City of Petaluma
Sewer System Management Plan
December 2023

CITY OF PETALUMA
Department of Public Works & Utilities
202 North McDowell Blvd.
Petaluma, CA 94954

WDID# 2SS010165

Originally Prepared: April 2008

Updated 2009, 2016, 2021, and 2024

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PLAN CERTIFICATION

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

3/18/2024

Dan Herrera, PE
Deputy Director of Operations

Date

List of Abbreviations and Acronyms

Acronym	Definition4
BACWA	Bay Area Clean Water Agencies
BMP	Best Management Practice
BWF	Base wastewater flow
CCTV	Closed circuit television
CDFG	California Department of Fish and Game
CIP	Capital Improvement Plan
CIWQS	California Integrated Water Quality System
CM	Corrective Maintenance
CMMS	Computerized Maintenance Management System
CMOM	Capacity, Management, Operations and Maintenance
CIP	Capital Improvement Program
CWEA	California Water Environment Association
ECS	Environmental Compliance Services
EDU	Equivalent Dwelling Unit
ERP	Emergency Response Plan
FOG	Fats, Oils, Grease
FSE	Food service establishment
GIS	Geographical Information System
GPS	Global Positioning System
GWI	Groundwater Infiltration
I/I	Inflow / Infiltration
ICOM3 -	Maintenance and Condition Assessment Database
IEC	Infrastructure Engineering Corporation
ISDHH	Imminent and substantial danger to human health
MRP	Monitoring and Reporting Program
NPDES	National Pollution Discharge Elimination System
O&M	Operation and Maintenance
OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration

Acronym	Definition4
Plan	Sewer System Management Plan
POSM	Pipeline Observation System Management
POTW	Publicly Owned Treatment Works
PM	Preventative Program
PWU	Public Works & Utilities
R&R	Rehabilitation and Replacement
RDI/I	Rainfall-dependent infiltration and inflow
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SHECAP	Sewer Hydraulic Evaluation and Capacity Assessment Plan
SMP	Standard Maintenance Procedure
SOP	Standard Operating Procedure
Spill	SSO or Sanitary Sewer Overflow
SWRCB	State of California Water Resources Control Board
TMDLTM	Total Maximum Daily Load Technical Memorandum
WDID	Waste Discharge Identification Number
WPCP	Water Pollution Control Plant

1.0: Element 1 – Goals

SWB Requirements:

The goal of the Sewer System Management Plan (Plan) is to provide a plan and schedule to: (1) properly manage, operate, and maintain all parts of the Enrollee's sanitary sewer system(s), (2) reduce and prevent spills, and (3) contain and mitigate spills that do occur.

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

a. Regulatory Context

b. Sewer System *M*anagement *P*lan Update Schedule

c. Sewer System Asset Overview

1.1: Regulatory Context

This Sewer System Management Plan (Plan) describes the City of Petaluma's (City's) wastewater collection system management activities. The purpose of these activities is to:

1. Maintain and improve the condition of the collection system infrastructure,
2. Control infiltration/inflow (I/I) and provide appropriate sewer capacity, and to
3. Minimize the number and impact of sanitary sewer spills that occur.

The State Water Resources Control Board (SWB) has previously issued statewide waste discharge requirements for sanitary sewer systems which include requirements for development of an SSMP. The State Water Board requirements were outlined in Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, dated May 2, 2006 (SWB SSO WDR) and the Monitoring and Reporting Plan (MRP) WQ 2013-0058-Exec. These two SWB requirements were replaced on December 6, 2022, by SWB Order WQ 2022-0103-DWQ Statewide Waste Discharge Requirements, General Order for Sanitary Sewer Systems, which became effective for all enrolled agencies on June 5, 2023. In addition, the City of Petaluma must also comply with a recent San Francisco Regional Board (RWB) Total Maximum Daily Limit (TMDL) for bacteria in the Petaluma River including the Water Code Section 13383 Technical Report Order dated September 14, 2022. This latter regulatory requirement has placed several requirements on the City and has required the updating of the City's Plan to include the requirements for TMDL compliance by December 31, 2023. In addition, the City is required to:

1. Include a diagram or hyperlink to a map of all sewer systems assets inside the 1000-foot project area in the Plan.
2. Plan for evaluating the sanitary sewer assets in the project areas using best practices and technologies available.
3. Time schedule for implementing short- and long-term improvement actions; and

4. As necessary, a schedule for developing the funds necessary to implement the capital improvement plan.

Finally, the City must also develop, certify, and submit an annual report to the RWQCB by October 15th on the fiscal year results for the Short- and Long-Term Improvement Actions Plan. This will also require the City to make any necessary updates to the Plan with the revisions documented in the Plan Change Log.

1.2: Sewer System Management Plan Internal Audits and Update Schedule

The reissued WDR for sanitary sewers has been revised and defined new requirements for the auditing and updating of the enrollees SSMP including the preparation of internal audits of the SSMP. Audits must be completed, and an Internal Audit Report prepared covering a three-year period ending August 2, 2024. The Audit Report must then be completed, certified, and uploaded to the CIWQS system no later than February 2, 2025. Upon completion of the audit, the City must update the Plan along with readoption by the City Council no later than August 2, 2025.

The next three-year audit period covers the period from August 3, 2024, thru August 2, 2027. The Internal Audit Report must be completed, certified, and uploaded to CIWQS not later than February 2, 2028. Thereafter the internal audits shall be competed every three years on the same schedule. The first SSMP revision under the reissued WDR shall be publicly considered and approved by the City Council and uploaded and LRO certified to CIWQS no later than August 2, 2025. Thereafter the updates must be completed every six years from August 2, 2025. Failure by the City in complying with the new audit schedules requires the City to update the CIWQS system, notify the RWQCB with a justification for the failure to conduct the timely audit and a schedule for the completion of the audit. This does not change the required audit schedules for the future.

1.3: Sewer System Asset Overview

The City of Petaluma (the City) is located in southern Sonoma County with the cities of Santa Rosa and Rohnert Park to the north and Novato to the south. As of 2020, The City has a population of approximately 60,830 based on estimates from the Metropolitan Transportation Commission and the Association of Bay Area Governments. The city covers approximately 14.5 square miles with a population density of persons per square mile. Petaluma is situated within the Petaluma River watershed, which covers an area of square miles that extends southward to San Pablo Bay. A significant amount of the city is in the river's flood plain and subject to the 13383 Technical Report order.

The City's sewer system consists of approximately 3,822 manholes, 894 clean-outs and 192 miles of pipe, ranging from 6 inches to 48 inches in diameter, and 9 sewage lift stations including 3.86 miles of pressure force mains. Petaluma's wastewater utility provides 24-hour collection, treatment, disposal and reuse of domestic, commercial and industrial wastewater

generated by Petaluma, portions of unincorporated Sonoma County, and the community of Penngrove.

The 13383 Technical Report Order requires the City to prepare "a diagram of all sanitary sewer system assets in the project area". The project area is defined as all sewer assets within 1000 feet of the Petaluma River and its major tributaries. The City has prepared this mapping layer, and it is available on the City's Plan webpage (SSMP Web Map). The 13383 Technical report order also requires the City to develop and implement a time schedule for implementing short-term and long-term program improvement actions. Finally, it also requires the City to update the Plan to include the above information.

The following tables provide information on the sewer program assets under management by the City's Department of Public Works & Utilities Staff.

Table 1 – 1: Gravity Pipeline Asset Information by Pipe Size

Diameter, inches	Number of Line Segments	Pipe Length, linear feet	Portion of Sewer System, %
4	9	1,098	0.11%
6	2019	407,912	40.32%
8	1847	385,346	38.09%
10	341	77,324	7.64%
12	268	62,243	6.15%
14	22	6,462	0.64%
15	70	15,721	1.55%
16	6	1,255	0.12%
18	55	9,910	0.98%
21	65	16,889	1.67%
24	28	8,402	0.83%
27	45	8,124	0.80%
30	3	448	0.04%
33	17	5,224	0.52%
36	6	1,732	0.17%
48	9	3,575	0.35%

Diameter, inches	Number of Line Segments	Pipe Length, linear feet	Portion of Sewer System, %
Unknown	0	0	0.00%
Total	**4810**	**1,011,672**	**100%**
Total Miles		**191.60**	

Table 1 – 2: Gravity Pipeline Asset Information by Pipe Material

Material	Number of Line Segments	Pipe Length, LF	Percent of Sewer System
ABS	58	15,968	1.58%
AC	1161	278,572	27.54%
CI	2	249	0.02%
DIP	97	14,527	1.44%
HDPE	50	10,355	1.02%
PVC	1927	341,533	33.76%
RCP	37	9,614	0.95%
TRUSS	58	11,871	1.17%
VCP	1083	250,466	24.76%
Unknown	337	78,516	7.76%
Total	**4810**	1,011,673	100.00%
Source: GIS 10/30/2023			

Table 1 – 3: Gravity Pipeline Asset Information by Pipe Age

Age, Years	Construction Period	Percent of System*	Linear Feet of Main
0-20	2000 – Current	14	141,656
16 – 35	1980 – 1999	37	374,310
36 – 55	1960 – 1979	28	283,261
56 – 75	1940 – 1959	15	151,747
76 – 95	1920 – 1939	5	50,582
95 – 115	1900 – 1119	1	10,116
>115	Before 1900	0	0
Unk	Unknown	0	0
Total, linear feet		1,011,673	
Total Miles		191.60	
* Source: CIWQS Collection System Questionnaire		10/13/22	

Table 1 – 4: Sewer Lift Station Asset Information

Pump Station Name	Location	Construction or Upgrade Date	No. Pumps	Pump Capacity gpm	Pump Manufacturer	Pump HP	Standby Generation KW
PIPS	950 Hopper St	1998	6	3800	Flygt/Ingersoll	60/400	1500
Payran	8 Jess Ave	2020	2	500	Flygt	10	200
Copeland	299 Water Street	2016	2	3700	Flygt	35	81
C St.	2 C Street	2010	3	4800	Flygt	60	175
Willmington	889 Holly Street	2013	4	3180	Flygt	25	100
Factory Outlet	2200 Petaluma Blvd	1994	2		Flygt	2	No Standby Generator; high level gravity bypass
Redwood	1440 N. McDowell Blvd	1993	2		Flygt	15	Portable Generator Plug
Oakmead	3812 Cypress Dr	1985	2		Flygt	5	No Standby Generator; high level gravity bypass
Victoria	2617 Western Ave	2014	2	250	Flygt	23	22kW trailer mounted generator

Table 1 – 5: Pressure Force Main Asset Information

Lift Station Name	Construction or Upgrade Date	Length Linear Feet	Size Inches	Material
PIPS	1972	13,200	36	CCP
Payran	2007	1,350	6	DIP/HDPE
Prince Park	1993	1,100	4	DIP
Copeland	1996	280	18	DIP
C St - 14in	1968	211	14	DIP
C St - 8in	1968	211	8	DIP
Victoria	1989	2,880	6	PVC
Wilmington	1995	1,150	18	DIP
Total Pressure Mains, linear feet		**20,382**		
Total Pressure mains, Miles		**3.86**		

Table 1 – 6: Sewer System Siphon Assets

Siphon Location	Construction Date	Length Linear Feet	Size Inches	Pipe Material
Petaluma Blvd North Across Petaluma River	1971	214	6	Cast Iron
Madison St Across Washington Creek	1969	110	18/8/21	CLC
Rancho Bonito across Adobe Creek	1976	110	6	DI

1.4: References

- City of Petaluma, Short- and Long-term Improvements Action Plan, December 28, 2023, Improvement Action Plan Link

2.0: Element 2 – Organization

The Sewer System Management Plan (Plan) must identify:

a. The name of the Legally Responsible Official as in Section 5.1 of this General Order;

b. The position titles, telephone, and email addresses for management, administrative, and maintenance positions responsible for implementing specific SSMP Element;

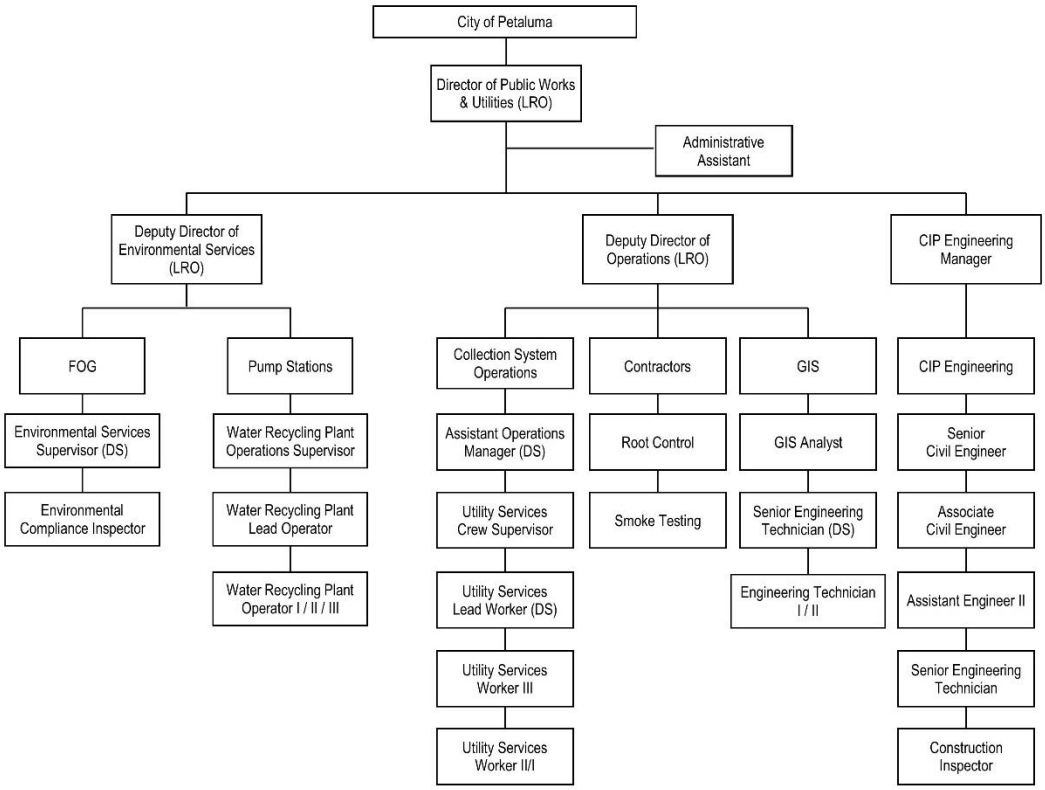
c. Organizational lines of authority; and

d. 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 Board and other agencies as applicable (For example. County Health Officer, County Health Agency, and State Office of Emergency Services).

2.1: Organization Chart and Contact Information

City staff responsible for implementing the Plan are included on the Public Works & Utilities Department organization chart in **Figure 2 – 1**.

Figure 2 – 1: Petaluma Public Works & Utilities Department Organization Chart



2.2: Public Works & Utilities Department

The Department of Public Works & Utilities is responsible for all of the City's water related functions. These functions include the City's water, wastewater utility, flood control, storm

drain and related engineering services. The objective of combining all water related functions allows for a more comprehensive and coordinated approach to management of water resources by the City. The following positions are included within this City department.

