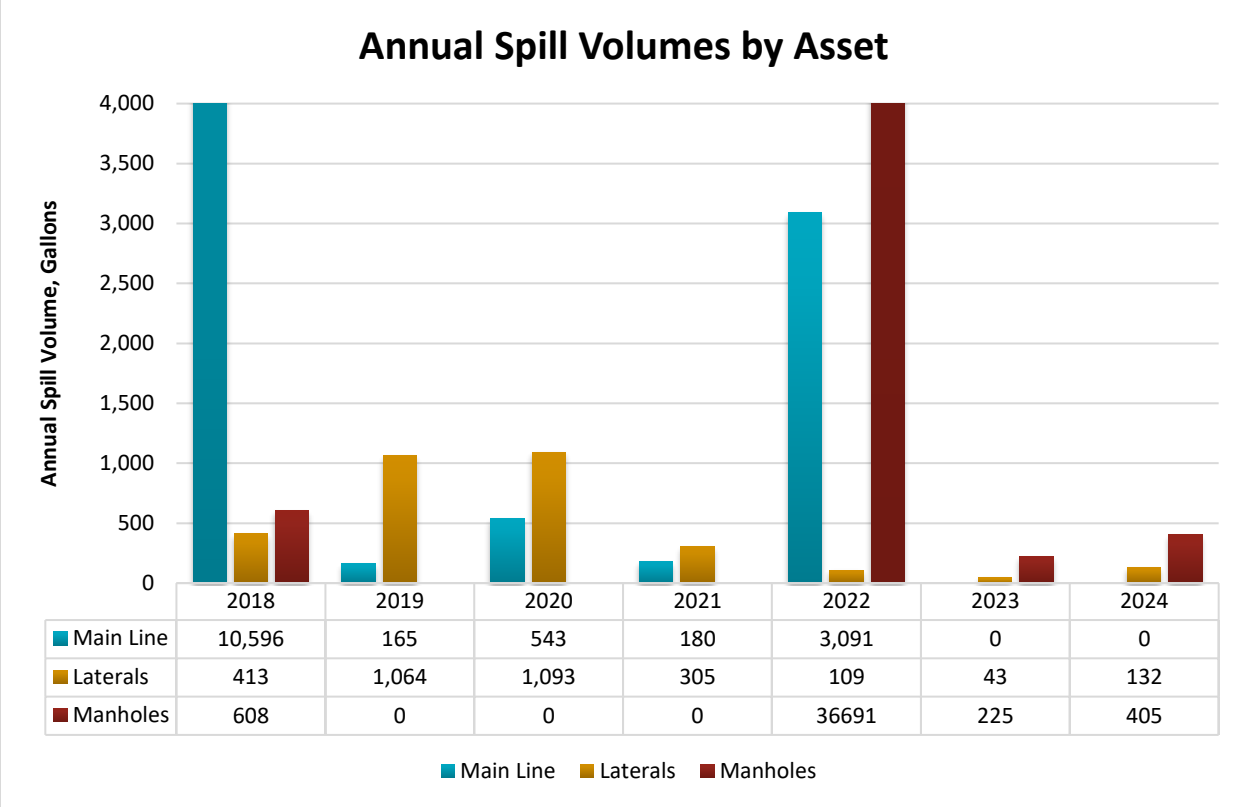


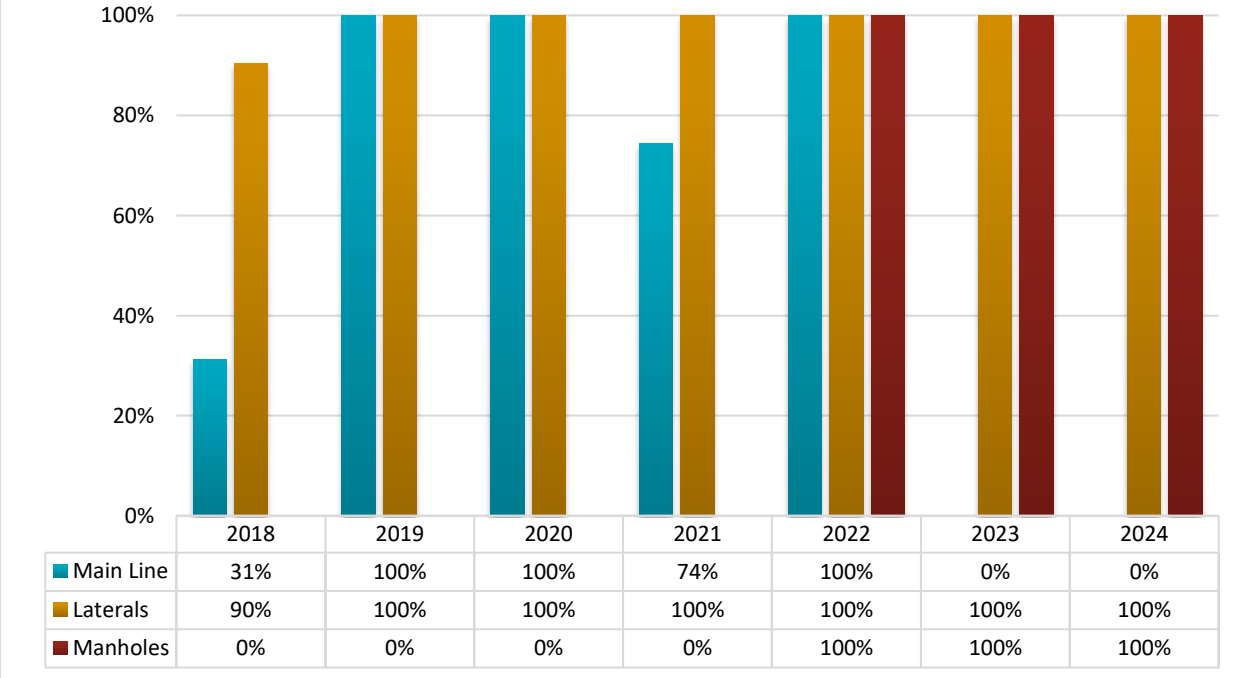
Figure 9-3 – Historical SSO Volumes



	2018	2019	2020	2021	2022	2023	2024
Main Line	10,596	165	543	180	3,091	0	0
Laterals	413	1,064	1,093	305	109	43	132
Manholes	608	0	0	0	36691	225	405

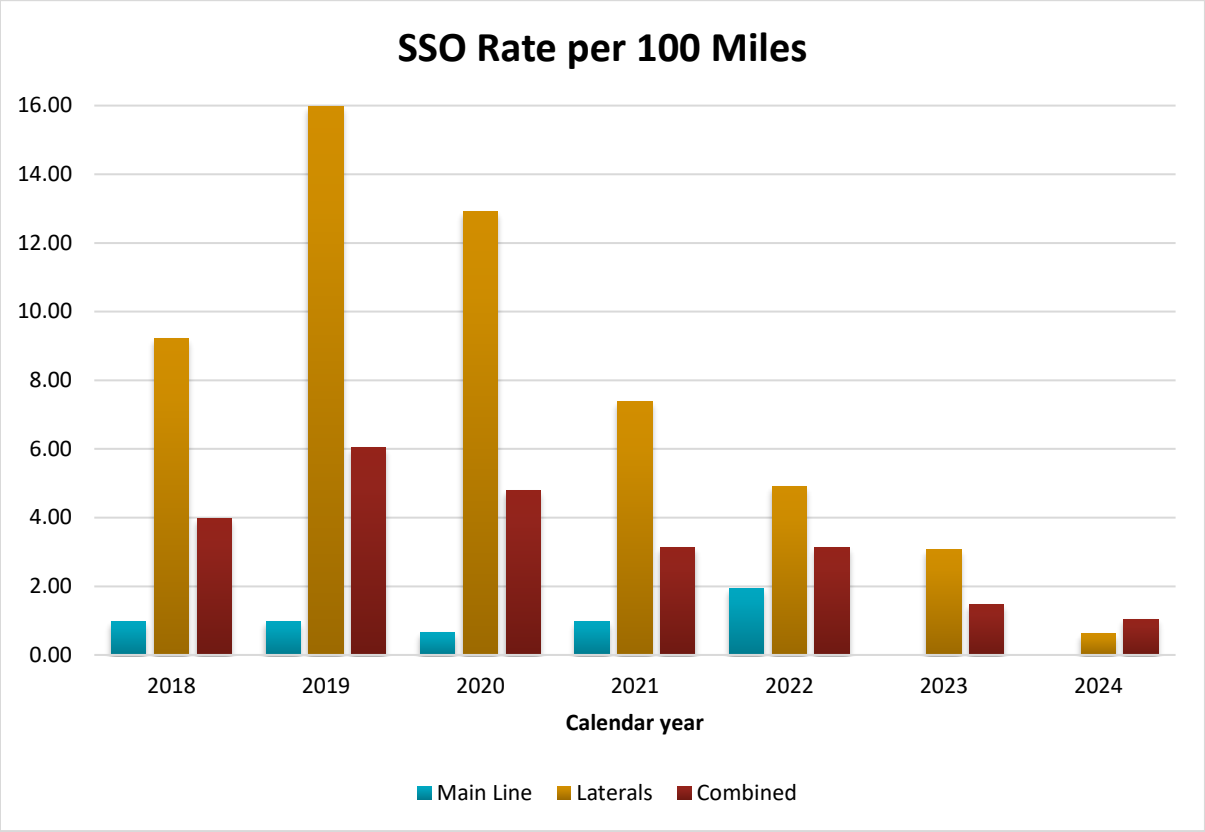
*2018 Main Line and 2022 Manholes exceed the annual spill volume value of 4,000 gallons

Figure 9-4 – Overflows Volumes Percent Recovered



	2018	2019	2020	2021	2022	2023	2024
Main Line	31%	100%	100%	74%	100%	0%	0%
Laterals	90%	100%	100%	100%	100%	100%	100%
Manholes	0%	0%	0%	0%	100%	100%	100%

Figure 9-5 – Historical SSO Rates



10 Internal Audits

The Internal Audits section of an SSMP ensures periodic evaluations of the plan's implementation and effectiveness. It focuses on identifying areas for improvement, ensuring compliance with regulatory requirements, and enhancing the overall performance of the sewer system management program.

Regulatory Requirements
The 2025 SSMP shall include internal audit procedures, appropriate to the size and performance of the system, for the City to comply with the General Order.

10.1 SSMP Audits Overview

The City has recently prepared an internal SSMP audit to evaluate the effectiveness of the 2018 SSMP and the City's compliance with the requirements in the General Order, including the identification of any deficiencies in the SSMP and steps to correct them. Audits must be prepared every three years, and a report must be kept on file.

The audit must be conducted after the end of the City's last audit period. Within six (6) months after the end of the required 3-year audit period, the LRO shall submit an audit report to the online CIWQS Sanitary Sewer System Database per the requirements in the General Order.

At minimum, the audit must:

- Evaluate the implementation and effectiveness of the City's SSMP in preventing spills;
- Evaluate the City's compliance with the General Order;
- Identify SSMP deficiencies in addressing ongoing spills and discharges to waters of the State; and
- Identify necessary modifications to the SSMP to correct deficiencies.

The audits are conducted by a team of City Public Works Department staff, who may also include representatives from other City departments, outside agencies, and contractors. Delta Diablo is consulted for input on the status and effectiveness of the Sewer Pipe Blockage Control Program.

The City shall submit a complete audit report that includes:

- Audit findings and recommended corrective actions; and
- A proposed schedule for the Enrollee to address the identified deficiencies.

10.2 Audit Schedule

The City completed an internal program audit in May 2023. The audit report was submitted to the CIWQS Sanitary Sewer System Database. A copy of the City's 2018-2023 SSMP Audit is available on the City's website and a link is provided here:
https://www.antiochca.gov/fc/public-works/SSMP-Audit-2018-2023.pdf
A copy of the City's Audit Checklist is provided in **Attachment H**. A schedule for future local audits is provided in **Table 1-1** based on the General Order.

11 Communication Program

The Communication Program section of an SSMP focuses on keeping stakeholders informed about the management and performance of the sewer system. It ensures effective communication with the public, regulatory agencies, and other stakeholders, promoting transparency, encouraging feedback, and fostering collaboration.

Regulatory Requirements
To meet the requirements in the General Order, the SSMP must include procedures for the City to communicate with:

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

11.1 Public Communication

The City electronically reports SSOs to the CIWQS. SSO data can be accessed publicly by agency or region at the following link: http://www.waterboards.ca.gov/ciwqs/publicreports.html

To enhance transparency, the City posted a notice on its official website informing the public that sanitary sewer performance information is accessible through the CIWQS public access website. Additionally, a public copy of the SSMP is available for review at the Public Works Yard or on the City's website.

11.2 Owner/Operators of Systems Communication

The City operates as a satellite sanitary sewer system, discharging into the Delta Diablo wastewater treatment plant. In collaboration with the City of Pittsburg and Delta Diablo, the City participated in developing and implementing their respective SSMPs. The primary forum for communication during this process is the SSMP Coordinating Committee, which meets regularly. Each agency is represented on the committee and has the ability to propose agenda items for discussion.

Following the completion and implementation of the SSMP documents, the three (3) agencies will continue their cooperative efforts through the following opportunities for communication:

- **Annual SSMP Coordinating Committee Meetings:** Regular meetings to ensure ongoing coordination.
- **Annual Training Events:** These include SSMP refresher training sessions and emergency response drills to enhance readiness and knowledge.
- **SSMP Program Audits:** The agencies will establish an Audit Task Force comprising representatives from each agency to conduct the mandated SSMP Program Audits. (Refer to Section 10 of the SSMP for further details.)

The designated points of contact for addressing any SSMP-related issues within each agency are listed in **Table 11-1**.

