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# **Sanitary Sewer System Management Plan (SSMP)**

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**Adopted June 7, 2022**

City of Pinole  
Public Works Department  
2131 Pear St  
Pinole, CA 94564

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## Table of Contents

Acronyms and Abbreviations	1
Definitions	3
Introduction	5
Purpose	5
Regulatory Requirements	5
Document Organization	5
Collection System Overview	6
City Location, History, and Organization	6
Collection System Description	6
Collection System Metrics	8
Climate and Topography	9
Seismic and Geologic Hazards	10
Element 1    Goals	13
1.1 Requirements	13
1.2 SSMP Goals	13
1.3 Compliance with Regulatory Requirements	13
Element 2    Organization	15
2.1 Requirements	15
2.2 Organization Chart	15
2.3 Responsibility for SSMP Management, Administration and Maintenance	15
2.4 Chain-of-Communication for Reporting and Responding to SSOs	18
Element 3    Legal Authority	19
3.1 Requirements	19
3.2 Pinole Municipal Code	19
3.3 Illicit Discharges	19
3.4 Public Sewer Design and Construction	20
3.5 Private Sewer Design, Construction, Maintenance	21
3.6 FOG and Debris	22
3.7 Rights of Entry and Enforcement	23
Element 4    Operation and Maintenance Program	25
4.1 Requirements	25
4.2 Introduction	25
4.3 Mapping	26
4.4 Preventative Maintenance Activities	26
4.5 Rehabilitation and Replacement Plan	27
4.6 Training	29
4.7 Equipment and Replacement Parts Inventories	30
Element 5    Design and Performance Provisions	33
5.1 Requirements	33
5.2 Design and Construction Standards, Inspection and Testing	33
Element 6    Overflow Emergency Response Plan	35
6.1 Requirements	35
6.2 Introduction and OERP Goals	35
6.3 SSO Categories	36
6.4 SSO Notification Procedures	37
6.5 SSO Response Activities	38
6.6 Regulatory Agency and Other Stakeholder Notifications	47
6.7 Staff and Contractor Awareness and Training	54
6.8 Pollution Prevention Program Regarding SSOs	55
Element 7    Fats, Oils, and Grease (FOG) Control Program	57

	7.1 Requirements	57
	7.2 Background and Disposal	57
	7.3 Legal Authority, Requirements, Inspection and Enforcement	59
	7.4 Collection System Maintenance	59
	7.5 Public Education Outreach Program	60
Element 8	System Evaluation and Capacity Assurance Plan	61
	8.1 Requirements	61
	8.2 System Evaluation	62
	8.3 Capacity Assurance Plan	62
Element 9	Monitoring, Measurement, and Program Modifications	63
	9.1 Requirements	63
	9.2 Introduction	63
	9.3 Monitoring and Measurement – Data	63
	9.4 Monitoring and Measurement – Performance Indicators	64
	9.5 SSMP Program Review and Modification	65
	9.6 SSO Trends	66
Element 10	SSMP Audits	67
	10.1 Requirements	67
	10.2 SSMP Audits	67
Element 11	Communication Program	69
	11.1 Requirements	69
	11.2 Communication Program	69
	11.3 Communication Plan with City of Hercules	70

## List of Appendices

Appendix A – Change Log
Appendix B – SSMP Audit Template
Appendix C – Waste Discharge Requirements
Appendix D – Completed SSMP Audits

## Acronyms and Abbreviations

ADWF	average dry weather flow
AMS	asset management system
BACWA	Bay Area Clean Water Agencies
BMP	best management practice
Cal OES	State of California Office of Emergency Services
Cal/OSHA	State of California Occupational Safety and Health Administration
CAAP	Climate Action and Adaptation Plan
CAP	Contra Costa County Climate Change Action Plan
CCTV	closed-circuit television
CIP	Capital Improvement Plan or Program
City	City of Pinole
CIWQS	California Integrated Water Quality System
CMMS	computerized maintenance management system
CWEA	California Water Environment Association
DS	Data Submitter
FOG	fats, oils, and grease
FY	Fiscal Year
GIS	geographic information system
gpm	gallons per minute
HFC	high frequency cleaning
I&I	infiltration and inflow
IIPP	Illness and Injury Prevention Plan
JPA	Joint Powers Authority
kV	kilovolt
LOTO	lockout/tagout
LRO	Legally Responsible Official(s)
Master Plan	Sanitary Sewer Master Plan Update
mgd	million gallons per day
O&M	operation and maintenance
OERP	Overflow Emergency Response Plan
MACP	Manhole Assessment Certification Program
MRP	Monitoring and Reporting Requirements
NASSCO	National Association of Sewer Service Companies

City of Pinole - Sewer System Management Plan (SSMP), June 2022

NPDES	National Pollutant Discharge Elimination System
PACP	Pipeline Assessment Certification Program
PLSD	Private Later Sewage Discharge
PM	preventative maintenance
POSM	Pipeline Observation System Management Software
PWWF	peak wet weather flow
QA/QC	quality assurance/quality control
R&R	rehabilitation and replacement
RWQCB	Regional Water Quality Control Board
SLR	sea level rise
SSMP	Sewer System Management Plan
SOP	standard operating procedure
SSO	Sanitary Sewer Overflow
State Water Board	State of California Water Resources Control Board
WCW	West County Wastewater
WDID	Waste Discharge Identification Number
WDR	Waste Discharge Requirements (“Statewide Waste Discharge Requirements for Sanitary Sewer Systems”)
WPCP	Pinole-Hercules Water Pollution Control Plant

## Definitions

Category 1 SSO	<p>Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee's sanitary sewer system failure or flow condition that:</p> <ul style="list-style-type: none"><li>● Reach surface water and/or reach a drainage channel tributary to a surface water; or</li><li>● Reach a municipal separate storm sewer system and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the municipal separate storm sewer system is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or ground water infiltration basin (e.g., infiltration pit, percolation pond).</li></ul>
Category 2 SSO	<p>Discharges of untreated or partially treated wastewater of 1,000 gallons or greater resulting from an enrollee's sanitary sewer system failure or flow condition that do not reach a surface water or a drainage channel. Discharges that reach a municipal separate storm sewer system are considered Category 2 SSOs if the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.</p>
Category 3 SSO	<p>All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition. Specifically, discharges of untreated or partially treated wastewater of less than 1,000 gallons resulting from an enrollee's sanitary sewer system failure or flow condition that do not reach a surface water or a drainage channel. Discharges of less than 1,000 gallons that reach a municipal separate storm sewer system are considered Category 3 SSOs if the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.</p>
Collection System	<p>The city-owned pipelines, pump stations, manholes and other similar facilities which accept, collect, and convey sanitary sewage to the treatment plant.</p>
Event ID	<p>A unique identifier assigned by the SSO Database to each reported SSO or private lateral sewage discharge</p>
Lift Station	<p>A pumping station that raises the sewage from a lower to higher elevation and discharges it into the gravity sewer system</p>
Percent Reached Surface Water	<p>Volume of sewage discharged from an SSO or PLSD that reached surface water divided by the total volume of the SSO or PLSD.</p>

Percent Recovered	Volume of the SSO or PLSD that was captured and returned to the sanitary sewer system or private lateral divided by the total volume of the SSO or PLSD.
Public Sewer	The sanitary sewers owned or maintained by the city lying within the limits of the public streets, roads, easements, reserves, non-exclusive easements or other public rights-of-way serving or intended to serve two (2) or more separate properties, persons, or parcels. That portion of the building sewer lateral which may lie within any public street or right-of-way is not a public sewer in the city.
Sanitary Sewer Overflow	Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system.
Sewer Lateral	That part of a drainage system which extends from the end of the building drain and conveys discharge to a public sewer or other point of disposal. The building sewer lateral shall terminate at the wye or other manufactured connection to the public sewer.
SSO Database	Online reporting system developed, hosted, and maintained by the State Water Resources Control Board for compliance with the Monitoring and Reporting Program contained in the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WQO No. 2006-0003-DWQ).
Total Volume Reached Surface Water	Amount of sewage discharged from a sanitary sewer system or private lateral or other private sewer system asset that reaches a surface water.
Total Volume Recovered	Amount of sewage discharged that was captured and returned to the sanitary sewer system or private sewer system asset.
SSO Water Quality Monitoring Plan	Plan that includes protocols and requirements for water quality monitoring following a Category 1 SSO of 50,000 gallons or more.
Waters of the State	All streams, lakes, ponds, marshes, water courses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems, and all other bodies of accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof. (Ord. 01-102 § 2(part), 2001).



## Introduction

This Sewer System Management Plan (SSMP) was developed by the City of Pinole (City), Public Works Department with the assistance of SKL Solutions Inc. It documents the City's plan and schedule to manage, operate, and maintain the wastewater collection system in an effective and sustainable manner through operations and maintenance (O&M) and engineering planning and capital improvement activities.

## Purpose

The purpose of the SSMP is to provide formal documentation of the City's approach to minimizing and mitigating the risks of sanitary sewer overflows (SSOs), in compliance with regulatory requirements.

## Regulatory Requirements

On May 2, 2006, the State of California Water Resources Control Board (State Water Board) adopted Order 2006-0003-DWQ, "Statewide Waste Discharge Requirements for Sanitary Sewer Systems" (WDRs). Effective September 9, 2013, the State Water Board amended the Monitoring and Reporting Requirements (MRP) of the WDRs with WQ 2013-0058-EXEC. These documents are included in Appendix C, for reference.

## Document Organization

A Collection System Overview follows this Introduction. The remaining numbered sections of this document correspond to the WDR requirements that the SSMP address the following 11 elements:

1. Goals
2. Organization
3. Legal Authority
4. Operation and Maintenance Program
5. Design and Performance Provisions
6. Overflow Emergency Response Plan
7. FOG Control Program
8. System Evaluation and Capacity Assurance Plan
9. Monitoring, Measurement, and Program Modifications
10. SSMP Program Audits
11. Communication Program

Each of these numbered sections includes an initial subsection with the WDR requirements for the element as well as one or more subsections documenting the City's approach, plan, and schedule, if applicable, that fulfills those requirements.

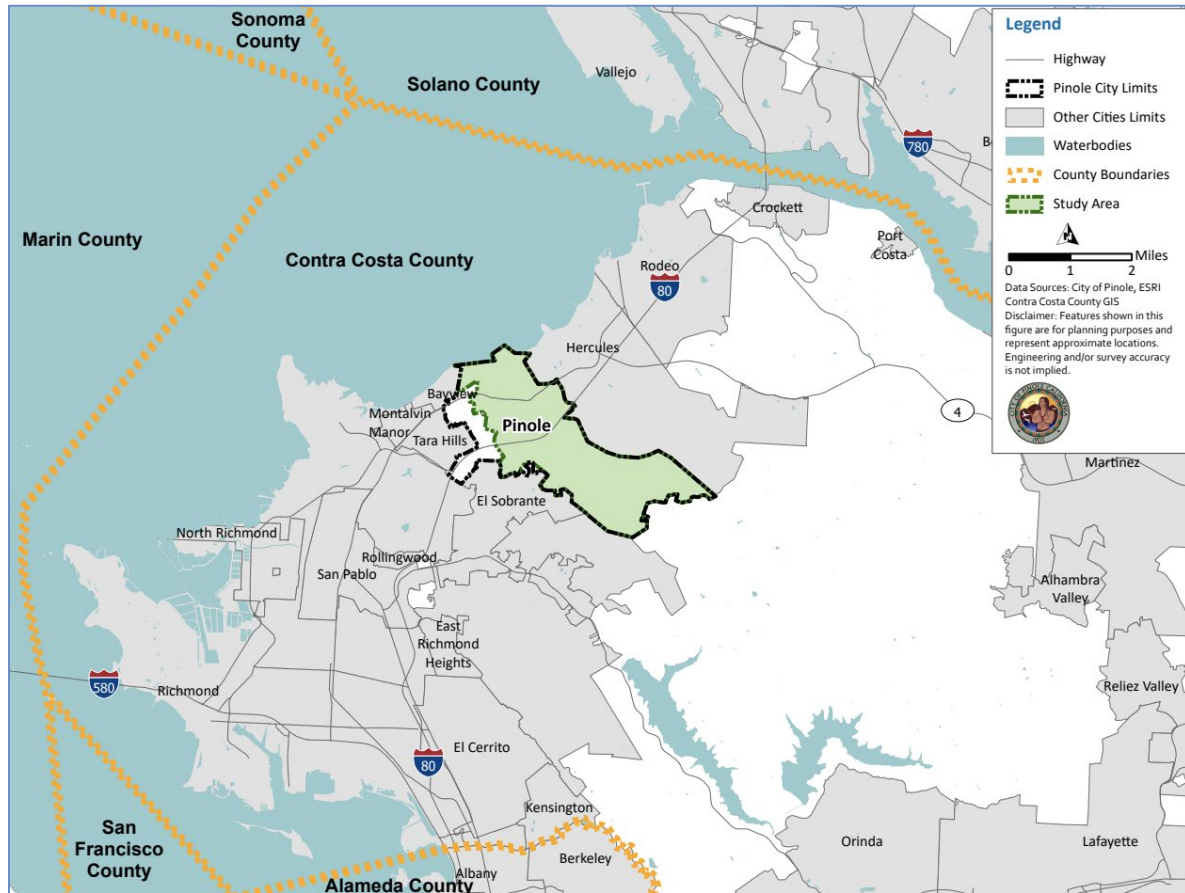
Preparation of this document was based on *A Guide for Developing and Updating of Sewer System Management Plans (SSMPs)*, September 2015, which was developed by a consortium of sewer collection system agencies and environmental professionals. Portions of this document also include material developed for the City's 2022 Sanitary Sewer Master Plan Update prepared by Carollo Engineers.

## Collection System Overview

### City Location, History, and Organization

The City is located in the San Francisco Bay Area, along the San Pablo Bay in West Contra Costa County, California, see Figure CS.1. The City is traversed by Interstate 80 and located near the beginning of State Route 4, which begins just north of the City and connects with Interstate 680. The City, which was incorporated in 1903, provides sewer and storm drainage services to its customers. The City provides sewer service to most of its residential, commercial, and industrial customers. West County Wastewater (WCW) provides sewer service to a small portion of the City.

Figure CS.1. Regional Location Map



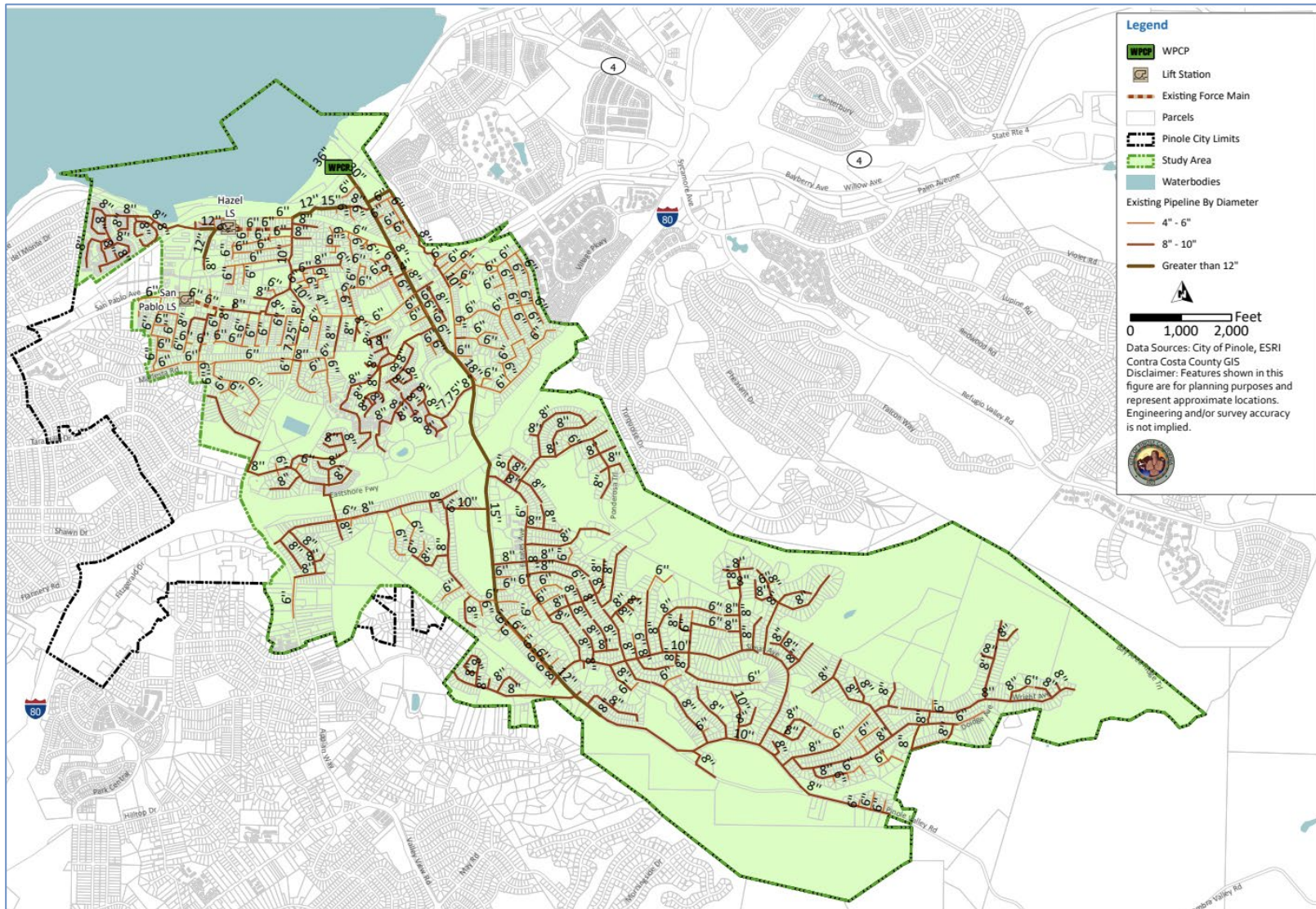
Source: City of Pinole, Sanitary Sewer Master Plan Update, Figure 1.1, prepared by Carollo Engineers, Draft March 2022

### Collection System Description

The City provides wastewater services to approximately 19,000 residents, industrial and commercial users through approximately 5,400 private sewer laterals. The wastewater collection system includes over 49 miles of active gravity sewer lines, ranging from 6 to 30 inches in diameter, over 1,300 manholes two (2) lift stations, and over 800 linear feet of associated force mains, see Figure CS.2. Wastewater generated in the sewer service area is conveyed to the Pinole-Hercules Water Pollution Control Plant (WPCP). WPCP provides wastewater treatment to the cities of Pinole and Hercules. The WPCP serves Hercules and Pinole residents and is operated and maintained by the City of Pinole under a Joint Powers Agreement.