Positions responsible for management and implementation of the Plan are discussed below:

City Manager

Under administrative direction from the City Council, the City Manager plans and manages the affairs of the City and directs the staff in all functions and operations. The City Manager represents City policy and programs with employees, community organization, and the general public. The City Manager reviews budget requests and makes recommendations to the City Council on final expenditure levels, manages all labor/management activities, and performs all related work as required.

City Attorney

The City Attorney provides guidance to the City Manager and the City Council relative to the City's statutory requirements, authority, and risk.

Public Works & Utilities Director (LRO)

Under the general direction of the City Manager, the Public Works & Utilities Director is responsible for overseeing department function and delegating authority for implementation of all aspects of the SSMP.

Deputy Director of Operations (LRO)

Under the general direction of the Public Works & Utilities Director, The Deputy Director of Operations, plan, organize, direct, manage, and coordinate the activities of the Operations Division within the Public Works and Utilities Department including the operation, repair, and maintenance of water distribution, wastewater collections, storm drains,; coordinate Operations activities with other divisions and departments; participate in the planning, development and implementation of public works infrastructure systems that meet the needs of the community; ensure compliance with regulatory agency standards and operational and maintenance requirements; and provide highly complex staff assistance to the Director of Public Works and Utilities.

Engineering Manager – Capital Improvement Program

Under general direction of the Director and/or the Assistant Director – plan, organize, direct and coordinate activities of the Capital Improvement Projects (CIP) Division within the Public Works and Utilities Department including the planning, organization, control, integration, financial management, grants management, and completion of public infrastructure development, construction, and maintenance functions; to coordinate Capital Improvement Project/Program activities with other Public Works divisions and City departments.

Assistant Operations Manager (Data Submitter)

Under general direction of the Deputy Director of Operations, the Assistant Operations Managers direct, manage, and review activities associated with maintaining, cleaning, repairing, and inspecting the City's wastewater collection system, lift stations, and related appurtenances.

Utility Services Crew Supervisor

Under general supervision of the Assistant Operations Managers, the Utility Services Crew Supervisor coordinates maintenance and construction of the field crews in a variety of tasks related to the maintenance, cleaning, and repairing the City's wastewater collection system, lift stations, and related appurtenances.

Utility Services Lead Worker (Data Submitter)

Under general supervision of the Assistant Operations Managers and Utilities Services Crew Supervisor, the Utility Services Lead Worker leads maintenance and construction of the field crews in a variety of tasks related to the maintenance, cleaning, and repairing the City's wastewater collection system, lift stations, and related appurtenances.

Utility Services Worker I/II

Under general supervision of the Assistant Operations Managers, the Field Crews perform a variety of tasks related to the maintenance, cleaning, and repairing the City's wastewater collection system, lift stations, and related appurtenances.

Senior Engineering Technician

Perform advanced, paraprofessional engineering office and field work; provide support to staff members and professional engineers and provide lead direction in an assigned engineering specialty function like GIS, asset management and capital program divisions.

Research, design, implement, and maintain Geographic Information Systems (GIS) applications and databases, utilizing software and data standards developed by the Geographic Information Systems Division.

Senior Civil Engineer

Supervises and performs complex professional engineering work in the design, construction, inspection, and review of public or private engineering projects.

Associate Civil Engineer

Perform complex and responsible engineering work in the areas of municipal civil engineering; perform design, plan review, inspection, subdivision, and related work.

Assistant Engineer II

Performs engineering assignments of moderate difficulty in the design, plan review, investigation, inspection, and construction of public facilities, water resources, or community development projects.

Construction Inspector

Under general supervision of the Engineering Manager, the Construction Inspectors performs a variety of inspection activities relating to sewer facility construction to ensure compliance with approved plans and enforcement of City regulations relating to construction of public and private sewers, collection system lift stations, and related appurtenances.

Deputy Director of Environmental Services (LRO)

Plan, organize, direct, manage and coordinate activities of the Environmental Services Division within the Public Works and Utilities Department including permit compliance, operation of wastewater treatment and sewer pumping facilities, recycled water delivery, water quality control laboratory, stormwater management, and water conservation; coordinate Environmental Services activities with other divisions and departments; manage and oversee facilities master planning; and provide highly complex staff assistance to the Director of Public Works and Utilities.

Environmental Services Supervisor (DS)

Under the general supervision of the Environmental Services Supervisor, the Source Control Inspector performs inspections of the National Pollutant Discharge Elimination Program System (NPDES) permits, including, pollution prevention program, pretreatment program, sewer collection system, fats, oils, and grease (FOG) producing facilities, and recommends enforcement actions to insure compliance with City ordinances and policies.

Environmental Compliance Inspector

Performs routine inspections, collect samples, and conduct field and laboratory chemical and biological tests on water, wastewater, storm water, and industrial wastes; conduct field investigations in support of wastewater programs; contact industrial and institutional customers concerning wastewater disposal requirements; enforce local, state, and federal standards for discharges into the wastewater and storm water systems; and perform other duties as assigned.

Administrative Assistant

Provide varied secretarial and office administrative assistance to the Public Works and Utilities Director and the Divisions and associated supervisory and professional staff.

2.3: Responsible and Authorized Representatives

The Director of Public Works & Utilities is the City's authorized representative registered with the California Integrated Water Quality System (CIWQS) to certify SSO reports. The

Director has authorized the Deputy Director of Operations and the Deputy Director of Environmental Services to prepare and submit electronic reports. The designated Data Submitters are authorized to enter spill data and other WDR required information into the CIWQS system prior to LRO approval and certification.

Table 2 – 1: Responsible Officials for Sewer System Management Plan

Element	Element Name	Responsible Official	Phone	Email
1	Introduction and Goals	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org
2	Organization	Director of Public Works & Utilities	707-778-4546	cbolt@cityofpetaluma.org
3	Legal Authority	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org
4	O&M Program	Assistant Operations Manager	707-778-4436	mielmorini@cityofpetaluma.org
5	Design and Performance Provisions	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org
6	Spill Emergency Response Plan	Assistant Operations Manager	707-778-4436	mielmorini@cityofpetaluma.org
7	Sewer Pipe Blockage Control Program	Assistant Operations Manager	707-778-4436	mielmorini@cityofpetaluma.org
8	System Evaluation, Capacity Assurance, CIP	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org
9	Monitoring, Measurement and Program Modifications	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org
10	Internal Plan Audit	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org
11	Communications	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org
Appendix A	Plan Adoption Documents	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org
Appendix B	Plan Internal Audit Reports	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org

Element	Element Name	Responsible Official	Phone	Email
Appendix C	Plan Change Log	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org
Appendix D	Spill Emergency Response Plan	Deputy Director of Operations	707-778-4589	dherrera@cityofpetaluma.org

2.4: Chain-of-Communication for Reporting and Responding to Spills

In response to a spill event, the Public Work10s & Utilities Department staff immediately implements the Spill Emergency Response Plan (Response Plan), discussed in more detail in Element 6. The Response Plan provides direction for the immediate verbal and written notification of City staff and agencies. The chain-of-communication for reporting and responding to spills, as described in the Response Plan, is summarized in **Table 2 – 2**, below.

Table 2 – 2: Chain of Communication for Reporting and Responding to Spills

Step No.	Staff Responsible	Description of Activity
1	PWU Department Call Taker (business hours) PWU Standby Worker (non-business hours) or Police Dispatcher (non-business hours)	**SSO Information Received:** Receive service calls originating from the public, other agencies, or from sources within the City; documents caller provided information including caller contact information (if not anonymous).
2	PWU Department Call Taker or Police Dispatcher	**On-Call Responder Paged:** Call taker or dispatcher pages the Assistant Operations Manager or on-call responder.
3	On-Call Responder	**On-Call Responder Responds to Page:** Sewer Service On–Call Worker responder calls back and obtains information from Call Taker or Dispatcher. If no call back from Sewer Service On-call Worker responder, the Assistant Operations Manager is contacted.
4	Assistant Operations Manager or On-Call Responder	**Initial Assessment:** Responder performs an initial incident assessment based on information provided by the caller and requests additional equipment and staff if circumstances dictate.
5	Assistant Operations Manager or On-Call Responder	**On-Site Assessment:** Upon arriving at spill site, the Responder conducts a preliminary assessment of spill extent and suspected cause. Photographs of spill source and extent of spilled sewage are taken, if possible. The responder will request additional equipment and staff as circumstances dictate. Deputy Director of Operations is notified if spill meets conditions requiring the two-hour notification to regulatory agencies.
6	Assistant Operations Manager or On-Call Responder	**Repair, Divert, Contain and Clean:** If the spill is from City maintained laterals/mains, Responder and field crew(s) (as appropriate) stop the spill, divert the spill from sensitive areas, contain and return the spill to the system, if possible, and assign staff to post signage, as necessary, and perform necessary

Step No.	Staff Responsible	Description of Activity
		clean-up activities, Responder writes up the appropriate sanitary sewer overflow report containing all relevant information regarding the incident. If spill is not from City maintained lateral/main, property owner is notified and such steps as possible are taken to minimize environmental and health impacts. Photographs are taken of all steps implemented, if possible.
7	Assistant Operations Manager or On-Call Responder	**Sampling:** If the spill reaches or is likely to reach surface waters, the responder will contact the Deputy Director of Operations concerning the discharge into surface waters. Based upon further direction from Sonoma County Environmental Health, the Operations Manager will direct the collection of receiving water samples (contact the Environmental Services Supervisor for necessary assistance).
8	Assistant Operations Manager or On-Call Responder	**Response to Impacted Water Bodies:** If creeks/channels/river is impacted, the Deputy Director of Operations is contacted for additional investigation and possible clean-up.
9	Assistant Operations Manager or On-Call Responder	**Additional Resources Required:** If additional resources are required to contain/recover the spill, the responder contacts the Deputy Director of Operations to request additional assistance. The Deputy Director of Operations obtains necessary resources from other local agencies and/or private service companies.
10	Field Crew SSO On-Call Responder	**Documentation – On-Call Responder:** The responder completes the Sanitary Sewer Overflow Report, City Maintenance Report and follows the actions detailed in the "Guide to Reporting to Regulatory Authorities."
11	Deputy Director - Operations	**Documentation – Deputy Director:** The Deputy Director - Operations Manager insures that appropriate spill are reported within two-hour to the Office of Emergency Services (OES), the Sonoma County Environmental Health Services Department and the Regional Water Board. The Deputy Director also insures that all necessary reporting has been completed per the "Guide to Reporting to Regulatory Authorities." Including reports to the California Integrated Water Quality System (CIWQS) at *http://ciqws.waterboards.ca.gov* as required by the SWB.
12	Director or Deputy Director of Operations	**Documentation – Director**: The Director verifies that all reporting has been completed per City policy and regulatory requirement. Necessary corrective actions are taken if reporting requirements have not been precisely followed.

2.5: References

3.0: Element 3 – Legal Authority

Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

a. Prevent illicit discharges into its sanitary sewer system (examples may include I/I; unauthorized stormwater, chemical dumping; unauthorized debris; roots, fats, oils, and grease; and trash, including rages and other debris that may cause blockages;

b. Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

c. Require that sewer system components and connections be properly designed and constructed;

d. Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned or maintained by the Enrollee;

e. Enforce any violation of its sewer ordinances, services agreements, or other legally binding procedures; and

f. Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

The City's legal authority to prevent illicit discharges into the collection system, require proper design and construction of sewers and connections, and require proper installation, testing, and inspection of sewers is provided by the City's Municipal Code, Title 15, and Title 17. The specific sections applicable to the requirements of the Sewer System Management Plan (Plan) are outlined below.

Table 3 – 1: Summary of Legal Authorities

Legal Authority Issue	Petaluma Municipal Code Reference
Prevent illicit discharges into the wastewater collection system	15.48.020 to 15.498.090
Limit the discharge of fats, oils, and grease and other debris that may cause blockages	15.48.030
Require that sewers and connections be properly designed and constructed	15.40.010; 15.40.060; 17.04.010
Clearly define City responsibility	
Ensure access for maintenance, inspection, or repairs for portions of the service lateral owned or maintained by the City	15.60.050
Control infiltration and inflow (I/I) from private service laterals	15.80.070

Legal Authority Issue	Petaluma Municipal Code Reference
Requirements to install grease removal devices (such as traps or interceptors), design standards for the grease removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements	15.48.130
Authority to inspect grease producing facilities	15.48.170; 15.60.050
Enforce any violation of its sewer ordinances	15.68.010; 15.68.020

3.1: Agreements

The City receives sewage from the Sonoma County Water Agency Penn Grove Sanitation Area. The City has entered into an agreement with the Water Agency for this satellite system. The City also has several single residential lot connections that requires further evaluation as to the need for discharge permits or other legal protection for the City sewer system. Often these outside connections require standard outside service agreements.

3.2: References

- City of Petaluma Municipal Code, Titles 15 and 17 (Title 15 Link, Title 17 Link)
- Penngrove Agreement (Penngrove Agreement Link)

4.0: Element 4 – Operations and Maintenance Program

The Sewer System Management Plan (Plan) must include the items listed below that are appropriate and applicable to the Enrollee's system:

a. Updated map of the sanitary sewer system,

b. Preventative Operations and Maintenance

c. Training

d. Equipment Inventory

4.1: Collection System Map

The City maintains comprehensive computerized maps of its collection system and continues to improve and refine the map using geographic positioning system (GPS) field instruments to directly enter locations and conditions observed by field crews. The geographic information system (GIS) employed by the City allows for location and description of collection system facilities. These descriptions include, but are not limited to, facility age, condition, maintenance history, inspection history, cleaning history and identified problems.

All maps used in the field include City storm water conveyance facility assets for use especially during spill emergency responses on field laptops. All system maps are updated whenever changes or revisions are found in the field or when new additions are added to the system. The Operations GIS Division is responsible for updating, adding new information and providing revised mapping so that most recent GIS system information is available for office staff and the field crews. The City is also developing several new mapping layers to further assist with all sewer related programs especially within the 1000-foot project area. These improvements are defined in the City Short- and Long-Term Improvement Action Listing previously referred to in Element 1 above. It is estimated that each of these new map layers will be available to City employees by the end of the 2023-2024 fiscal year.

4.2: Preventive Maintenance Program

4.2.1: Prioritized Preventive Maintenance

The City has a computerized schedule for cleaning and maintaining sewer lines and related facilities. This schedule includes pipe segments that are more susceptible to root intrusion, grease, and other debris, otherwise known as "hot spots." These segments, approximately 260 total pipe segments, are scheduled for cleaning on a 3-, 4-, 6-, or 12-month cleaning cycle depending upon the nature and severity of the problem. The remainder of the collection system is currently cleaned on a 3-year cycle with the workload balanced by the computerized scheduling system. This City, as part of the 13383 Improvement Actions Plan, will be evaluating and assessing changes that may be necessary to comply with new protections of the Petaluma River and its tributaries in the project areas.

The City maintains records in POSM and work orders of all sewer cleaning activities that include the purpose of cleaning (routine or unplanned), assessment of pipe condition prior to and after cleaning, cleaning methods employed, cause of stoppage (if appropriate), nature of material cleaned from pipe (roots, debris, grease, etc.), further action required (work order or capital improvement), and time needed to clean pipe segment. This information is used to refine the preventive maintenance schedule and to plan future capital improvement expenditures.