Table 11-1 – Contact Information to Address SSMP-Related Issues

Agency	Name	Phone	Email
City of Antioch	Toby Beach	(925) 779-6962	tbeach@antiochca.gov
City of Pittsburg	Hilario Mata	(925) 252-6966	hmata@ci.pittsburg.ca.us
Delta Diablo	Dustin Bloomfield	(925) 756-1918	dustinb@deltadiablo.org

12 References

[1] City of Antioch Sewer System Management Plan, Updated on October 23, 2018.

[2] California State Water Resources Control Board Order No. 2006-0003-DWQ Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, prepared by the State Water Resources Control Board, May 2, 2006.

[3] California State Water Resources Control Board Order WQ 2022-0103-DWQ Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems, prepared by the State Water Resources Control Board, Adopted on December 6, 2022.

[4] State's Population Increases while Housing Grows per New State Demographic Report, prepared by the Department of Finance, January 2024.

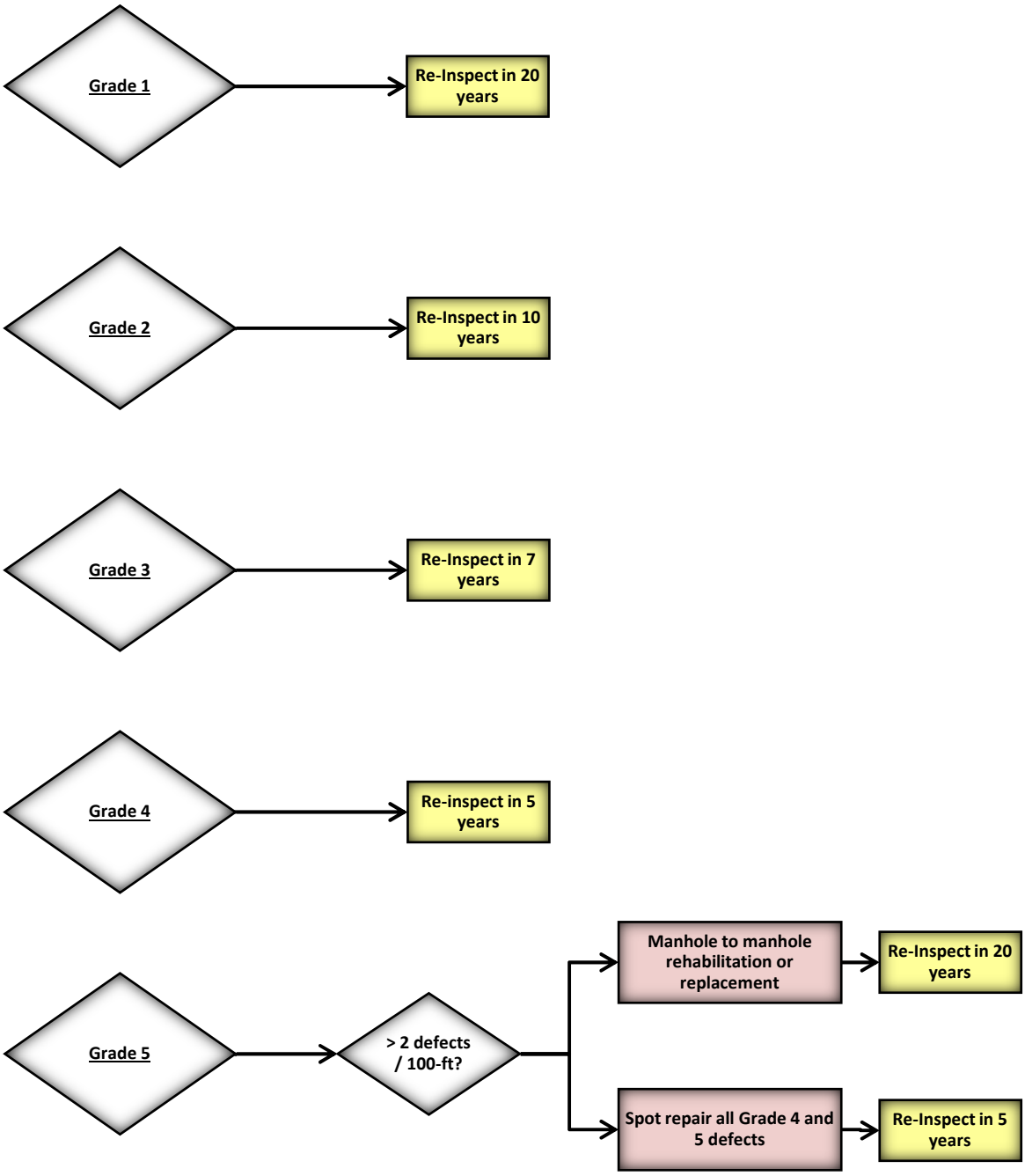
[5] City of Antioch Wastewater Collection System Master Plan, prepared by RMC Water and Environment, October 28, 2014.

ATTACHMENTS

ATTACHMENT A

	Clear	Light	Moderate	Heavy
Debris	Code: **CL** • No observable debris	Code: **DL** • Minor amount of debris • 15 minutes or less to clean • 1 pass	Code: **DM** • Less than 5 gallons of debris per line segment • 15-30 minutes to clean • 2-3 passes	Code: **DH** • More than 5 gallons of debris per line segment • More than 30 minutes to clean • More than 4 passes • Operator concern for future stoppage
Grease	Code: **GL** • No observable grease	Code: **GL** • Minor amount of debris • 15 minutes or less to clean • 1 pass	Code: **GM** • Small “chunks” • No “logs” • 15-30 minutes to clean • 2-3 passes	Code: **GH** • Thick roots • Large “clumps” • More than 30 minutes to clean • More than 4 passes • Operator concern for future stoppage
Roots	Code: **CL** • No observable roots	Code: **RL** • Minor amount of debris • 15 minutes or less to clean • 1 pass	Code: **RM** • Thin stringy roots • No “clumps” • 15-30 minutes to clean • 2-3 passes	Code: **RH** • Thick roots • Large “clumps” • More than 30 minutes to clean • More than 4 passes • Operator concern for future stoppage
Other: Pipe wall fragments Soil / Dirt / Rock	Code: **CL** • No observable materials	Code: **OL** • Specify material (if possible) • Minor amount of material	Code: **OM** • Specify material • Less than 5 gallons of material per line segment	Code: **OH** • Specify material • More than 5 gallons of material per line segment • Operator concern for future stoppage

ATTACHMENT B



Marina Pump Station Facility
200 L Street, Antioch, CA 94509

Inspection / Maintenance Check List

Inspection Date:			**Inspection Performed By:**					
Exterior Inspections								
Security:	**Ok**	**Notes**	**Safety:**	**Ok**	**Notes**	**Vandalism:**	**Ok**	**Notes**
Access Doors			Alarm Siren			Damage		
Control Panels			Strobe Light			Paint		
Secured Locks			Signage			Structure		
Alarm System			Confined Space Equip					
Fall Protection								
Guard Rails			Emergency Contact Data					
Controls & Instrumentation								
Control Panel		**Notes**	**Electrical**		**Notes**	**Instruments**		**Readings**
Switches Manual / Auto	Pump 1 Pump 2		Wiring Cables Power-Control	Pump 1 Pump 2		Current Meters	Pump 1 Pump 2	
Motor Overload Tripped Reset	Pump 1 Pump 2		Motor Starters	Pump 1 Pump 2		Run Time Meters	Pump 1 Pump 2	
High Level Alarm	Pump 1 Pump 2		Controllers	Pump 1 Pump 2				
Alarm System	Pump 1 Pump 2							
Pump Motors								
Pump		**Notes**	**Controls**		**Notes**	**Condition**		**Notes**
Blockages	Pump 1 Pump 2		Float Switches	Pump 1 Pump 2		Corrosion	Pump 1 Pump 2	
Vibration(s)	Pump 1 Pump 2		Cable(s)	Pump 1 Pump 2		Piping & Supports	Pump 1 Pump 2	
Alignment	Pump 1 Pump 2		Leakage	Pump 1 Pump 2		Valves	Pump 1 Pump 2	
Impeller	Pump 1 Pump 2							
Wet Well								
Construction	**Ok**	**Notes**	**Maintenance**	**Ok**	**Notes**	**Odors**	**Ok**	**Notes**
Condition			Grease			H2S		
Corrosion			Debris			Foul		
Events								
Equipment Failures Pumps Controls			Operating Problems List	Pump Power Motor		Major Maintenance Repairs		
SSO's			Alarm					
Comments:								

Inspection Information	
Inspection Date	
Inspection Participants	
Facility Name	
Facility Address	
Comments	

Background Information (Prior 12 Months)	
SSOs	
Equipment Failures	
Alarm History (attach copy)	
Major Maintenance Activities (attach list if applicable)	
Pending Work Orders (attach copies)	
Operating Problems (attach copy of operating log)	
Comments	

Security Features	
Fence and Gate	
External Lighting	
Visibility from Street	
Doors and Locks	
Intrusion alarm(s)	
Signs with Emergency Contact Information	
Other Security Features	
Comments	

Safety Features and Equipment	
Signage *(confined space, automatic equipment, hearing protection, etc.)*	
Fall Protection	
Emergency Communication	
Equipment Hand Guards	
Hand Rails and Kickboards	
Platforms and Grating	
Tag Out and Lock Out Equipment	
Hearing Protection	
Eye Wash	
Chemical Storage	
Comments	

External Appearance	
Fence	
Landscaping	
Building	
Control Panels	
Other External Features	
Comments	

Building Structure	
PS Building	
Control Room	
Dry Well	
Wet Well	
Other Structures	
Comments	

Instrumentation and Controls (including SCADA Facilities	
Control Panel	
Run Time Meters	
Flow Meter	
Wet Well Level	
Alarms	
SCADA	
Other Instrumentation & Controls	
Comments	

Electrical and Switch Gear	
Power Drop	
Transformers	
Transfer Switches	
Emergency Generator and Generator Connection	
Starters	
Variable Frequency Drives	
Electrical Cabinets	
Conduit and Wireways	
Other Electrical	
Comments	

Motors	
Lubrication	
Insulation	
Operating Current	
Vibration and Alignment	
Other	
Comments	

Pumps	
Lubrication	
Vibration and Alignment	
Seals	
Indicated Flow and Discharge Pressure	
Shutoff Head	
Corrosion and Leakage Evidence	
Drive Shaft	
Other	
Comments	

Valves and Piping	
Valve Operation	
Valve Condition	
Pipe Condition	
Pipe Support	
Other	
Comments	

Other	
Lighting	
Ventilation	
Support Systems (air, water, etc.)	
Signage	
Employee Facilities	
Sump Pump	
Overhead Crane	
Portable Pump Connections	
Portable Pumps	
Comments	

EQUIPMENT AND PARTS INVENTORY LIST

Equipment Number	Major Equipment Type	Year Purchased
109, 123	F-150 4x4	2016, 2023
103	F-350 Utility Truck w/Boom	2015
106	F-350 Utility Truck w/Lift Gate	2017
119	Vactor Combination Truck	2021
107, 124	VacCon Combination Truck	2016, 2023
125	F-650 Utility Truck Construction	2023
112	Caterpillar 430DF Backhoe	2016
684	Caterpillar 924G Front Loader	2001
110	F-450 Flatbed Dump	2016
691	Bobtail Dump Truck	2009
687	10 Wheel Dump Truck	2015
677.00	F-550 Flat Bed w/Boom	2000
104	CCTV Inspection Truck	2014
111	Trailer, (Backhoe) Construction	2016
988	Godwin 8" Trailer-Mounted Pump	2000
989	Godwin 4" Trailer-Mounted Pump	2000
990	Emergency By-Pass Trailer w/Pipe & Fittings	2002
974, 987	Light Trailer with Generator (2)	2000
966.00	Trailer-Mounted Air Compressor	1997
11,13,17	Diesel Whacker DS70 Soil Compactor (3)	2011
N/A	Altair IQ4 Air Monitor (4)	2023
N/A	Honda 3500 watt generator (2)	2021

CRITICAL SEWER SYSTEM REPLACEMENT INVENTORY LIST

Inventory Date: March 2025 Gonzalo Ramos

Part Description	Quantity in Inventory	Location
PVC Pipe - 4", 6", 8", 10", 12"	Various	Maintenance Yard/Central Stores
Ductile Iron Pipe - 4", 6"	Various	Maintenance Yard/Central Stores
VCP, PVC, and Ductile Iron Pipe fittings - various sizes and configurations	Various	Maintenance Yard/Central Stores
Various sizes of manhole and rodding inlet covers	Various	Maintenance Yard/Central Stores
Pump Station parts	Various	Maintenance Yard
Force main parts	Various	Maintenance Yard/Central Stores
Pump Station electronic components	Various	Maintenance Yard

ATTACHMENT E

City of Antioch

Sewer Spill Emergency Response Plan

Effective Date: _____

Revised Date: _____

Approved by: _____

Signature: _____

Date: _____

Prepared by: David Patzer
DKF Solutions Group, LLC
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TABLE OF CONTENTS

1. PURPOSE

The purpose of the City of Antioch 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 City personnel to follow in responding to, cleaning up, reporting, and properly documenting spills that may occur within the City'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 City'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 City'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 City's goal is to respond to sewer system spills as soon as possible following notification. The City 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 City 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 City'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.