City of Pinole - Sewer System Management Plan (SSMP)

Figure CS.2. Sewer System Map



Source: City of Pinole, Sanitary Sewer Master Plan Update, Figure 5.1, prepared by Carollo Engineers, Draft March 2022

## Collection System Metrics

**Pipes.** The City’s gravity collection system is comprised of over 49 miles of gravity pipe up to 36 inches in diameter and over 1,300 manholes. Table CS.1 presents a summary of the existing gravity sewers, by diameter.

**Table CS.1 Gravity Pipe by Diameter**

Pipe Diameter (inches)	Length (miles)	Percent of System (by length)
4	0.1	0.2
6	17.1	34.6
8	26.7	54.0
10	2.6	5.3
12	0.9	1.9
15	1.0	2.0
18	0.8	1.6
24	0.0	<0.1
30	0.2	0.5
36	<0.01	<0.1
<b>Total</b>	<b>49.4</b>	<b>100</b>

Source: City of Pinole, Sanitary Sewer Master Plan Update, Table 5.1, prepared by Carollo Engineers, Draft March 2022

**Lift Stations.** The City operates and maintains two wastewater lift stations throughout the City. Figure CS.1, above, shows the locations of each lift station. A brief summary of each lift station is presented below in Table CS.2.

**Table CS.2 Lift Station Summary**

Lift Station	Location	Facilities	Force Main	Description
<b>San Pablo</b>	San Pablo Avenue east of Meadow Avenue and west of Sunnyview Drive	6-foot diameter, 14-foot deep wet well with two 300 gallons per minute (gpm) submersible pumps	8-inch 625 feet	Conveys raw wastewater east via the force main until it discharges into the 8-inch gravity main on San Pablo Avenue west of Rodgers Way
<b>Hazel</b>	Between Hazel Street and Sunnyview Drive	8-feet by 4-feet cubical, 11-foot deep wet well with two 405 gpm submersible pumps	6-inch 940 feet	Conveys raw wastewater until it discharges into the 8-inch diameter gravity main between Alfred Drive and Pinon Avenue

Source: City of Pinole, Sanitary Sewer Master Plan Update, Table 5.2, prepared by Carollo Engineers, Draft March 2022

**Flows.** Flows were recently analyzed during preparation of the 2022 Sanitary Sewer Master Plan Update, including dry weather flows as well as infiltration and inflow (I&I). Average dry weather flows (ADWF) to the WPCP, based on analysis of influent flow data from 2013-2017, is approximately 1.1 to 1.2 million gallons per day (mgd), with a Maximum Day:ADWF peaking factor of up to 1.3 to 5.7, depending on drought conditions. Existing peak wet weather flow (PWWF) was derived using hydraulic modeling and a 10-year, 24-hour design storm condition (approximately 3.52 inches of rainfall). The existing PWWF is 15.21, which represents a wet weather peaking factor (PWWF:ADWF) of 13.8 due to I&I.

## Climate and Topography

**Climate**<sup>1</sup>. Table CS.3 summarizes the City’s climate. The climate is mild, with no extremes of temperature, rainfall or humidity, with arid summers and a wet season from October through April. January is the wettest month with an average 4.76 inches of precipitation and July is the driest month with an average of 0.04 inches of precipitation. The average annual precipitation is approximately 23.14 inches, with approximately 90 percent of the average annual precipitation occurring between November and April.

**Table CS.3 Climate**

Month	Average Temperature (degrees Fahrenheit [°F])		Average Total Precipitation (inches)
	Minimum	Maximum	
<b>January</b>	42.6	57.5	4.76
<b>February</b>	45.4	61.5	3.83
<b>March</b>	46.8	63.8	3.31
<b>April</b>	48.8	66.5	1.67
<b>May</b>	51.7	69.0	0.53
<b>June</b>	54.4	71.1	0.21
<b>July</b>	55.3	70.4	0.04
<b>August</b>	56.1	71.0	0.07
<b>September</b>	56.3	74.1	0.21
<b>October</b>	53.3	72.2	1.27
<b>November</b>	48.0	64.6	2.89
<b>December</b>	43.3	58.1	4.36
<b>Average or Total</b>	50.2	66.6	23.14

Sources: Western Regional Climate Center Richmond, California (047414) monthly average precipitation from December 1950 to June 2016.  
City of Pinole, Sanitary Sewer Master Plan Update, Table 2.1 Study Area Climate, prepared by Carollo Engineers, Draft March 2022

**Topography.** The City occupies a land area of approximately 5.45 square miles, and consists of varied topography ranging from steep terrain to ocean basin. Gently rolling hills are scattered throughout the City, and steeper hills parallel each other and extend north to south. The City’s elevation ranges from sea level at the bay to approximately 500 feet above sea level in the developed hillsides of the City.

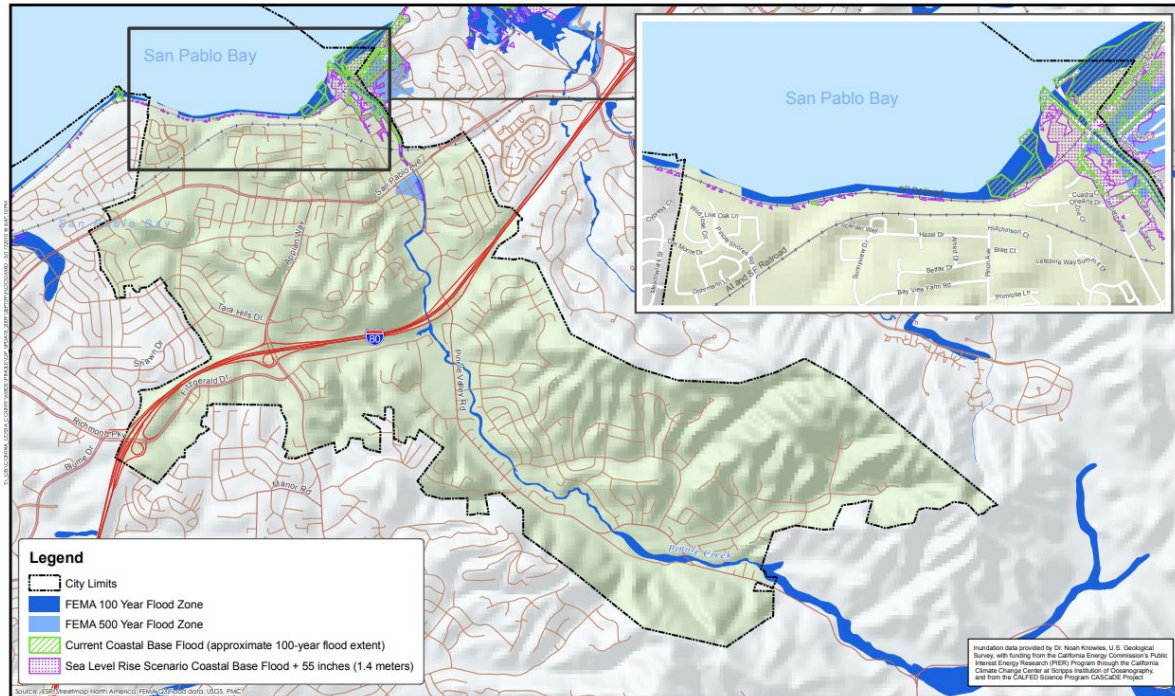
**Climate Change**<sup>2</sup>. The City is currently updating their approach to specific project and planning targets for sea-level rise (SLR) in coordination with regional efforts and will be preparing and adopting the City’s first Climate Action and Adaptation (CAAP) plan as a standalone document. The Contra Costa County Hazard Mitigation Plan used the San Francisco Bay Conservation and Development Commission (Adapting to Rising Tides, 2016) to assess the exposure to climate change induced sea-level rise: 12 inches by 2030 and 66 inches by 2100 compared to

<sup>1</sup> Source: City of Pinole, Sanitary Sewer Master Plan Update, Chapter 2, prepared by Carollo Engineers, Draft 2022

<sup>2</sup> Source: City of Pinole, Climate Change Questionnaire

2000. The Contra Costa County Climate Change Action plan (CAP) refers to the Cal-Adapt.org projection to assess SLR impacts developed by the state. See Figure CS.3 for a map showing the flood zones and a sea level rise scenario.

**Figure CS.3. Flood Zones and Sea Level Rise Scenario**



Source: City of Pinole, General Plan, Chapter 9 Health and Safety, Figure 9.3, prepared by PMC, 2010

### Seismic and Geologic Hazards<sup>3</sup>

The City generally has stable soils and geologic conditions, with some steep hillside and coastal and Pinole Creek deposit areas that may be unstable during wet weather or seismic events. Figure CS.4 and CS.5 shows the location of the faults, liquefaction susceptibility and landslide distribution. There are no specific sanitary sewer pipelines identified with historic failure risk due to geologic hazards.

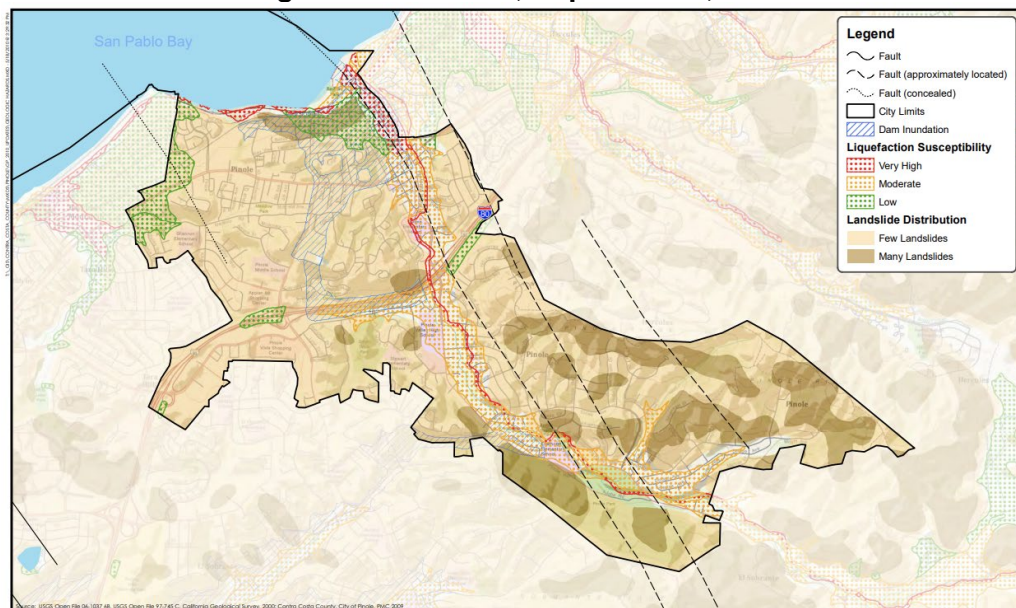
<sup>3</sup> City of Pinole, General Plan, Chapter 9 Health and Safety, 2010  
Page 10 of 70

**Figure CS.4. Fault Location Map**



Source: City of Pinole, General Plan, Chapter 9 Health and Safety, Figure 9.2, prepared by PMC, 2010

**Figure CS.5. Faults, Liquefaction, Landslide**



Source: City of Pinole, General Plan, Chapter 9 Health and Safety, Figure 9.3, prepared by PMC, 2010

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## Element 1 Goals

### 1.1 Requirements

Element <b>1</b>	D.13.(i) <b>Goals:</b>
Requirements	The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

### 1.2 SSMP Goals

Requirement(s) Addressed in Subsection 1.2:	The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.
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The primary goal of this SSMP is to provide the plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system in order to:

- Protect public health and safety, and the environment.
- Minimize and mitigate the adverse impacts of preventable sanitary sewer overflows (SSOs).
- Maintain and improve the operations and maintenance (O&M), structural and hydraulic condition and performance of the City’s wastewater collection system.
- Ensure compliance with current regulatory requirements.

### 1.3 Compliance with Regulatory Requirements

Requirement(s) Addressed in Subsection 1.3:	The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.
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Elements 2 to 11 that follow document the City’s sanitary sewer system management, operation, and maintenance activities and plans in compliance with the WDR requirements, including documentation of routine preventative maintenance and emergency response activities and resources. Key changes or updates included in this 2022 SSMP include:

- **Operations and Maintenance Resources (Provisions D.9).** Budget documents updated annually for operations and capital budgets include resources for ongoing and new O&M activities related to the SSMP as well as short- and long-term CIP recommendations developed in the 2022 Sanitary Sewer System Master Plan.
- **Hydraulic Capacity - Identifying and developing a plan to address hydraulic capacity deficiencies that contribute to capacity-related SSOs and Inflow and Infiltration (Provision D.10) and Operations and Maintenance (D13.viii).** The hydraulic capacity evaluation and recommendations are discussed in Element 8. The 2022 Sanitary Sewer Master Plan update project was performed to address this requirement including development and prioritization of capital improvement plan (CIP) project recommendations, and the initial planning-level budgets and schedule

for their implementation. The City will update their CIP in 2022, and annually thereafter, including budget and schedules for recommended projects. Project scope, budget, priority, and schedule may be adjusted following conceptual or preliminary engineering design analyses, or if further planning studies supersede the findings of the 2022 Sanitary Sewer Master Plan

- **Mapping of Sanitary Sewer System (Provision D.13.(iv).(a)).** The City is using Beehive for its computerized maintenance management (CMMS) work order system. The CMMS is based on a foundation of an ArcGIS database, and the City will continue to maintain and update asset data and mapping to reflect changes identified following field observations, investigations, condition assessment, or capital improvement activities and/or projects.
- **Rehabilitation and Replacement Plan (Provision D.13.(iv).(c)).** The *Pipe Rehabilitation, Replacement, and Reinspection Plan* flowchart, included in Element 4, will be initial basis for making R&R decisions based on condition assessment findings. Future Condition Assessment Program plans, documents, and activities will be used to identify and prioritize the pipes most in need of rehabilitation or replacement, and this flowchart may be updated or superseded as the program and condition inspection data mature.
- **Training Program (Provision D.13.(iv).(d)).** Training program documentation is included in Element 4.
- **Equipment and Replacement Parts Inventories (Provision D.13.(iv).(e)).** Updated equipment and replacement parts inventories are included in Element 4.
- **Publicly Available SSMP Documents (MRP Provision C.8.iv)..** This SSMP will be publicly adopted and made available online on the City's website, see Element 11.

## Element 2 Organization

### 2.1 Requirements

Element <b>2</b>	D.13.(ii) <b>Organization:</b>
Requirements	<ul style="list-style-type: none"> <li>(a) The name of the responsible or authorized representative as described in Section J of this Order (SSS WDR).</li> <li>(b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and</li> <li>(c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (Cal OES)).</li> </ul>

### 2.2 Organization Chart

Requirement(s) Addressed in Subsection 2.2:	(b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
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An organization chart for the City’s operation is shown in Figure 2.1. This organization shows the lines of authority for administrative and field staff who are involved with implementing the SSMP. Section 2.3 includes brief descriptions of these staff positions.