4.2.2: Corrective Maintenance/Point Repairs

System defects, as identified, are documented and prioritized in the City's computerized maintenance management system (CMMS). Based on project size and complexity, City staff and/or private contractors are issued work orders to repair/replace the identified deficiency. Where short sections of pipe have been identified as defective, City crews may insert pipe liners into the affected pipe segments; rehabilitating the pipe to near new conditions. The City staff also makes infrequent repairs found in the system from condition assessment of cleaning results.

4.2.3: Pressure Pipes and Siphons

The City has in the past had an as needed operations and maintenance program for pressure pipelines and siphons. The Improvement Actions Plan includes the development of a well-defined operations and maintenance program for these important assets and will prioritize pipe crossing rivers and tributaries and assets within the 1000-foot project area.

4.2.4: Root Control

The City has both a focused and cyclic root treatment program that covers approximately one-third of the system per year. Roots encroach upon the interior of sewer mains through structural cracks faulty pipe joints and defective laterals. If roots are observed to be an issue during routine cleaning, in response to complaints, or through observations from CCTV inspections, root cutting is performed with chain flail attachments on the jetters or with mechanical cutters. In addition, the City also utilizes the services of a contractor to conduct root foaming of areas that are determined to have chronic issues with roots. These line segments that are foamed, are also tracked in the City Lucity system.

4.2.5: SMART Covers

The City has five smart covers deployed at strategic locations through the City to alert on-call staffing and mangers of high levels in the collection system. The locations have been identified as locations suspectable to grease and/or root build up or areas to monitor for high discharge from industrial users. The City will be deploying four additional SMART Covers in the 1000-foot project area to enhance spill management to the Petaluma River and its tributaries.

4.2.6: Lateral Replacement

The City has an established lateral replacement program designed to assist homeowners on a 50/50 match basis (to a maximum of $2,000) in replacing defective laterals. The City allocates $50,000 each year to fund this program. The lateral replacement program's informational piece and application are included at the City's latera replacement program webpage (Sewer Lateral Replacement Link). The City will evaluate providing prioritization of lateral replacement requests and greater outreach for laterals located within the 1000-foot project area.

4.2.7: Scheduled Inspections and Pipeline Condition Assessment:

The city has a strong proactive approach toward inspecting and evaluating the condition of the collection system and its supporting facilities. Routine annual inspections are conducted on all sewer lift stations to identify safety hazards and to assess general equipment and facility conditions. The City has an ongoing closed-circuit television (CCTV) inspection program to assess collection system conditions. The CCTV inspection cycle for the entire system has previously been 6 years. In the future, the City will be revising the CCTV assessment program to prioritize pipes and other facilities within 1000 feet of the Petaluma River and its tributaries as one of the items stated in the Improvement Actions Plan. The city maintains an electronic database of CCTV inspections and can revisit conditions within a given pipe segment if circumstances require.

The City of Petaluma uses information from the past CCTV inspections to establish the criticality of sewer segments to prioritize and schedule problem areas for replacement or repair based on criteria set by the City's engineering and maintenance staff. The complete history of maintenance operations and performance is housed in the work order data warehouse. Keeping the history current requires only that current Routine Maintenance activities findings and performance be uploaded to the program via the field GPS units.

The City is also planning on replacing the existing CCTV Camera Van equipment, to update to the latest technology. The new CCTV equipment will have the capability of higher resolution and easier operation so more pipelines can be inspected and more accurate assessments can be made.

4.2.8: Manhole Inspections

Inspections conducted for manholes involve a visual assessment of the overall manhole condition and observed deficiencies that could result in I&I. As part of the focused and cyclic cleaning programs, City maintenance staff visually-inspect manholes for corrosion, debris or damage around the base, cracks or holes, and condition of manhole steps.

Detailed investigations of manhole condition follows at a time when a connecting line segment is defined as a rehab project, and corrections needed to the manhole structure are then included as part of the project work. Improvements to manhole inspections and the manhole

inspection program, especially in the 1000 project area, will be further evaluated and revised to prioritize the asset classes.

4.2.9: Lift Station Inspections and Assessment

Lift stations are inspected on a weekly basis. Weekly inspections include visual check of the equipment, manual cycling of pumps, checking and cleaning floats, recording hour meter readings, and cleaning off debris.

Lift stations are inspected every year including thorough inspection and maintenance of pumps. Wet wells are dewatered and cleaned on a three-year cycle. In addition, lift stations are also inspected and assessed during master planning efforts.

4.2.10: Lift Station Force Mains

The City does not currently have a force main operations and maintenance or condition assessment program or basic above ground alignment inspection program. As part of the Improvements Actions Plan, the City will develop a prioritized pressure pipe and siphon condition assessment program in the next two years and begin implementation of this program starting with any assets in the project area and/or underneath the Petaluma River and its tributaries. In addition, they will be implementing regular above ground pressure pipe alignment inspections and discharge manhole condition assessments. These programs will be prioritized for the pressure pipeline and siphon assets within the 1000-foot project service area.

4.3: Training

Employees of the Public Works & Utilities Department, which includes the storm drains maintenance, street cleaning, wastewater collection, and wastewater treatment sections, are continually encouraged to acquire, renew, and increase their California Water Environment Association (CWEA) Operation and Maintenance of Wastewater Collection Systems certifications.

The CWEA Certification of Competency Standard

The basic standard of CWEA certification is that certificate holders have, and continue to perform at, a level of basic competence that enables them to perform the Essential Duties of the job safely, effectively, without close supervision, and without further training.

The standard is determined by the following factors:

- Meeting minimum experience and education requirements
- Passing the appropriate written examination.
- Demonstrating continuing competence through education, training, and/or re-testing.

- Continuing to perform the Essential Duties at, or above, the minimal level of competency described by the basic standard of CWEA certification (see above paragraph).

The Public Works & Utilities Department regularly, based upon its size and complexity of the sewer system, will conduct regular training of its spill emergency response personnel on the WDR requirements, the Sewer System Management Plan, the City Spill Emergency Response Plan, and spill volume estimation techniques. In addition, separate training on the SWRCB CIWQS system will be regularly conducted for all LROs and DSs.

In addition, the Public Works & Utilities Department is dedicated to providing a properly trained, safe, and professional work force to operate and maintain the City's sanitary sewer collection system. Safety training is through "My-Safety Officer" by DKF Solutions. The Safety and Training Program offers, at minimum, monthly sessions covering topics such as:

- Tractor/Loading and Backhoe
- Confined Spaces
- Forklift Operator
- Shoring
- First aid/CPR – Respiratory Protection
- Fire Extinguisher
- Work Zone/Traffic Control
- Asbestos Training
- Bloodborne Pathogens
- Electrical Safety: Lock out / tag-out

4.4: Contingency Equipment and Replacement Inventories

The City of Petaluma has the following equipment available for emergency operations and collection system maintenance:

- Portable 300 kW generator
- Portable 70 kW generator
- 3 portable generators (100KW)
- Portable 10" Diesel trash pump
- Portable 6" Diesel trash pump
- Portable 3" Gas trash pump
- 6 Honda Inverters

- 2 Air Compressors
- Confined Space Equipment including hoists, winches, ventilators fans, gas detectors and tripods
- 3 combination cleaning trucks (Vaccons and Clean Earths)
- 1 closed circuit television truck
- Specialty video equipment
- 4 emergency response trucks
- Maintenance Truck with 7500lb crane
- Shelf spare pumps for lift stations
- Pipeline Segments for various sizes and pipe materials
- Excavators, backhoes, dump trucks and other heavy equipment needed for heavy duty construction.

The majority of the city's lift stations incorporate a two-pump design to provide for seamless operation in the event of a pump failure. Most of the lift stations are part of a SCADA network and all have remote alarm capability. For the stations without a second pump in the station, collection system design allows the system to surcharge to a given level and then go to gravity until repairs can be made.

The City's inventory of critical replacement and spare parts are tracked monthly on the City's CMMS to ensure effective maintenance of the sewer system. The City stocks an assortment of materials including pipes, couplings, main line plugs and submersible pumps.

4.5: References

- City of Petaluma Lateral Replacement Program, https://cityofpetaluma.org/sewer-lateral-replacement-grant

5.0: Element 5 – Design and Construction Standards

The Plan must include the following items as appropriate and applicable to the enrollee's system:

a. Updated design criteria, and construction standards and specifications, for the construction, installation, repair, and rehabilitation of existing and proposed system infrastructure components, including but not limited to pipelines, pump stations, and other system appurtenances.

b. 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: Standards for Installation, Rehabilitation, and Repair

The City's 2021 Engineering Standards (Standards) are available to contractors on the City Standards portion of the City's website (City Standards Link). Conformance to the City Standards are required, and the criteria are considered a minimum.

5.2: Standards for Inspection and Testing of New Facilities

Sanitary sewer force mains require pressure testing for tightness after the completion of backfilling but prior to the request for final inspection. Sewer gravity lines are tested for water tightness, obstructions, and vertical deflection. Hydrostatic or air pressure methods, depending on the specific project, can be used to ensure test requirements are satisfied. Cases with geotechnical considerations require an internal television inspection to detect defects.

5.3: References

- Collection System Engineering Standards – Updated January 2021 (https://cityofpetaluma.org/city-standards)

6.0: Element 6 – Spill Emergency Response Plan

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

a. Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner;

b. 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;

c. Comply with the notification, monitoring and reporting requirements of this General Order, State law and regulations, and applicable Regional Water Board Orders;

d. Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained;

e. Address emergency system operations, traffic control and other necessary response activities;

f. Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system;

g. Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State;

h. Remove sewage from the drainage conveyance system;

i. Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters;

j. Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery;

k. Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event;

l. Conduct post-spill assessments of spill response activities;

m. Document and report spill events as required in this General Order; and

n. Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.

6.1: Existing Documentation

The City, pursuant to the reissued WDR, completed and updated the original Overflow Emergency Response Plan to a Spill Emergency Response Plan (SERP). The SERP includes

all new requirements and the revised sampling and testing requirements formally contained in the City Water Quality Monitoring Plan (WQMP).

6.2: Purpose

The purpose of the City of Petaluma 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. See definitions. "Backup" is a term typically used by insurers to describe property damage resulting from exposure and contact to untreated or partially treated sewage.

6.3: Training

6.3.1: Initial and Annual Refresher Training

All City personnel who may have a role in responding to, reporting, and/or mitigating a sewer system spill will receive training on the contents of this SERP. All new employees will receive training before they are placed in a position where they may have to respond. Current employees will receive annual refresher training on this SERP and the procedures to be followed. The 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
- Electronic CIWQS reporting procedures for staff submitting data
- State Water Resources Control Board Employee Knowledge Expectations

- Water quality sampling and testing procedures and recordkeeping (See Spill Workbook Section 9.2).

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.

6.3.2: 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.

6.3.3: 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.

6.4: 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).

The full Spill Emergency Response Plan document is included in the Appendix D and includes a Sewer Spill/Backup Response Workbook that contains all documents used to properly document the City response activities to all spill events.

6.5: References

- Spill Emergency Response Plan – see Appendix D

7.0: Element 7 – Sewer Pipe Blockage Control Program

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

The procedures must include, at minimum:

a. An implementation plan and schedule for a public education and outreach program that promotes proper disposal of pipe-blocking substances;

b. 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;

c. The legal authority to prohibit discharges to the system and identify measures to prevent spills and blockages;

d. Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, best management practices requirements, recordkeeping, and reporting requirements;

e. 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;

f. An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning schedule for each section; and

g. Implementation of source control measures for all sources of fats, oils, and grease reaching the sanitary sewer system for each section identified above.

7.1: Public Education and Outreach Program

The City has established a comprehensive outreach program for residential and food service establishment customers that includes brochures and newsletter inserts. The outreach materials will be included on the City's pollution prevention webpage (Pollution Prevention Link). The City also regularly includes information and sewage discharge requirements in citizen newsletters especially around the end of the year holidays related to grease disposal requirements. The City has also identified areas in the collection system where grease spills have occurred and have enhanced the cleaning operations with more frequent cleaning.

The City has an active program of requirements and regular inspections for food service establishments assuring, thru regular inspections, that the grease interceptor infrastructure are operating properly and being regularly maintained as permitted.

The City will also be enhancing the public education and outreach program especially for all dischargers within 1000-feet of the Petaluma River or its tributaries as part of the Project Area Improvement Plan pursuant to the 13383 requirements described earlier in Element 1. The purposes of these enhancements are to assure that citizens understand the need for proper discharge practices and the need to timely report any and all spills noticed in these areas which may reach Waters of the State of California.

7.2: Plan and Schedule for Disposal of Pipe-Blocking Substances

The sewer collection operations have established plans and schedule procedures for all substances removed during cleaning or emergency response that have the potential to create pipe blockages. These substances are either disposed of at designated facilities at the City yard or at the sewage treatment plant. Any substances that cannot be handled as stated are transported to designated facilities in Sonoma County.

7.3: Legal Authority

The legal authority to prohibit discharges to the collection system is documented in the Municipal Ordinance, Title 15. The following sections of this ordinance apply to the FOG control program:

7.4: Identification and Sewer Cleaning

To identify and manage FOG sources, the City attempts to inspect all restaurants that generate FOG in the City no less often than annually. If the restaurants are improperly maintaining their FOG control devices, they are subject to enforcement actions including escalating fines. Areas of the collection system subject to grease stoppages ("hotspots") have been identified and are cleaned on a defined frequency as discussed in Element 4.

7.5: Commercial Source Control

The City has developed a restaurant and food service facilities program to reduce the amount of FOG improperly discharged from these sites. Food service facilities must have a floor sink or other floor mat, container, and equipment cleaning area, which is connected to an approved grease removal device prior to discharge into the sanitary sewer system. Regular maintenance and cleaning of the grease removal device is required, and maintenance records can be requested at any time for review. The food service facility operator must properly contain and dispose of used oil in approved tallow bins. Licensed grease haulers must be used to dispose of FOG in a legal disposal facility. Records of disposal must be maintained and may be requested for review.

The source control inspector conducts unannounced inspections of commercial FOG-producing facilities and has developed the following documents pertaining to these inspections:

- Food Service Grease Trap Inspection Form
- Keep Grease from Floor Mats Out of the Drain Information Sheet

Requirements to install grease removal devices are communicated to the restaurant/food related business via the building permit process. Sizing requirements of the Uniform Building Code are enforced through this process.

7.6: References

- Pollution Prevention Documents

8.0: Element 8 – System Evaluation and Capacity Assurance Plan

The Plan must include procedures and activities for:

a. Routine evaluation and assessment of system conditions;

b. Capacity assessment and design criteria;

c. Prioritization of corrective actions; and

d. A capital improvement plan.

8.1: Routine Evaluation and Assessment of System Conditions

8.1.1: Scheduled Inspections and Pipeline Condition Assessment:

The city has strong proactive approach toward inspecting and evaluating the condition of the collection system and its supporting facilities. Routine annual inspections are conducted on all sewerage lift stations to identify safety hazards and to assess general equipment and facility conditions. The City has an ongoing closed-circuit television (CCTV) inspection program to assess collection system conditions. The CCTV inspection cycle for the entire system is currently 6 years. This inspection cycle is due to be reviewed and evaluated in the Improvements Action Plan that requires emphasis on assessments in the 1000-foot project area. The city maintains an electronic database of CCTV inspections and can revisit condition results and ratings details within a given pipe segment if circumstances require.