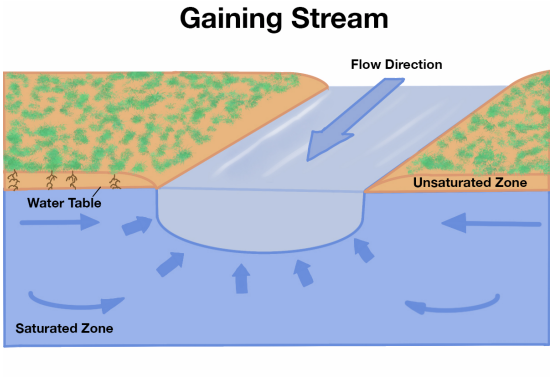
DRAINAGE CONVEYANCE SYSTEM: A drainage conveyance system is a publicly- or privately-owned separate storm sewer system, including but not limited to drainage canals, channels, pipelines, pump stations, detention basins, infiltration basins/facilities, or other facilities constructed to transport stormwater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

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 over-flow, 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 City-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the City 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.antiochca.gov/public-works-department/sewer-collections-npdes/.

5. SPILL EMERGENCY RESPONSE PLAN OBJECTIVES

The Spill Emergency Response Plan includes measures to protect public health and the environment. The City 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, City 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 City of the occurrence of a spill include: observation by the public, receipt of an alarm, or observation by City staff during the normal course of their work.

6.1 LIFT STATION ALARMS

The City operates 1 wastewater lift stations. In the event of a station failure the SCADA alarm system is activated and the City 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 the City is notified of blockages and spills. Contact numbers and information for reporting sewer spills and backups are on the City's website: https://www.antiochca.gov/public-works-department/sewer-collections-npdes/. The City's telephone number for reporting sewer problems during business hours is (925) 779-6950. The City's telephone number for reporting sewer problems after business hours is (925) 778-2441.

- Normal Work Hours: When a sewer service request is made during normal work hours, Public Works Reception receives the call, takes the information from the caller, and generates a Work Request in CityWorks. Work Request is emailed and a notification is sent to the Collections tablet with the Collections Crew, and an alert is sent to the Collections Supervisor or, if not available, Collection Systems Superintendent. The Collections Crew will perform an investigation and note findings and actions taken, if any, and create a Work Order based on the results of the investigation. If the service request is a spill, the Spill Emergency Response Workbook will also be completed.

- After Hours: After hours calls are automatically forwarded to Police Dispatch at (925) 778-2441. Dispatch notifies the on-call Collections Crew member. The on call Collections Crew member will perform an investigation and note findings and actions taken, if any, and create a Work Order based on the results of the investigation. If the service request is a spill, the Spill Emergency Response Workbook will also be completed.

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 City's service area the individual receiving the call provides the customer with the contact information for the responsible agency, and then notifies that agency.

6.3 CITY STAFF OBSERVATION

City 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 City 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 City sewer system will be informed of contractor spill response procedures. Contractors working on behalf of property owners will be provided spill response information by City Hall Building Department and/or the Engineering Department 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 City at during business hours is (925) 779-6950 or after business hours is (925) 778-2441 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 City Attorney's Office.

6.5 NO OBSERVATION

If there are no witnesses or no call was received for a spill, the City 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 City will respond to spills as soon as feasible following notification of a spill/backup.

If it is <u>not</u> possible that the spill/backup is due to a failure in the City-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 City 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 <u>is</u> possible that the spill/backup is due to a failure in the City-owned/maintained sewer lines the Collections Crew:

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

The Collection Systems Superintendent or designee 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 Supervisor.

The Collection Systems Supervisor notifies the City Attorney's Office of incident.

The City Attorney's Office or designee:

- Reviews incident reports, claim form and other incident information and forwards, as appropriate, to Municipal Pooling Authority (MPA).
- Communicates with claimant as appropriate.
- Communicates with Municipal Pooling Authority (MPA) 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.
- To minimize public access to and/or contact with the spilled sewage.
- To promptly notify the Collection Systems Superintendent in event of a spill needing additional resources, and/or impacting environmentally sensitive areas.
- To return the spilled sewage to the sewer system.
- 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 City 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

(SSSWDR), the City 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 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. If the blockage cannot be cleared within a reasonable time from arrival, or sewer requires construction repairs to restore flow, then initiate containment and/or bypass pumping. If other assistance is required, immediately contact the Collection Systems Superintendent. For procedures refer to the Sanitary Sewer Spill/Backup Response Workbook.

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.
- *Rodding (snake) equipment for responding to lateral blockages.*
- *Air plugs, sandbags and plastic mats*
- *Spill Sampling Kits*
- *Portable Lights*

Standard operating procedures for equipment that may be necessary in the event of a sanitary sewer overflow or backup can be found in the City server.

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 City staff, a cleanup contractor will be used.

Private Property

City 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 can call a water damage restoration contractor to complete the cleanup and restoration. If the overflow into property is the definite cause of City system failure, the property owner can call out 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 spills less than 1,000 gallons, contact Contra Costa County Environmental Health for direction.

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 Superintendent 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 Superintendent.

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 City Attorney's Office or their designee will provide the media with all revelvant 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 City's service area:

- Sacramento River Delta
- Lake Alhambra
- San Joaquin River
- East Antioch Creek
- West Antioch Creek
- Marklee Creek
- Los Medanos wasteway
- Black Diamond Detention Basin A and B

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 City will conduct the following water quality sampling as soon as possible but no later than **18 hours** after the City'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 9.7 (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 9.7 (Receiving Water Sampling Locations) below;

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

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

The Collections Crew collecting the samples will complete the Chain of Custody prior to transferring ownership of the samples to the McCampbell Analytical lab.

The McCampbell Analytical 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 City 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 the McCampbell Analytical lab, which is 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)	8 hours	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 the Collections Crew 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.

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.

[1] The City 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, as described in Section 9.5.

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 City:

- 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 City maintains a Grab-n-Go sampling kit located at the Collections Building. The kit is inspected quarterly by the Collection Systems Supervisor. Additionally, any City 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 City 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 the Collections Crew. 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 F 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 City 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 City 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 City 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 City 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 Superintendent 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. City's response to the spill:
   - Chronological narrative description of all actions taken by the City 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.

9.15 TRAINING

Training will be provided in accordance with the table below:

Surface Water Sampling Training Program	
Who Is Trained to Collect Surface Water Samples?	Collections Crew
Training Curriculum	At a minimum, training shall include: • The City of Antioch Water Quality Monitoring Plan • Sampling technique, including hands on practice • Sampling equipment calibration, use and decontamination procedures, including hands on practice • Sampling safety • Completion of the Sampling Equipment Calibration/Maintenance Log, Surface Water Sampling Report and Chain of Custody
Training Documentation	Attendees shall be required to sign-in to all training on the appropriate forms used by the City.
Refresher Training Frequency	Annual

Who is Responsible for Ensuring Training Occurs?	Collection Systems Superintendent
Required Training Records	Employee training sign in log
Who is Responsible for Maintaining Records?	Collection Systems Superintendent

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 City 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 City'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; • 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 City'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 City'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 City'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	(Section 3.3 and 3.5 of Attachment E1 of the State Water Board Order No. WQ

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

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the City's knowledge of a spill of 1,000 gallons or greater, from an City- 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 City 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 City 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 for a minimum of five years in CityWorks whether or not they result in a spill. Spill files (field notes, spill/Backup Response Workbook) are kept Collection Systems Superintendent's office.

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 City 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 City personnel who may have a role in responding to, reporting, and/or mitigating a sewer system overflow 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 City 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 City'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
- Impacted Surface Waters: Sample location selection, sampling, and documentation procedures
- Electronic CIWQS reporting procedures for staff submitting data
- State Water Resources Control Board Employee Knowledge Expectations

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, 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 CITY SEWER FACILITIES

All contractors working on City sewer facilities will be required to follow the spill response instructions on the Sanitary Sewer Spill Response Instructions for Contractors (Appendix C). Appendix will change if any of the template appendices are removed] 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 City in the event a spill is caused or witnessed
- The City'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 City 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:

- City staff will offer a City claim form irrespective of fault whenever it is possible that the sanitary sewer backup may have resulted from an apparent blockage in the City-owned sewer lines or whenever a City customer requests a claim form. The claim may later be rejected if subsequent investigations into the cause of the loss indicate the City was not at fault.
- It is the responsibility of the Collections Crew to gather information regarding the incident and notify the Collection Systems Supervisor or their designee.
- It is the responsibility of the City Attorney's Office 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 City's knowledge of a Category 1 spill, the City 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 City contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the City was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the City 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 City 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 City 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 City shall certify the amended report.

After **90 calendar days**, the City 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 City's knowledge of a Category 2 spill, the City 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 City contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the City was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the City 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 City 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 City 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 City shall certify the amended report.

After **90 calendar days**, the City 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 City 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 City contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the City 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 re-covered), 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 City 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 City 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 City 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 City 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 City 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 City-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the City 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 City-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the City 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 City has no further spills of any category, in the subsequent calendar month, the City shall certify "no-spills" for the subsequent calendar month.

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

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

APPENDIX B:

Door Hanger

City of Antioch

On (date) _____

at (location) _____

we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

- ☐ The sanitary sewer main and cleared the line
- ☐ Your sanitary sewer lateral, which is your responsibility to maintain.

If you require assistance to clear your portion of the lateral you can search the internet for "Sewer Contractors" or "Plumbing Drains & Sewer Cleaning." If you plan to hire a contractor, we recommend getting estimates from more than one company.

City representative notes: _____

_____

_____

City representative name:

_____

For questions or comments, please call

City of Antioch
Business Hours: (925) 779-6950
After Hours: (925) 778-2441

City of Antioch

On (date) _____

at (location) _____

we responded to a reported blockage of the sanitary sewer service to your property.

We discovered a blockage in:

- ☐ The sanitary sewer main and cleared the line
- ☐ Your sanitary sewer lateral, which is your responsibility to maintain.

If you require assistance to clear your portion of the lateral you can search the internet for "Sewer Contractors" or "Plumbing Drains & Sewer Cleaning." If you plan to hire a contractor, we recommend getting estimates from more than one company.

City representative notes: _____

_____

_____

City representative name:

_____

For questions or comments, please call

City of Antioch
Business Hours: (925) 779-6950
After Hours: (925) 778-2441

APPENDIX C:

Sewer Spill Response Instructions for Contractors

Sewer Spill Response Instructions for Contractors

For contractors working on the sanitary sewer system the City 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 City at (925) 779-6950 during business hours and (925) 778-2441 after business hours 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 City Attorney's Office at (925) 779-7015.

APPENDIX D:

Sewer Spill/Backup Response Workbook

City of Antioch

Sewer Spill Emergency Response Plan

Sewer Spill/Backup Response Workbook

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 the Collection Systems Superintendent at (925) 779-6962 who will notify 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 City's sewer, notify the Collection Systems Superintendent at (925) 779-6962 or the Collection Systems Supervisor at (209) 479-2858.
- For media inquiries/requests contact the City Attorney at (925) 779-7015.

☐ 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 Supervisor.	Print Name: Initial: Date:

COLLECTION SYSTEMS SUPERVISOR:	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 (G-1) and Collection System Failure Analysis Form (G-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 A-2

Contact	Description	Telephone/Email/Address
CAL/OES	California Office of Emergency Services	(800) 852-7550
City Attorney	Media inquiries/requests	(925) 779-7015
Collection Systems Superintendent	CalOES 2-hour notification and other regulatory notifications Outside Assistance / Mutual Aid	(925) 779-6962 or (925) 383-1919
Contra Costa County Environmental Health	○ Notifications ○ Sign placement guidance	(925) 608-5500
McCampbell Analytical	Water quality sample analysis	(877) 252-9262 1534 Willow Pass Road Pittsburg, CA
Municipal Pooling Authority (MPA)	Assistance with sewer backup customers	(925) 943-1100 ext. 11
Restoration/Remediation	Cleaning services	Restoration Management (800) 400-5058 ServiceMaster (800) 123-1234
San Francisco Regional Water Quality Control Board		(510) 622-2300
State Water Resources Control Board	Walter Mobley	(916) 323-0878 Walter.Mobley@waterboards.ca.gov

Authorized Personnel:

The following are authorized to perform regulatory reporting of spills:

Job Title	Telephone	Check if LRO
Collection Systems Superintendent	(925) 779-6962 or (925) 383-1919	✓
Public Works Deputy Director	[NEED CONTACT #]	✓
Water Distribution Superintendent	[NEED CONTACT #]	
Public Works Director	[NEED CONTACT #]	
Public Works Technician	[NEED CONTACT #]	
Collection Systems Supervisor	[NEED CONTACT #]	

The City'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 City-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the City 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**