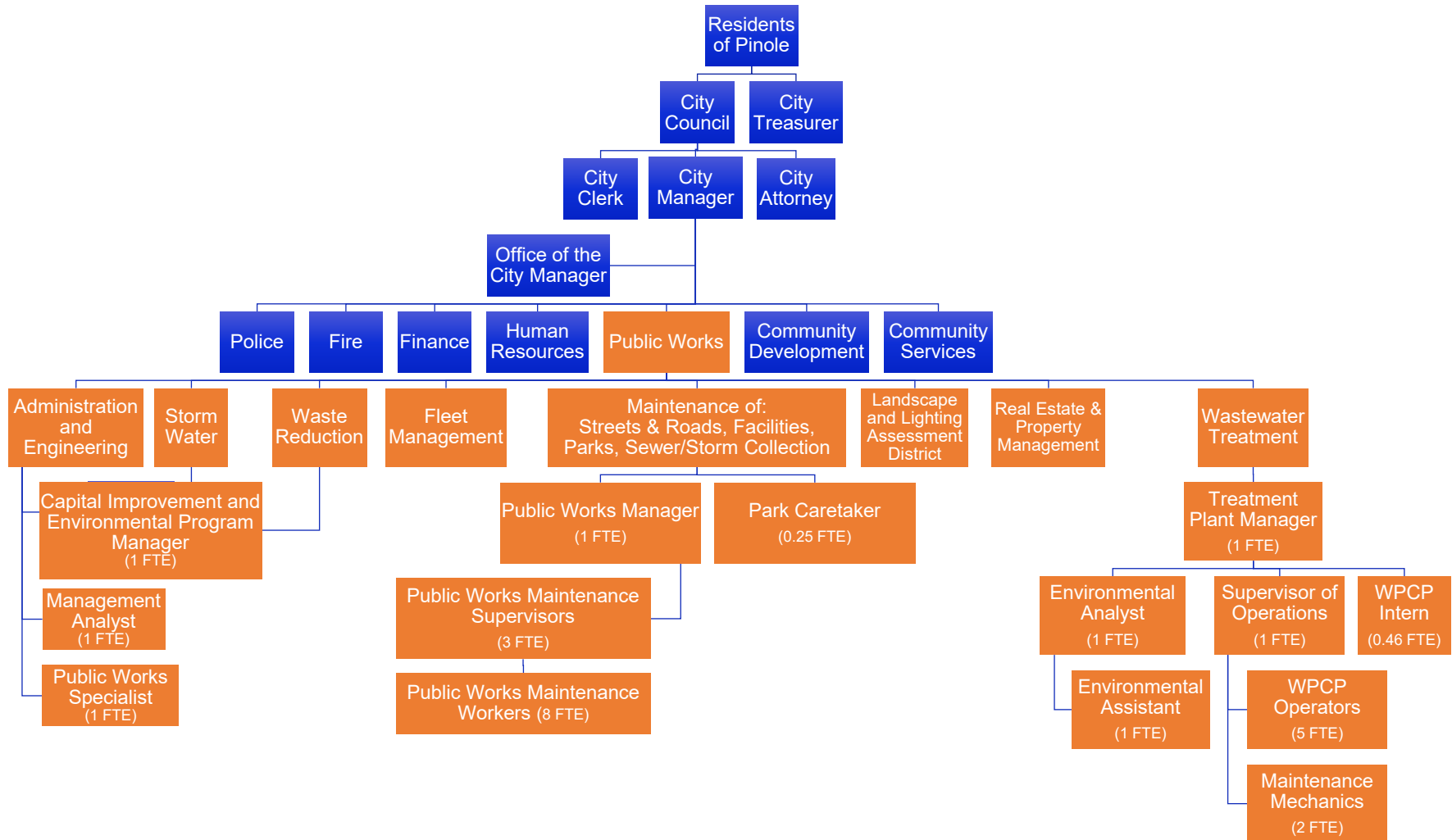
### 2.3 Responsibility for SSMP Management, Administration and Maintenance

Requirement(s) Addressed in Subsection 2.3:	<ul style="list-style-type: none"> <li>(a) The name of the responsible or authorized representative as described in Section J of this Order (SSS WDR).</li> <li>(b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and</li> </ul>
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The City’s General Manager has the ultimate responsibility for overall management, administration, maintenance, and implementation of all elements of the City’s SSMP. The responsibility for day-to-day implementation and maintenance of each of the City’s SSMP elements has been delegated to City staff. Table 2.1 lists the city staff involved with developing, implementing, and maintaining the City’s SSMP, along with their job titles and contact information.

**City Manager (Andrew Murray)** - Establishes policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as public information officer for the City.

**Figure 2.1 Organization Chart**



**Public Works Director (Sanjay Mishra)** – Director of the sewer collection system and assists with establishing policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services.

**Capital Improvement and Environmental Program Manager (Misha Kaur)** - Prepares wastewater collection system planning documents; manages capital improvement delivery system; documents new and rehabilitated assets; and coordinates development and implementation of SSMP.

**Public Works Specialist (Jamie Aldred)** - Ensures that new and rehabilitated assets meet City’s standards, works with field crews to handle emergencies when contractors are involved; and provides verbal reports to Capital Improvement and Environmental Program Manager.

**Public Works Manager (Joseph Bingaman)** - Manages field operations and maintenance activities, provides relevant information to City management, prepares and implements contingency plans, leads emergency response, investigates and reports SSOs, and trains field crews.

**Public Works Environmental Analyst (Kim Odum)** - Manages the fats, oil and grease Program (FOG) program and conducts inspections and enforcement.

**Public Works Supervisor (Patrick Bowie)** - Undertakes preventive maintenance activities, mobilizes and responds to notification of stoppages and SSOs; mobilizes sewer cleaning equipment, by-pass pumping equipment, and portable generators.

**Public Works Field Crew Member (3 Staff)** – Performs various tasks associated with the maintenance and repair of sewer collection systems assets and responds to SSO events.

**Table 2.1 List of City Staff Responsible for SSMP Elements**

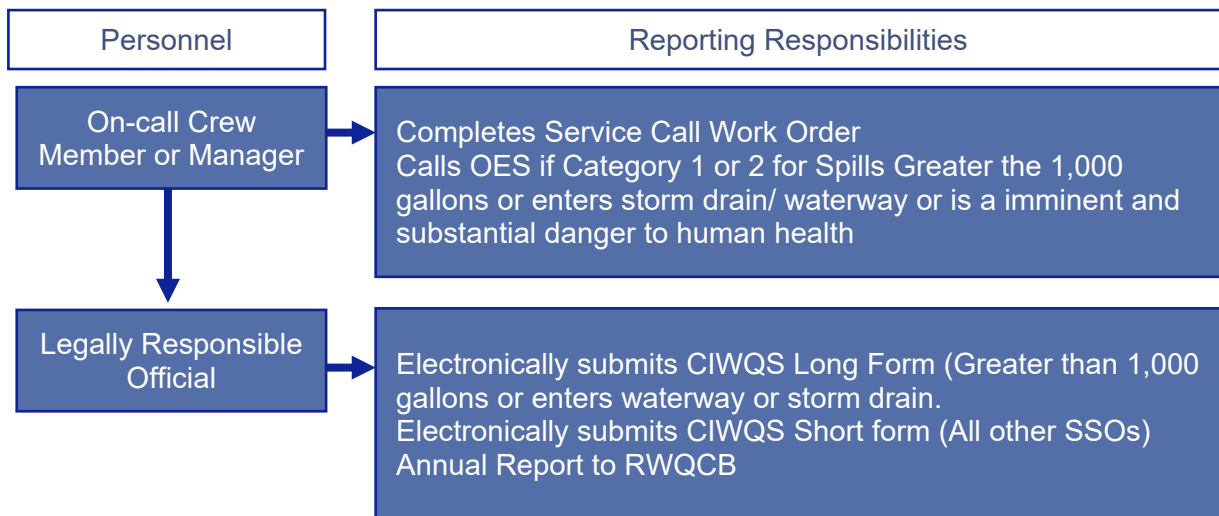
SSMP Element	Responsible City Official	Phone	Email
<b>Element 1 – Goals</b>	Public Works Director	(510) 724 - 9017	<a href="mailto:smishra@ci.pinole.ca.us">smishra@ci.pinole.ca.us</a>
<b>Element 2 – Organization</b>	Public Works Director	(510) 724 - 9017	<a href="mailto:smishra@ci.pinole.ca.us">smishra@ci.pinole.ca.us</a>
<b>Element 3 – Legal Authority</b>	Public Works Director	(510) 724 - 9017	<a href="mailto:smishra@ci.pinole.ca.us">smishra@ci.pinole.ca.us</a>
<b>Element 4 – Operation and Maintenance</b>	Public Works Manager	(510) 724 - 8947	<a href="mailto:jbingaman@ci.pinole.ca.us">jbingaman@ci.pinole.ca.us</a>
<b>Element 5 – Design and Performance</b>	Capital Improvement and Environmental Program Manager	(510) 724 - 9839	<a href="mailto:mkaur@ci.pinole.ca.us">mkaur@ci.pinole.ca.us</a>
<b>Element 6 – Sanitary Sewer Overflow Response Plan</b>	Public Works Manager	(510) 724 - 8947	<a href="mailto:jbingaman@ci.pinole.ca.us">jbingaman@ci.pinole.ca.us</a>
<b>Element 7 – Fats, Oils, Grease Program</b>	Environmental Analyst	(510) 741 - 3858	<a href="mailto:kodum@ci.pinole.ca.us">kodum@ci.pinole.ca.us</a>
<b>Element 8 – System Evaluation and Capacity Management</b>	Public Works Director	(510) 724 - 9017	<a href="mailto:smishra@ci.pinole.ca.us">smishra@ci.pinole.ca.us</a>
<b>Element 9 – Monitoring, Measurement, and Program Modifications</b>	Public Works Director	(510) 724 - 9017	<a href="mailto:smishra@ci.pinole.ca.us">smishra@ci.pinole.ca.us</a>
<b>Element 10 – Program Audits</b>	Public Works Director	(510) 724 - 9017	<a href="mailto:smishra@ci.pinole.ca.us">smishra@ci.pinole.ca.us</a>
<b>Element 11 – Communication Program</b>	Public Works Director	(510) 724 - 9017	<a href="mailto:smishra@ci.pinole.ca.us">smishra@ci.pinole.ca.us</a>

## 2.4 Chain-of-Communication for Reporting and Responding to SSOs

Requirement(s) Addressed in Subsection 2.4:	<p>(a) The name of the responsible or authorized representative as described in Section J of this Order (SSS WDR).</p> <p>(b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and</p> <p>(c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (Cal OES)).</p>
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The chain-of-communication responsibilities for responding to SSOs are shown in Figure 2.2. Detailed information on the City’s overflow response procedure can be found in Element 6, Sanitary Sewer Overflow Emergency Response Plan (OERP), and in the City’s OERP.

**Figure 2.2 SSO Reporting Responsibilities**



During the response time, the dispatcher is in communication with the responding team to ensure each call is being routed to the appropriate supervisor or other supporting team. The Dispatch Center records communications between the callers, the responders and any other supporting team that is being dispatched to the SSO scene.

Important phone numbers for City staff involved in SSO response are shown on Table 2.2.

**Table 2.2 Phone Numbers for SSO Responders**

Responsible Party	Name	Phone Number
Office	Administrative Staff	(510) 724 - 9837
Public Works Manager (LRO)	Jose Bingaman	(510) 724 - 8947
Plant Manager (LRO)	Josh Binder	(510) 724 - 8964
Public Work Supervisor (LRO)	Patrick Bowie	(510) 418 - 6810
Public Work Director	Sanjay Mishra	(510) 724 - 9017
City Manager	Andrew Murray	(510) 724 - 9000

## Element 3 Legal Authority

### 3.1 Requirements

<b>Element 3</b>	D.13.(iii) <b>Legal Authority:</b>
<b>Requirements</b>	<p>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:</p> <ul style="list-style-type: none"> <li>(a) Prevent illicit discharges into its sanitary sewer system (examples may include infiltration and inflow (I/I), storm water, chemical dumping, unauthorized debris and cut roots, etc...);</li> <li>(b) Require that sewers and connections be properly designed and constructed;</li> <li>(c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;</li> <li>(d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and</li> <li>(e) Enforce any violation of its sewer ordinances.</li> </ul>

### 3.2 Pinole Municipal Code

The required legal authority is codified in the Pinole Municipal Code. The Pinole Municipal Code consists of all the regulatory and penal ordinances and certain of the administrative ordinances of the city, codified pursuant to the provisions of Sections 50022.1 to 50022.8 and 50022.10 of the Government Code of the state. (Ord. 407 (part), 1980). The Pinole Municipal Code references below are at the time of the preparation of this document and may added to, amended, corrected or repealed by ordinance. The latest adopted Pinole Municipal Code will govern.

### 3.3 Illicit Discharges

Requirement(s) Addressed in Subsection 3.3:	(a) Prevent illicit discharges into its sanitary sewer system (examples may include infiltration and inflow (I/I), storm water, chemical dumping, unauthorized debris and cut roots, etc...);
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Prevention of illicit discharges into the City’s sanitary sewer system is in accordance with the Pinole Municipal code, including but not limited to the following titles, chapters, and sections (with ordinance references where applicable):

<b>Title 8</b>	<b>HEALTH AND SAFETY</b>	
Chapter 8.08	Solid Waste	
	Section 8.08.030. Depositing solid waste in sewers prohibited.	(Ord. 490 §2(part), 1986).
Chapter 8.20	Stormwater Management and Discharge Control	(Ord. 2017-13 § 2, 2017) (Ord. 2017-13 § 3, 2017) (Ord. 2017-13 § 4, 2017) (Ord. 2017-13 § 5, 2017) (Ord. 2004-16 § 1(part), 2004)
Chapter 8.24	Community Preservation	(Ord. 2004-10, § 2(part), 2004) (Ord. 01-107 § 2(part), 2001)
	Section 8.24.020. Unlawful property nuisance – private property.	
	Section 8.24.030. Unlawful property nuisance – public property.	

<b>Title 13</b>	<b>PUBLIC SERVICES</b>	
Chapter 13.05	Regulation of Waste Discharge	(Ord. 01-102 § 2(part), 2001)
	Section 13.05.060. General discharge provision.	
	Section 13.05.070. Specific discharge provision.	
	Section 13.05.080. Prohibited substances or characteristics.	
	Section 13.05.140. Hazardous waste discharges.	
Chapter 13.20	Sanitary Sewer Laterals	(Ord. 2012-02 § 1(part), 2012)
	Section 13.20.040. Unlawful to maintain defective sewer lateral or improperly connected sewer lateral.	

### 3.4 Public Sewer Design and Construction

Requirement(s) Addressed in Subsection 3.4:	(b) Require that sewers and connections be properly designed and constructed;
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Public sewer design and construction of City’s sanitary sewer system is in accordance with the Pinole Municipal code, including but not limited to the following titles, chapters, and sections (with ordinance references where applicable):

<b>Title 13</b>	<b>PUBLIC SERVICES</b>	
Chapter 13.20	Sanitary Sewer Laterals	(Ord. 2012-02 § 1(part), 2012)
<b>Title 15</b>	<b>FLOODPLAIN HAZARD PREVENTION</b>	
Chapter 15.48	Floodplain Hazard Prevention	
	Section 15.48.170 Standards of construction.	(Ord. 2009-02 § 6, 2009) (Ord. 511 § 2(Exh. A) (part), 1988)
	Section 15.48.180 Standards for utilities.	(Ord. 511 § 2(Exh. A) (part), 1988)
	Section 15.48.190 Standards for subdivisions.	(Ord. 2009-02 § 7, 2009) (Ord. 511 § 2(Exh. A) (part), 1988)
<b>Title 16</b>	<b>SUBDIVISIONS</b>	
Chapter 16.12	Tentative Maps	
	Section 16.12.150 Improvement plans	
Chapter 16.16	Final Maps	(Ord. 89 § 4.1, 1955).
	Section 16.16.080 Form – Additional specifications	(Ord. 89 § 4.2(g), 1955)
	Section 16.16.150 Improvements – Agreement	(Ord. 89 § 4.7(part), 1955)
	Section 16.16.160 Improvements – Bond	(Ord. 89 § 4.7(part), 1955)
Chapter 16.20	General Regulations and Design	
	Section 16.20.280. Easements	(Ord. 89 § 5.10, 1955)
Chapter 16.24	Improvements	
	Section 16.24.010. Standard specifications.	(Ord. 89 § 6.1 (part), 1955)
	Section 16.24.050. Service connections.	(Ord. 89 § 6.1(d), 1955)
	Section 16.24.110. Sewers.	(Ord. 89 § 6.2(d), 1955)

Public sewer projects are also designed and constructed in accordance with project-specific drawings and specifications.