The City of Petaluma uses information from the CCTV inspections to establish the criticality of sewer segments to prioritize and schedule problem areas for replacement or repair based on criteria set by the City's engineering and maintenance staff. The complete history of maintenance operations and performance is housed in the CMMS system. Keeping the history current requires only that current Routine Maintenance activities, findings, and performance be uploaded to the asset management system via the field GPS units and office entry along with hard copy documentation.

In the future, as a result of the RWQCB 13383 letter, the City will be revising its condition assessment program to evaluate the need for higher priority for pipes and sewer assets located within 1000 feet of the Petaluma River and its tributaries. The completion schedule for these revisions are stated in the City's Improvements Action Plan. This evaluation will prioritize assets in the vicinity of waters of the state with bacteria-related impairment as identified by the SWRCB and the RWQCB.

8.1.2: Manhole Inspections

Inspections conducted for manholes involve a visual assessment of the overall manhole condition and observed deficiencies that could result in I&I. As part of the focused and cyclic

cleaning programs, City maintenance staff visually-inspect manholes for corrosion, debris or damage around the base, cracks or holes, and condition of manhole steps.

Detailed investigations of manhole conditions are done at the time of either/or both cleaning and condition assessment. In addition, priorities are used along with additional inspections at a time when a connecting line segment is defined as a rehab project, and corrections needed to the manhole structure are then included as part of the project work.

8.1.3: Lift Station Inspections and Assessment

Lift stations are inspected on a weekly basis. Weekly inspections include visual check of the equipment, manual cycling of pumps, checking and cleaning floats, recording hour meter readings, and cleaning off debris. All emergency generators are also inspected and tested on a monthly basis.

Lift stations are inspected every year including thorough inspection and maintenance of pumps. Wet wells are dewatered and cleaned on a three-year cycle. The pump stations are also assessments and inspected during master plan updates every five years that evaluates all pumping systems and appurtenances and determining the requirements for capital renewal and replacement of the components of the pump stations.

8.1.4: Force Mains, Pressure Pipes and Siphons

The City has not in the past defined and completed a defined condition assessment program for these piping systems. As part of the Improvements Action Plan, the City will be developing and implementing a regular condition assessment program for these systems and will track all results in the City maintenance management system. This program will include regular visual assessment of pipe alignments, assessment of discharge manholes and actual internal CCTV inspection or other technology to regularly assess pipe condition. Results of the assessments will be prioritized and scheduled in the City capital improvement program along with all other sewer program capital needs. The soon to be completed Sewer Master plan includes a priority listing for force mains based upon age, material and risk and consequence of failure.

8.2: Capacity Assessment and Design Criteria

8.2.1: Hydraulic Analysis

The hydraulic model evaluates the primary "back bone" of the system i.e., lines greater than or equal to 10" in diameter. The City's GIS files are used to spatially define the system topology including geometry and network connectivity. Each individual structure data is maintained in the system database. The data maintained includes pipe types (gravity or pressure pipe), manhole types (split, diversion, outfall or standard manhole), pipe diameters, rim and invert elevations, pipe lengths and slopes.

The City periodically conducts flow monitoring and hydraulic modeling analysis to anticipate future growth or increased demand on the system as well as to determine if excessive I&I is

impacting the capacity of the system. Woodard & Curran (WC), a consultant for the City, recently completed a Technical Memo dated August 10, 2021 in which a hydraulic model of the southwestern portion of the City was prepared, and a capacity analysis was completed. After completion of the modeling and analysis of this sewer-shed, the City contracted with WC to perform a hydraulic model and capacity assessment for the entire sewer collection system as part of a Sewer Master Plan update. This project is underway and is expected to be completed by the end of Fiscal Year 2023-2024.

The capacity assurance process is used to determine estimated peak flows associated with wet weather conditions causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events.

The latest WC modeling efforts have led to CIP project's to address hydraulic issues. The final modeling technical memorandum will be used in the Sewer System Master Plan updated anticipated for completion in 2024.

8.2.2: System Evaluation and Capacity Assurance

The capacity assurance program is based on a capacity assessment that relates short term and long-term capacity requirements to a capital improvement program for providing the hydraulic capacity of key sewer system elements under peak flow conditions. The following are the program components:

- Evaluation – Evaluate portions of the collection system experiencing spills due to hydraulic deficiency.
- Capacity Enhancement Measures – Establish a short- and long-term capital improvement program to address identified hydraulic deficiencies.
- Plan updates – Update the plan on a regular basis as specified in the SSMP. Capital improvement requirements will be consistent with current planning objectives. Capacity assurance and modeling will be done periodically.

8.2.2.1: Flow Projections

Flow projections are based on historical flow rate data combined with calculated flow rates for growth areas, septic tank conversions and infill development. To estimate the sanitary flow impact of these areas, the results of actual metering and manhole flow monitoring are used to define base sanitary flow, groundwater infiltration and RDI/I values in of the tributary sub basins. To see the effect of the development over time, the flow impacts were added into the model in different scenarios until built out.

In this manner an allotment for I&I is also incorporated for new laterals and mains in the new areas. Residential infill I&I assumes that existing sewers will be used to convey wastewater

flows to the treatment plants, without added I/I volumes for new work. The City currently specifies allowances of 1000 gpd/acre for pipes designed and constructed in the future. The new model will utilize the results of the broad flow monitoring program conducted as part of the sewer master plan work.

8.2.2.2: Flow Allotments

Based on the City's design standards, past projected flows were "injected" into the previous hydraulic model. These allocations were based on the individual parcels to represent geographic regions that inject flows to particular pipes along the system. Each parcel was associated with its respective Land Use designated as one of three distinct types of Sanitary Service Areas: Residential, Commercial, or Open Space/Parkland.

These areas were assigned to specific pipes in the collection system. The sanitary flows were injected into the system throughout a 24-hour day based on flow study diurnal curves for each type of use. Diurnal curves were derived from two flow monitoring areas of the flow study, one a predominately Residential area and another predominately Commercial area.

The new model being prepared as part of the updated sewer master plan, includes extensive flow monitoring results that will be used to develop both dry and wet weather flows thru the system. The dry weather flows also consider water system use information for each parcel within the city.

Once completed, the initial flow data is adjusted to the results of the flow metering and monitoring study and the allocation of GWI, BSF & RDI/I to the sub-basins. BSF &GWI values are calibrated to the metered values found during dry weather periods. Results of this analysis provide the loading parameters for the model are included in the Woodard & Curran documents.

8.2.3: Prioritization of Corrective Actions

The City annually reviews and evaluates the need for capital renewal and replacement and capital extensions resulting from the ongoing condition assessment program, actual field maintenance results, growth and the results of spills that have or could impact waters of the State. The annual process reviews the results from past years and the prioritizations of the future needs into a comprehensive capital improvement budget for at least five years into the future. As a result of the recent requirements for additional emphasis on the potential for spill reaching waters of the State, the City will be revising its capital improvement prioritization process for capital needs that may result in discharges to Waters of the State within 1000-feet of the Petaluma River and its tributaries. The scheduled completion dates for these revisions are stated in the City's Improvements Action Plan.

8.2.4: Capital Improvement Program (CIP)

The CIP process includes a system for preparing, evaluating, and reporting CIP budgets annually. The City's collection system requires a continuing number of improvements

including collection system capacity upgrades, correcting structural problems, and modifications to pump stations, pressure pipes and the treatment plants. Schedules for the capital projects are developed based on the project priorities and support payment of all capital improvement program and equipment replacement expenditures. These schedules are reviewed and updated annually and included in the City annual Capital Improvement Program (CIP) budget review and adopted by the City Council prior to the upcoming fiscal year. The most current annual Capital Improvement Program (CIP) budget is available on the City Finance Department webpage (City Budget Link).

8.2.5: Annual CIP Budget

The annual Capital Improvement Program (CIP) budget includes increases in pipe size, I/I reduction programs, Grade 4 & 5 pipe failures repairs, increases and redundancy in pumping capacity, and storage facilities. The City has put into place the steps needed to establish short- and long-term prioritized capital projects to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. Future prioritization will include increased recognition of the importance of failures resulting from spills that are within 1000-feet of the river and its tributaries.

The City has prepared and implemented the CIP and project schedules that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. The CIP includes implementation schedules and identifies sources of funding for each project.

8.2.6: Cyclic Replacement Program

A Cyclic Replacement Program is intended to provide for the long-term gradual replacement of the sewers in the City system. Such a program is needed because many of the City sewers are 50 years old and greater and the design life of a sewer pipe is generally considered to range from 50 to 100 years.

Therefore, TV inspections of the sewers to determine and monitor their actual condition is being followed. A Cyclic Replacement Program involves a systematic program to televise each sewer in the City's sanitary sewer system and identify those in need of rehabilitation or replacement. The results of the continued inspection program will be used to identify specific rehabilitation / replacement projects to be included in future capital improvement programs and the specific method of rehabilitation or replacement that is best suited for each project. The City's new prioritization procedures from the Sewer Master Plan will include a rating point to consider the replacement of vitrified clay pipe with PVC as an important rating point especially in the 1000-foot project area.

8.2.7: Project Funding

The City has committed to regularly conducting evaluations of the necessary rates and charges to fully fund the sewer program. These updates are currently scheduled every five years and will include updates from a Sewer Master Planning effort schedule to identify and prioritize

capital projects in the next five to ten years. The effort will result in the setting of seer rates to assure adequate finds for the ensuing CIP Budget and will also identify specific funding for each of the projects included in the CIP. The City has typically relied on these rate evaluations and service charge increases to assure adequate funding for the CIP. However, the City may consider along with the rate evaluation, the use of State of California Clean Water Revolving Fund or separate public financing alternatives should those funding sources result in the best economic value to the City sewer program customers.

8.2.8: Joint Coordination

The development of the annual CIP is coordinated by the CIP Engineering Division and involves extensive meetings with collection systems operations staff, the Environmental Services Division staff responsible for both FOG and pump station operations and other City division staffs at all stages from planning, design, implementation, and construction. The City also requests input and comments on all project plans by other utilities and agencies in the service area.

8.3: References

- Technical Memorandum: South Area Model Development and Capacity Analysis – August 10, 2021 Technical Memo Link
- City of Petaluma Adopted Operating and Capital Improvement Program Budget Fiscal Year 2023-2024 https://cityofpetaluma.org/city-budgets/.

9.0: Element 9 – Monitoring, Tracking and Reporting System

The Enrollee shall:

a. Maintain relevant information, including audit findings, to establish and prioritize appropriate Plan activities;

b. Monitor the implementation and, measuring the effectiveness of each element of the Plan;

c. Assess the success of the preventative maintenance activities;

d. Updating Plan procedures and activities, as appropriate, based on monitoring and performance evaluations; and

e. Identifying and illustrating spill trends, including spill frequency, locations, and estimated volumes.

9.1: Effectiveness

The effectiveness of each SSMP element is measured through the use of selected performance indicators. These indicators are tracked and reported regularly and include the annual performance requirements in the Plan Annual Report submitted to the CIWQS system.

Performance indicator data are incorporated into historical graphs.

Some of the historical performance indicators includes the following:

- Number of dry weather spills
- Number of wet weather spills
- Total number of spills
- Number of spills <100 gallons
- Number of Category 1 spills
- Number of Category 2 spills
- Number of Category 3 spills
- Number of Category 4 spills
- Number of owner owned/operated lateral spills
- Total volume of spills
- Total volume recovered
- Total volume conveyed

- Number of spills caused by each of the spill blockage types: roots, grease, debris, and others.
- Number of spills caused by capacity limitations.

Performance indicator data are compiled from information regularly collected and maintained by the City Deputy Director of Operations. Current and readily available sources, which are described throughout this Plan, include spill field report forms, CIWQS database reports, sewer system cleaning schedules, and FOG inspection reports.

9.2: References

10.0: Element 10 – SSMP AUDITS

10.1: SSMP Audits

The Plan shall include internal audit procedures, appropriate to the size and performance of the system, for the Enrollee to comply with section 5.4 (Sewer System Management Plan Audits) of the 2022 General Order.

As previously described in Element 9, the City audits and updates the Plan on a triennial (every 3 years) basis. The Internal Audit report covers the three-year period, and the certified Internal Audit Report must be completed within six (6) months following the end of the three-year audit period. If updates or changes are required to the Plan or the SERP, the content and timeline to complete those changes are described in the audit and as the changes are made, they are tracked in the SSMP Change Log in Appendix C. The Internal Audits, upon completion and certification. are required to be certified and uploaded to the CIWQS system for State staff review and evaluation.

10.2: References

11.0: Element 11 – Communication Program

11.1: Communication Program

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

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

The City maintains a website (https://cityofpetaluma.org/) along with Facebook and Twitter, to inform the public about City activities. In addition, the City produces a monthly newsletter that regularly provides sewer program information and background. Nixel is used in case of emergencies to quickly inform customers and the public of emergencies in the City service area. The City's website is an effective communication channel for providing alerts and news to the public. The main page of the website provides important announcements, links agendas and minutes for City Council meetings, and other key information for City residents. Various public works information is published on the City's public works department and Plan pages on the website, linked from the City services tab.

The City has provided information about the Plan and a PDF of the Audits and the Plan on the City website. The website also has a link to CIWQS sewer spill public reports website utilizing the City WDID of 2SSO10165.

The City also uses its website to notify the public of important upcoming Council activities related to Plan adoptions. sewer maintenance program and annual CIP projects and funding.

Appendix A: Plan City Council Adoption Documents

Resolution No. 2024-013 N.C.S.
of the City of Petaluma, California

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PETALUMA APPROVING THE 2023 PETALUMA SEWER SYSTEM MANAGEMENT PLAN IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE WATER RESOURCES CONTROL BOARD AND THE REGIONAL WATER QUALITY CONTROL BOARD

WHEREAS, the State Water Resources Control Board (SWRCB) adopted the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (General Order) on May 2, 2006; and

WHEREAS, the General Order mandates all public collection system agencies in California that own or operate collection systems comprised of more than one mile of pipe or sewer lines, which convey untreated wastewater to a publicly owned treatment facility, are responsible for preparing a Sewer System Management Plan (SSMP); and

WHEREAS, the City has developed an SSMP and revised the SSMP in accordance with the requirements of the original General Order and the updates to monitoring and reporting in December 2022; and

WHEREAS, the SSMP must be updated every five years, and approval of the SSMP will satisfy compliance with the State's General Order; and

WHEREAS, the Regional Water Quality Control Board (RWQCB) submitted a report titled "Total Maximum Daily Load for Bacteria in the Petaluma River" summarizing potential contributors of bacteria to the Petaluma River watershed and outlining an implementation plan to help reduce bacteria levels; and

WHEREAS, the City's updated SSMP includes an action plan specifically developed to help reduce levels of bacteria in the Petaluma River watershed; and

WHEREAS, the environmental review was previously analyzed under the California Environmental Quality Act (CEQA) as part of the City's General Plan Environmental Impact Report, specifically policy 8-P-16; and

WHEREAS, this proposed action does not constitute a "project" under CEQA Guidelines Section 15378(b)(4-5) because approving the SSMP constitutes an organizational or administrative activity that will not result in direct or indirect physical changes in the environment; and

WHEREAS, implementation of the SSMP is exempt from environmental review under CEQA Guidelines sections 15301 and 15302 as it applies the already existing sanitary sewer collection systems which may require the installation of minor sewer system facilities involving either minor alterations to existing facilities, or repair or replacement of existing facilities involving negligible or no expansion of sewer capacity; and, the adoption of the SSMP is also exempt from environmental review pursuant to CEQA Guidelines Section 15308 because it requires the implementation of management operations programs and plans to enhance and protect the environment by limiting the occurrence of sanitary sewer overflows in the City; and, this action is exempt under the feasibility and planning studies exemption, CEQA Guidelines Section 15262 as this is a study for future sewer and water rates and there are no cumulative impacts, unusual circumstances, or other factors that would make the exemption inapplicable pursuant to CEQA Guidelines section 15300.2.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Petaluma hereby:

1. Declares the above recitals are hereby declared to be true and correct and are incorporated into this resolution as findings of the City Council.