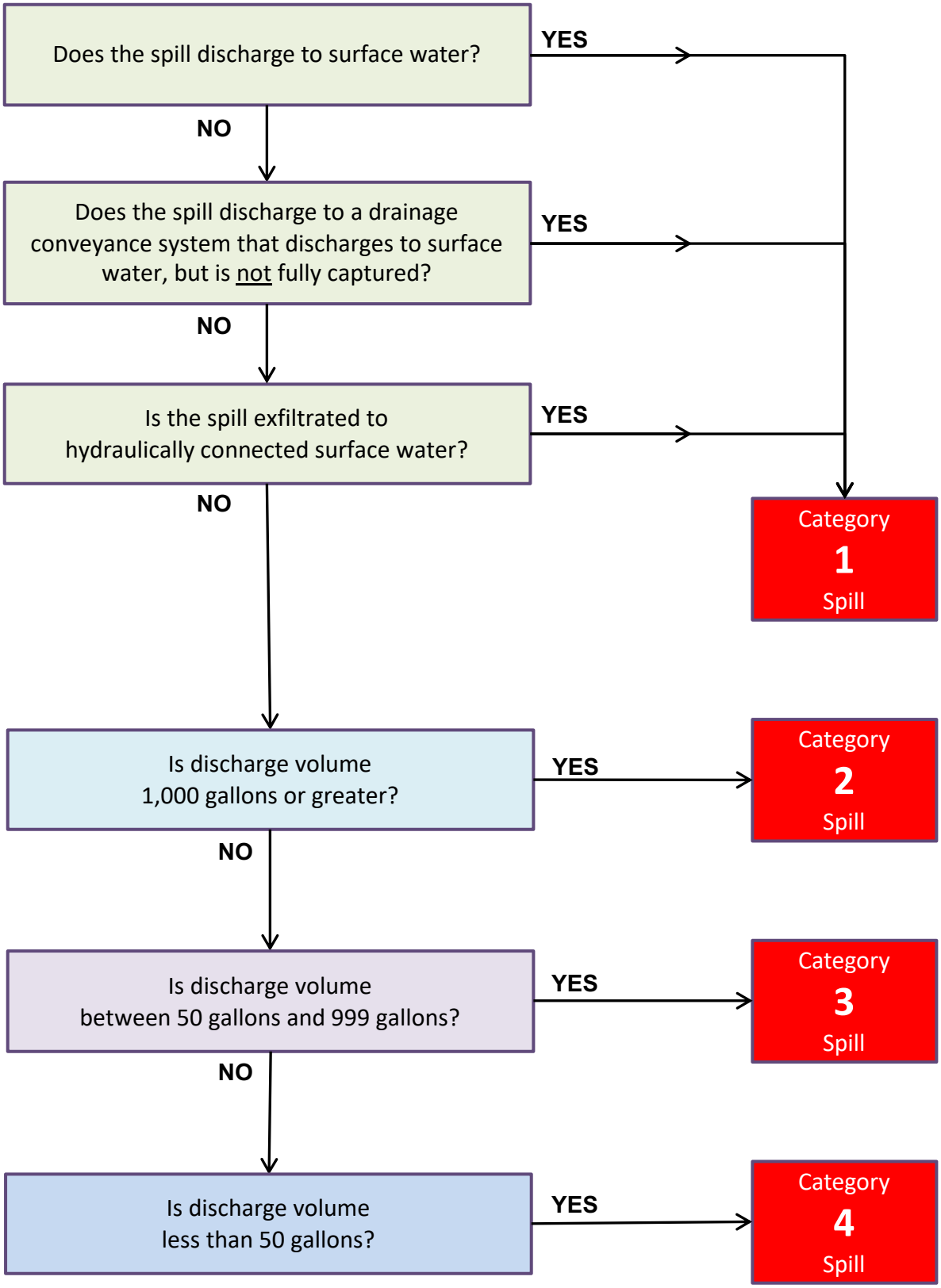
  A Category 3 spill is a spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a sanitary sewer system regulated under SSWDR that does not discharge to a surface water. A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of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

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 waters?
- ☐ 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 SUPERVISOR RESPONSIBILITIES

- ☐ Map of where samples were taken, if applicable
- ☐ For Cat 1 Spills 50,000 gallons or larger, obtain sampling results
- ☐ 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)
- ☐ Conduct Post Spill Assessment & complete form (G-1)
- ☐ Failure Analysis
  - TV to determine cause
  - Review Asset History
- ☐ Determine next steps to prevent recurrence
- ☐ Document findings and next steps on Spill Report
- ☐ 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.)

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 City'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 City'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 City'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.	-	-
As soon as possible	Spills impacting surface waters are immediately reported to the Deputy Director of Public Works.			
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.	-	-	-
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

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

INSERT TAB:
Tab C: Flowchart

Spill/Backup Response Flowchart

START HERE

Does the spill/backup appear to be due to a problem in the **City-owned/maintained** sewer line?

NO

This is a Private Spill

1. Photograph the extent of the discharge and the discharge boundaries if possible.
2. Notify the property owner that the blockage is in their lateral and that the City does not have legal authority to maintain or perform work on privately-owned laterals.
3. Give customer the "Your Responsibilities as a Private Property Owner" pages from this Workbook (F-6).
4. Recommend to customer they hire a contractor to clear their line.
5. If customer is not home:
   - Complete Door Hanger and leave on customer's door.
   - Leave a message on the customer's voicemail.
6. If the property owner is unable or unwilling to address the cause of the Spill, immediately contact your supervisor and discuss whether Code Enforcement, the County Department of Environmental Health or Regional Water Quality Control Board should be notified.
7. If you are directed to, break the stoppage and clean up the private spill. Be sure to document City staff time and equipment used for potential billing purposes and take pictures.

1. **Document the service call according to City procedures.**
2. **STOP. Do not continue to PAGE 2**

YES

1. Document arrival time.
2. Consider the need to call out additional staff, contractor or mutual aid assistance.
3. If it is possible that this is a Category 1 spill greater than or equal to 1,000 gallons or a Category 2 spill that is threatening to discharge to waters of the State, immediately contact the Collection System Superintendent who will make the 2-hour notification to Cal-OES and obtain a control number. Record this number on the following pages: A-4, B-2, and D-1 Page 1.

1. Record manhole number or cleanout location of the spill appearance point closest to the failure point, and describe each additional appearance point on the Spill Report (D-1).
2. Take photographs of all spill appearance points, the extent of the spill, and spill boundaries.

Go to PAGE 2

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.

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.

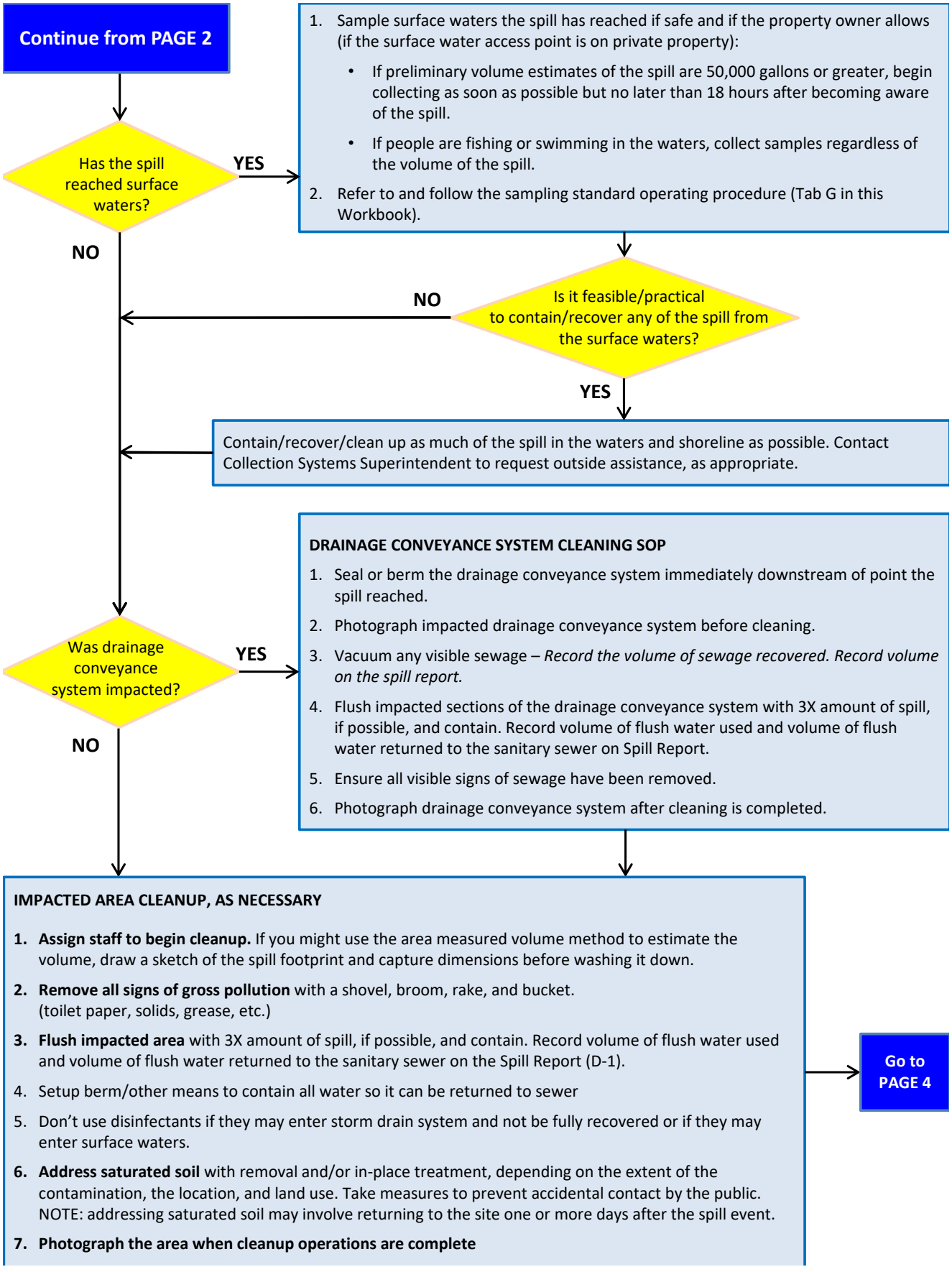
3. PHOTOGRAPH each drainage conveyance system entry location.

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

Continue from PAGE 3

Did this spill cause a sewer backup impacting private property?

NO

YES

DOCUMENTATION AND VOLUME ESTIMATION

1. Complete the Spill Report (D-1).
2. In the Start Time Determination section for the Spill Report (D-1) remember that the spill was probably occurring for a period of time before it was reported.
3. Estimate and document spill volume using two or more of the worksheets provided in the Spill/Backup Response Workbook (E-1 through E-6).

REGULATORY REPORTING

Make notifications indicated in the Regulatory Reporting Guide (B-1).

1. Follow the routing instructions indicated on the front of this workbook.

2. Include any photos and/or notes related to this event.

3. Document the service call according to City procedures

Complete the First Responder Form (F-2). Ask for permission to photograph the affected area or ask the customer to take photos. If they decline, note that on the form.

Does the customer want cleaning service?

YES

NO

1. Complete the Declination of Cleaning Services form (F-3).
2. Take a photo of the form to document what was given to the customer.
3. Give the form to the Customer.

1. Call for a restoration/remediation team. See Contact information on page A-2.
2. Wait for restoration team to arrive, if possible.
3. Clean/disinfect any spill **outside** of the building. **Note:** DO NOT allow any disinfectants to escape to storm drains.

1. If the Livability Assessment on the First Responder Form (F-2) indicates a need for temporary relocation, complete the Lodging Authorization form (F-4).
2. Take a photo of the form to document what was given to the customer.
3. Give the Lodging Authorization form (F-4) to the customer.
4. Give the customer the Information for the Customer Letter (F-5), along with the claim form and the Your Responsibilities as a Private Property Owner guide pages (F-6).
5. Have the customer sign the Backup Forms Checklist (F-1).

Call the City Attorney's Office and relay the information from the First Responder Form (F-2)

Photograph the backwater prevention device or cleanout if you can locate one on the affected building

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:	Control Number:

Names of the Persons Completing this Report	Contact Information

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

SPILL ORIGINATION	
Identify manhole number or cleanout location of the spill appearance point closest to the failure point:	
Data Submitter: Enter GPS coordinates of the system location where the spill originated. Note: If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point.	
Latitude:	Longitude:
What are the GPS Coordinates of how far the spill spread (end point)? If spread is more than one end point, enter additional GPS coordinates to show extent of spill spread.	
Latitude:	Longitude:
Latitude (if needed):	Longitude (if needed):
Latitude (if needed):	Longitude (if needed):

* Within two (2) hours of the City'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 DESCRIPTION
Description of the drainage conveyance system transporting the spill: ☐ N/A
Description of all discharge points into surface water (Category 1 only): ☐ N/A
Description of the extent of the spill and spill boundaries: ☐ N/A
Where are photographs stored? Note, 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 (Category 1 only) ○ Location(s) of clean up
Number of additional appearance points:
Spill appearance points: (Check all that apply) ☐ Backflow Prevention Device ☐ Force Main ☐ Gravity Mainline ☐ Inside Building/Structure ☐ Lateral Clean Out (Private/Public) ☐ Lower Lateral (Private/Public) ☐ Manhole ☐ Pump Station ☐ Upper Lateral (Private/Public) ☐ Other Sewer System Structure
Describe each spill appearance point:

SPILL DESTINATION
Description of the spill event destination(s) that represent the full spread and reach of the spill. Refer to the latitude/longitude coordinates provided on D-1 Page 1, as appropriate:
Final spill destination: (Check all that apply) ☐ Building/Structure ☐ Combined Storm Drain ☐ Drainage Channel ☐ Unpaved Surface ☐ Paved Surface ☐ Separate Storm Drain ☐ Street/Curb and Gutter ☐ Surface Water ☐ Other (Specify Below)
Explanation of final spill destination (Enter information if "Other" was selected):

SPILL VOLUME			
VOLUMES BY DESTINATION (A – B = C)	**A. Volume Spilled (Gallons)**	**B. Volume Recovered (Gallons)**	**C. Net Volume Spilled (gallons)**
Estimated spill volume that reached a Drainage Conveyance System (if volume recovered is less than volume spilled, it is a Category 1)			
Estimated spill volume discharged to surface waters (Category 1)			
Estimated total volume spilled that did not reach the drainage conveyance system or surface waters			
Column Totals:			

Method and explanation of volume estimation methods used: (Check all that apply)
☐ Eyeball Estimate ☐ Measured Volume ☐ Duration and Flow Rate
☐ Counting Upstream Connections
☐ Other (explain):

DATE/TIME DETERMINATIONS		Don't forget to take photos! 
	DATE	TIME
When did the spill start? (Use Start Time Determination/Notes Below)		
When was City Notified/Discovered Spill?		
When was Collection System Operator Dispatched?		
When Collection System Operator Arrived?		
When did the spill end?		
When was the spill response complete?		