Additional design and construction standards and specifications are incorporated into the City’s public sewer design and construction requirements by reference, including:

- Caltrans Standard Specifications and Plans, 2018 (or latest adopted version, if updated)
- Contra Costa County Standard Plans, 2014 (or latest adopted version, if updated)



### 3.5 Private Sewer Design, Construction, Maintenance

Requirement(s) Addressed in Subsection 3.5:	(b) Require that sewers and connections be properly designed and constructed; (c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
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The City does not own or maintain any portions of the sewer laterals. Design, construction and maintenance of private sewer laterals and appurtenances connecting to the City’s sanitary sewer system is in accordance with the Pinole Municipal code, including but not limited to the following titles, chapters, and sections (with ordinance references where applicable):

<b>Title 13</b>	<b>PUBLIC SERVICES</b>	
Chapter 13.05	Regulation of Waste Discharge Section 13.05.480. Interceptor maintenance procedures and program. Appendix A (Recommended Procedures for Sizing Commercial Kitchen Grease Interceptors)	(Ord. 01-102 § 2(part), 2001)
Chapter 13.20	Sanitary Sewer Laterals  Section 13.20.030. Requirement for backflow prevention device. Section 13.20.040. Unlawful to maintain defective sewer lateral or improperly connected sewer lateral. Section 13.20.050. Events triggering the requirement to undergo sewer lateral cleaning and inspection. Section 13.20.060. Common interest developments – 10 year inspection requirement. Section 13.20.070. Inspection procedures and criteria. Section 13.20.090. Mitigation of failed test or inspection. Section 13.20.140. Coordination of lateral repairs with city utility and street improvement projects.	(Ord. 2012-02 § 1(part), 2012) 2012-132 administrative guidelines
<b>Title 15</b>	<b>BUILDINGS AND CONSTRUCTION</b>	
Chapter 15.12	California Plumbing Code	(Ord. 2019-08 § 3 (part), 2019) (Ord. 2016-08 § 3 (part), 2016)
Chapter 15.48	Floodplain Hazard Prevention  Section 15.48.170 Standards of construction. Section 15.48.180 Standards for utilities. Section 15.48.190 Standards for subdivisions.	(Ord. 2009-02 § 6, 2009) (Ord. 511 § 2(Exh. A) (part), 1988)
<b>Title 16</b>	<b>SUBDIVISIONS</b>	
Chapter 16.12	Tentative Maps Section 16.12.150 Improvement plans	
Chapter 16.16	Final Maps Section 16.16.080 Form – Additional specifications Section 16.16.150 Improvements – Agreement Section 16.16.160 Improvements – Bond	(Ord. 89 § 4.1, 1955). (Ord. 89 § 4.2(g), 1955) (Ord. 89 § 4.7(part), 1955) (Ord. 89 § 4.7(part), 1955)
Chapter 16.24	Improvements Section 16.24.010. Standard specifications. Section 16.24.050. Service connections. Section 16.24.110. Sewers.	(Ord. 89 § 6.1 (part), 1955) (Ord. 89 § 6.1(d), 1955) (Ord. 89 § 6.2(d), 1955)
<b>Title 17</b>	<b>ACCESSORY DWELLING UNITS AND JUNIOR ACCESSORY DWELLING UNITS</b>	
Chapter 17.70	Section 17.70.040. Performance standards. G. Construction and Utilities.	(Ord. 2020-04 § 2, 2020) (Ord. 2017-08 § 2 (part), 2017) (Ord. 2010-02 § 1 (part), 2010)

### 3.6 FOG and Debris

Requirement(s) Addressed in Subsection 3.6:	(c) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
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Prevention of FOG and other debris entering into the City’s sanitary sewer system is in accordance with the Pinole Municipal code, including but not limited to the following titles, chapters, and sections (with ordinance references where applicable):

**Title 8 HEALTH AND SAFETY**

- Chapter 8.08 Solid Waste
  - Section 8.08.030. Depositing solid waste in sewers prohibited. (Ord. 490 §2(part), 1986).
- Chapter 8.20 Stormwater Management and Discharge Control
  - (Ord. 2017-13 § 2, 2017)
  - (Ord. 2017-13 § 3, 2017)
  - (Ord. 2017-13 § 4, 2017)
  - (Ord. 2017-13 § 5, 2017)
  - (Ord. 2004-16 § 1(part), 2004)
- Chapter 8.24 Community Preservation
  - (Ord. 2004-10, § 2(part), 2004)
  - (Ord. 01-107 § 2(part), 2001)
  - Section 8.24.020. Unlawful property nuisance – Private property.
  - Section 8.24.030. Unlawful property nuisance – Public property.

**Title 13 PUBLIC SERVICES**

- Chapter 13.05 Regulation of Waste Discharge
  - (Ord. 01-102 § 2(part), 2001)
  - Section 13.05.060. General discharge provision.
  - Section 13.05.070. Specific discharge provision.
  - Section 13.05.080. Prohibited substances or characteristics.
  - Section 13.05.460. Grease, oil, sand interceptor program – Interceptors required.
  - Section 13.05.470. Administration of interceptor program.
  - Section 13.05.480. Interceptor maintenance procedures and program.
  - Section 13.05.490. Grease, oil, sand interceptor program – Enforcement.
  - Appendix A (Recommended Procedures for Sizing Commercial Kitchen Grease Interceptors)
- Chapter 13.20 Sanitary Sewer Laterals
  - (Ord. 2012-02 § 1(part), 2012)
  - Section 13.20.040. Unlawful to maintain defective sewer lateral or improperly connected sewer lateral.

### 3.7 Rights of Entry and Enforcement

Requirement(s) Addressed in Subsection 3.7:	(c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency; (d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and (e) Enforce any violation of its sewer ordinances.
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Rights of entry and enforcement authorities are in accordance with the Pinole Municipal code, including but not limited to the following titles, chapters, and sections (with ordinance references where applicable):

<b>Title 1</b>	<b>GENERAL PROVISIONS</b>	
Chapter 1.12	General Penalty	(Ord. 2017-03 § 2 (part), 2017) (Ord. 2004-10, § 6, 2004) (Ord. 493 § 2 (part), 1986)
<b>Title 8</b>	<b>HEALTH AND SAFETY</b>	
Chapter 8.08	Solid Waste	
Chapter 8.20	Stormwater Management and Discharge Control	(Ord. 2017-13 § 2, 2017) (Ord. 2017-13 § 3, 2017) (Ord. 2017-13 § 4, 2017) (Ord. 2017-13 § 5, 2017) (Ord. 2004-16 § 1(part), 2004)
Chapter 8.24	Community Preservation	(Ord. 2004-10, § 2(part), 2004) (Ord. 01-107 § 2(part), 2001)
Chapter 8.26	Emergency Nuisance Abatement Procedures	(Ord. 2004-10 § 5(part), 2004) (Ord. 01-107 § 3 (part), 2001)
<b>Title 13</b>	<b>PUBLIC SERVICES</b>	
Chapter 13.05	Regulation of Waste Discharge	(Ord. 01-102 § 2(part), 2001)
	Section 13.05.160-270. Administration – (various).	
	Section 13.05.270. Enforcement mechanism.	
	Section 13.05.280-480 Enforcement – (various)	
	Section 13.05.490. Grease, oil, sand interceptor program - Enforcement.	
Chapter 13.20	Sanitary Sewer Laterals	(Ord. 2012-02 § 1(part), 2012)
	Section 13.20.100. Right of entry.	
	Section 13.20.130. Notices to correct violations.	
	Section 13.20.150. Regulations to implement this chapter.	
	Section 13.20.160. Nuisance.	

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## Element 4 Operation and Maintenance Program

### 4.1 Requirements

Element <b>4</b>	D.13.(iv) <b>Operation and Maintenance Program:</b>
Requirements	<p>The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee’s system:</p> <ul style="list-style-type: none"> <li>(a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities;</li> <li>(b) Describe routine preventive operation and maintenance activities by staff and contractors; including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;</li> <li>(c) Develop rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short and long term plans plus a schedule for developing the funds needed for the capital improvement plan</li> <li>(d) Provide training on a regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained; and</li> <li>(e) Provide equipment and replacement part inventories, including identification of critical replacement parts.</li> </ul>

### 4.2 Introduction

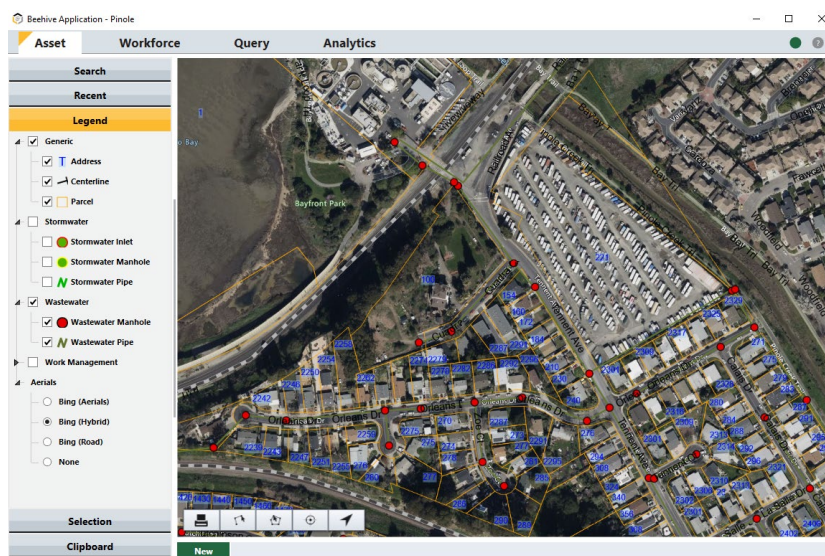
The operations and maintenance of the City sewer conveyance system is critical to protecting the public and the environment. In addition to current O&M Program activities documented in this SSMP, the City plans to research and evaluate the benefits of adding new technologies and operational programs to support effective management of its sanitary sewer system into the future.

### 4.3 Mapping

Requirement(s) Addressed in Subsection 4.3:	(a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities;
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The City maintains an ArcGIS-based map of the sanitary sewer system which is the foundation of their computerized maintenance management system (CMMS), Beehive. This includes pipes, nodes, laterals, lift stations and other GIS data throughout the City. Storm water conveyance facilities are located in ArcGIS to be visualized on multiple platforms to support service call response and SSO investigations. See a sample of the map within the CMMS in Figure 4.1.

**Figure 4.1 Sample Map Within CMMS**



The City is actively updating their ArcGIS asset inventory data to improve the value of their mapping based on field data, existing records, and findings during preparation of the 2022 Sanitary Sewer Master Plan. Currently, field staff are transitioning from paper maps that are not current to implementation of multiple new GIS mobile software systems on handheld devices that will facilitate mostly digital workflows and the ability to perform condition assessments such as at access points and creek crossings.

### 4.4 Preventative Maintenance Activities

Requirements Addressed in Subsection 4.4	(b) Describe routine preventive operation and maintenance activities by staff and contractors; including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
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The operations and maintenance activity for the City include the hydro-jetting of lines, rodding and condition assessment of various infrastructure. FOG inspections are conducted around the year for food service establishments (FSE).

Staff have a current Hot Spot list which will in the future will be named High Frequency Cleaning (HFC) list. This includes 26 pipes that are cleaned multiple times a year for various reasons such as roots, grease or debris. Staff and consultants will be looking at these specific lines to address the issues as part of the HFC Reduction Program and continue to add or remove pipes based on the new 2022 Condition Assessment Program.

Staff at the City will revise their Sewer Cleaning Program based on future cleaning and CCTV results conducted and this program will be continuously updated as more data is analyzed.

The City operates two lift stations and conducts normal O&M on the stations. Upgrades are planned per the 2022 Sewer Master Plan. Pump Station O&M procedures will be reviewed and updated, and SOP development and training are planned in the next two years.

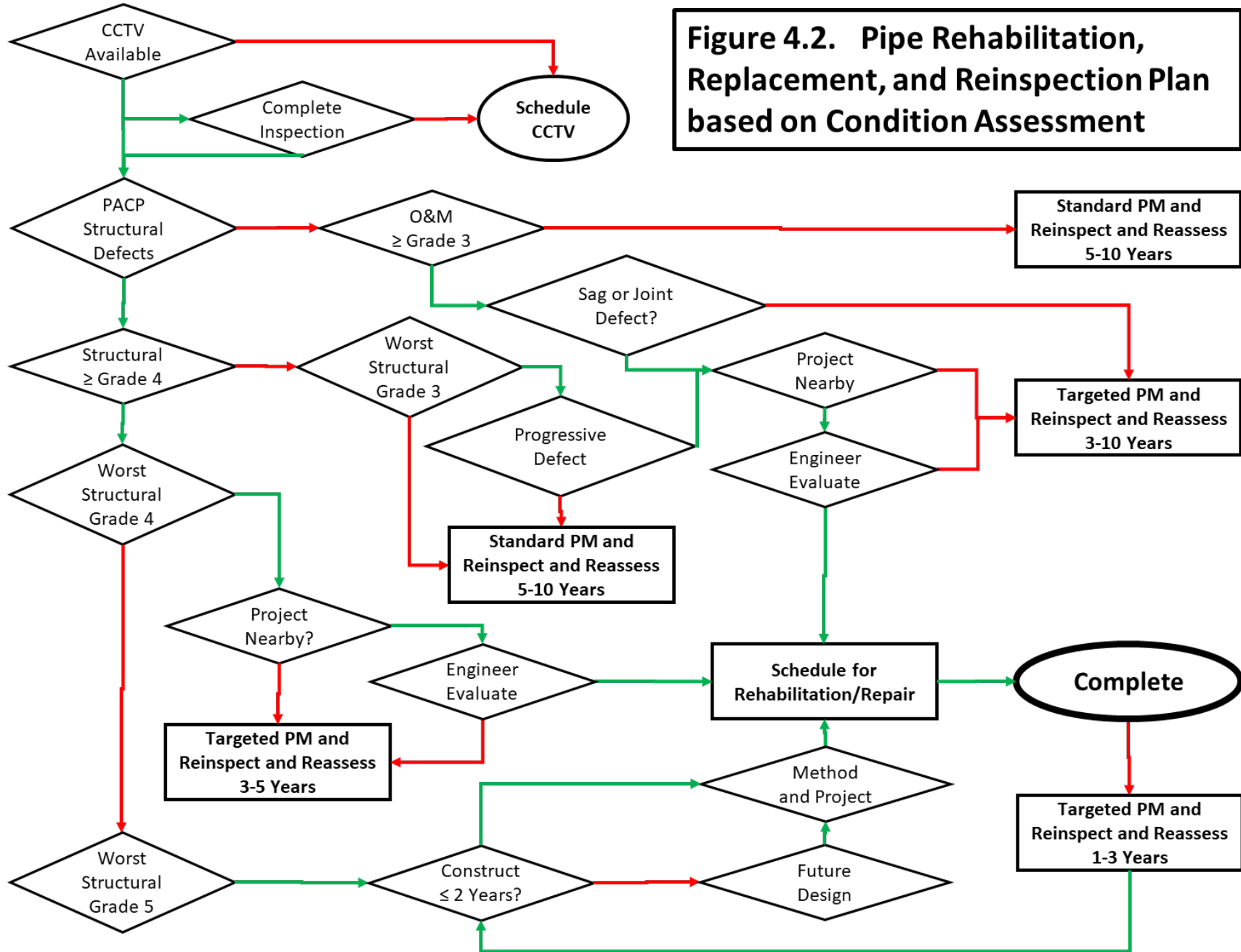
O&M field activities will input data into Beehive (CMMS) and other GIS applications for review and Quality Assurance/Quality Control (QA/QC). Work orders and workflows will be continue to be updated and developed in 2022-2026 to augment the various maintenance programs and for new activities.

#### 4.5 Rehabilitation and Replacement Plan

<p>Requirements Addressed in Subsection 4.5</p>	<p>(c) Develop rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short and long term plans plus a schedule for developing the funds needed for the capital improvement plan</p>
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The City is completing the 2022 Sewer Master Plan Update, which does not include any specific recommended projects to address known structural deficiencies. It does include an annual recommendation for capital improvement funding of the Pipe Rehabilitation and Replacement Program to be available to rehabilitate or replace pipe found to be in poor condition. The Pipe Rehabilitation, Replacement, and Reinspection Plan flowchart, included in Figure 4.2, will be initial basis for making R&R decisions based on condition assessment findings. Future Condition Assessment Program plans, documents, and activities will be used to identify and prioritize the pipes most in need of rehabilitation or replacement, and this flowchart may be updated or superseded as the program and condition inspection data mature. The 2022 City Sewer Master Plan will be available on the City’s website after acceptance.

**Figure 4.2. Pipe Rehabilitation, Replacement, and Reinspection Plan based on Condition Assessment**





## 4.6 Training

Requirements Addressed in Subsection 4.6	(d) Provide training on a regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained; and
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The City’s training program will identify the job functions and activities that require or will be offered any recommended initial, as needed and regular scheduled refresher/renewal safety and health trainings, including the minimum Cal/OSHA training requirements, from among the following:

- Accident Investigation for Supervisors
- Accident Prevention Signs and Tags
- Bloodborne Pathogens
- Combo Unit Training
- Confined Space Awareness
- Confined Space Entrant/Attendant
- Confined Space Supervisor
- COVID-19 Staying Safe at Work
- Deadly Distraction
- Electrical Safety “Qualified” Person
- Emergency Action Plan
- Excavation Awareness
- Excavation Competent Person
- Fall Protection
- Fire Prevention Plan
- Fire Extinguishers, Portable
- First Aid/CPR
- Flagging/Traffic Control
- Forklift Authorization
- Hazard Communication
- Hearing Conservation
- Heat Illness Prevention
- Illness and Injury Prevention Plan (IIPP)
- Ladders – Portable and Fixed
- Lockout/Tagout (LOTO) Awareness
- Lockout/Tagout (LOTO) for Authorized Employees
- Personal Protective Equipment (PPE)
- Respiratory Protection
- Safe Driving
- Safety Inspection Checklist
- Skid Steer / Bobcat Safety
- Traffic Control
- Underground Utility Locating and Marking
- Wildfire Smoke

Other training may be made available to staff based on new or revised policies, procedures, operational needs, and regulatory requirements. Training opportunities may include sending

staff to industry training sessions and events, seminars, workshops, and conferences, such as those hosted by CWEA, BACWA, and BayWork.

The approval of the training schedule and recurrence frequency, and the decision if/when to offer training beyond the minimum requirements for the employee’s position and work activities will be made by the Public Works Director or designee on an annual basis as part of the annual budget preparation cycle.

The City plans to begin implementing a new program for training in 2023 with the assistance of safety and operational consultants. The new Training and Safety Program will initially include SOP development and training for the equipment and processes used on a day-to-day basis and then be expanded to incorporate more specialized tools and equipment as appropriate. Future training needs are expected to incorporate various new technologies such as software and condition assessment. A future phase of the Training and Safety Program is expected to include development and implementation of a Competency Based Training and Assessment Program.

Contractors working for the City on sanitary sewer maintenance and capital projects will be trained on the importance of and process for reporting sanitary sewer system issues in the field, and what the communication plan is specifically for SSO response. Training of contractors will be documented with the project management or construction management records.