2. Finds the proposed action is exempt from the requirements of the California Environmental Quality Act (CEQA) for the following reasons:
    a. Environmental review was previously analyzed under the California Environmental Quality Act (CEQA) as part of the City's General Plan Environmental Impact Report, specifically policy 8-P-16.
    b. This proposed action does not constitute a "project" under CEQA Guidelines Section 15378(b)(4-5) because approving the SSMP constitutes an organizational or administrative activity that will not result in direct or indirect physical changes in the environment.
    c. If this action did constitute a "project" under CEQA, the action would be categorically exempt under CEQA Guidelines Section 15262 as this is a study for future sewer and water rates pursuant to CEQA Guidelines Section 15300. Implementation of the SSMP is categorically exempt under CEQA Guidelines sections15301 and 15302 as it applies to the already existing sanitary sewer collection systems, which may require the installation of minor sewer system facilities involving either minor alterations to existing facilities or repair or replacement of existing facilities involving negligible or no expansion of sewer capacity. The adoption of the SSMP is also exempt from environmental review pursuant to CEQA Guidelines Section 15308 because it requires the implementation of management operations programs and plans to enhance and protect the environment by limiting the occurrence of sanitary sewer overflows in the City; and there are no cumulative impacts, unusual circumstances, or other factors that would make the exemption inapplicable.

3. Approves the 2023 Petaluma Sewer System Management Plan in accordance with the requirements of the State Water Resources Control Board and the Regional Water Quality Control Board.

4. Directs staff to authorize and execute documents pertaining to the certification of the City's SSMP and to process the online SSO database form on behalf of the City of Petaluma in accordance with the State Water Resources Control Board guidelines.

Under the power and authority conferred upon this Council by the Charter of said City.

REFERENCE: I hereby certify the foregoing Resolution was introduced and adopted by the Council of the City of Petaluma at a Regular meeting on the 26th day of February 2024, by the following vote:

Approved as to form:
DocuSigned by:
5EF85AE94F3048D...
City Attorney

AYES: McDonnell, Cader Thompson, Healy, Nau, Pocekay, Shribbs
NOES: Barnacle
ABSENT: None
ABSTAIN: None

ATTEST:
DocuSigned by:
158B8A429E4492...
City Clerk

DocuSigned by:
Kevin McDonnell
FE31645A062476...
Mayor

Resolution No. 2021-069 N.C.S.
of the City of Petaluma, California

RESOLUTION APPROVING THE 2021 PETALUMA SEWER SYSTEM MANAGEMENT PLAN IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE WATER RESOURCES CONTROL BOARD AND THE REGIONAL WATER QUALITY CONTROL BOARD

WHEREAS, the State Water Resources Control Board (SWRCB) adopted the General Water Discharge Requirements Order (Order) on May 2, 2006; and

WHEREAS, the General Water Discharge Order mandates all public collection system agencies in California that own or operate collection systems comprised of more than one mile of pipe or sewer lines, which convey untreated wastewater to a publicly owned treatment facility, are responsible for preparing a Sewer System Management Plan (SSMP); and

WHEREAS, the City has developed a SSMP and revised the SSMP in accordance with the requirements of the original Order and the updates to monitoring and reporting in August 2013; and

WHEREAS, the SSMP must be updated every five years and approval of the SSMP will satisfy compliance with the State's General Order; and

WHEREAS, environmental review was previously analyzed under the California Environmental Quality Act (CEQA) as part of the City's General Plan Environmental Impact Report specifically policy 8-P-16; and

WHEREAS, this proposed action does not constitute a "project under CEQA Guidelines Section 15378(b)(4-5) because approving the SSMP constitutes an organizational or administrative activity that will not result in direct or indirect physical changes in the environment; and

WHEREAS, implementation of the SSMP is exempt from environmental review under CEQA Guidelines sections15301 and 15302 as it applies the already existing sanitary sewer collection systems which may require the installation of minor sewer system facilities involving either minor alterations to existing facilities, or repair or replacement of existing facilities involving negligible or no expansion of sewer capacity; and the adoption of the SSMP is also exempt from environmental review pursuant to CEQA Guidelines Section 15308 because it requires the implementation of management operations programs and plans to enhance and protect the environment by limiting the occurrence of sanitary sewer overflows in the City; and this action is exempt under the feasibility and planning studies exemption, CEQA Guidelines Section 15262 as this is a study for future sewer and water rates and there are no cumulative impacts, unusual circumstances, or other factors that would make the exemption inapplicable pursuant to CEQA Guidelines section 15300.2.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Petaluma as follows:

1. Declares the above recitals are hereby declared to be true and correct and are incorporated into this resolution as findings of the City Council.

2. Finds the proposed action is exempt from the requirements of the California Environmental Quality Act (CEQA) for the following reasons:
   a. Environmental review was previously analyzed under the California Environmental Quality Act (CEQA) as part of the City's General Plan Environmental Impact Report specifically policy 8-P-16.

b. This proposed action does not constitute a "project under CEQA Guidelines Section 15378(b)(4-5) because approving the SSMP constitutes an organizational or administrative activity that will not result in direct or indirect physical changes in the environment.
c. If this action did constitute a "project" under CEQA, the action would be categorically exempt under CEQA Guidelines Section 15262 as this is a study for future sewer and water rates pursuant to CEQA Guidelines section 15300. Implementation of the SSMP is categorically exempt under CEQA Guidelines sections15301 and 15302 as it applies the already existing sanitary sewer collection systems which may require the installation of minor sewer system facilities involving either minor alterations to existing facilities, or repair or replacement of existing facilities involving negligible or no expansion of sewer capacity. The adoption of the SSMP is also exempt from environmental review pursuant to CEQA Guidelines Section 15308 because it requires the implementation of management operations programs and plans to enhance and protect the environment by limiting the occurrence of sanitary sewer overflows in the City; and there are no cumulative impacts, unusual circumstances, or other factors that would make the exemption inapplicable.

3. Approves the 2021 Petaluma Sewer System Management Plan in accordance with the requirements of the State Water Resources Control Board and the Regional Water Quality Control Board.

4. Directs staff to authorize and execute documents pertaining to the certification of the City's SSMP and to process the Online SSO database form on the behalf of the City of Petaluma in accordance with the State Water Resources Control Board Guidelines.

Under the power and authority conferred upon this Council by the Charter of said City.

REFERENCE: I hereby certify the foregoing Resolution was introduced and adopted by the Council of the City of Petaluma at a Regular meeting on the 17th day of May 2021, by the following vote:

Approved as to form:
DocuSigned by:
City Attorney

AYES: Mayor Barrett; Vice Mayor Barnacle; Fischer; Healy; King; McDonnell; Pocekay

NOES: None

ABSENT: None

ABSTAIN: None

ATTEST:
DocuSigned by:
City Clerk

DocuSigned by:
Teresa Barrett
Mayor

Resolution No. 2017-050 N.C.S.
of the City of Petaluma, California

APPROVING THE 2016 PETALUMA SEWER SYSTEM MANAGEMENT PLAN IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE WATER RESOURCES CONTROL BOARD AND THE REGIONAL WATER QUALITY CONTROL BOARD

WHEREAS, the State Water Resources Control Board (SWRCB) adopted the General Water Discharge Requirements Order on May 2, 2006; and

WHEREAS, the General Water Discharge Order mandates all public collection system agencies in California that own or operate collection systems comprised of more than one mile of pipe or sewer lines, which convey untreated wastewater to a publically owned treatment facility, are responsible for preparing a Sewer System Management Plan (SSMP); and

WHEREAS, the City has developed a SSMP and revised the SSMP in accordance with the requirements of the original Order and the updates to monitoring and reporting in August 2013; and

WHEREAS, the SSMP must be updated every five years and approval of the SSMP will satisfy compliance with the State's General Order; and

WHEREAS, the Project is exempt pursuant to California Environmental Quality Act ("CEQA") in accordance with Section 15061 (b)(3), Sewer System Management Plan Approval is not a project subject to CEQA in that it can be seen with certainty that this action will have no effect upon the environment. Capital Projects listed with the Sewer System Management Plan documents will require their own individual environmental clearances.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Petaluma hereby:

1. Approves the 2016 Petaluma Sewer System Management Plan in accordance with the requirements of the State Water Resources Control Board and the Regional Water Quality Control Board.

2. Directs staff to authorize and execute documents pertaining to the certification of the City's SSMP and to process the Online SSO database form on the behalf of the City of Petaluma in accordance with the State Water Resources Control Board Guidelines.

Under the power and authority conferred upon this Council by the Charter of said City.

REFERENCE:	I hereby certify the foregoing Resolution was introduced and adopted by the Council of the City of Petaluma at a Regular meeting on the 3rd day of April, 2017, by the following vote:	Approved as to form: City Attorney
AYES:	Albertson, Healy, Kearney, King, Miller	
NOES:	None	
ABSENT:	Vice Mayor Barrett, Mayor Glass	
ABSTAIN:	None	
ATTEST:	City Clerk	Mayor Pro Tem

Appendix B: Plan Internal Audit Reports

CITY OF PETALUMA

DEPARTMENT OF PUBLIC WORKS & UTILITIES

Sewer System Management Plan (SSMP)

2020 AUDIT

WDID 2SSO10165

Audit Period:
January 1, 2018 to
December 31, 2019

June 26, 2020

1

CITY OF PETALUMA

DEPARTMENT OF PUBLIC WORKS AND UTILITIES

Sewer System Management Plan (SSMP)

2018 SSMP Audit

PURPOSE

The purpose of the SSMP Audit is to evaluate the effectiveness of the City's SSMP, to ensure that all elements within the SSMP are compliant and current with the State Water Resources Control Board (SWRCB) requirements, and that the SSMP is being implemented and managed appropriately.

The SSMP Audit is a critical process that promotes continuous improvement of the City's SSMP, ultimately resulting in enhanced effectiveness and efficiency of City operations. This process includes the examination of events, experiences, and data from the previous two calendar years (2016 and 2017) so that successes and challenges can be identified and correlated with strengths and weaknesses of City's SSMP. The City's SSMP Audit consists of two major components: SSMP Effectiveness and SSMP Compliance. The SSMP Effectiveness is evaluated by discussion and review of these performance indicators:

1. SSO Spill Rate and Volume Indices
2. SSO Spill Rate and Volume Trends
3. Performance Measurements (SSMP Section IX – Monitoring, Measurement, and Modifications)
4. Sewer System Improvements and Studies

SSMP Compliance is evaluated by review of SSMP elements using an Audit Checklist and Narrative. Since the City SSMP's initial adoption in August 2008, this audit is meant to help identify administrative and functional changes that are needed in the SSMP. The administrative changes tend to be dynamic and include: organizational chart details, contact information, additional collection system information, inclusion of select mapping examples, etc. The functional revisions reflect more substantive changes including: incorporation of the current status of significant studies being performed (hydraulic capacity, risk assessment, large trunk sewer evaluation), changes in the maintenance program, Capital Improvement Program (CIP) details, regulatory and SSO Response Plans, etc. The current SSMP was adopted by the City Council on April 3, 2017, as part of its mandated five year certification.

Appendix C: Plan Change Log

PLAN CHANGE LOG			
Date	***SSMP Element #***	***Description of Change / Revision Made***	***Person Authorizing Change***
3/22/2024	Appendix A	Signed Plan Certification page after SSMP Adoption at council. Added council resolution to Appendix A	Dan Herrera

Appendix D: Spill Emergency Response Plan

City of Petaluma

Sewer Spill Emergency Response Plan

Effective Date: AUGUST 1, 2023

Revised Date:

Approved by: DAN HERRERA - DEPUTY DIRECTOR OF OPERATIONS

Signature:

Date: AUGUST 7, 2023

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

TABLE OF CONTENTS

1. PURPOSE

The purpose of the City of Petaluma 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. See definitions. "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.

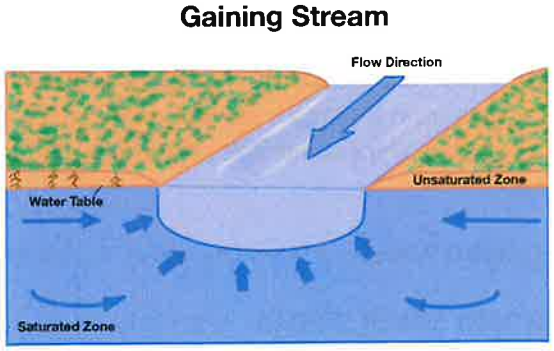
DRAINAGE CONVEYANCE SYSTEM: A drainage conveyance system is a publicly- or privately-owned separate storm sewer system, including but not limited to drainage canals, channels, pipelines, pump stations, detention basins, infiltration basins/facilities, or other facilities constructed to transport stormwater 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 State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR), groundwater feeds into the surface water. The surface waterbody in this example is termed a gaining stream as it gains flow from surrounding groundwater. See image, right.



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 this General Order.

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 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 this General Order.

- **Category 2 Spill**

  A Category 2 spill is a spill of 1,000 gallons or greater, from or caused by a sanitary sewer system regulated under 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 this General Order; 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://cityofpetaluma.org/sewer/.

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 6 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: http://www.cityofpetaluma.org. The City's telephone number for reporting sewer problems is (707) 778-4546.

- Normal Work Hours: When a report of a sewer spill or backup is made during normal work hours, Administrative Staff receives the call and enters the caller details into the Work Order System. They

will then notify the Sewer Lead Worker and they will dispatch an available Sewer Crew. The Sewer Crew will respond to the service request.

- After Hours: After hours calls are automatically forwarded to the On-Call Employee.

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.

If the spill or backup is in the City's service area, the Sewer Crew (during business hours) or On-Call employee (after hours) will respond to the address of the complaint and do an investigation. If the complaint is not a spill, the crew members' findings and actions taken, if any, are logged into the City Computerized Maintenance Management System (CMMS-Lucity) using a field tablet if available. If a field tablet is not available, the information will be entered into the CMMS when the employee returns to the Corp Yard.If the complaint is a spill, the crew member will complete the Sanitary Sewer Spill and Backup Response Workbook and then enter the findings and actions taken into the City's CMMS.