SPILL WITNESS STATEMENTS	
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 _____ /_____ /_____ 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 _____ /_____ /_____ 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 _____ /_____ /_____ 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:	

START TIME DETERMINATION NOTES

If the volume of the spill and rate of flow are known, 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

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: _____

Method to determine flow rate:

Other Comments Regarding Spill Start Time:

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

Spill cause explanation: (Required if Spill Cause is “Other”)

SYSTEM FAILURE LOCATION	
☐ Air Relief Valve (ARV)/Blow Off Valve (BOV) Failure ☐ Force Main ☐ Gravity Mainline ☐ Lateral: Lower (Public) ☐ Lateral: Upper (Public) ☐ Manhole	☐ Pump Station Failure – Controls ☐ Pump Station Failure – Mechanical ☐ Pump Station Failure – Power ☐ Siphon ☐ Other (Specify Below)
Description of system failure location:	
Diameter of sewer pipe at the point of blockage or failure:	inches
Material of sewer pipe at the point of blockage or failure:	
Estimated age of sewer asset at the point of blockage or failure (if applicable):	years
Description of the impact of the spill:	
Was spill associated with a storm event?	YES / NO

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

SPILL CORRECTIVE ACTION (check all that apply)	
☐ Add location to, or increase frequency check, in Preventive Maintenance Program ☐ Adjusted Schedule/Method of Preventive Maintenance ☐ Enforcement Action Against FOG Source ☐ Inspected Sewer Using CCTV to Determine Cause	☐ Other (Specify Below) ☐ Plan Rehabilitation or Replacement of Sewer ☐ Repaired Facilities or Replaced Defect ☐ Created work order to repair in prioritized order
Explanation of corrective action taken: (Required if spill corrective action is “Other”)	

Is there an ongoing investigation?	☐ YES	☐ NO
List reasons why there is an ongoing investigation:		

SURFACE WATERS (Complete for Category 1 Spills Only)	
Name and type of receiving water body(s)	Description of the water body(s), including but not limited to: ○ Observed impacts on aquatic life, ○ Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill, responsible entity for closing/restricting use of water body, and ○ Number of days closed/restricted as a result of the spill.

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 samples taken?	☐ YES	☐ NO	☐ N/A
Sample locations:			
Water quality samples analyzed for: (Check all that apply) ☐ Total Coliform Bacteria ☐ Fecal coliform bacteria ☐ E-coli ☐ Ammonia ☐ Other (Specify Below)			
List other water quality sample analyses as applicable:			

INSERT TAB:
Tab E: Volume Estimation

Miscellaneous Computations & Examples

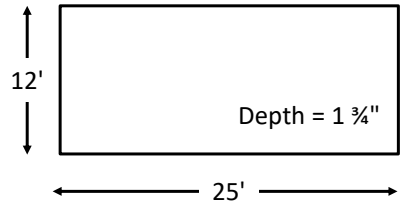
To convert inches to feet (NOTE: for the purposes of this worksheet, the unit of measurement will be in feet for formula examples)	Divide the inches by 12 or use the chart on the right. **Example 1:** 27" ÷ 12 = 2.25' **Example 2:** 1¾" = ?' 1" (0.08') + ¾" (0.06') = 0.14'
Volume of one cubic foot	7.48 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**



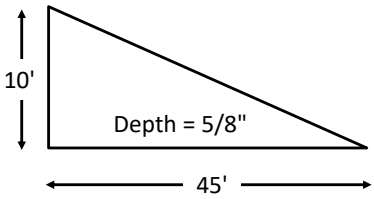
25' X 12' X 0.14' = **42 Cubic Feet**
Length Width Depth Volume

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

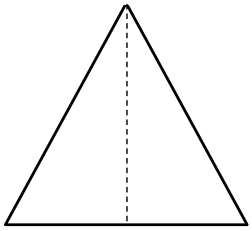
Area/Volume of a Right Triangle

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

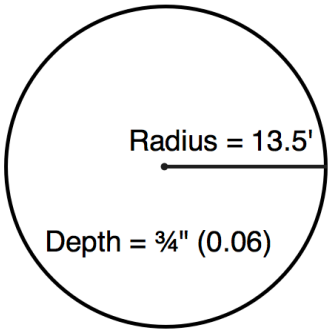
For isosceles triangles (two sides are equal lengths), break it down into two right triangles and compute area as you would for the right triangle.



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:

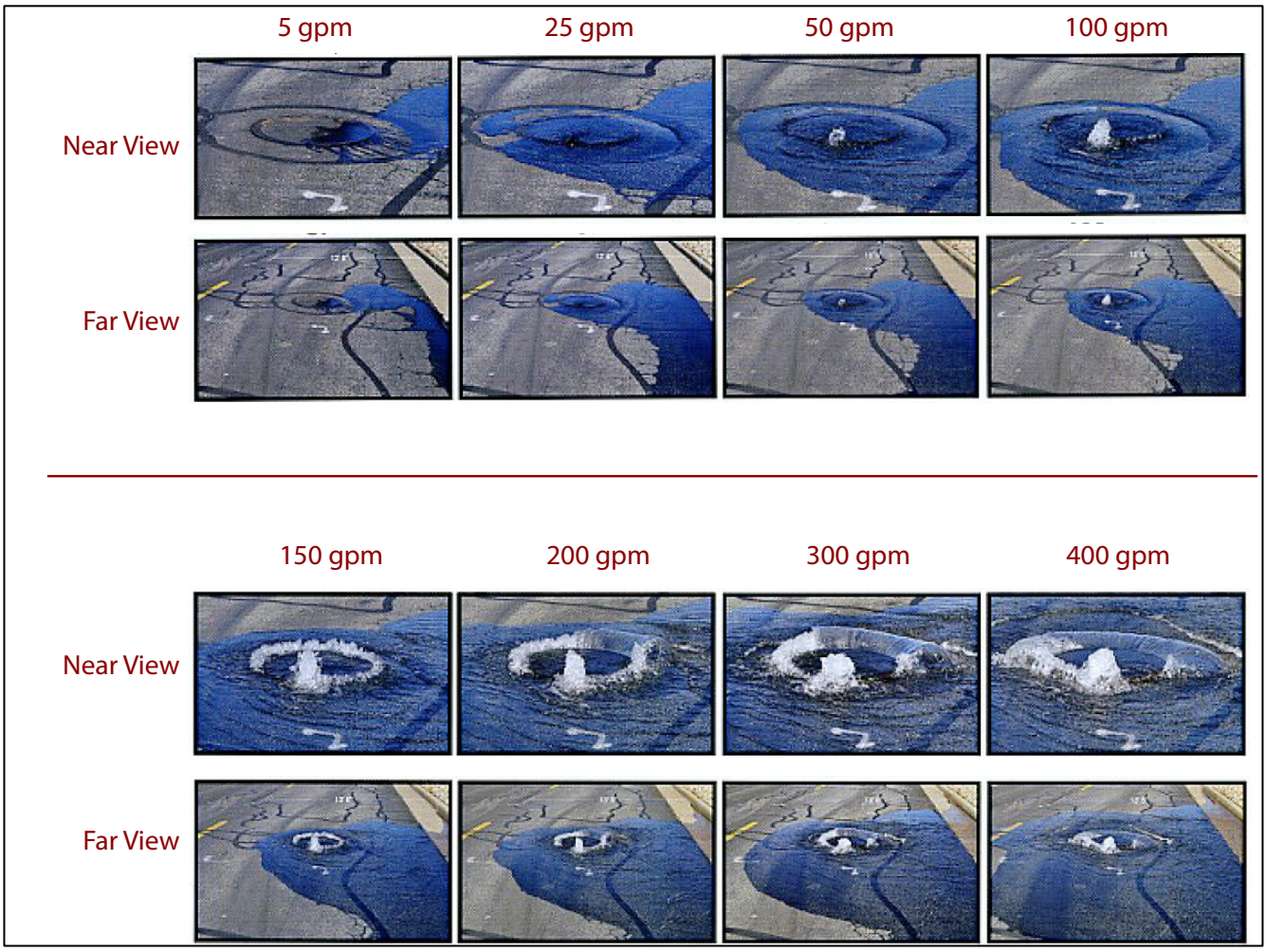
STEP 6: Take photographs. Where are photographs stored?

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

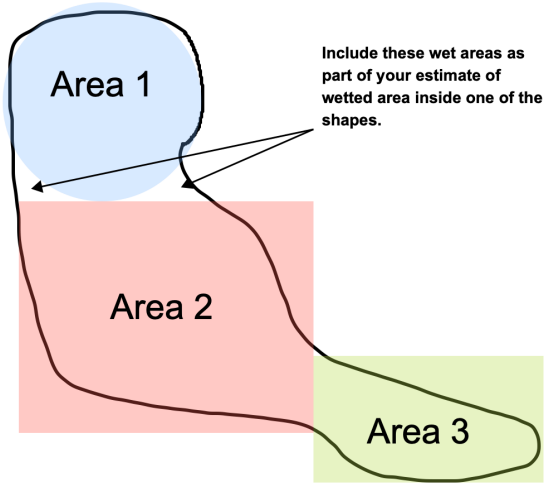
Spill Date: _____ Location: _____

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

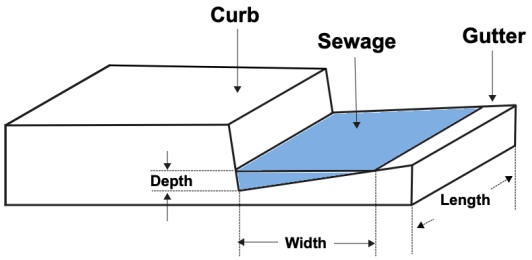
Circles:

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 Supervisor:

Send photos, including the photos of the documents given to the customer, and a copy of the First Responder form to the City Attorney's Office.

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 City 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

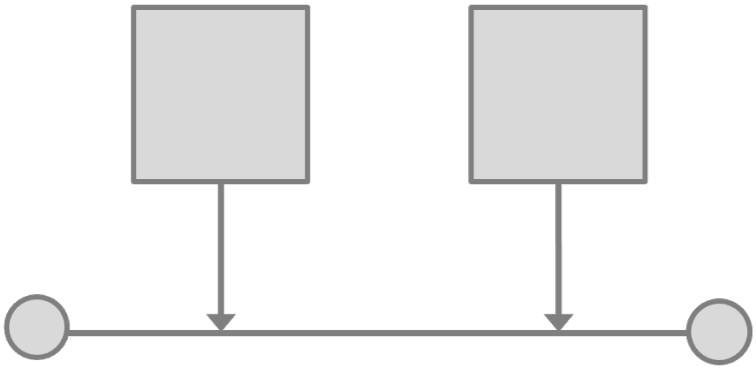
If the answer to any of the questions above is YES, complete the Lodging Authorization form.

If temporary lodging was offered by the City 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:
☐ Tile ☐ Wood Flooring
☐ Linoleum ☐ Carpet
☐ Other (specify):

and/or additional materials:
☐ Area Rugs ☐ Towels
☐ Clothing ☐ Other (specify):

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

CUSTOMER, please read the following and sign below. I/We acknowledge that City of Antioch (City) 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 City assistance, and that the City will not accept responsibility for work performed by persons other than those engaged by the City. The City 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 City of Antioch (ciudad) 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 ciudad, y que ciudad no aceptará responsabilidad por el trabajo realizado por personas que no sean las contratadas por ciudad. La ciudad 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 Collection Systems Supervisor who will make arrangements via telephone and pay for the hotel with a credit card.
3. Complete the voucher as instructed by the Collection Systems Supervisor.
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:

City of Antioch 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 Collection Systems Supervisor at (209) 479-2858.

INSTRUCCIONES PARA EL RESIDENTE:

City of Antioch 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 Collection Systems Supervisor al (209) 479-2858.

VOUCHER

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

Customer's Name: _____

Field Supervisor's Name: _____ Phone Number: _____

Comfort Suites – Antioch/Oakley
5949 Bridgehead Road
Oakley, CA 94561
925-755-1222

Extended Stay America–Pleasant Hill
3320 Buskirk Avenue
Pleasant Hill, CA 94523
925-945-6788

Holiday Inn – Concord
1050 Burnett Avenue
Concord, CA 94520
925-687-5501

Ramada Inn – Antioch
2436 Mahogany Way
Antioch, CA 94509
925-754-6600

Holiday Inn Express – Brentwood
8820 Brentwood Blvd
Brentwood, CA 94513
925-634-6400

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 the City is investigating the cause of this incident.

If the City 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 the City 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 the City 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, the City will arrange for lodging for you for one night. Please see the Lodging Authorization form for details.

To discuss this matter, contact the Collection Systems Superintendent at (925) 779-6962. To submit a claim for damages contact the City Attorney's Office at (925) 779-7015.

Sincerely,
The City of Antioch

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

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 ciudad está investigando la causa de este incidente.

Si se determina que el ciudad 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 ciudad 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 City 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 Collection Systems Superintendent at (925) 779-6962. Para presentar un reclamo por daños comuníquese con la City Attorney’s Office at (925) 779-7015.

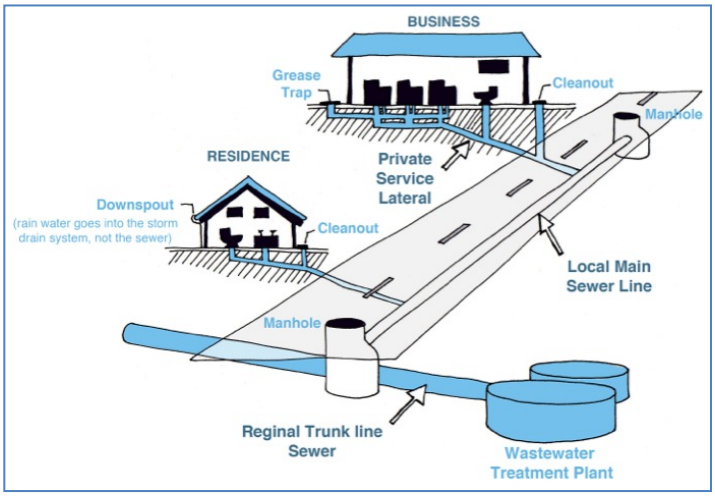
Sinceramente,
The City of Antioch

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.