#### 4.7 Equipment and Replacement Parts Inventories

Requirement(s) Addressed in Subsection 4.7:	(e) Provide equipment and replacement part inventories, including identification of critical replacement parts.
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The City operates various equipment and has critical replacement parts on site for the two lift stations and force main.

##### Sanitary Sewer System Equipment

- Sewer Equipment of America Jet Truck
- Sewer Equipment of America Jet Truck (2022)
- Vac-Con Combo Unit
- Rodding Machine
- RST/ Subsite CCTV Truck
  - Various Trak and Push Camera Equipment
  - POSM video capture software
- 3 Public Works Trucks
- Hurco Smoke Testing Equipment
- 2 Electric Snake
- 2” Sump Pump
- 6” Gas Driven Pump
- 1.5 KV Diesel Trailer Mounted Generator
- 115 Volt Recessed Impeller

##### Lift Station and Force Main Equipment

- Bypass Pumps
- Suction Hose (40 feet)
- Discharge Hose (400 Feet)

**Lift Station and Force Main Critical Replacement Parts**

- 6” Full Circle Clamps (8)
- 6” Ductile Iron Pipe (30 Feet)
- Standby Pumps for both Lift Stations
- Electronic Controls

**Table 4.1 Current list of Contractors, Equipment, Supplies, and Services for Emergency Repairs and Risk Management**

<b>Contractors</b>	<b>Phone Number</b>
Andre’s Mechanical and General Engineeri	(925) 323-1871
Bill’s Underground	(510) 719-1739
Ernies Plumbing	(510)758-1900
Pacific Pipelines	(707) 689-3357
Roto Rooter	(925) 939-3100
<b>Equipment Rental</b>	<b>Phone Number</b>
Bay Area Barricade	(925) 686-1089
Cresco	(925) 228-9822
Hertz Equipment	(510) 307-4444
Rain 4 Rent	(510) 458-0200
United Rentals	(510) 562-3000
<b>Sewer and Storm Drain Supplies</b>	<b>Phone Number</b>
Central Precast Concrete Inc.	(925) 462-6902
D&L Supply	(800) 422-0848
Phoenix Iron Works	(510) 456-9900
WECO	(707) 644-6661
<b>Restoration Management Services</b>	<b>Phone Number</b>
RMC	(510) 315-5400
ServPro	(925) 372-7234

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## Element 5 Design and Performance Provisions

### 5.1 Requirements

Element <b>5</b>	<p>D.13.(v)</p> <p><b>Design and Performance Provisions:</b></p>
Requirements	<p>(c) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and</p> <p>(d) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.</p>

### 5.2 Design and Construction Standards, Inspection and Testing

Requirement(s) Addressed in Subsection 5.2:	<p>(f) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and</p> <p>(g) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.</p>
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Design and construction of City’s sanitary sewer system and design, construction and maintenance of private sewer laterals and appurtenances connecting to the City’s sanitary sewer system, including inspections and testing, are in accordance with the Pinole Municipal code, see subsection 3.4 and 3.5, above. Public sewer projects are also designed and constructed in accordance with project-specific drawings and specifications. Additional design and construction standards and specifications are incorporated into the City’s public sewer design and construction requirements by reference, including:

- Caltrans Standard Specifications and Plans, 2018 (or latest adopted version, if updated)
- Contra Costa County Standard Plans, 2014 (or latest adopted version, if updated)

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## Element 6 Overflow Emergency Response Plan

### 6.1 Requirements

<p>Element <b>6</b></p>	<p>D.13.(vi) <b>Overflow Emergency Response Plan</b></p>
<p>Requirements</p>	<p>Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:</p> <ul style="list-style-type: none"> <li>(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;</li> <li>(b) A program to ensure appropriate response to all overflows;</li> <li>(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc...) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;</li> <li>(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;</li> <li>(e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and</li> <li>(f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.</li> </ul>

### 6.2 Introduction and OERP Goals

The components of the City’s Sanitary Sewer Overflow Emergency Response Plan (OERP) are summarized below. A complete, standalone OERP is included in Supporting Documents to this SSMP.

The purpose of the Overflow Emergency Response Plan (OERP) is to support an orderly and effective response to Sanitary Sewer Overflows (SSOs). The OERP provides guidelines for City staff to follow in responding to, cleaning up, and reporting SSOs that may occur within the cities service area.

The Cities goals with respect to responding to SSOs are:

- Work safely
- Respond quickly to minimize the volume of the SSO
- Eliminate the cause of the SSO

- Prevent sewage system overflows from entering known storm drain facilities or receiving waters to the maximum extent practicable
- Contain the spilled wastewater to the extent feasible
- Minimize public contact with the spilled wastewater
- Mitigate the impact of the SSO
- Meet the regulatory reporting requirements
- Evaluate the causes of failure related to certain SSOs
- Revise response procedures resulting from the debrief and failure analysis of certain SSOs

### 6.3 SSO Categories

Requirement(s) Addressed Subsection 6.3:	in	(a) A program to ensure appropriate response to all overflows;
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The responsibilities of the SSO Response Team depend on the volume and location of an incident. Standard categories for SSOs have been implemented statewide to aid in determining the appropriate response to an overflow. Three categories of SSOs are defined by the State Water Board:

- **Category 1 SSO:** Discharges of untreated or partially treated wastewater of **any volume** resulting from an enrollee’s sanitary sewer system failure or flow condition that:
  - Reach surface water and/or reach a drainage channel tributary to a surface water.
  - Reach a municipal separate storm sewer system and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the municipal separate storm sewer system is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or ground water infiltration basin (e.g., infiltration pit, percolation pond).
- **Category 2 SSO:** Discharges of untreated or partially treated wastewater of **1,000 gallons or greater** resulting from an enrollee’s sanitary sewer system failure or flow condition that **do not** reach surface water, a drainage channel, or a municipal separate storm sewer system unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
- **Category 3 SSO:** All other discharges of untreated or partially treated wastewater resulting from an enrollee’s sanitary sewer system failure or flow condition.

In addition, there are voluntary reporting mechanisms for private lateral sewage discharges which are defined by the State Water Board:

- **Private Lateral Sewage Discharge (PLSD):** Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee’s sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be voluntarily reported to the SSO Database.



## 6.4 SSO Notification Procedures

Requirement(s) Addressed in Subsection 6.4:	(b) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
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Several processes are used to notify the City of the occurrence of an SSO. These include:

- Observation by the Public
- Receipt of an alarm from a lift station or remote monitoring devices
- Observation by City staff during normal operations
- Observation by a City Contractor

### Observation by the Public

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 listed in the phone directory and also on the city website: <https://www.ci.pinole.ca.us/>, see Table 6.1.

**Table 6.1 Reporting Phone Numbers**

Contact Type	Phone Number
<b>Office Business Hours 7:30 to 4:30</b>	(510) 724-9010
<b>After Hours, Weekends and Holidays</b>	(510) 724-1111
<b>Report Illegal Dumping or Spills</b>	(800) 663-8674

**Receiving an SSO Notification Call.** When calls are received, either during normal work hours or after hours, the individual receiving the call collects the following information:

- Time and date of call
- Specific location of potential problem
- Nature of call
- In case of SSO, estimated start time of overflow
- Caller’s name and telephone number
- Caller’s observation (e.g., odor, duration, location on property, known impacts, indication if surface water impacted, appearance at cleanout or manhole)
- Other relevant information

**Response During Normal Office Business Hours.** When a report of a sewer spill or backup is made during normal work hours, the City administration receives the call, and forwards the call to the Public Works Manager or Public Works Supervisor. The Public Works Manager or Line Maintenance Supervisor gathers information from the caller and dispatch the Field Crew as needed.

**Response After Hours, Weekends and Holidays.** After-hours calls are answered by the City Police. The call recipient contacts the on-call pager and then will systematically call the city on-call phone numbers. The Police Dispatch has been instructed to follow the phone tree until an employee is reached.

**Receipt of an Alarm**

The City owns and operates 2 wastewater lift stations. In the event of any pump failure, a high-level sensor activates the alarm system that directly contacts the City offices, or, if after hours, the standby service. Response proceeds as described above.

To prevent overflow, wastewater from the wet well is 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.

**Observation by City Staff During Normal Operations**

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 supervisory staff. The supervisory staff responds to emergency situations. Work orders are issued to correct non-emergency conditions.

**Observation by a City Contractor**

If a City contractor causes or witnesses a Sanitary Sewer Overflow, the contractor must do the following:

1. Immediately notify the City.
2. Protect storm drains.
3. Protect the public.
4. Provide information to the City collections crew such as start time, appearance point, suspected cause, weather conditions, etc.
5. Direct all media and public relations requests to the Public Works Director or City Manager.

**6.5 SSO Response Activities**

Requirement(s) Addressed in Subsection 6.5:	(b) A program to ensure appropriate response to all overflows;  (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc...) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;  (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and  (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.
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### **First Responder**

First Responder priorities include the following:

- Follow safety procedures at all times
- Respond promptly with the appropriate and necessary equipment. SSO response time, determined as the difference in time from the incoming service call to arrival at the site, must be no greater than 60 minutes (1 hour).
- Contain the spill wherever feasible
- Restore the flow as soon as practicable
- Minimize public access to and/or contact with the spilled sewage
- Promptly notify the Operations and Maintenance Manager in event of Category 1 or 2 SSO
- Return the spilled sewage to the sewer system.
- Restore the area to its original condition (or as close as possible)

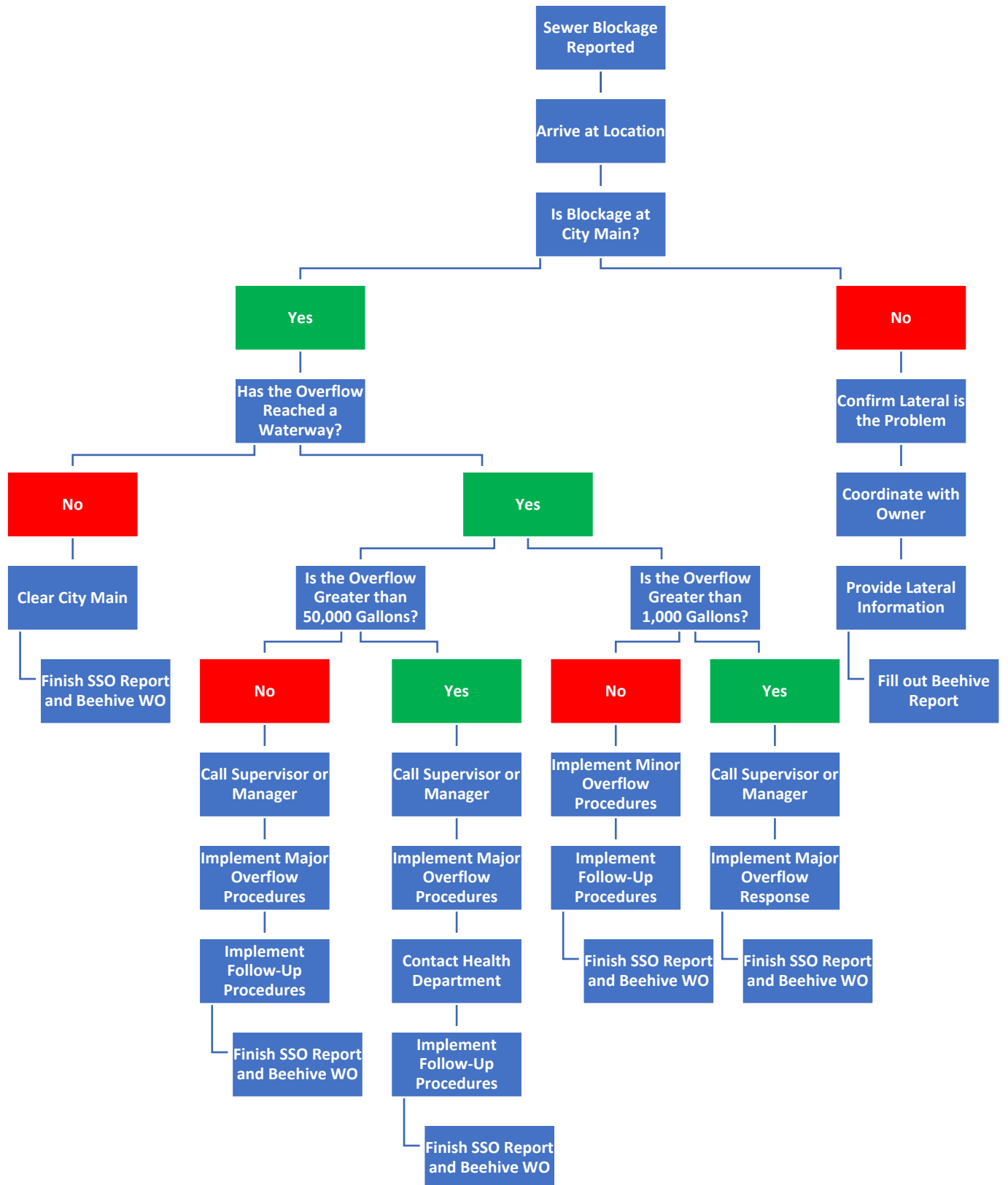
### **Site Response**

The First Responder must respond to the reporting party/problem site and visually check for potential sewer stoppages or overflows. At the site, the following list summarizes the responsibilities of the first responder and field response team:

- Document arrival time and verify the existence of a sewer system spill or backup
- Contact caller if time permits
- Identify and assess the affected area and extent of spill
- Determine if the overflow or blockage is from a public or private sewer
- If from the public sewer, determine cause of overflow
- If the spill is large or in a sensitive area, document conditions upon arrival with photographs. Decide whether to proceed with clearing the blockage to restore the flow or to initiate containment measures. The guidance for this decision is described in additional detail in the standalone OERP
- Post raw sewage signs, as necessary
- Collect wastewater and debris from the site and storm drain and if possible, return the wastewater to the collection system
- Disinfect the affected area and mitigate all other impacts of the SSO
- The First Responder should collect and document all event information on the City's Overflow Report Form

The SSO response process is shown on the flowchart in Figure 6.1. Forms for documenting SSO response, follow-up and failure analysis are included on the subsequent pages 41 to 46 of this document.

**Figure 6.1 SSO Response Flowchart**



City of Pinole

SSO RESPONSE - FIELD DOCUMENTATION

REPORTED BY

Call Address: \_\_\_\_\_  
On Service Request \_\_\_\_\_ (WO # \_\_\_\_\_)

Caller Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Receipt of Call: Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_:\_\_\_\_:\_\_\_\_  AM  PM Call Received By: \_\_\_\_\_

Call Dispatch: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_:\_\_\_\_:\_\_\_\_  AM  PM Assigned To: \_\_\_\_\_

City Arrival Time: Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_:\_\_\_\_:\_\_\_\_  AM  PM

SPILL START TIME NOTES

Caller Interview: Where did you see sewage spill from? From: Manhole  Inside Building  C/O   
 Wet well/Lift station  Other \_\_\_\_\_

Time Caller noticed spill: \_\_\_\_:\_\_\_\_:\_\_\_\_  AM  PM Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Comments:

\_\_\_\_\_  
\_\_\_\_\_

Last time Caller observed NO Spill occurring: \_\_\_\_:\_\_\_\_:\_\_\_\_  AM  PM Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Comments:

\_\_\_\_\_  
\_\_\_\_\_

Other Efforts to Determine Start Time: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Other Comments regarding spill start time:

\_\_\_\_\_  
\_\_\_\_\_

Estimated SSO Start Time \_\_\_\_:\_\_\_\_:\_\_\_\_  AM  PM Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

SSO End Time \_\_\_\_:\_\_\_\_:\_\_\_\_  AM  PM Date: \_\_\_\_/\_\_\_\_/\_\_\_\_



SPILL LOCATION

Observed: Spill from:  Manhole ID \_\_\_\_\_  Lift Station ID \_\_\_\_\_

Clean Out Address \_\_\_\_\_

Comments: \_\_\_\_\_

Building Address \_\_\_\_\_

Comments: \_\_\_\_\_

Spill Destination:  Building  Paved Surface  Storm Sys  Curb/Gutter  Unpaved  Surface Water

Answer these questions:

#1 - Was there a discharge to surface water or a drainage channel that is tributary to surface water? \_\_\_\_ Yes \_\_\_\_ No

#2 - Was there a discharge to a storm drain pipe that was "NOT" fully captured & returned to the sanitary sewer system? \_\_\_\_ Yes \_\_\_\_ No

If the answer is "yes" to either of the questions above, the SSO is a Category 1.

If the Category 1 is  $\geq 1,000$  gallons, you must call CAL-OES within 2 hours.

If you answered no to both questions above, was it  $\geq 1,000$  gallons? \_\_\_\_ Yes \_\_\_\_ No If yes, the SSO is a Category 2. If NO, the SSO is a Category 3.

SPILL VOLUME WORKSHEET



The purpose of this worksheet is to capture the data and method(s) used in estimating the volume of an SSO. Since there are many variables and often unknown values involved, this calculation is just an estimate. Additionally, it is useful to use more than one method, if possible, to validate your estimate.

The following methods and tools are the approved. Check all methods and tools that you used:

- Eyeball Estimate Method
- Measured Volume Method
- Duration and Flow Rate Method (Account for diurnal flow pattern for long duration)
- SSO Flow Rate Estimating Tool
- Other (explain) i.e.; estimated daily use per capita upstream or meter @ Pump Station.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Eyeball Estimate Method**- Imagine a bucket(s) or barrel(s) of water tipped over.