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's Online Encroachment Permit App 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 (707) 778-4546 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 Deputy Director of Operations.

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 OVERFLOW/BACKUP RESPONSE SUMMARY

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

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

- Follows the instructions in the Sanitary Sewer Spill/Backup Response Workbook.
- If the customer is not home the Sewer Crew completes the Door Hanger and leaves it on the customer's door.
- If the customer is home the Sewer 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 is possible that the spill/backup is due to a failure in the City-owned/maintained sewer lines the Sewer Crew:

- Follows the instructions in the Sanitary Sewer Spill/Backup Response Workbook.
- Notifies Assistant Operations Manager or the Deputy Director of Operations of the incident.
- Relieves blockage and cleans impacted areas.
- Forwards the completed Sanitary Sewer Spill/Backup Response Workbook to the Assistant Operations Manager.

The Assistant Operations Manager, Deputy Operations Manager, and/or the Director of Public Works and Utilities 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 Sewer 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 Assistant Operations Manager.

The Assistant Operations Manager notifies the City Risk Management Office of incident.

The City Risk Management Office or designee:

- Reviews incident reports, claim form and other incident information.
- Communicates with claimant as appropriate.
- Communicates with applicable staff 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 Assistant Operations Manager or the Deputy Director Of Operations 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 this General Order, 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 Assistant Operations Manager or the Deputy Director Of Operations. 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.
- *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 on 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 Sewer 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 Sonoma County Department of Environmental Health and Safety 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. Sonoma County Department of Environmental Health and Safety instructions and directions regarding placement and language of public warnings will be followed. Additionally, the Assistant Operations Manager or the Deputy Operations Manager 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 Sonoma County Department of Environmental Health and Safety or the Assistant Operations Manager or the Deputy Operations Manager.

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 Deputy Director of Operations or their designee will provide the media with all relevant information.

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

9.1 SURFACE WATERS OF CONCERN

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

- Petaluma River
- Corona Creek
- McNear Channel
- Washington Creek
- East Washington Creek
- Adobe Creek
- Thompson Creek
- Kelly Creek
- Capri Creek
- Lichau Creek

9.2 WATER QUALITY SAMPLING AND TESTING

For sewage spills in which an estimated 50,000 gallons or greater are discharged into a surface water, the 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, according to the City of Petaluma's standard operating procedures for water sampling. Collect one water sample, each day of the duration of the spill, at:

- The DCS-001 location as described in section 9.5 (Receiving Water Sampling Locations) below, if sewage discharges to a surface water via a drainage conveyance system; and/or
- Each of the three receiving water sampling locations in section 9.5 (Receiving Water Sampling Locations) below;

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

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

The City staff collecting the samples will complete the Chain of Custody prior to transferring ownership of the samples to the Wastewater Treatment Plant Laboratory.

The City of Petaluma Water Quality Laboratory 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 City of Petaluma Water Quality Laboratory, which is accredited through the California State Water Resources Control Board Environmental Laboratory Accreditation Program (ELAP), or by a subcontracted laboratory that hold equivalent accreditation. ELAP provides evaluation and accreditation of environmental testing laboratories to ensure the quality of analytical data used for regulatory purposes to meet the requirements of the State's drinking water, wastewater, shellfish, food, and hazardous waste programs. The State agencies that monitor the environment use the analytical data from these accredited labs. The ELAP-accredited laboratories have demonstrated capability to analyze environmental samples using approved methods.

Getting Samples to the Lab

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

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

Once samples are collected, they will be transported by Lab staff to the lab to be processed or contracted out.

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 this General Order, a method is sufficiently sensitive when the minimum level of the analytical method approved under 40 Code of Federal Regulations Part 136 is at or below the receiving water pollutant criteria.

Environmental Laboratory Accreditation Program-Accredited Laboratories

The analysis of water quality samples required per this General Order must be performed by a laboratory that has accreditation pursuant to Article 3(commencing with section 100825) of Chapter 4 of Part 1 of

Division 101 of the Health and Safety Code. (Water Code section 13176(a).) The State Water Board accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

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.

Sampling Location	Sampling Location Description
RSW-001D: Downstream of Point of Discharge	A point in the receiving water, downstream of the point of sewage discharge, where the spill material is fully mixed with the receiving water.

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.

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.

[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.

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)*.

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

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

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

completed. A sample is under custody if:

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

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

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

9.14 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 Assistant Operations Manager shall submit a Spill Technical Report to the online CIWQS Sanitary Sewer System Database. The Spill Technical Report, at minimum, must include the following information:

1. Spill causes and circumstances, including at minimum:
    - Complete and detailed explanation of how and when the spill was discovered;
    - Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
    - Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
    - Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
    - Detailed description of the spill cause(s);
    - Description of the pipe material, and estimated age of the pipe material, at the failure location;
    - Description of the impact of the spill;
    - Copy of original field crew records used to document the spill; and
    - Historical maintenance records for the failure location.
2. 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.

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 this General Order must be submitted electronically to the online CIWQS Sanitary Sewer System Database (https://ciwqs.waterboards.ca.gov), unless specified otherwise in this General Order. Electronic reporting may solely be conducted by a Legally Responsible Official or Data Submitter(s) previously designated by the Legally Responsible Official, as required in section 5.8 (Designation of Data Submitters) of 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 System Database within **30 calendars days** after the end of the month in which the spills occur; and • Submit Amended Spill Reports **within 90 calendar days** after the Certified Spill Report due date.	(Section 3.3 and 3.5 of Attachment E1 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))

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

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))
Reporting	• If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred. • Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur.	(Section 3.4, 3.6, 3.7 and 4.4 of Attachment E1 of the State Water Board Order No. WQ 2022-0103-DWQ (SSSWDR))

10.2.5 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 whether or not they result in a spill and are stored in Lucity. Spill files (field notes, spill/Backup Response Workbook) are kept in Lucity (summary info) and hard copy spill files are stored in the Assistant Operations Manager's office at the McDowell address.

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 spill will receive training on the contents of this SERP. All new employees will receive training before they are placed in a position where they may have to respond. Current employees will receive annual refresher training on this SERP and the procedures to be followed. The 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
- 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 D). 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 Sewer Crew to gather information regarding the incident and notify the Assistant Operations Manager or their designee.

- It is the responsibility of the City Risk Management 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. Service Call Form
C. Door Hanger
D. Sanitary Sewer Spill Response Instructions for Contractors
E. Lucity Work Order
F. 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 recovered), and
    b. The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
14. Spill cause(s) (for example, root intrusion, grease deposition, etc.);

(Category 3 Continued)

15. System failure location (for example, main, pump station, etc.);
16. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location;
17. Description of the impact of the spill;
18. Whether or not the spill was associated with a storm event;
19. Description of spill response activities including description of immediate spill containment and cleanup efforts;
20. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum:
    a. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
    b. Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including:
        - Adjusted schedule/method of preventive maintenance,
        - Planned rehabilitation or replacement of sanitary sewer asset,
        - Inspected, repaired asset(s), or replaced defective asset(s),
        - Capital improvements,
        - Documentation verifying immediately implemented system modifications and operating/maintenance modifications,
        - Description of spill response activities,
        - Spill response completion date, and
        - Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill;
21. Detailed narrative of investigation and investigation findings of cause of spill.

Amended Certified Spill Reports

Within 90 calendar days of the certified Spill Report due date, the 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 this General Order. 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 this General Order.

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 this General Order) 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:

Service Call Form

SERVICE CALL / COMPLAINT FORM

CALL RECEIVED:	
Received by (name):	
Date:	Time:
CALLER'S INFORMATION	
Name:	Phone:
Address:	
NATURE OF CALL (COMPLAINT)	
Date and time caller first noticed the spill:	
LOCATION OF POTENTIAL PROBLEM	
CALLER'S OBSERVATION *(e.g., odor, duration, location on property, known impacts, indication if surface water impacted, appearance at cleanout or manhole)*	
In case of spill, estimated start time:	
ADDITIONAL COMMENTS/INFORMATION	
RESPONSE ACTION TAKEN/FINAL RESOLUTION	

APPENDIX C:

Door Hanger

City of Petaluma

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 Petaluma
(707) 778-4546

City of Petaluma

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 Petaluma
(707) 778-4546

APPENDIX D:

Sanitary Sewer Spill Response Instructions for Contractors

Sanitary 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 (707) 778-4546 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 Deputy Director of Operations at (707) 778-4589.

APPENDIX E:

Lucity Work Order Form

lucity A CENTRALSQUARE COMPANY

Michael Ielmorini

Home | Closed Sewer Work Orders | Sewer Work Order Form (Field) | Sewer Work Order Form (Field) +

Work Order # | Created By | Division | Supervisor 2391 Mike Ielmorini

Location | Cleaning Notes

Address | Street Name | X St Name | Customer Comment

If you change this address, it will add a new location when you Save, then it will continue showing the first location

Category *

Problem

Cause

Main Task

Cleaning Direction Type | Condition Type | Debris Amount Type | Crew Comments

Debris Type 1 Type | Debris Type 2 Type | Debris Type 3 Type

Assigned Date 3/1/2023 | Assigned Time | Assigned Lead

Start Date | Start Time | Priority

End Date | End Time | Doc Available

Patch WxLxThick | Patch 2 WxLxT | Patch 3 WxLxT | USA Ticket #

Status Date 3/1/2023 | Status Time 10:21 AM | Status 2 New Work Order | SA

APPENDIX F:

Sanitary Sewer Overflow/Backup Response Workbook

City of Petaluma

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 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 Assistant Operations Manager (707) 778-4436 at or the Deputy Director of Operations at (707) 778-4589.
- For media inquiries/requests contact the Deputy Director of Operations at (707) 778-4589.

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

SEWER 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 Assistant Operations Manager.	Print Name: Initial: Date:

ASSISTANT OPERATIONS MANAGER:	CHAIN OF CUSTODY
☐ Review the Spill Event Checklist (A-4) and the forms in this Workbook. Contact the Sewer 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

Contact	Description	Telephone/Email/Address
Assistant Operations Manager Deputy Director of Operations	Outside Assistance / Mutual Aid	(707) 778-4436 (707) 778-4589
CAL/OES	California Office of Emergency Services	(800) 852-7550
City Risk Management Office	Assistance with sewer backup customers	(707) 778-4360 11 English Street Petaluma, CA 94952
Deputy Director of Operations	Media inquiries/requests	(707) 778-4589
Ellis Creek Water Recycling Facility	Notify in case of overflow/back-up	Operations Supervisor Pump Station Maintenance Crew (707) 776-3777
San Francisco Regional Water Quality Control Board		(510) 622-2300
Sonoma County Dept of Environmental Health and Safety	○ Notifications ○ Sign placement guidance	(707) 565-6565
State Water Resources Control Board	Walter Mobley	(916) 323-0878 Walter.Mobley@waterboards.ca.gov
Sewer Crew	CalOES 2-hour notification and other regulatory notifications	(707) 778-4546
Wastewater Treatment Plant	Water quality sample analysis	(707)776-3777 Ellis Creek Treatment Plant 3890 Cypress Dr Petaluma CA

Authorized Personnel:

The following are authorized to perform regulatory reporting of spills:

Job Title	Telephone	Check if LRO
Deputy Director Operations Manager	(707) 778-4589	✓
Director of Public Works and Utilities	(707) 778-4474	✓
Assistant Operations Manager	(707) 778-4436	

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.

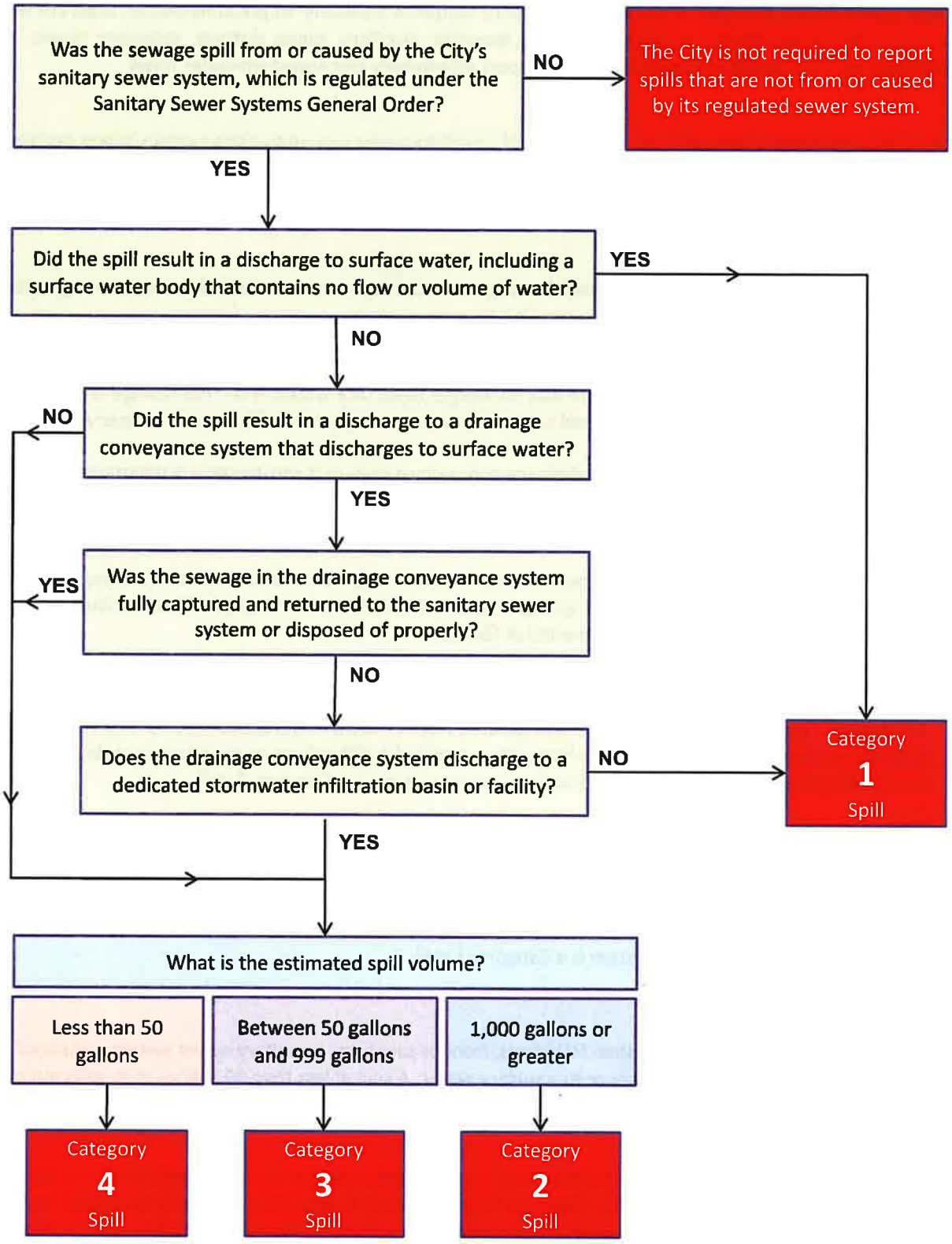
- **Category 4 Spill**

  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.