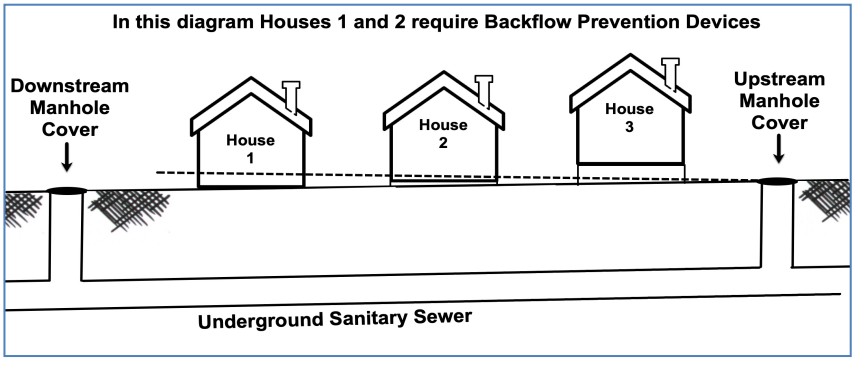
Prevent most sewage backups with a Backflow Prevention Device

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.

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

Other Tips:

- 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:

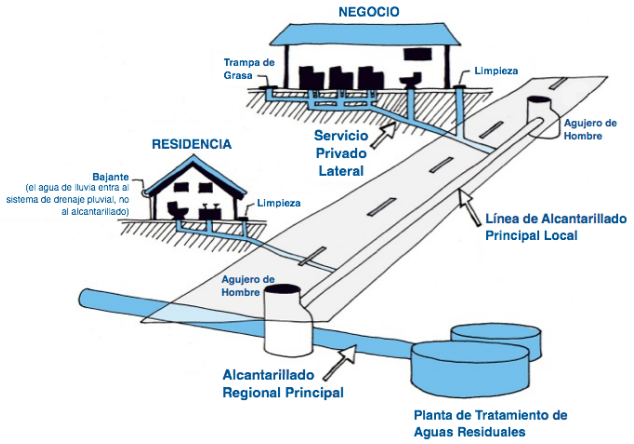
- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard 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.



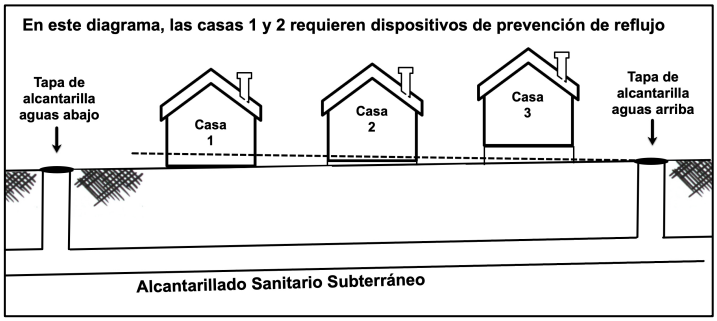
Prevenga la mayoría de las copias de seguridad de aguas residuales con un dispositivo de prevención de reflujo

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.

CLAIM PRESENTED TO THE CITY OF ANTIOCH

Please read the instructions on the back before completing. FORM 4.1

1. Claimantôs Name: (*Please Print)*	Reserved for Filing Stamp
Claimantôs Address:	
City, State, Zip:	
Day Phone: ( ) _____ Eve: ( ) _____	City Claim No.:

2. When did the damage or injury occur? Police Report No.:
Month: Day: Year: Time: a.m. or p.m.

3. At which location did the damage or injury occur?

_____

4. a. What happened and why is the City responsible?

_____

_____

b. Name and position of responsible City Employee(s), if known:

_____

5. What damage or injury occurred?

_____

_____

_____

6. Claim amount (only if less than $10,000):

_____

If the amount exceeds $10,000, please check the court for appropriate jurisdiction:
_____ Municipal Court (claims up to $25,000) ____ Superior Court (claims over $25,000)

7. How did you arrive at the amount claimed? Please attach documentation.

_____

_____

_____

8. I declare under penalty of perjury under the laws of the State of California that the following information is true and correct, and that this declaration was executed on _____, 20__, at _____ CA.

_____
Signature of Claimant or Representative

9. Official Notices and Correspondence
If represented by an insurance company or an attorney, please provide the information requested below:

Name and Capacity:(*please print)* _____

Address: _____

City, State, Zip: _____

Daytime Phone: _____ Evening: _____

PRESENTING A CLAIM TO THE CITY OF ANTIOCH

⇒ PLEASE TYPE OR PRINT CLEARLY ALL OF THE INFORMATION REQUESTED ON THE CLAIM FORM.
⇒ YOU MUST COMPLETE EACH SECTION OR YOUR CLAIM MAY BE RETURNED TO YOU AS INSUFFICIENT.
⇒ THE FOLLOWING PROVIDES SPECIFIC INSTRUCTIONS FOR COMPLETING EACH SECTION OF THE CLAIM FORM.

1. **NAME AND MAILING ADDRESS OF CLAIMANT** ï State the full name and mailing address of the person(s) claiming damage or injury. Please include a daytime and evening telephone number.

2. **WHEN DID THE DAMAGE OR INJURY OCCUR?** ï State the exact month, date, year, and approximate time (if known) of the incident which caused the alleged damage/injury.

   Under State law, claims relating to causes of action for personal injury, wrongful death, property damage, and crop damage must be presented to the City of Antioch no later than six months after the incident date. Please note that evidence of **"presentation"** includes a clear postmark date on an envelope, or a certification of personal service, or service by mail.

   When filing a claim beyond the six-month period, you must explain the reason the claim was not filed within the six-month period. This explanation is called ñ**application for leave to present a late claim".** In considering your claim, the City will first decide whether the late claim application should be granted or denied. (See Government Code Section 911.4 for the legally acceptable reasons a claim may be filed late.) Only if your late claim application is granted will the City then consider the merits of your claim.

   Claims relating to any cause of action other than personal injury, wrongful death, property damage, and crop damage must be presented no later than one year after the incident date. (See Government Code Section 911.2).

3. **AT WHICH LOCATION DID THE DAMAGE OR INJURY OCCUR?** ï Please include street address, city, county, intersection, etc. If possible, also include the Police Report number.

4. **WHAT HAPPENED AND WHY IS THE CITY RESPONSIBILE?** ï Please explain the circumstances that led to the alleged damage or injury. State all facts which support your claim with the City and why you believe the City is responsible for the alleged damage or injury. If known, identify the name of the City Department(s) and/or City employee(s) that allegedly caused the damage or injury.

5. **WHAT DAMAGE OR INJURY OCCURRED?** ï Provide in full a detailed description of the damage/injury that allegedly resulted from the incident. (What specific damage or injury do you claim resulted from the alleged actions?)

6. **CLAIM AMOUNT:** - State the specific total dollar amount you are claiming as a result of the alleged damage/injury. If damage/injury is continuing or is anticipated in the future, indicate with a ñ+ò following the dollar figure if $10,000 or under. If the total dollar amount is unspecified or exceeds $10,000, designate the appropriate court jurisdiction for the claim.

7. **HOW DID YOU ARRIVE AT THE AMOUNT CLAIMED?** ï Provide a breakdown of how the total amount that you are claiming was computed. You may declare expenses incurred and/or future anticipated expenses. If you have supporting documentation (i.e., bills, payment receipts, cost estimates), please attach copies of them to your claim.

8. **SIGNATURE:** - The claim must be signed by the claimant or by the attorney/representative of the claimant. The City will not accept the claim without a proper signature. Government Code Section 910.2 provides: ñThe claim shall be signed by the claimant or by some person on his/her behalf.ò

9. **OFFICIAL NOTICES AND CORRESPONDENCE -** Provide the name and mailing address of the person to whom all official notices and other correspondence from the City should be sent, only if other than claimant. Please provide telephone numbers for the representative, if applicable.

⇒ SUBMIT COMPLETED AND RELATED DOCUMENTATION TO: The City Clerk of the City of Antioch, P.O. Box 5007, Antioch, CA 94531-5007. Personal service of claims can be accomplished during regular City business hours (8:00 a.m. ï 5:00 p.m.), Monday through Thursday (excluding City holidays).

⇒ If you wish to receive a stamped copy of your claim, return the form to the City Clerk with a cover letter along with a stamped, self addressed envelope informing the City of your request.

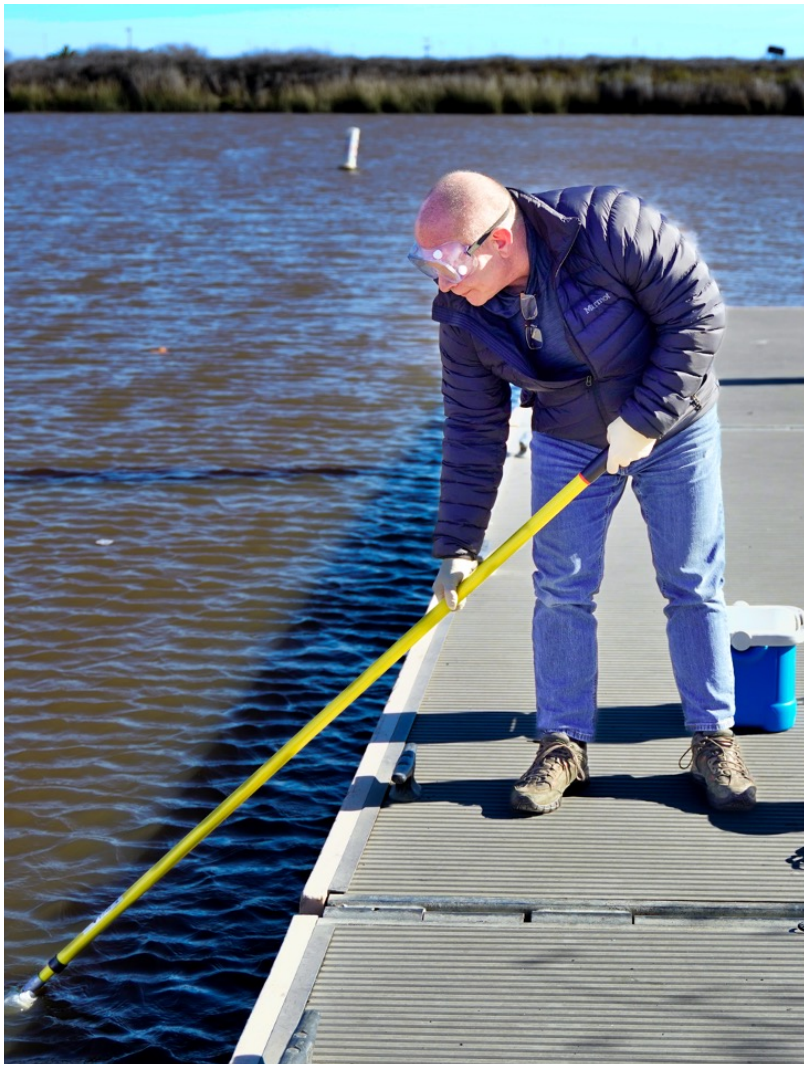
⇒ You will receive a letter from the Risk Management Office indicating your claim has been received and is being investigated. You will receive an explanation of the investigation results within 45 days in most instances.

If, after reading these instructions, you have questions or need additional information regarding the filing of a claim with the City Clerk, please contact the City Clerkôs staff at (925) 779-7009.

THANK YOU!

Revised July 30, 2009

INSERT TAB:
Tab G: SAMPLING SOP



Process:	***Surface Water Sampling***
Personnel Required:	• 1
Personal Protective Equipment:	• Safety Glasses • Rubber Gloves
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	McCampbell Analytical 1534 Willow Pass Road Pittsburg, CA 877-252-9262

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.
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

Sampling Equipment

In addition to PPE, other sampling equipment is necessary:

- Sample Bottles & Containers
- Cooler with Ice, or Ice packs
- Sampling Pole, or
- Rope & Bucket

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

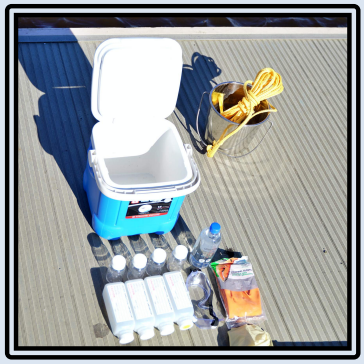
Water samples must be collected in different bottles for various tests and then transported in a cooler with ice packs.

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.

Additionally, one field blank sample is required for each constituent. Field blank sample bottles are filled with sterilized water during sampling to serve as quality control on the sampler's sampling methods.

Since the sample bottles contain sterilized water, bacteria and ammonia should not be present in the water. If the lab analysis shows the presence of bacteria or ammonia, it indicates that the sampler's method may not have been correct, and the other bacti samples may have been contaminated.

Surface Water Sampling – Preparation

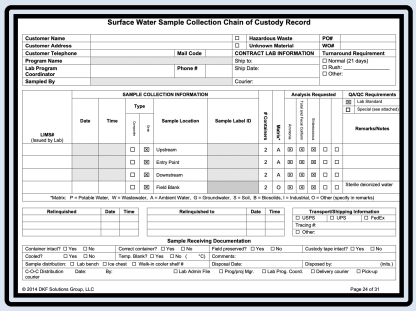


Step 1 of 4

Prepare the cooler 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.

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 9

Don the appropriate PPE from your sampling kit. This should include latex or rubber gloves and safety glasses.

Step 2 of 9

Label all samples 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.