Size of bucket(s) or barrel(s)	How many of this Size?	Multiplier	Total Volume Estimated
1 gal. water jug		X 1	
5 gal. bucket		X 5	
32 gal. trash can		X 32	
55 gal drum		X 55	
Total Volume Estimated Using Eyeball Method			

**Measured Volume Method** (this may take several calculation as may have to break down the odd shaped spill to rectangles, circles, and polygons) It is important when guessing depth to measure, if possible in several locations and use an average depth. Use the [SSO Volume Estimate by Area Work Sheet](#) , if necessary, to sketch the shapes and show your work.

1. Draw a sketch of the spill [SSO Volume Estimate by Area Work Sheet](#).
2. Draw shapes and dimensions used on your sketch
3. Use correct formula for various shapes

Rectangle	L x W x D
Circle	3.14 x R <sup>2</sup> x D
Polygons see reference chart	Show formula used

**Duration and Flow Rate Method** worksheet:

Start Date and Time	1.
End Date and time	2.
Total time elapsed of SSO event (subtract line 1 from line 2. Show time in minutes)	3.
Average flow rate GPM (account for diurnal pattern)	4.
Total volume estimate using duration and flow rate method (Line 3 x Line 4)	5.

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CAUSE OF SPILL

Spill Cause:  Roots  Grease  Debris  Vandalism  Lift Sta. Fail  Other \_\_\_\_\_

Spill cause to be determined by CCTV inspection (Attach TV Report to this form)

Final Cause Determination:

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Proper Operation and Maintenance Determination:

Date last cleaned: \_\_\_\_\_ Date last TV'd: \_\_\_\_\_

Date last replaced or rehabilitated: \_\_\_\_\_

Follow-up or Corrective Action Taken:

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SPILL CONTAINMENT

Containment Implemented: \_\_\_\_\_: \_\_\_\_\_  AM  PM Date: \_\_\_\_/\_\_\_\_/\_\_\_\_



Containment Measures:  Plugged Storm Drain  Washed Down  Vacuum Up Water/Sewage

Other Measures: \_\_\_\_\_

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**CLEAN UP**

Clean Up Begin: \_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Clean Up Complete: \_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_



Describe Clean Up Operations: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Gallons – Estimate Volume of Spill Recovered (do not count wash down water)

**OTHER IMPORTANT MILESTONES**

Contacted Supervisor: \_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Requested Additional EE's/Equip: \_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Requested Additional EE's/Equip: \_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Requested Additional EE's/Equip: \_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Departure Time: \_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

\_\_\_\_\_ : \_\_\_\_\_  AM  PM Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

**REPORTING**

Report to Cal-OES: Date: \_\_\_\_\_   \_\_\_\_\_ : \_\_\_\_\_ AM PM (Cat.1 Only)  
(800) 852-7550 By: \_\_\_\_\_

Control Number provided by Cal-OES: \_\_\_\_\_

Name of Person Contacted: \_\_\_\_\_ or Left Message:

Notes:

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Response Crew: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
\_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_ , \_\_\_\_\_

## 6.6 Regulatory Agency and Other Stakeholder Notifications

<p>Requirement(s) Addressed in Subsection 6.6:</p>	<p>(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;</p> <p>(b) A program to ensure appropriate response to all overflows;</p> <p>(c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc...) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;</p>
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### Impact to Waters of the United States

If an SSO is confirmed to have entered waters of the United State<sup>1</sup>, the Public Works Manager is immediately notified. The response team then proceeds with the following additional activities:

- Determine the extent of the SSO by investigating downstream until there is no evidence of sewage or debris along the creek or water body
- Conduct Water Quality Sampling, following the process described below. If the SSO is 50,000 gallons or greater, collect water quality samples within 48 hours of becoming aware of the SSO
- Immediately post contaminated water sign(s) and protect the waterbody from public access on all sides
- Photograph sign placement and evidence of the overflow in and around the waterbody to the farthest point reached by the sewage
- Determines if the waterbody is safe to enter. During the winter storm season, cleaning the waterbody may not be feasible due to high water flows
- If feasible, block the waterbody downstream of the affected area in a location that is safe to enter and is accessible to set up a pump or utilize other sewer cleaning equipment
- To the extent feasible, recover and return contaminated water to the collection system
- Perform follow-up sampling until the area shows no water quality impairment and the posted signs can be removed. The Public Works Manager ultimately determines when this happens and makes any follow up calls to affected agencies

### Water Quality Sampling and Testing

Water quality sampling and testing is completed where feasible when spilled sewage enters a water body to determine the extent and impact of the SSO. The water quality sampling procedures are as follows:

- First Responder should collect samples as soon as possible after the discovery and mitigation of the SSO event, following the procedure outlined below
- The water quality samples should be collected near the point of entry of the spilled sewage
- The water quality samples should also be collected from upstream of the spill, from the spill area, and downstream of the spill in flowing water (e.g. creeks)

- The samples shall then be brought to Pinole Treatment Plant for analysis for coliform and ammonia.

### **Water Quality Monitoring Plan**

A Water Quality Monitoring Plan must be implemented immediately upon discovery of any Category 1 SSO of 50,000 gallons or more in order to assess impacts from SSOs to surface waters. Water quality testing must be completed within 48 hours of the City becoming aware of the SSO.

The City's SSO Water Quality Monitoring Program includes the following:

- Protocols for water quality monitoring
- Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.)
- Requirement for water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory
- Requirement for monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy

### **SSO Technical Report**

If 50,000 gallons or greater from an SSO reaches surface waters, an SSO Technical Report must be prepared and submitted to the CIWQS online SSO database within 45 calendar days of the SSO end date. The SSO Technical Report must include, at a minimum, the following:

1. Causes and Circumstances of the SSOs
2. Complete and detailed explanation of how and when the SSO was discovered
3. Diagram showing the SSO failure point, appearance point(s), and destination(s)
4. Detailed description of the causes(s) of the SSO
5. Copies of the original field crew records used to document the SSO
6. Historical maintenance records for the failure location
7. Response to SSO:
8. Chronological narrative description of all actions taken to terminate the SSO
9. Explanation of how the OERP was implemented to respond to and mitigate the SSO
10. Final corrective action(s) completed and/or planned to be completed, including a schedule or actions not yet completed
11. Description of all water quality sampling activities conducted including analytical results and evaluation of the results
12. Detailed location map illustrating all water quality sampling points

The Capital Improvement and Environmental Program Manager or Public Works Director is responsible for the development and certification of the SSO Technical Report.

### **Recovery and Cleanup**

The recovery and cleanup phase begin immediately after the flow has been restored and the SSO has been contained to the extent possible. The SSO recovery and cleanup procedures include volume estimation, sewage recovery, and cleanup and disinfection.

#### Estimate the Volume of Spilled Sewage

Use the methods outlined in the SSO Response Field Documentation Form and/or the Field Guide in the OERP to estimate the volume of the spilled sewage. Wherever possible, document the estimate using photos of the SSO site before and during the recovery operation.

#### Recover Spilled Sewage

Vacuum up and/or pump the spilled sewage and discharge it back into the sanitary sewer system.

#### Complete Clean-up and Disinfection

Cleanup and disinfection procedures should be implemented to reduce the potential for human health issues and adverse environmental impacts that are associated with an SSO event. The procedures described are for dry weather conditions and should 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. 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, City claim forms may be issued if requested by the property owners.

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. Take reasonable 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 should 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 OES as appropriate in the event of a fish kill.

Fish and Wildlife will provide the professional guidance needed to effectively clean up spills that occur in these sensitive environments. Clean up should proceed quickly in order to minimize negative impact. Sewage causes depletion of dissolved oxygen, which will kill aquatic life. Any water that is used in the cleanup should be dechlorinated prior to use.

#### Wet Weather Modifications

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.

### **SSO Failure Analysis**

It is the responsibility of the Public Works Manager or Public Works Supervisor to investigate an SSO and to ensure that the procedures in the OERP are followed or modified as a result of the incident failure analysis. The failure analysis is intended to determine if additional maintenance, repair/replacement or other follow-up actions or response procedures changes are needed to reduce or eliminate the likelihood of future SSOs. The procedures for investigating an SSO are as follows:

- Reviewing and completing the Sewer Overflow Report
- Reviewing the incident timeline and other documentation regarding the incident
- Review actions by all persons involved in the response, including the initial recipient of the complaint
- Reviewing communications with all reporting parties, and witnesses
- Review 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 of all affected manholes and pipe segments
- Reviewing past CCTV records
- Conducting a CCTV inspection to determine the condition of the line segment immediately following the SSO and reviewing the video and logs
- Reviewing any FOG related information or results
- Identify any changes or additions needed to the OERP and SSMP following the event

The product of the failure analysis investigation should be the determination of the root cause and identification of the corrective actions. The Collection System Failure Analysis Form should be used to document the investigation to understand how this event does not occur again

### **SSO Documentation and Recordkeeping**

In accordance with the WDR, the City of Pinole maintains records for each sanitary sewer overflow. Records include:

- Documentation of response steps and/or remedial actions
- Photographic evidence to document the extent of the SSO, field crew response operations
- Site conditions after field crew SSO response operations have been completed
- The date, time, location, and direction of photographs taken will be documented
- Documentation of how any estimations of the volume of discharged and/or recovered overflow were calculated

The records are maintained at the city office and will also be entered into the City Beehive CMMS system when the module is complete. Staff will use paper forms until this occurs.

The city also maintains records of all complaints received, whether or not they result in an SSO. Each complaint record includes:

- Date, time, and method of notification
- Date and time the complainant or informant first noticed the SSO
- Narrative description describing the complaint
- A statement from the complainant or informant, if they know, of whether or not the potential SSO may have reached waters of the United States
- Name, address, and contact telephone number of the complainant or informant reporting the potential SSO (if not reported anonymously)
- Follow-up return contact information for each complaint received (if not reported anonymously)
- Final resolution of the complaint
- Work service request information used to document all feasible and remedial actions taken

### Notification to Regulatory Agencies of SSOs

The Office of Emergency Services (OES) is only to be notified of a Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it

probably will be discharged to surface water. The First Responder is responsible for reviewing field data for reporting to regulatory agencies. If it is determined that the criteria for OES notification was met, than the First Responder must notify OES of the event no later than two (2) hours after:

1. The City of Pinole has knowledge of the SSO;
2. Notification is possible; and
3. Notification can be provided without substantially impeding cleanup or other emergency measures.

The OES phone number is (800) 852-7550. The First Responder is responsible for obtaining an OES Control number. Following the initial notification to OES and until the SSO report is certified in the SWRCB online SSO Database, the LRO will provide updates (or provide direction for updates to be provided) to OES regarding substantial changes to estimated volume of untreated or partially treated sewage discharged and any substantial changes to known impact(s).

ELEMENT	REQUIREMENT	METHOD
<p><b>NOTIFICATION</b> (see section B)</p>	<p>Within 2 hours of becoming aware of any Category 1 SSO <b>greater than or equal to 1,000 gallons</b> notify the California Office of Emergency Services (Cal OES) and obtain a notification control number.</p>	<p>Call <a href="#">Cal OES</a> at: (800) 852-7550</p>
<p><b>REPORTING</b> (see section C)</p>	<p>Category 1 SSO: Submit Draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date.</p> <p>Category 2 SSO: Submit Draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date.</p> <p>Category 3 SSO: Submit Certified report within 30 calendar days of the end of month in which SSO occurred.</p> <p>"No Spill" Monthly Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month in which no SSOs occurred.</p> <p>Collection System Questionnaire: Update and Certify every 12 months.</p>	<p>Enter data into the California Integrated Water Quality System (CIWQS) Online SSO Database (<a href="http://ciwqs.waterboards.ca.gov/">http://ciwqs.waterboards.ca.gov/</a>), certified by enrollee's Legally Responsible Official(s).</p>

SSO Reporting for Category 1 SSOs

OES shall receive notification of Category 1 SSOs greater than or equal to 1,000 gallons, as stated earlier in this Section.

The Data Submitter must then submit the initial draft report to the SWRCB's CIWQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs> within 3 business days of becoming aware of the SSO.

Within 15 calendar days of the SSO end date, the LRO must review and certify the report in the CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

At minimum, the following mandatory information shall be reported prior to finalizing and certifying an SSO report:

Category 1 SSO Data Collection

1. SSO Contact Information: Name and telephone number of staff who can answer specific questions about the SSO being reported
2. SSO Location Name
3. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow 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 SSO appearance point explanation field
4. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure
5. Whether or not the SSO reached a municipal separate storm drain system
6. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered
7. Estimate of the SSO volume, inclusive of all discharge point(s)
8. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain
9. Estimate of the SSO volume recovered (if applicable)
10. Number of SSO appearance point(s)
11. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
12. SSO start date and time
13. Date and time the enrollee was notified of, or self-discovered, the SSO
14. Estimated operator arrival time
15. For spills greater than or equal to 1,000 gallons, the date and time OES was called
16. For spills greater than or equal to 1,000 gallons, the OES control number

Certified Category 1 SSO

At a minimum, the following mandatory information shall be reported for a certified Category 1 SSO report, in addition to items 1-16 above:

1. Description of SSO destination(s)
2. SSO end date and time
3. SSO causes (mainline blockage, roots, etc.)
4. SSO failure point (main, lateral, etc.)
5. Whether or not the spill was associated with a storm event
6. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps
7. Description of spill response activities
8. Spill response completion date
9. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion
10. Whether or not a beach closure occurred or may have occurred as a result of the SSO
11. Whether or not health warnings were posted as a result of the SSO
12. Name of beach(es) closed and/or impacted. If no beach was impacted, NA must be selected



13. Name of surface water(s) impacted
14. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected
15. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected
16. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered
17. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification number (Event ID)

#### SSO Reporting for Category 2 SSOs

Within 3 business days of becoming aware of the SSO, the Public Works Manager or Supervisor must submit the initial report to the SWRCB's CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

Within 15 calendar days of the SSO end date, the LRO must review and certify the report in the CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

#### SSO Reporting for Category 3 SSOs

Within 30 calendar days of the end of the calendar month in which the SSO occurred, the LRO must submit and certify a report to the SWRCB's CWIQS Online SSO database @ <http://ciwqs.waterboards.ca.gov/ciwqs>

At minimum, in addition to Items 1-14 in the Draft Category 1 section, Items 1-6, and 17 in the Certified Category 1 SSO section above shall be reported prior to finalizing and certifying a Category 3 SSO report.

#### No Spill Certification (Monthly)

Within 30 calendar days of the end of a calendar month that there are no SSO's, the LRO must submit and certify a "No Spill" certification to the CIWQS online SSO database.

#### CIWQS Not Available

In the event that the CIWQS online SSO database is not available, the LRO will fax or e-mail all required information to the RWQCB office at (510) 622-2460 in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS online SSO database when the database becomes available. A copy of all documents that certify the submittal in fulfillment of this section shall be retained in the SSO document file.

#### Amending SSO Reports

The LRO is responsible for amending SSO reports. Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the City must contact the State SSO Program Manager to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days. The SWRCB SSO Program Manager contact information follows:

State Water Resources Control Board Division of Water Quality  
1001 I Street 15th Floor  
Sacramento, CA 95814  
E-mail: [Walter.Mobley@waterboards.ca.gov](mailto:Walter.Mobley@waterboards.ca.gov)  
Phone: (916) 323-0878

Technical Report

If 50,000 gallons or greater from an SSO reaches surface waters, an SSO Technical Report must be prepared and submitted to the CIWQS online SSO database within 45 calendar days of the SSO end date. The City Engineer is responsible for submitting the Technical Report, which is described in further detail earlier in this Section.

**6.7 Staff and Contractor Awareness and Training**

Requirement(s) Addressed in Subsection 6.8:	(d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
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**Training**

SSO Response Training

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

Initial and Annual Refresher Training

All City personnel who may have a role in responding to, reporting, and/or mitigating a sewer system overflow should receive training on the contents of this OERP. All new employees should receive training before they are placed in a position where they may have to respond. Current employees should receive annual refresher training on this plan and the procedures to be followed. Affected employees will receive annual training on the following topics, at a minimum, by knowledgeable trainers:

- The City’s Overflow Emergency Response Plan
- SSO Volume Estimation Techniques
- Impacted Surface Waters: Response Procedures

The city will verify that annual safety training requirements are current for each employee, and that employees are competent in the performance of all core competencies. The city will address, through additional training/instruction, any identified gaps in required core competencies.

SSO Response Drills

Periodic training drills should 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, force main failure, pump station failure, and lateral blockage). The results and the observations during the drills will be recorded and action items should be tracked to ensure completion.

SSO Training Record Keeping

Records should be kept of all training that is provided in support of this plan. The records for all scheduled training courses and for each overflow emergency response training event and will include date, time, place, content, name of trainer(s), and names of attendees.

**Contractors Working on City Sewer Facilities**

All contractors working on City sewer facilities will be trained in the City’s OERP and will be required to follow the OERP in the event that they cause or observe an SSO. Contractors will be instructed to contact the City immediately or the Police Department to have staff respond.

## 6.8 Pollution Prevention Program Regarding SSOs

Requirement(s) Addressed in Subsection 6.9:	(e) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.
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The City of Pinole will follow up on all future SSOs with condition assessments so as to minimize or correct any future SSOs at that site. Adjustments to cleaning schedule and remote monitoring will be used in flexible and dynamic ways using various technologies and analytical software.