Key Definitions & Category Determination

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 #: _____

SEWER CREW RESPONSIBILITIES

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

ASSISTANT OPERATIONS MANAGER 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	Notify Operations Supervisor Ellis Creek Water Recycling Facility - Pump Station Maintenance Crew (707) 776-3777			
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-5).
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 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 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

Continue from PAGE 2

Has the spill reached surface waters?

YES

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 City of Petaluma's sampling standard operating procedures.

NO

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 Assistant Operations Manager to request outside assistance, as appropriate.

Was drainage conveyance system impacted?

YES

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.

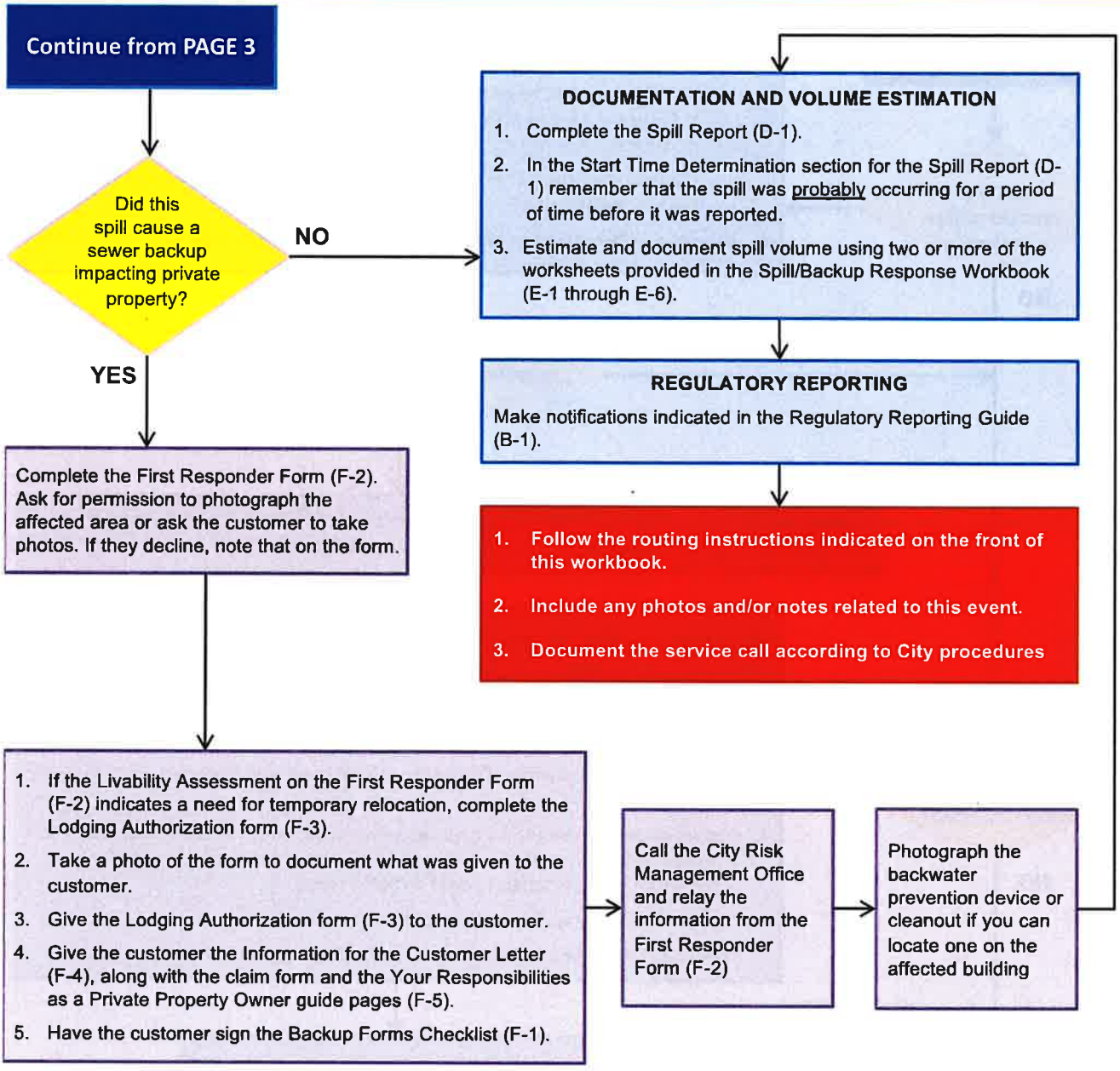
NO

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 PAGE 4

Spill/Backup Response Flowchart



INSERT TAB:
Tab D: Spill Report

Sanitary Sewer Spill Field Report

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

CalOES NOTIFICATION*		
Date:	Time:	Assigned Control Number:

Names of the Persons Completing this Report	Contact Information

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

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

PHOTOGRAPHS
Photos must be taken during the spill event. At a minimum, the following photos must be taken: o Appearance point closest to the failure point o Extent of the spill and spill boundaries o Entry location of each drainage conveyance system the sewage entered o All discharge points into surface waters o Location(s) of clean up
Where are photographs stored?

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

* Note: If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the "Describe each spill appearance point" description section above. Take photos of spill appearance point(s).

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

SPILL VOLUME

Estimated total spill volume exiting the system: _____ gallons

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

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

  _____

  _____

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

  _____

  _____

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

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

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

Did the spill reach surface water? ☐ YES ☐ NO

If yes:

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

  _____

  _____
- Describe all discharge points: _____

  _____

  _____

Estimated spill volume that discharged to surface waters: _____ gallons

Estimated total spill volume recovered: _____ gallons

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

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

If yes,

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

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

Estimated Total Spill Volume Recovered: _____ gallons

SPILL VOLUME (continued)
Method and explanation of volume estimation methods used: (Check all that apply) ☐ Eyeball Estimate (worksheet included in Spill/Backup Response Workbook) ☐ Counting Upstream Connections (worksheet included in Spill/Backup Response Workbook) ☐ Duration and Flow Rate (worksheet included in Spill/Backup Response Workbook) ☐ Measured Volume (worksheet included in Spill/Backup Response Workbook) ☐ Other (provide worksheet/calculations)
Description of how the spill volume estimations were calculated, including at a minimum, the methodology, assumptions and types of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information, used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered):

SPILL START TIME and END TIME DETERMINATION

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

Witness 1 Name:	Witness 1 Contact Information:

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

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

Witness description of spill and affected area:

Is it currently spilling? ☐ YES ☐ NO

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

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

Comments:

Witness 2 Name:	Witness 2 Contact Information:

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

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

Witness description of spill and affected area:

Is it currently spilling? ☐ YES ☐ NO

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

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

Comments:

Witness 3 Name:	Witness 3 Contact Information:

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

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

Witness description of spill and affected area:

Is it currently spilling? ☐ YES ☐ NO

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

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

Comments:

SPILL START TIME and END TIME DETERMINATION (continued)

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

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

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

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

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

Method to determine flow rate:

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

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

Distance sewage has traveled from spill point:

Spill Start Time:

Spill End Date and Time:

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

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

SPILL CAUSE (check all that apply)

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

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

SPILL IMPACT
Description of the impact of the spill:

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

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

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

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

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

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

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

INSERT TAB:
Tab E: Volume Estimation

Miscellaneous Computations & Examples

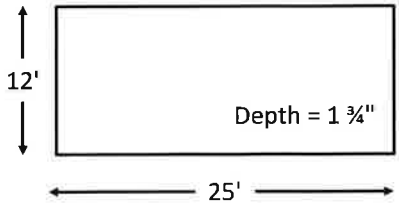
To convert inches to feet (NOTE: for the purposes of this worksheet, the unit of measurement will be in feet for formula examples)	Divide the inches by 12 or use the chart on the right. **Example 1:** 27" ÷ 12 = 2.25' **Example 2:** 1¾" = ?' 1" (0.08') + ¾" (0.06') = 0.14'
Volume of one cubic foot	7.48 gallons of liquid
Area: Two-dimensional measurement represented in square feet (SQ/FT or ft^2)	Square/rectangle: Area = Length x Width Circle: Area = $\pi \times r^2$ (where $\pi \approx 3.14$ and r = radius = ½ diameter) Triangle: Area = ½ (Base x Height)
Volume: Three-dimensional measurement represented in cubic feet (CU/FT or ft^3)	Rectangle/square footprint: Volume = Length x Width x Depth Circle footprint (cylinder): Volume = $\pi \times r^2$ x Depth (where $\pi \approx 3.14$ and r = radius = ½ diameter) Triangle footprint: Volume = ½ (Base x Height) x Depth
Depth: Wet Stain on Concrete or asphalt surface	If the depth is not measurable because it is only a wet stain, use the following estimated depths: ○ Depth of a wet stain on concrete surface: 0.0026' (1/32") ○ Depth of a wet stain on asphalt surface: 0.0013' (1/64") These were determined to be a reasonable depth to use on the respective surfaces through a process of trial and error. One gallon of water was poured onto both asphalt and concrete surfaces. Once the area was determined as accurately as possible, different depths were used to determine the volume of the wetted footprint until the formula produced a result that (closely) matched the one gallon spilled. This process was repeated several times.
Depth: Contained or "Ponded" sewage	Measure actual depth of standing sewage whenever possible. When depth varies, measure several representative sample points and determine the average. Use that number in your formula to determine volume.

Miscellaneous Computations & Examples (continued)

Convert Inches to Feet	
Inches	Feet
1/8"	0.01'
1/4"	0.02'
3/8"	0.03'
1/2"	0.04'
5/8"	0.05'
3/4"	0.06'
7/8"	0.07'
1"	0.08'
2"	0.17'
3"	0.25'
4"	0.33'
5"	0.42'
6"	0.50'
7"	0.58'
8"	0.67'
9"	0.75'
10"	0.83'
11"	0.92'
12"	1.00'

Area/Volume of a Rectangle or Square

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



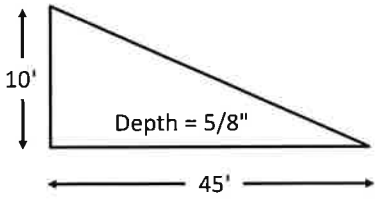
25'	X	12'	X	0.14'	=	**42 Cubic Feet**
Length		Width		Depth		Volume

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

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

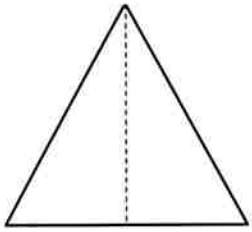
Area/Volume of a Right Triangle

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



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

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

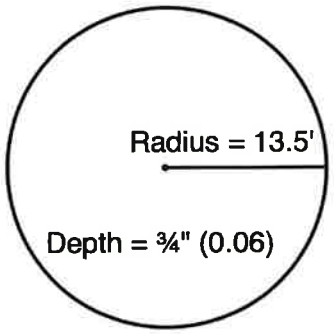


Area/Volume of a Circle

Formula: $\pi \times r^2 \times$ 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:

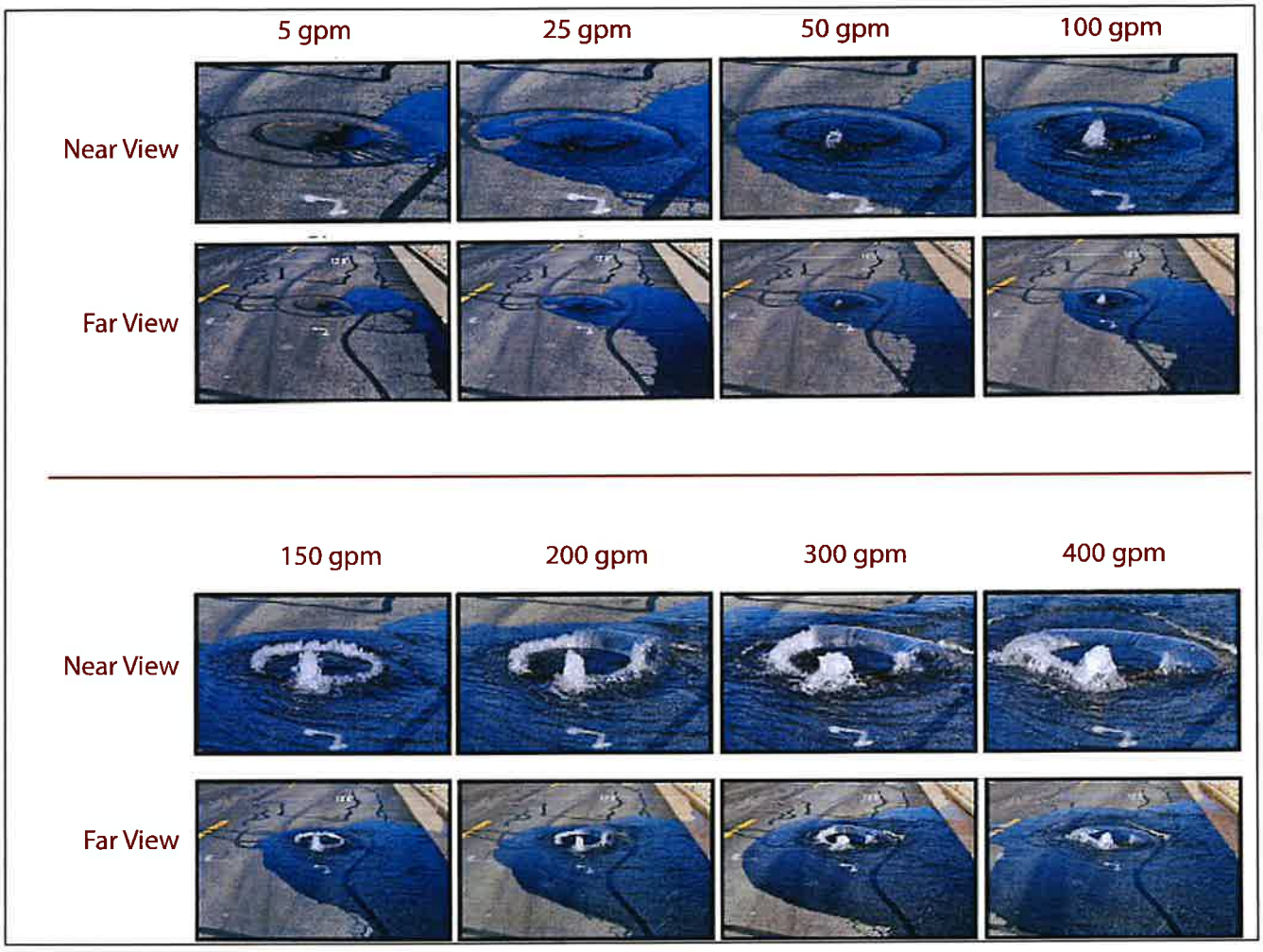
STEP 6: Take photographs. Where are photographs stored?