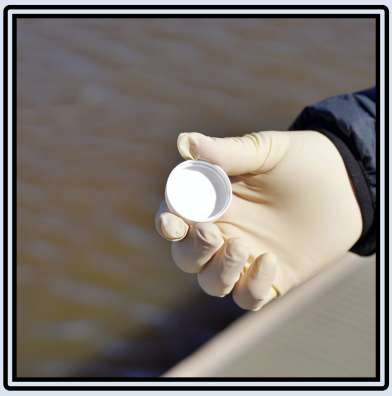
Step 3 of 9

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 9

Remove the seal from the Ammonia sample container just prior to collecting your sample, as applicable.

To reduce the likelihood of contamination, remove the cap immediately before collecting each sample.



Step 5 of 9

To prevent sample contamination, do not allow the inside of the cap to touch anything while you are obtaining the sample.

Step 6 of 9

When filling the ammonia nitrogen sample bottle, don't overfill it because it contains sulfuric acid. Sweep the bottle or dipper upstream and out of the water without disturbing the bottom sediment. Remember to leave the sulfuric acid in the bottle and avoid skin contact.

Step 7 of 9

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 8 of 9

Open the Bacteria sample container and allow water to gently flow into the bottle just to the fill line.

Repeat the sampling process for all sample points, and **provide a "field blank"** sample using sterile water, which verifies the quality of the samples.

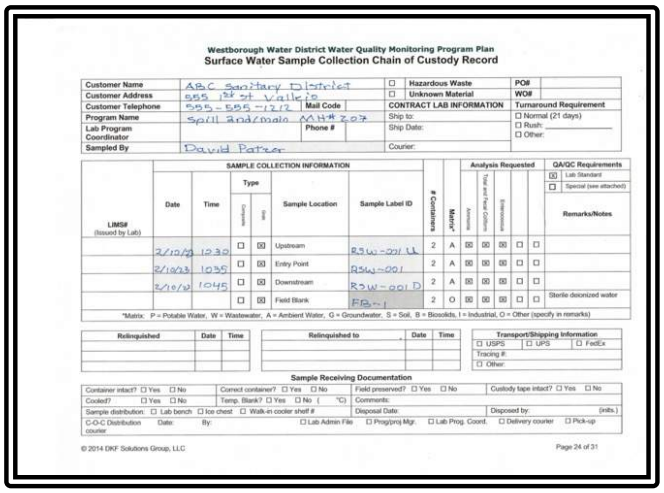
Step 9 of 9

Place all samples in the cooler 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 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 12th Valley	☐ Unknown Material	WO#
Customer Telephone	555-555-1212	Mail Code	CONTRACT LAB INFORMATION
Program Name	Spill Emg/main MH#207		Turnaround Requirement
Lab Program Coordinator		Phone #	☐ Normal (21 days)
Sampled By	David Potter	Ship to:	☐ Rush:
		Ship Date:	☐ Other:
		Courier:	

LIMS# (Issued by Lab)	Date	Time	Type: Grab	Type: Comp	Sample Location	Sample Label ID	# Containers	Matrix*	Analysis Requested	QA/QC Requirements	Remarks/Notes
	2/10/23	1230	☐	☒	Upstream	RSW-001U	2	A		☐ Lab Standard	
	2/10/23	1035	☐	☒	Entry Point	RSW-001	2	A		☐ Special (see attached)	
	2/10/23	1045	☐	☒	Downstream	RSW-001D	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

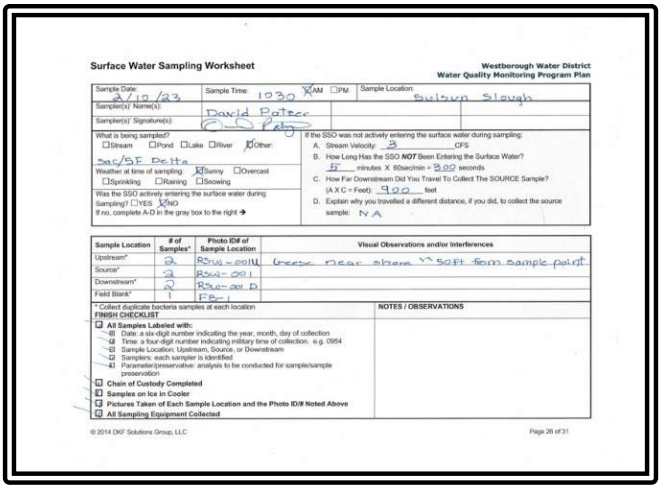
Transport/Shipping Information: ☐ USPS ☐ UPS ☐ FedEx; Tracing #: ; ☐ Other:

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 courier	Date: By:	☐ Lab Admin File ☐ Prog/proj Mgr. ☐ Lab Prog. Coord. ☐ Delivery courier ☐ Pick-up	

 Page 24 of 31

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: Suisun Slough	
Sampler(s)' Name(s):	David Potter		
Sampler(s)' Signature(s):			

What is being sampled? ☐Stream ☐Pond ☐Lake ☐River ☒Other: Sac/SF Delta

Weather at time of sampling: ☒Sunny ☐Overcast ☐Sprinkling ☐Raining ☐Snowing

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: 3 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	Weeds near shore ~5 Soft from sample point
Source*	2	RSW-001	
Downstream*	2	RSW-001D	
Field Blank*	1	FB-1	

* Collect duplicate bacteria samples at each location

FINISH CHECKLIST

☑ 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
- ☑ Samplers: 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

NOTES / OBSERVATIONS

 Page 26 of 31

Step 2 of 4: Contact the Lab

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 cooler on the ice pack and transport them to the lab within 6 hours of collection time. Complete the chain of custody form 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.

 5-25-23

The Enrollee shall collect receiving water samples at the following locations:

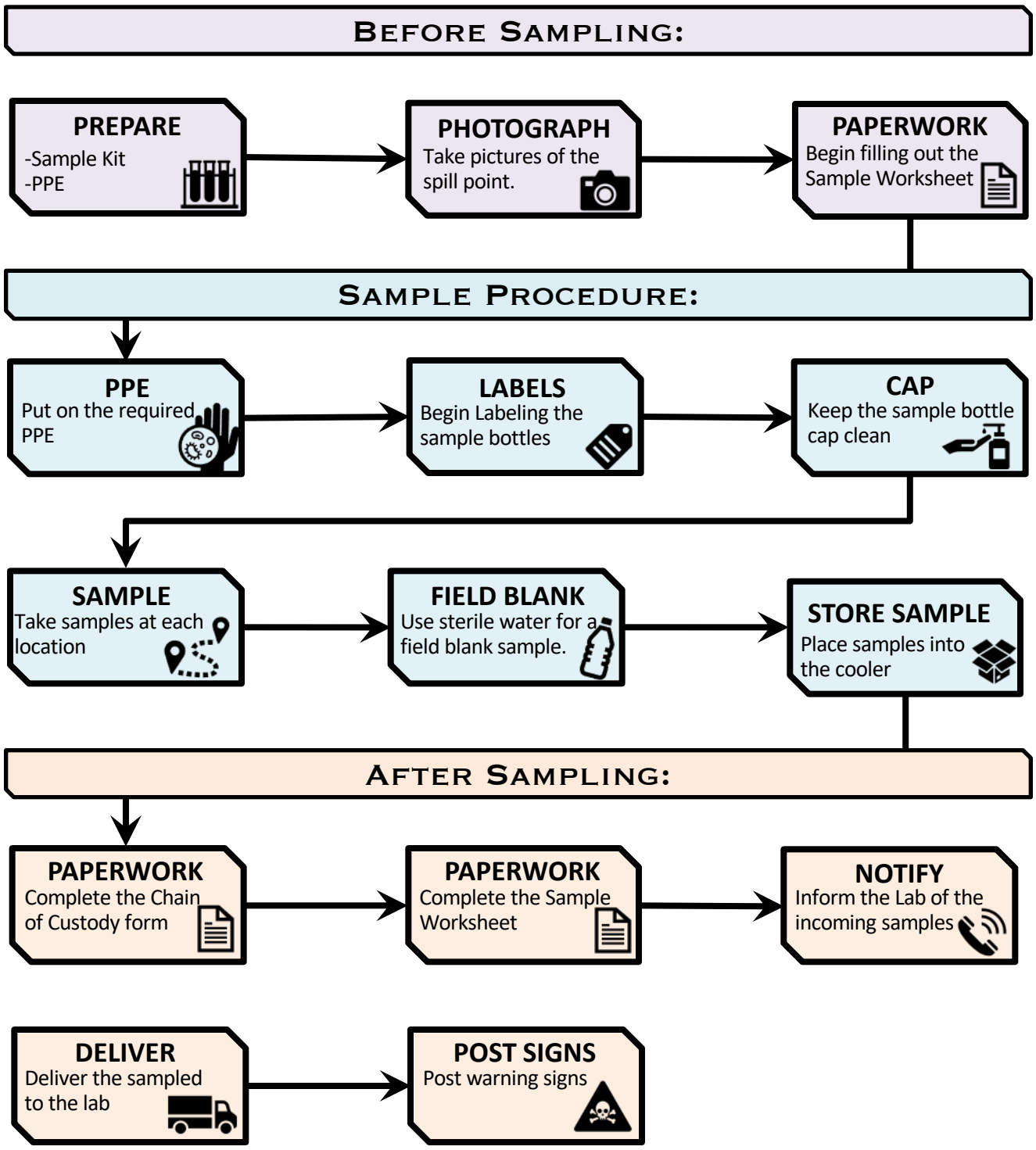
Sampling of Flow in Drainage Conveyance System (DCS) Prior to Discharge

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		
Field Blank*	Field Blank	4		

* 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: 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 Cooler** ☐ **Pictures Taken of Each Sample Location and the Photo ID/# Noted Above** ☐ **All Sampling Equipment Collected**	

General COC

MAI Work Order # _____

7

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time:	1 Day Rush		2 Day Rush		3 Day Rush		STD		Quote #				
J-Flag / MDL		ESL		Cleanup Approved		Dry Weight		Bottle Order #					
Delivery Format:	PDF		GeoTracker EDF		EDD		Write On (DW)		Detect Summary				

Report To: Bill To:

Company:

Address:

Email: Tele:

Project Name: Project #:

Project Location: PO #

Sampler Signature:

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative	Multi Range as Gas, Diesel, and Motor Oil (8021/8015)	BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)*	Baylands Requirements	Lab to filter sample for dissolved metals analysis			

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp _____ °C Initials _____

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:	

ATTACHMENT F


IN A WORLD OOZING WITH FATS, OILS AND GREASE,
NO DRAIN IS SAFE
STOP THE F.O.G.
Starring DELTA DIABLO SANITATION DISTRICT, the DELTA HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY, the city of ANTIOCH and the city of PITTSBURG. Agencies working TOGETHER to ensure a CLEAN and HEALTHY COMMUNITY.
PG POLLUTION IS GROSS

ONLY YOU CAN CONTAIN THE HORROR.

Underneath your home, an oozing menace lurks – the F.O.G.

Part FAT, part OIL , and part GREASE, F.O.G. pollutes our waterways, chokes our sewers and causes monstrous plumbing problems.

Pouring any fat, oil or grease down the drain just makes it stronger.

Running water – hot or cold – DOESN'T HELP.

PROTECT OUR WATERWAYS AND PREVENT COSTLY PLUMBING REPAIRS.

> Do not put F.O.G. in the trash or down the drain.

> Always trap F.O.G. in a sealed container

> Safely dispose of it at the:
Delta Household Hazardous Waste Collection Facility

FOR DETAILS, CALL **925.756.1900** OR VISIT **DDSD.ORG.**

Jointly Sponsored By:

CITY OF PITTSBURG

Delta Diablo Sanitation District

Delta Household Hazardous Waste Collection Facility

Delta Household Hazardous Waste Collection Facility
2500 Pittsburg-Antioch Hwy.
Antioch CA 94509-1373

What Restaurant and Building Owners Need to Know About Grease Traps or Interceptors

Restaurants, large buildings, such as apartment complexes; and other commercial establishments may have grease traps or interceptors that keep grease out of the sewer system. For a grease trap or interceptor to work correctly, it must be properly

1. **Designed (sized and manufactured to handle the amount that is expected),**
2. **Installed (level, vented, etc.), and**
3. **Maintained (cleaned and serviced on a frequent basis).**

Solids should never be put into grease traps or interceptors. Routine, often daily, maintenance of grease traps and interceptors is needed to ensure that they properly reduce or prevent blockages.

Be cautious of chemicals and additives (including soaps and detergents) that claim to dissolve grease. Some of these additives simply pass grease down pipes where it can clog the sewer lines in another area.

Delta Diablo Sanitation District
2500 Pittsburgh-Antioch Highway
Antioch, CA 94509-1373
Phone: (925) 778-4040
Fax: (925) 778-8513

This brochure was prepared under Cooperative Agreement Assistance #CX824505-01-0 between the Water Environment Federation (WEF) and the U.S. Environmental Protection Agency. For more information, contact your local sewer system authority or the

Water Environment Federation
601 Wythe Street
Alexandria, VA 22314-1004
Phone: 703/684-2400
Fax: 703/684-2492
Web site: http://www.wef.org

For additional copies of this brochure, contact WEF at 1-800-666-0206, 1-703-684-2452 or http://www.wef.org

Water Environment Federation®

Fat-Free Sewers

How to Prevent Fats, Oils, and Greases from Damaging Your Home and

Fats, Oils, and Greases aren't just bad for your arteries and your waistline; they're bad for sewers, too.

Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. An increasingly common cause of overflows is sewer pipes blocked by grease. Grease gets into the sewer from household drains as well as from poorly maintained grease traps in restaurants and other businesses.

Where does the grease come from?

Most of us know grease as the byproduct of cooking. Grease is found in such things as:

- Meat fats
- Lard
- Cooking oil
- Shortening
- Butter and margarine
- Food scraps
- Baking goods
- Sauces
- Dairy products

Too often, grease is washed into the plumbing system, usually through the kitchen sink. Grease sticks to the insides of sewer pipes (both on your property and in the streets). Over time, the grease can build up and block the entire pipe.