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## Element 7 Fats, Oils, and Grease (FOG) Control Program

### 7.1 Requirements

<b>Element 7</b>	<b>D.13.(vii) Fats, Oils, and Grease (FOG) Control Program:</b>
Requirements	<p>Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:</p> <ul style="list-style-type: none"> <li>(a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;</li> <li>(b) A plan and schedule for the disposal of FOG 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 FOG generated within a sanitary sewer system service area;</li> <li>(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;</li> <li>(d) Requirements to install grease removal devices (such as traps or interceptors) design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;</li> <li>(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;</li> <li>(f) An identification of sanitary sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section; and</li> <li>(g) Development and implementation of source control measures, for all sources of FOG discharged to the sanitary sewer system, for each section identified in (f) above.</li> </ul>

### 7.2 Background and Disposal

Requirement(s) Addressed in Subsection 7.2:	(b) A plan and schedule for the disposal of FOG 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 FOG generated within a sanitary sewer system service area;
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The City initiated a Fats, Oil & Grease (FOG) Program following adoption of Ordinance 01-102 in 2001, which repealed and replaced previous chapters of the Pinole Municipal Code with Chapter 13.05 “Waste Discharge Requirements”. Please see Section 3.6 for Pinole Municipal Code references relating to FOG Program requirements, administration and enforcement.

The Pinole-Hercules WPCP was recently upgraded with completion of the Wastewater Treatment Plant Expansion and Upgrades Project in December 2019, to expand capacity including for wet weather treatment and to meet discharge requirements. This upgrade did not

include receiving FOG generated within the sanitary sewer system service area at the WPCP for disposal. The City provides a list of grease trap cleaners in the operating area for maintenance and disposal of FOG at receiving facilities on their website [ci.pinole.ca.us](http://ci.pinole.ca.us) at the City Government | Public Works | Wastewater Collection | Fats, Oils, Grease (FOG) page and includes it in the annual Pollution Prevention Report for the WPCP. The most recent version of this document is included below in Table 7.1, for reference.

**Table. 7.1 Grease Trap Cleaners in the Operating Area  
Effective 12/15/2020**

Company	Address	Phone #
ARS/Rescue Rooter	1618 Doolittle Rd, San Leandro, CA 94577	(510) 729-6000 (877) 454-4910
All Valley Environmental	523 N Brawley Ave, Fresno, CA 93706	(559) 498-8378
Ameriguard Maintenance Service LLC	4681 E Vine Ave, Fresno, CA 93725	(559) 497-2925
Burr Plumbing & Pumping	1645 Almaden Rd, San Jose, CA 95125	(408) 287-2877
Central Grease	17771 W. Gettysburg, Kerman, CA 93630	(559) 846-9607
Darling International Dar Pro	429 Amador St, San Francisco, CA 94124	(415) 647-4890 (855) 327-7761
Ernie's Plumbing	3795 Pacheco Blvd, Martinez, CA	(925) 228-5242
Got Grease LCC subsidiary of Bently Biofuels	1728 Ocean Ave # 124, San Francisco, CA 94112 <a href="https://www.facebook.com/pages/Got-Grease/133767576686358?sk=page_map">https://www.facebook.com/pages/Got-Grease/133767576686358?sk=page_map</a>	(415) 728-8766 (888) 269-3115
MJ Waste	10927 S Reed Ave, Reedley, CA 93654	(559) 638-5199
One More Time	4144 Bandini Blvd, Vernon, CA 90058	(800)624-5504
Pioneer Liquid Transport, Inc.	251 E Empire Street, San Jose, CA	(408) 287-5800
Preferred Plumbing & Drains	5600 Imhoff Dr, Concord, CA	(925) 526-6589
Roto Rooter	195 Mason Cir, Concord, Ca	(925) 798-2122
Salinas Tallow	1 Work Cir, Salinas, CA	(800) 621-9000 (800) 422-6436
Sequential Headquarters	333 NW 35 <sup>th</sup> Ave, Portland, OR 97210	(800) 447-3794
Sirona Fuels	851 49th Ave, Oakland, CA	(510) 868-9229
SRC Pumping	11350 Kiefer Blvd, Sacramento, CA	(800)339-6493 (916) 363-4821
Stoddard Plumbing	5155 Myrtle Dr, Concord, CA	(925) 825-5559
United Site Service	1521 Copperhill Pkwy, Santa Rosa, CA	(707) 543-2731 (800) 864-5387

### 7.3 Legal Authority, Requirements, Inspection and Enforcement

Requirement(s) Addressed in Subsection 7.3:	<ul style="list-style-type: none"> <li>(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;</li> <li>(d) Requirements to install grease removal devices (such as traps or interceptors) design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;</li> <li>(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;</li> </ul>
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#### Legal Authority

Legal authority related to FOG-related requirements, inspection, and enforcement is documented in Section 3.6, above.

#### Source Identification and Control

Requirements to install grease removal devices, design standards, maintenance and best managements practices (BMPs), recordkeeping and reporting are in accordance with the Pinole Municipal Code, see Section 3.6, above. The Restaurant Grease Trap Program and annual Oil & Grease Pretreatment Inspections started in 2002. The number of commercial food preparation sites at any given time that are subject to requirements and inspection under the FOG Program varies from about 65 to 70. Documents on these sites, whether or not a grease interceptor is required, and inspections performed are managed and located at the WPCP.

#### Inspection and Enforcement

Inspection and enforcement authorities are in accordance with the Pinole Municipal Code, see Section 3.6, above. Staffing for inspection and enforcement includes Public Works Specialist and Environmental Analyst.

### 7.4 Collection System Maintenance

Requirement(s) Addressed in Subsection 7.4:	<ul style="list-style-type: none"> <li>(f) An identification of sanitary sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section; and</li> <li>(g) Development and implementation of source control measures, for all sources of FOG discharged to the sanitary sewer system, for each section identified in (f) above.</li> </ul>
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The City maintains the sanitary sewer system including cleaning and condition inspection as part of routine PM, identifies pipes with a potential for FOG debris-related overflows, and includes them on the hot spot cleaning list for targeted maintenance. The current list of grease-related maintenance lines is documented in Table 7.2.

**Table. 7.2 Hot Spot Maintenance Pipes with FOG**

Area	Sec	MH-MH	Location
D	7	4 to 5	Ramona St
D	11	9	Pinole Valley Rd
E	2a	7 t 6	Pinole Valley Rd
E	5	7 to 10	Sarah Dr
F	8	3	Appian Way
I	2	4 to 3	Pinole Valley Rd
I	3	13 to 12	Pinole Valley Rd
I	10d	1 to 2	Pinole Valley Rd
I	5	9 to 8	Downer St
I	9	4 to 5	Henry Ave
J	1	9 to 8	Creek Trail
J	5	4 to 1	Tennent Ave
D	7	1 to 2	Estates Ave
G	9	2 to 1	Betty Ave

Areas of grease accumulation are often related to grade issues like sags and flat lines. There is no history of FOG-related SSOs downstream of a commercial food preparation facility since the initiation of the FOG Program source identification and control efforts, so no additional source control measures have been implemented, but inspection and enforcement authorities and mechanisms are in place if this changes.

### 7.5 Public Education Outreach Program

Requirement(s) Addressed in Subsection 7.5:	(a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
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The City implemented and has an ongoing outreach efforts to promote the proper disposal of FOG. City outreach to commercial and residential customers includes various methods including online, on the website or by email; at events; and at the property in person, by hand delivery, or by mail. The outreach implementation plan and schedule is discussed in the annual Pollution Prevention Report prepared for the WPCP.

Commercial outreach has included but are not limited to:

- Educational poster in 2016
- *Fight F.O.G. Keep Fats, Oils & Grease Out of Your Drains!* pamphlet
- *Stormwater Best Management Practices for Restaurants*

Residential outreach has included but is not limited to:

- Food scraper handouts at City events in 2019
- *Think Before You Flush* pamphlet
- Door hangers



## Element 8 System Evaluation and Capacity Assurance Plan

### 8.1 Requirements

<p>Element <b>8</b></p>	<p>D.13.(viii)  <b>System Evaluation and Capacity Assurance Plan:</b></p>
<p>Requirements</p>	<p>The Enrollee shall prepare and implement a capital improvement plan (CIP) 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. At a minimum, the plan must include:</p> <ul style="list-style-type: none"> <li>(a) Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those 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;</li> <li>(b) Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in “a” above to establish appropriate design criteria; and</li> <li>(c) Capacity Enhancement Measures: The steps needed to establish a short- and long-term capital improvement plan (CIP) to address identified hydraulic deficiencies including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.</li> <li>(d) Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a-c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.</li> </ul>

## 8.2 System Evaluation

Requirement(s) Addressed in Subsection 8.3:	(a) Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those 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; (b) Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in “a” above to establish appropriate design criteria; and
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The City recently prepared the 2022 Sanitary Sewer Master Plan Update, prepared by Carollo Engineers, 2022. This report discusses hydraulic condition history including SSOs and updates the hydraulic capacity evaluation of the system for existing and future conditions. It documents the hydraulic model development and design criteria.

## 8.3 Capacity Assurance Plan

Requirement(s) Addressed in Subsection 8.4:	(c) Capacity Enhancement Measures: The steps needed to establish a short- and long-term capital improvement plan (CIP) to address identified hydraulic deficiencies including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding. (d) Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a-c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.
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The 2022 Sanitary Sewer Master Plan Update identifies hydraulic deficiencies and includes capacity improvement scenarios, and short- and long-term CIP recommendations to address identified deficiencies, including priority and a planning-level schedule. This report is pending finalization at the time of preparation of this document. Please reference the final Sewer Master Plan Update document and supporting CIP budgets which will be made available on the City’s website after acceptance by the City Council.

## Element 9 Monitoring, Measurement, and Program Modifications

### 9.1 Requirements

<b>Element</b>  <b>9</b>	<b>D.13.(ix)</b>  <b>Monitoring, Measurement, and Program Modifications:</b>
<b>Requirements</b>	The Enrollee shall: <ul style="list-style-type: none"> <li>(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities.</li> <li>(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;</li> <li>(c) Assess the success of the preventative maintenance program;</li> <li>(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and</li> <li>(e) Identify and illustrate SSO trends, including: frequency, location, and volume.</li> </ul>

### 9.2 Introduction

This Element of the SSMP will discuss how the City maintains relevant information and data related to SSMP activities, monitors the implementation of SSMP Elements, and measures the effectiveness of its SSMP Elements. A system for assessing preventive maintenance (PM) program effectiveness and potential modifications to program elements is being developed in their new CMMS. Meaningful data needs to be identified, obtained, and displayed to support the opinion of program effectiveness and the need to revise, or maintain, PM practices and SSMP program elements. Relevant performance indicators that indicate the success or failure to meet established goals are selected and tracked on a regular basis.

### 9.3 Monitoring and Measurement – Data

Requirements Addressed in Subsection 9.3	(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities.
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The City maintains compliance, inspection, complaint and blockage records in electronic and report formats, maintains electronic and paper logs of cleaning, repairs, other preventive maintenance activities, and records problems (e.g., excessive debris, observed manhole defects) identified through regular sewer maintenance activities on special report forms. In 2007, the City began reporting in the SWRCB’s CIWQS electronic SSO reporting system which records the number, volume, location, and cause of SSOs. The City is currently using a number of paper logs and data records in various systems but is in the process of developing its CMMS workflows to more efficiently track and utilize records related to any segment of pipe or access point in their system. With the available information, the City can track various parameters related to service calls, maintenance, and inspection activities, and can also compare SSO trends from previous years and identify system components that continually contribute to system failures.

### 9.4 Monitoring and Measurement – Performance Indicators

Requirements Addressed in Subsection 9.4	(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP; (c) Assess the success of the preventative maintenance program;
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Performance indicators for monitoring SSMP implementation and measuring/tracking the effectiveness for the 11 SSMP elements are included in Table 9.1. The City will be collecting data and using it to for tracking performance indicators per calendar year within CIWQS, CMMS, GIS, CCTV, and other data management systems for Element 4. Operations and Maintenance Program, Element 6, Overflow Emergency Response Plan (OERP), Element 7 Fats, Oils & Grease (FOG) Control, and Element 8 System Evaluation and Capacity Assurance Plan. Performance indicators for the remaining elements are more general and will be completed through regular periodic/as-needed reviews and SSMP updates as appropriate.

**Table 9.1 Performance Indicators for Tracking Effectiveness of SSMP Activities**

SSMP Element	Summary of Element Purpose	Performance Indicators for Tracking Effectiveness
<b>1 Goals</b>	Establish priorities of Enrollee and provide focus for Enrollee staff	Periodic/as-needed review of goals based upon results of performance evaluations.
<b>2 Organization</b>	Document organization of Enrollee staff and chain of command/communication for SSO response	Annual review of Organization Chart and all contact information, making and logging any changes identified in SSMP in Appendix A and updating CIWQS.
<b>3 Legal Authority</b>	Ensure the Enrollee has sufficient legal authority to properly maintain and protect the integrity of the system	Periodic/as-needed review of codes and/or ordinances for revisions, including schedule for identified updates.
<b>4 Operations and Maintenance Program</b>	Minimize blockages and SSOs by properly operating and maintaining the system	<p><b>CIWQS data:</b></p> <ul style="list-style-type: none"> <li>▪ Number of SSOs per year</li> <li>▪ Volume of SSOs per year</li> <li>▪ Volume of SSO recovered per year</li> <li>▪ Volume of SSO estimated to reach surface waters per year</li> <li>▪ Percent of SSO estimated to reach surface waters per year</li> <li>▪ Number of SSOs per year by cause</li> <li>▪ Number of dry weather SSOs per year</li> <li>▪ Number of repeat SSOs (from same location as any previous SSO)</li> </ul> <p><b>CMMS/CCTV data:</b></p> <ul style="list-style-type: none"> <li>▪ Total length of pipe cleaned per year</li> <li>▪ Total length of pipe cleaned by method per year</li> <li>▪ Number of pipes maintained per year</li> <li>▪ Lift station work orders completed per year.</li> <li>▪ Number of access points inspected per year</li> <li>▪ Number of pipes inspected per year</li> <li>▪ Total length of pipe inspected per year</li> <li>▪ Current PACP Grade 4 or 5 defect count</li> <li>▪ Current number of PACP Grade 4 or 5 defects per pipe</li> </ul>

SSMP Element	Summary of Element Purpose	Performance Indicators for Tracking Effectiveness
		<b>CMMS/CIP data:</b> <ul style="list-style-type: none"> <li>▪ Number of access points repaired, rehabilitated, or replaced per year</li> <li>▪ Length of pipe repaired, rehabilitated, or replaced per year</li> <li>▪ Length of pipe abandoned or removed per year</li> <li>▪ Number of access points installed per year</li> <li>▪ Length of pipe installed per year</li> <li>▪ Number of capital projects completed per year</li> <li>▪ Capital program expenditures per year</li> </ul>
<b>5 Design &amp; Construction Standards</b>	Ensure new facilities are properly designed and constructed	Periodic/as-needed review of new technologies and materials for collection systems assets.
<b>6 Overflow Emergency Response Plan (OERP)</b>	Provide timely and effective response to SSO emergencies and comply with regulatory reporting requirements	<b>CIWQS data:</b> <ul style="list-style-type: none"> <li>▪ Average response time from call to arrival per year</li> <li>▪ Average response time from arrival to SSO stoppage and cleanup per year</li> <li>▪ Percent of total SSO volume contained or returned to sewer per year</li> </ul>
<b>7 Fats, Oils &amp; Grease (FOG) Control</b>	Minimize blockages and overflows due to FOG	<ul style="list-style-type: none"> <li>▪ Number of blockages due to FOG per year</li> <li>▪ Number of SSOs due to FOG per year</li> <li>▪ Number of FOG-producing facilities inspected per year</li> </ul>
<b>8 System Evaluation and Capacity Assurance Plan</b>	Minimize overflows due to wet weather	<ul style="list-style-type: none"> <li>▪ Volume of wet weather SSOs per year</li> <li>▪ Number of wet weather SSOs per year</li> </ul> <b>CIP data:</b> <ul style="list-style-type: none"> <li>▪ CIP hydraulic capacity project implementation status</li> </ul>
<b>9 Monitoring, Measurement, &amp; Program Modifications</b>		Prepare and update performance results in Elements 4, 6, 7, and 8. Review and update callout forms as needed. Annual review of CIWQS data.
<b>10 Program Audits</b>		Date of completion of last audit
<b>11 Communication Plan</b>		Place audit in Appendix D

### 9.5 SSMP Program Review and Modification

Requirements Addressed in Subsection 9.5	(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
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Program elements will be monitored constantly with new field data being inputted into the CMMS and GIS. The City will review each element on an annual basis to ensure compliance with this document. Performance indicators will be updated as new programs come into effect for the City.