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)

Volume Estimation: Duration and Flow Rate Comparison Method

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

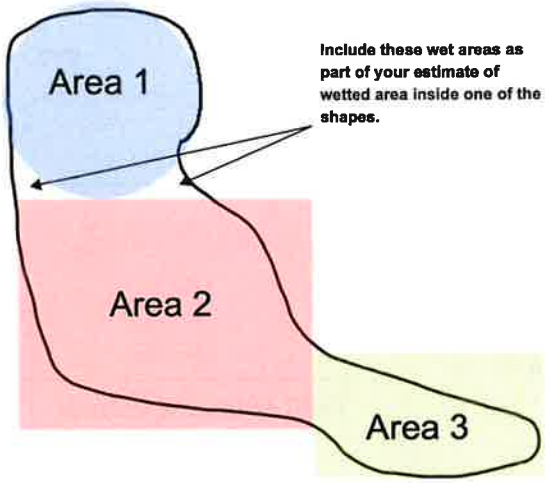
Spill Date: _____ Location: _____

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:



Volume Estimation: Area/Volume Method

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

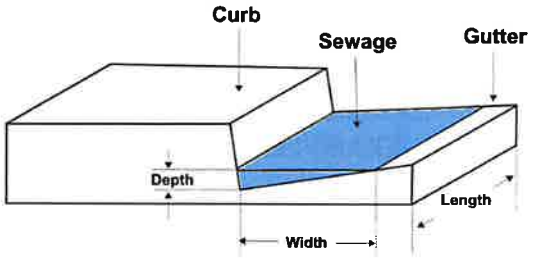
Circles:

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

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.

INSERT TAB:
Tab F: Backup Forms

Backup Forms Checklist (Backup Only)

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

Instructions to Sewer 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 the First Responder Form 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: Lodging Authorization
- ☐ Form F-4: Customer Information Letter
- ☐ Form F-5: Your Responsibilities as a Private Property Owner
- ☐ Form F-6: Claim Form

Forms Provided to:

_____
Customer Name

_____
Customer Signature

_____
Date

Check here if customer declines to sign: ☐

Formularios / Documentos:

- ☐ F-3: Autorización de Alojamiento
- ☐ F-4: Carta de Información del Cliente
- ☐ F-5: Sus Responsabilidades Como Propietario de Una Propiedad Privad
- ☐ F-6: 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 Assistant Operations Manager:

Send photos, including the photos of the documents given to the customer, and a copy of the First Responder form to the City Risk Management.

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:	
DID THE CUSTOMER CALL A CONTRACTOR FOR CLEANING SERVICE? ☐ Yes ☐ No 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 after 8pm or will the cleaning and disinfection be completed after 10pm? ☐ Yes ☐ No

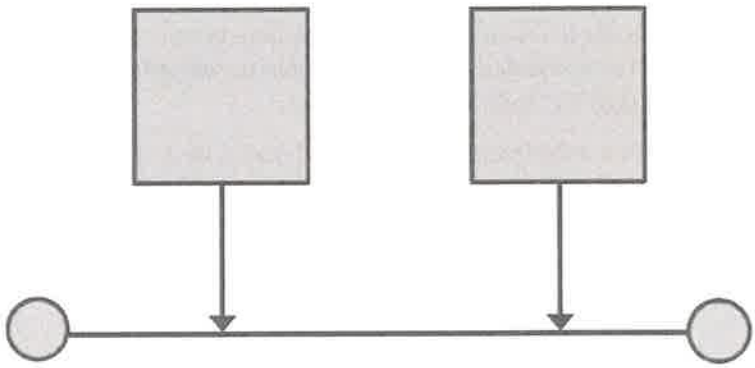
If the answer to any of the questions above is YES, complete the Lodging Authorization form.

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:	Property Line Cleanout was
☐ Non-Existent	☐ Non-Existent
☐ Full	☐ Full
☐ Empty	☐ 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):

Lodging Authorization (Backup Only) F-3

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. During business hours contact the City Risk Management Office, or after hours contact the Assistant Operations Manager, who will contact the selected hotel and use the City credit card to authorize one (1) night's lodging.
3. Complete the voucher as instructed by the City Risk Management Office or the Assistant Operations Manager.
4. Take a photo of the form for records and then give it to the customer.
5. Indicate if they accept or reject the offer of temporary relocation on the First Responder Form (F-2).

INSTRUCTIONS TO RESIDENT:

City of Petaluma 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 City Risk Management Office at (707) 778-4360.

INSTRUCCIONES PARA EL RESIDENTE:

City of Petaluma 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 City Risk Management Office al (707) 778-436.

VOUCHER

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

Customer's Name: _____

Field Supervisor's Name: _____ Phone Number: _____

Petaluma Best Western
200 S Mcdowell Blvd
Petaluma CA
(707) 763-0994

Days Inn
8141 Redwood Blvd
Novato CA
(415) 897-7111

Quality Inn
5100 Montero Way
Petaluma CA (707) 664-1155

Customer Information Letter (Backup Only) F-4 (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. Regardless of whether you or the City is responsible for the loss, it is up to you to arrange for the repair of your property and to present a claim for consideration. You or the property owner should immediately contact a firm for clean-up of the affected areas. If you do not know of a company to call for service, the following 24-hour emergency restoration companies are available to respond: *

Restoration Company	Contact
Britannia Cal Pacific	(650) 742-6490
Four-Star Cleaning and Restoration	(800) 255-3333
Ideal Drying	(800) 379-6881
Restoration Elements	(800) 739-2031
ServiceMaster Disaster Restoration	(800) 439-8833
TMB	(707) 252-5480

* This list is provided as a resource only. The City does not require or endorse the use of any of these firms. This list is not to be construed as exclusive, comprehensive or limiting in any way. Qualified contractors can be found in the Yellow Pages under "Water Damage Restoration" or "Fire & Water Damage Restoration". However, be sure you hire a firm with experience in sewer backups and enough resources to get the job done quickly.

Depending on the extent of the backup our Sewer 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 Assistant Operations Manager at (707) 778-4436. To submit a claim for damages contact the City Risk Management Office at (707) 778-4360.

Sincerely,
The City of Petaluma

Customer Information Letter (Backup Only) F-4 (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. Sin importar si usted o la Ciudad son responsables por la pérdida, es su responsabilidad hacer los arreglos para la limpieza y reparación de la propiedad, y presentar un reclamo para que sea considerado.

Usted o el propietario deberán contactar de inmediato a una empresa para que se realice la limpieza de las áreas afectadas. Si no sabe de ninguna empresa para contactar, las siguientes empresas de restauración con servicio de emergencia las 24 horas están disponibles:

Restoration Company	Contact
Britannia Cal Pacific	(650) 742-6490
Four-Star Cleaning and Restoration	(800) 255-3333
Ideal Drying	(800) 379-6881
Restoration Elements	(800) 739-2031
ServiceMaster Disaster Restoration	(800) 439-8833
TMB	(707) 252-5480

* Esta lista se proporciona como un recurso solamente. La Ciudad no requiere que use estas empresas. Esta lista no es para que se interprete como exclusiva, integral o limitante en cualquier forma. Se puede encontrar contratistas calificados para este trabajo en las Páginas Amarillas en la sección "Water Damage Restoration" o "Fire & Damage Restoration". Asegúrese de contratar una empresa con experiencia en estancamientos de desagües y con suficientes recursos para poder realizar el trabajo rápidamente.

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 Sewer 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 Assistant Operations Manager al (707) 778-4436. Para presentar un reclamo por daños comuníquese con la City Risk Management Office al (707) 778-4360.

Sinceramente,
The City of Petaluma

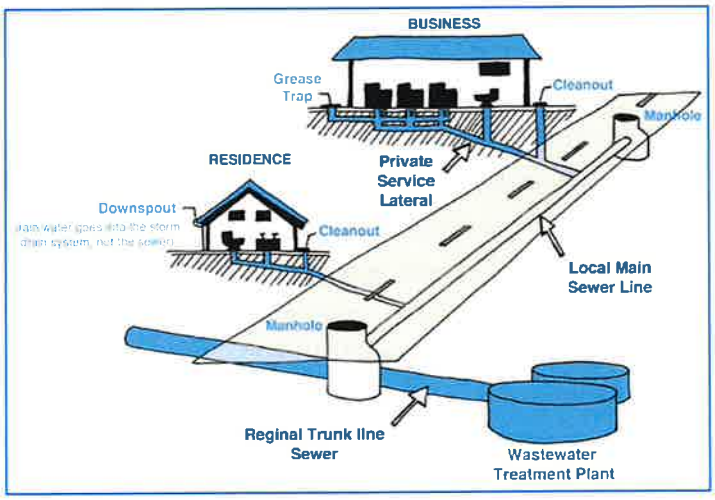
Your Responsibilities as a Private Property Owner (Backup Only)

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.



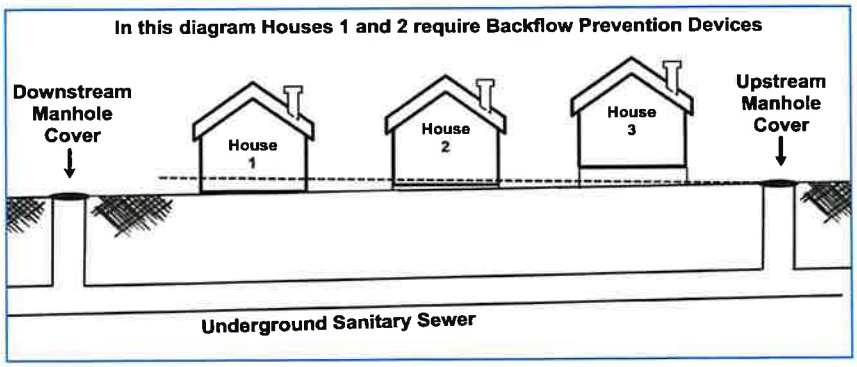
Prevent most sewage backups with a Backflow Prevention Device

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."*



Your Responsibilities as a Private Property Owner (Backup Only) F-5: Page 2

Spill cleanup inside the home:

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

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

Other Tips:

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

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

Spill cleanup outside the home:

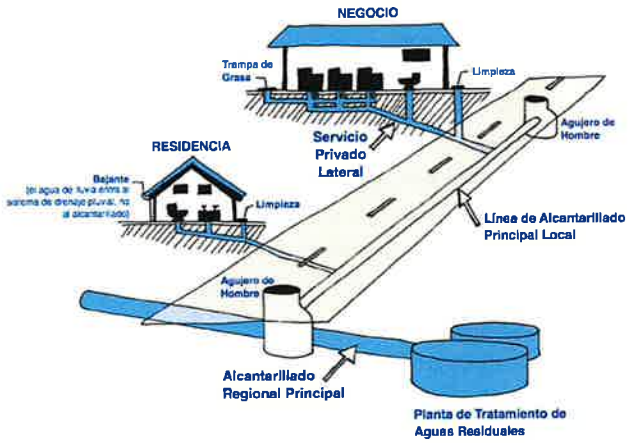
- Keep children and pets out of the affected area until cleanup has been completed.
- Wear rubber boots, rubber gloves, and goggles during cleanup of affected area.
- Clean up sewage solids (fecal material) and place in properly functioning toilet or double bag and place in garbage container.
- On hard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

Cómo funciona un sistema de alcantarillado

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

¿Cómo ocurren los derrames de aguas residuales?

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



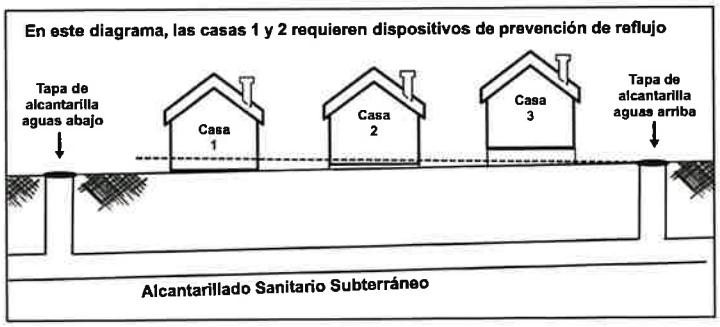
Prevenga la mayoría de las copias de seguridad de aguas residuales con un dispositivo de prevención de reflujo

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

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

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

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



Limpieza de derrames dentro de la casa:

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

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

Otros consejos:

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

- 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.

CITY OF PETALUMA

POST OFFICE BOX 61
PETALUMA, CA 94953-0061

CLAIM FORM

Claims for death, injury to person or to personal property must be filed not later than six months after the occurrence. All other claims for damages must be filed not later than one year after the occurrence. (Government Code section 911.2.)

The undersigned hereby presents the following claim against the City of Petaluma in accordance with the provisions of Government Code section 910, et seq.

1. **NAME OF CLAIMANT:** _____ **DATE:** _____

   CLAIMANT'S ADDRESS: _____

   CITY: _____ **ZIP:** _____

   PHONE: _____

   E-MAIL: _____

2. **MAILING ADDRESS:** _____

   CITY: _____ **ZIP:** _____

3. **DATE OF INCIDENT:** _____ **TIME OF INCIDENT:** _____

   LOCATION OF INCIDENT: _____

4. **DESCRIPTION OF THE INCIDENT OR ACCIDENT:**
   (Include your reason(s) for believing that the City is liable for your loss(es):

   _____

   _____

   _____

   _____

   _____

   _____

5. **DESCRIPTION OF ALL INJURIES OR DAMAGES WHICH YOU BELIEVE YOU HAVE INCURRED AS A RESULT OF THE INCIDENT:**

   _____

   _____

   _____

City Clerk
11 English Street
Petaluma, CA 94952

Phone (707) 778-4360
Fax (707) 778-4554

E-Mail:
cityclerk@ci.petaluma.ca.us

6. **NAME(S) OF ANY CITY EMPLOYEE(S) CAUSING THE DAMAGES THAT YOU ARE CLAIMING, IF KNOWN:**

_____

_____

7. **DOLLAR AMOUNT OF ALL DAMAGES YOU ARE CLAIMING IF LESS THAN $10,000:**
(Attach all estimates that are available)

_____

8. **IF DOLLAR AMOUNT OF ALL DAMAGES IS GREATER THAN $10,000, PLEASE INDICATE :**
   - ☐ Case would be limited (less than $25,000)
   - ☐ Case would be unlimited (greater than $25,000)

9. **IF CLAIM IS FOR INDEMNITY, ON WHAT DATE WERE YOU SERVED WITH THE UNDERLYING LAWSUIT:**

_____

- **PRESENTATION OF A FALSE CLAIM WITH AN INTENT TO DEFRAUD IS A FELONY (PENAL CODE SECTION 72).**
- **CLAIMS ARE SUBJECT TO DISCLOSURE UNDER GOVERNMENT CODE SECTION 6250 ET SEQ. (POWAY UNIFIED SCHOOL DISTRICT V. SUPERIOR COURT) (1998) 62 CAL. APP. 4TH 1496.**

SIGNATURE OF CLAIMANT: _____

PRINT NAME: _____ **DATE:** _____

RETURN COMPLETED FORM TO:

OFFICE OF THE CITY CLERK
CITY OF PETALUMA
11 ENGLISH STREET
PETALUMA, CA 94952

MAIL FORM TO:

OFFICE OF THE CITY CLERK
CITY OF PETALUMA
POST OFFICE BOX 61
PETALUMA, CA 94952

INSERT TAB
Tab G: POST-SPILL

Post-Spill Assessment

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
	Added sewer to preventive maintenance program				
	Adjusted schedule/method of preventive maintenance				
	Enforcement action against FOG source				
	Plan rehabilitation or replacement of sewer				
	Repaired facilities or replaced defect				
	Change(s) to Spill Response Procedures				
	Training				
	Misc.				
Comments/Notes:					
Reviewed By:				Review Date:	