Home garbage disposals do not keep grease out of the plumbing system. These units only shred solid material into smaller pieces and do not prevent grease from going down the drain.

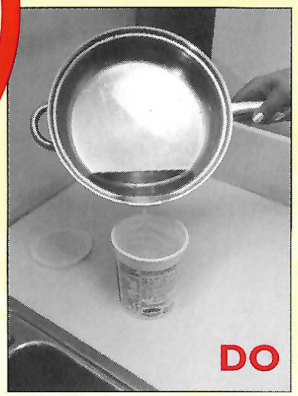
Commercial additives, including detergents, that claim to dissolve grease may pass grease down the line and cause problems in other areas.

© James L. Graham, Jr., P.E.

The results can be:

- Raw sewage overflowing in your home or your neighbor's home;
- An expensive and unpleasant cleanup that often must be paid for by **you, the homeowner;**
- Raw sewage overflowing into parks, yards, and streets;
- Potential contact with disease-causing organisms; and
- An increase in operation and maintenance costs for local sewer departments, which causes higher sewer bills for customers.

© NYCDEP



What we can do to help

The easiest way to solve the grease problem and help prevent overflows of raw sewage is to keep this material out of the sewer system in the first place.

There are several ways to do this.

1) Never pour grease down sink drains or into toilets.
2) Scrape grease and food scraps from trays, plates, pots, pans, utensils, and grills and cooking surfaces into a can or the trash for disposal (or recycling where available).
3) Do not put grease down garbage disposals. Put baskets/strainers in sink drains to catch food scraps and other solids, and empty the drain baskets/strainers into the trash for disposal.
4) Speak with your friends and neighbors about the problem of grease in the sewer system and how to keep it out. Call your local sewer system

LIST OF SAN FRANCISCO BAY AREA GREASE HAULERS

Company	Phone Number	Website
A-1 Septic Tank Service	510-886-4455	www.a1tank.net
All Valley Environmental, Inc.	559-498-8378	www.allvalleyenv.com
Baker Commodities	559-846-9393	www.bakercommodities.com
Burr Plumbing & Pumping	408-287-2877	Not available
Darling International	800-473-4890	www.darlingii.com
Delta Household Hazardous Waste Facility	925-756-1990	www.deltadiablo.org
Liquid Environmental Solutions	510-266-5719	https://www.liquidenviro.com
SeQuential Pacific Biodiesel	800-447-3794	www.choosesq.com

EBMUD APPROVED GREASE HAULERS

Name	Phone Number
A-1 Septic Tank Service, Inc.	(510) 886-4455
A-1 Septic – Little River	(707) 937-0496
Able Septic Tank Service	(408) 377-9990
All Valley Environmental, Inc.	(559) 498-8378 or (559) 217-5949
Ameriguard Maintenance Services	(800) 347-7876
Blue Sky Bio-Fuels	(510) 868-9229
Burr Plumbing and Pumping	(408) 287-2877
Coast Environmental	(800) 588-7762
Darling International, Inc.	(415) 647-4890
Ernie's Plumbing	(925) 228-5242
Joe's Farmers Septic and Grease Service	(707) 546-3236
Liquid Environmental Solutions of California	(866) 694-7327
North Coast Sanitary	(707) 884-1095
Pioneer Liquid Transport	(800) 366-6808
Portosan – Santa Rosa	(707) 566-2000
R & D Grease Trap Cleaning	(707) 632-5827
Roto Rooter Plumbing	(510) 483-2324
SRC Pumping Company	(916) 363-1342
Trap Recyclers	(800) 994-7867

SRCSD APPROVED GREASE HAULERS

Name	Address	Phone Number
A-1 Septic Service	P.O. Box 762, West Sacramento, CA 95691	(916) 371-4160
ABC Plumbing, Heating & Air Conditioning	205 22nd Street, Sacramento, CA 95816	(916)448-0801
Ace Plumbing, Heating & Air	4405 Franklin Blvd., Sacramento, CA 95820	(916) 422-2333
Advanced Septic Service	6513 Auburn Blvd., Citrus Heights, CA 95621	(916) 726-5150
All Pumping & Septic	1289 Sonoma Avenue, Sacramento, CA 95815	(916) 925-1333
All Valley Environmental Inc.	523 N. Brawley Avenue, Fresno, CA 93706	(559) 498-8378
Ameriguard Maintenance Services, LLC*	4681 E. Vine Avenue, Fresno, CA 93725	(559) 497-2925
APS Environmental Inc.	6643 32nd Street 103, North Highlands, CA 95660	(916) 454-2000
Best Construction & Maintenance Inc.	8550 Jackson Road, Sacramento, CA 95826	(916) 383-4533
Chucks & Auburn Septic	4504 Yankee Hill Ct., Rocklin, CA 95677	(916) 624-8500
Cook's Portable Toilets & Septic	1402 Riosa Road, Lincoln, CA 95648	(916) 645-8560
Darling International*	11946 Carpenter Road, Crows Landing, CA 95313	(209) 667-9153
G & C Septic Service	12851 Stockton Blvd., Galt, CA 95632	(916) 366-1111
Howards Grease Trap Pumping	8185 Cashel Way, Sacramento, CA 95829	(916) 681-0433
Liquid Environmental Solutions of CA	Corporate Office, 12626 High Bluff Drive, Suite 240, San Diego, CA 92130-2070	
Roto Rooter Plumbers	2551 Albatross Way, Sacramento, CA 95815	(916) 482-1422
Sacramento Rendering Company*	dba SRC Pumping Co., P.O. Box 276424, Sacramento, CA 95830	(916) 363-4821
Sweet Septic Systems	5701 Mother Lode Drive, Placerville, CA 95667	(916) 622-8768

City of Antioch
SSMP Audit Checklist
Report Form

The purpose of the SSMP Audit is to evaluate the effectiveness of the City of Antioch's (City's) SSMP and to identify any needed for improvement.

Directions: Please check YES or No for each question. If NO is answered for any question, describe the updates/changes needed and the timelines to copmlete those changes.

Element I - Goals	YES	NO
A. Are the goals stated in the SSMP still appropriate and accurate?		
Discussion:		

Element II - Organization	YES	NO
A. Is the List of City Staff Responsible for SSMP, Table 2-1 current?		
B. Is the Sanitary Sewer Overflow Responder List current?		
C. Is Figure 2-1 of the SSMP, the City Organization Chart, current?		
D. Are the position descriptions an accurate portrayal of staff responsibilities?		
E. Is Table 2-2 in the Chain of Communication for Reporting and Responding to SSOs section accurate and up-to-date?		
Discussion:		

Element III - Legal Authority	YES	NO
Does the SSMP contain current references to the Antioch Municipal Code documenting the City'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 lateral owned or maintained by the City?		
D. Limit discharges of fats, oils and grease?		
E. Enforce any violation of its sewer ordinances?		
F. Were any changes or modifications made in the past year to City Sewer Ordinances, Regulations or standards?		
Discussion:		

Element IV - Operations & Maintenance	YES	NO
Collection System Maps		
A. Does the SSMP reference the current process and procedures for maintaining the City's wastewater collection system maps?		
B. Are the City's wastewater collection system maps complete, current and sufficiently detailed?		
C. Are storm drainage facilities identified on the collection system maps? If not, are SSO responders able to determine locations of storm drainage inlets and pipes for possible discharge to waters of the state?		
Prioritized Preventive Maintenance		
D. Does the SSMO describe current preventive maintenance activities and the system for prioritizing the cleaning of sewers?		
E. Based upon information in the Annual SSO Report, are the City's preventive maintenance activities sufficient and effective in minimizing SSOs and blockages?		
Scheduled Inspections and Condition Assessments		
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?		
Contingency Equipment and Replacement Inventory		
G. Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system and documents the procedures of inventory management?		
H. Are contingency and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?		
Training		
I. Does the SSMP document current training expectations and programs?		
Outreach to Plumbers and Building Contractors		
J. Does the SSMP document currently outreach efforts to plumbers and building contractors?		
Discussion:		

Element V - Design and Performance Standards	YES	NO
A. Does the SSMP reference current design and construction standards for the installation for 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?		
Discussion:		

Element VI - Overflow and Emergency Response Plan	YES	NO
A. Does the City's Sanitary Sewer Overflow Emergency Response Plan establish procedures for the emergency response, notification, and reporting of SSOs?		
B. Is City staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow Emergency Response Plan?		
C. Considering SSO performance data, is the Sanitary Sewer Overflow Emergency Response Plan effective in handling SSOs in order to safeguard public health and the environment?		
D. Are all SSO and claims reporting forms current or do they require revisions or additions?		
E. Does all SSO event recordkeeping meet the SSS GWDR requirements? Are all SSO event files complete and certified in the CIWQS system?		
F. Is all information in the CIWQS system current and correct? Have periodic reviews of the data been made during the year to assure compliance with SSS GWDR? Have all Technical Report and Water Quality Sampling requirements been met and uploaded to the CIWQS data management system?		
Discussion:		

Element VII - Fats, Oils and Grease (FOG) Control Program	YES	NO
A. Does the FOG Control Program include efforts to educate the public on proper handling and disposal of FOG?		
B. Does the 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, best management practices (BMP), record keeping, and reporting established in the City's FOG Control Program?		
D. Does the City have sufficient legal authority to implement and enforce the FOG Control Program?		
E. Is the current FOG program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?		
F. Was required training on SSMP and OERP completed and documented? Were field exercises with field staff on SSO volume estimation conducted and documented?		
G. Did all public improvement plans and specifications that could impact collection system operations include requirements for OERP training or were contractor OERP programs at least as stringent as the City OERP?Were regular items included in project meeting agendas to discuss emergency response procedures and communications?		
Discussion:		

Element VIII - System Evaluation and Capacity Assurance Plan	YES	NO
A. Does the City of Antioch Sanitary Sewer Master Plan evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long-term capacity enhancement and improvement projects?		
B. Does the City's Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long-term capacity improvements an is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?		
Discussion:		

Element IX - Monitoring, Measurement and Program Modifications	YES	NO
A. Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?		
B. Is the City able to sufficiently evaluate the effectiveness of the SSMP elements based on relevant information?		
C. Were the consent decree performance metrics met?		
Discussion:		

Element X - SSMP Audits	YES	NO
A. Will the SSMP Audit be completed, reviewed and filed in Appendix B?		
Discussion:		

Element XI - Community Program	YES	NO
A. Does the City effectively communicate with the public and other agencies about the implementation of the SSMP and continue to address any feedback?		
B. Did the City Council receive and review the Annual Sewer System Report? Was the annual report uploaded to the City Sewer Section website and added to Appendix C?		
C. Did City staff conduct and document meetings with satellite collection systems? Are all agreements with satellite systems current or are changes necessary to these agreements?		
Discussion:		

Change Log	YES	NO
A. Is the SSMP Change Log current and up to date?		
Discussion:		

Audit Team: _____ Date: _____

Prepared by: _____ Date: _____

Reviewed by: _____ Date: _____

Certified by: _____ Date: _____

Approved for Filing on: _____

ATTACHMENT I

RESOLUTION NO. 2025/87

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ANTIOCH APPROVING THE SEWER SYSTEM MANAGEMENT PLAN UPDATE 2025 AND AUTHORIZING STAFF TO CERTIFY THE APPROVED UPDATE USING THE STATE WATER RESOURCES CONTROL BOARD ELECTRONIC REPORTING SYSTEM

WHEREAS, the City is required to prepare a Sewer System Management Plan (SSMP) Update to comply with the 2022-0103-DWQ Statewide General Waste Discharge Requirements Order for Sanitary Sewer Systems.

WHEREAS, this new General Order became effective on June 5, 2023, and supersedes Order No. 2006-0003-DWQ and amendments thereafter and this General Order requires periodic audits of the SSMP to ensure its effectiveness and compliance with the requirements;

WHEREAS, the purpose of the SSMP Update is to ensure continuous improvement of the wastewater collection system, reflecting system and operational improvements, and to maintain compliance with regulations and minimize sanitary sewer overflows.

WHEREAS, the City developed an SSMP to meet the State Water Resources Control Board (SWRCB) requirements implemented in April of 2009. The City revised the SSMP in 2013, 2015, 2018 and 2023 as required by SWRCB and is required to recertify the SSMP every five years;

WHEREAS, updates to the existing SSMP include adding regulatory context in the goals and introduction section, updating key positions and roles, updating equipment inventory and training needs, and updating the Spill Emergency Response Plan (SERP);

WHEREAS, this proactive approach requires enrollees to ensure that a system-wide operation, maintenance, and management plan is in place that will reduce the number and frequency of SSOs within the state.

WHEREAS, this approach will in turn decrease the risk to human health and the environment caused by SSOs and approval of the SSMP Update will keep the City in compliance with the SWRCB mandate; and

WHEREAS, the Antioch City Council has considered approving the Sewer System Management Plan Update 2025 as described in Exhibit 1 of this resolution and authorizing staff to certify the approved update using the State Water Resources Control Board Electronic Reporting System.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Antioch, hereby approves the Sewer System Management Plan Update 2025 and

authorizes staff to certify the approved SSMP Update 2025 using the State Water Resources Control Board Electronic Reporting System.

* * * * * * *

I HEREBY CERTIFY that the foregoing resolution was passed and adopted by the City Council of the City of Antioch at a regular meeting thereof, held on the 13th day of May 2025, by the following vote:

AYES: **Council Members District 1 Torres-Walker, District 3 Freitas, District 4 Wilson, Mayor Pro Tem (District 2) Rocha, and Mayor Bernal**

NOES: **None**

ABSTAIN: **None**

ABSENT: **None**

for **MELISSA RHODES**
CITY CLERK OF THE CITY OF ANTIOCH