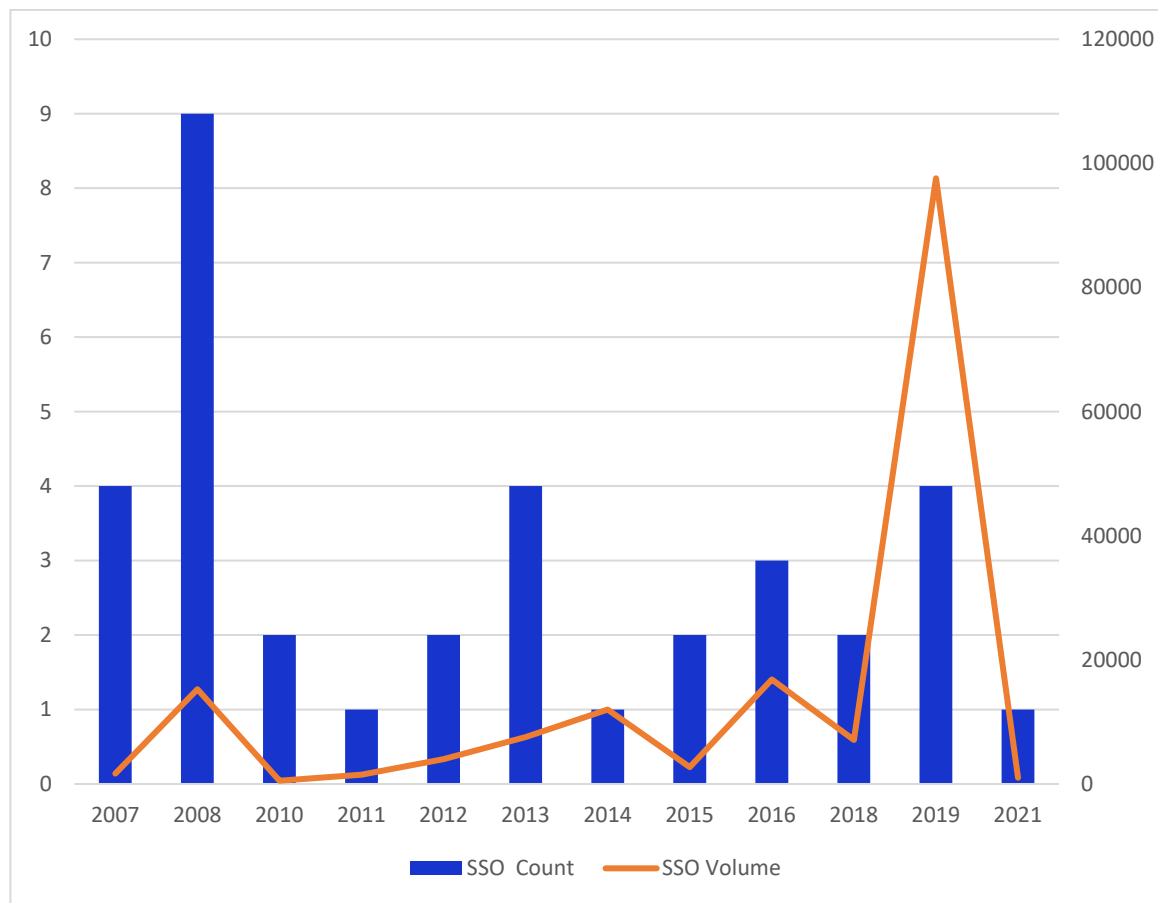
## 9.6 SSO Trends

Requirements Addressed in Subsection 9.6	(e) Identify and illustrate SSO trends, including: frequency, location, and volume.
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SSO trends will be monitored using data from CIWQS and Beehive CMMS. Cleaning data will also be used to track partial blockages so that follow up can occur. SSO counts and volumes since 2007 are shown on Figure 9.1. SSO locations are publicly available using the CIWQS SSO Database under the City's WDID 2SSO10112 at:

[https://www.waterboards.ca.gov/water\\_issues/programs/sso/sso\\_map/sso\\_pub.html](https://www.waterboards.ca.gov/water_issues/programs/sso/sso_map/sso_pub.html).

**Figure 9.1 CIWQS SSO Count and Volume History**



## Element 10 SSMP Audits

### 10.1 Requirements

Element <b>10</b>	D.13.(x) <b>SSMP Audits</b>
Requirements	As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee’s compliance with the SSMP requirements identified in this subsection (D.13.), including identification of any deficiencies in the SSMP and steps to correct them.

### 10.2 SSMP Audits

#### Purpose and Corrective Actions

In accordance with the WDRs, the City will conduct periodic internal SSMP audits to evaluate the effectiveness of the SSMP and its Elements and to determine the compliance of the City with the SSMP requirements. Compliance will be evaluated for the eleven SSMP Elements SSMP Elements:

1. Goals
2. Organization
3. Legal Authority
4. Operation and Maintenance Program
5. Design and Performance Provisions
6. Overflow Emergency Response Plan
7. FOG Control Program
8. System Evaluation and Capacity Assurance Plan
9. Monitoring, Measurement, and Program Modifications
10. SSMP Program Audits
11. Communication Program

#### Schedule

In accordance with the WDRs, SSMP audits will be conducted at least every two (2) years starting from the original date of adoption of the SSMP by the City Council.

#### Audit Reports

Once each audit is complete, the City will prepare an audit report. In accordance with MRP Section E, audit reports shall be kept on file for a minimum of five (5) years and be made available to State Water Board or RWQCB staff upon request. These audit reports will be appended to this SSMP in Appendix D.

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## Element 11 Communication Program

### 11.1 Requirements

Element <b>11</b>	D.13.(xi) <b>Communication Program:</b>
Requirements	(a) The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.  (b) The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee’s sanitary sewer system.

### 11.2 Communication Program

Requirements Addressed in Subsection 11.2	(a) The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.
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**City Council Meetings.** Adoption of this SSMP will be at a regular public meeting of the City Council and in accordance with the Ralph M. Brown Act, Gov. Code § 54950. The agenda will be posted no later than Thursday at 4:30 p.m., preceding the meeting. Staff reports and attachments will be linked within the agenda and copies will be available outside the Council Chambers. Members of the public may submit public comments in accordance with the agenda, typically in person by attending the meeting at the Pinole City Council Chambers, via live remote public comment via Zoom video conferencing, by phone, and as written comments via email prior to the meeting. The public can also watch the meeting live on Community TV Channel 26, published on the City’s website, and video-streamed live on the City’s website and archived for five (5) years. The meeting will be conducted and minutes prepared and made available on the website in accordance with normal City Council operations at:

City Government | City Council | Agendas and Minutes  
[https://www.ci.pinole.ca.us/city\\_government/city\\_council/agendas\\_and\\_minut  
 es](https://www.ci.pinole.ca.us/city_government/city_council/agendas_and_minutes)

Performance of the sanitary sewer system in accordance with this SSMP may also be included in future City Council Meetings which will be agendized and conducted in accordance with normal City Council operations (at that time).

**SSMP Available on Website.** The adopted SSMP will be available on the City’s website [www.ci.pinole.ca.us](http://www.ci.pinole.ca.us).

**Regular Communications with the Public.** The City publishes a City Manager’s Message periodically, as well as Notices and Current News under City Government at:

City Government | City Manager | City Manager's Report  
 City Government | Notices  
 News | What's New

Program information, documents, notices, and communications relating to the SSMP and performance under the elements may be available, including Capital Projects as well as Wastewater Collection Rates, Sanitary Sewer Lateral, and Fats, Oils, Grease (FOG) from the Public Works page of the website:

City Government | Public Works

**Contacting Public Works.** In addition to public meeting participation, Department contact information including the Public Works Department main phone (510-724-9010), fax (510-724-4921) and email ([PublicWorks@ci.pinole.ca.us](mailto:PublicWorks@ci.pinole.ca.us)) are made available on the website and communications will be routed to appropriate department staff. Members of the public may also visit the Public Works Department at 2131 Pear Street during Public Work Hours, which are posted on the website.

**Social Media.** The City has an official Facebook page for news on programs, projects and events, available for communicating with the public. The City is also on Nextdoor for sharing information with the public.

**Mailings.** Direct mailing may be used for communication with the public and commercial businesses. Capital and Maintenance Projects (such as smoke testing and other contracted services) may be noticed by mail to adjacent property residents and owners.

**In-Person Communications and Public Notices.** City staff have opportunities to meet with the public and directly share information and documents, answer questions, and receive feedback during the course of their daily routines. For example, door hangers are often posted by crews during maintenance activities and the public ask staff questions about activities being performed.

The City has hosted booths/attended public events and fairs such as the annual class car show and shared program materials at these events and directly with community organizations such as the Coast Cleanup volunteers. Events/fairs have been and may be used to hand out food scrapers in support of the FOG Program goals. The City makes wastewater treatment plant tours available to schools and the general public as requested and can use these as opportunities to share SSMP-related program information.

In addition, the City may post project- and program-related signs and message boards including information relating to SSMP elements.

### 11.3 Communication Plan with City of Hercules

Requirements Addressed in Subsection 11.3	(b) The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee’s sanitary sewer system.
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**Joint Powers Authority (JPA).** The Pinole-Hercules WPCP is operated, managed and maintained under a joint powers agreement between City of Pinole and City of Hercules. As members of a JPA, the City meets regularly with the City of Hercules and also engages in direct communications as needed throughout the year. JPA members separately report any recommendations to their respective City Councils for action to implement recommendations.



## **Appendix A City of Pinole SSMP Change Log**

### **WDR, MONITORING AND REPORTING PROGRAM ORDER No. WQ 2013-0058-EXEC REQUIREMENTS**

RECORD KEEPING REQUIREMENTS: Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.

<b>Element</b>	<b>Change Description</b>	<b>Approving Authority (LRO)</b>	<b>Date</b>
1. Goals			
2. Organization			
3. Legal Authority			
4. Operation and Maintenance Program			
5. Design and Performance Provisions			

City of Pinole - Sewer System Management Plan (SSMP), June 2022

Element	Change Description	Approving Authority (LRO)	Date
6. Overflow Emergency Response Plan			
7. FOG Control Program			
8. System Evaluation and Capacity Assurance Plan			
9. Monitoring, Measurement, and Program Modifications			
10. SSMP Program Audits			
11. Communication Program			
Appendices			

## **Appendix B**

### **SSMP Audit Template**

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## City of Pinole

### SSMP Biennial Audit

<b>Date of Audit:</b>	<b>From:</b>	<b>Through:</b>
<b>Prepared by:</b>		
<b>Reviewed by:</b>		

Introduction		Yes	No
I1	Have the regulatory requirements changed?		
I2	Has the organization of the document changed?		
Discussion:			
Collection System Overview		Yes	No
CS1	Is the collection system system description current and complete?		
CS2	Is the sewer system map current and complete?		
CS3	Are the collection system metrics current and complete?		
CS3	Have there been any significant changes in climate averages, or the City's approach to climate change as it relates to the collection system infrastructure?		
CS4	Have there been any significant changes in seismic and geological hazards as they relate to the collection system infrastructure?		
Discussion:			



City of Pinole - Sewer System Management Plan (SSMP), June 2022

Element 1 – Goals		Yes	No
1A	Are the goals stated in the SSMP still appropriate and accurate?		
Discussion:			
Element 2 – Organization		Yes	No
2A	Is the organization chart current?		
2B	Are the position descriptions an accurate portrayal of staff responsibilities?		
2C	Are the staff responsibilities, names and contact information accurate and current?		
2D	Is the chain of communication responsibilities for reporting and responding to SSOs accurate and current?		
2E	Is the SSO Responder contact list and information current?		
Discussion:			
Element 3 – Legal Authority		Yes	No
Does the SSMP contain current references to the City’s Code documenting the City’s legal authority to:			
3A	Prevent illicit discharges?		
3B	Require proper design and construction of public sewers?		
3C	Require proper design, construction, and maintenance of private sewer laterals?		
3D	Limit discharges of FOG and other debris?		
3E	Enforce any violation of its sewer ordinances including rights of entry?		
3F	Were any changes or modifications made since the last SSMP audit to City Ordinances, Regulations, or standards?		
Discussion:			

<b>Element 4 – Operation and Maintenance</b>		<b>Yes</b>	<b>No</b>
<b>Mapping</b>			
4A	Does the SSMP reference the current process and procedures for maintaining the City’s sanitary sewer system maps?		
4B	Are the City’s wastewater collection system maps complete, current, and sufficiently detailed?		
Discussion:			
<b>Preventative Maintenance</b>			
4C	Does the SSMP describe current preventive maintenance activities and the system for prioritizing the cleaning of sewer lines?		
4D	Based upon the CIWQS SSO data, are the City’s preventive maintenance activities sufficient and effective in minimizing SSOs and blockages?		
Discussion:			
<b>Rehabilitation and Replacement Plan</b>			
4E	Is there an ongoing condition assessment program sufficient to rate the condition of sewer pipes and schedule rehabilitation? Are the current components of this program documented in the SSMP?		
4F	Does the rehabilitation and replacement plan include a capital improvement plan that addresses proper management and protection of the infrastructure assets? Does the plan include a time schedule for implementing the short and long-term plans plus a schedule for developing the funds needed for the capital improvement plan?		
Discussion:			

<b>Element 4 – Operation and Maintenance</b>		<b>Yes</b>	<b>No</b>
<b>Training</b>			
4G	Are the training records current and complete?		
4F	Does the SSMP document current training expectations and programs?		
Discussion:			
<b>Equipment and Replacement Parts Inventories</b>			
4G	Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system?		
4H	Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?		
Discussion:			
<b>Element 5 – Design and Performance Standards</b>		<b>Yes</b>	<b>No</b>
5A	Does the SSMP reference current design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?		
5B	Does the SSMP document current procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and the rehabilitation and repair of existing sewer lines?		
Discussion:			

City of Pinole - Sewer System Management Plan (SSMP), June 2022

Element 6 – Overflow and Emergency Response Plan		Yes	No
6A	Does the OERP have a program to ensure an appropriate response to all overflows?		
6B	Does the City’s Overflow Emergency Response Plan (OERP) contain proper notification procedures so that the primary responders and regulatory agencies are informed of all sanitary sewer overflows (SSOs) as required by the WDR and MRP?		
6C	Does the OERP contain procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities of all SSOs that potentially affect public health or reach waters of the State in accordance with the MRP? Does the SSMP identify the officials who will receive immediate notification of such SSOs?		
6D	Does the OERP ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge?		
6E	Considering SSO performance data, is the OERP effective in handling SSOs in order to safeguard public health and the environment?		
6F	Is the Water Quality Monitoring Plan current and has it been trained on and practiced by staff that would be involved in a SSO of large volume?		
6G	Was sampling conducted within 48 hours for all SSOs greater than 50,000 gallons and were results entered for these SSOs through the CIWQS website?		
6H	Has the City prepared a Technical Report for all SSOs larger than 50,000 gallons? Have all Technical Reports been filed on the CIWQS website as required?		
6D	Are staff and contractor personnel aware of and appropriately trained on the procedures of the OERP?		
Discussion:			

City of Pinole - Sewer System Management Plan (SSMP), June 2022

Element 7 – Fats, Oils, and Grease (FOG) Control Program		Yes	No
7A	Does the FOG program include a plan for the disposal of FOG generated within the sewer system service area?		
7B	Does the City have sufficient legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG?		
7C	Are there requirements to install grease removal devices (such as traps or interceptors), best management practices (BMP) requirements, record keeping, maintenance requirements and reporting requirements established in the City’s FOG Control Program?		
7D	Does the City have authority to inspect grease producing facilities and have sufficient staff to inspect and enforce the FOG ordinance?		
7E	Does the FOG control program implement source control measures for all sources of FOG discharged to the collection system?		
7F	Does the FOG control program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?		
7G	Is the current FOG program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?		
7H	Does the FOG Control Program include a description of public education outreach efforts that promote proper handling and disposal of FOG?		
Discussion:			

<b>Element 8 – System Evaluation and Capacity Assurance Plan</b>		<b>Yes</b>	<b>No</b>
8A	Does the System Evaluation and Capacity Assurance Plan evaluate hydraulic deficiencies in the system and provide estimates of peak flows associated with conditions similar to those causing overflow events, if applicable?		
8B	Does the City’s capital improvement program (CIP) establish a schedule of approximate completion dates for both short-term and long-term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishment?		
8C	Does the City take steps needed to establish a short and long-term CIP to address hydraulic deficiencies, including prioritization, alternatives analysis, and schedules? Are repair and replacement projects developed based upon condition assessment and/or field maintenance results?		
Discussion:			
<b>Element 9 – Monitoring, Measurement, and Program Modifications</b>		<b>Yes</b>	<b>No</b>
9A	Does the City maintain relevant information that can be used to establish and prioritize appropriate SSMP activities?		
9B	Does the City monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP?		
9C	Does the City assess the success of the preventive maintenance program?		
9D	Does the City update program elements, as appropriate, based upon monitoring or performance evaluations?		
9E	Does the SSMP identify and illustrate SSO trends, including frequency, location and volume of SSOs?		
Discussion:			

Element 10 – SSMP Program Audits		Yes	No
10A	Does the audit focus on the effectiveness of the SSMP? If not, what needs to be changed to increase the effectiveness of the overall collection system program?		
10B	Were the audit results shared with the City Council and the public, via the City website?		
10C	Will the SSMP Audit be completed, reviewed, and filed as an Appendix to the SSMP on a biennial basis?		
10D	Do any proposed changes to the SSMP require Council approval as they have a substantial change in the policies and procedures for collection system operations and maintenance?		
Discussion:			
Element 11 – Communication Program		Yes	No
11A	Does the City communicate on a regular basis with the public and other agencies about the development and implementation of the SSMP? Does the communication system provide the public the opportunity to provide input as the program is developed and implemented? Were annual progress reports and metrics of implementation of the SSMP provided to the City Council?		
Discussion:			
Change Log		Yes	No
CL1	Is the SSMP Change Log current and up to date?		
Discussion:			

## **Appendix C**

### **Waste Discharge Requirements**



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## **Appendix D Completed SSMP Audits**

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