



City of Pasadena
Sewer System Management Plan

California State Resources Control Board

Prepared for:

City of Pasadena Public Works Department
100 N. Garfield Ave, Room N306
Pasadena, California 91101
Contact: James Tong, P.E.

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Acronyms and Abbreviations

Abbreviation	Acronym
BMP	Best Management Practices
CCTV	Closed-Circuit Television
CIP	Capital Improvement Program or cast iron pipe
City	City of Pasadena
CIWQS	California Integrated Water Quality System
CPC	California Plumbing Code
CSC	City Service Center
CWEA	California Water Environment Association
DIP	Ductile Iron Pipe
DPD	Department of Planning and Development
DPW	Department of Public Works
FOG	Fats, Oils, & Grease
GIS	Geographic Information System
GPS	Global Positioning System
Greenbook	Standard Publication for Public Works and Standard Plans for Public Works
I&I	Inflow & Infiltration
LACFCD	Los Angeles County Flood Control District
LACSD	Los Angeles County Sanitation District
LRO	Legally Responsible Official
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
OES	Office of Emergency Services (aka Cal OES)
Order	SWRCB Order No. 2022-0103-DWQ adopted December 6, 2022 and effective June 5, 2023
RRR	Resource, Recovery & Recycling
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SERP	Spill Emergency Response Plan
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
VCP	Vitrified Clay Pipe
WDID	Waste Discharge Identification Number
WDR	Waste Discharge Requirements, also referred to as the Sanitary Sewer Systems Waste Discharge Requirements (SSSWDR)

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Definitions

Annual Report - A mandatory report in which the Enrollee provides a calendar-year update of its efforts to prevent spills.

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

Data Submitter - An individual designated and authorized by the Enrollee's Legally Responsible Official (LRO) to enter spill data into the online CIWQS Sanitary Sewer System Database. Data Submitters do not have the authority of an LRO to certify reports within the CIWQS Sanitary Sewer System Database.

Enrollee - A public, private, or other non-governmental entity that has obtained approval for regulatory coverage under the General Order, including:

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

Exfiltration - The underground exiting of sewage from a sanitary sewer system through cracks, offset or separated joints, or failed infrastructure due to corrosion or other factors.

Governing Entity - A governing entity includes but is not limited to the following:

- A publicly elected governing board, council, or commission of a municipal agency;
- A Department or Division director of a federal or state agency that is not governed by a board;
- A governing board or commission of an organization or association; and
- A private system owner/manager that is not governed by a board.

Lateral (including Lower and Upper Lateral) - An underground segment of smaller diameter pipe that transports sewage from a customer's building or property (residential, commercial, or industrial) to the Enrollee's main sewer line in a street or easement. Upper and lower lateral boundary definitions are subject to local jurisdictional codes and ordinances, or private system ownership. A lower lateral is the portion of the lateral located between the sanitary sewer system main, and either the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations. An upper lateral is the portion of the lateral from the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations, to the building or property.

Legally Responsible Official - An official representative, designated by the Enrollee, with authority to sign and certify submitted information and documents required by the General Order.

Nuisance - California Water Code Section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:

- Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- Occurs during, or as a result of, the treatment or disposal of wastes.

Potential to Discharge, Potential Discharge - Any exiting of sewage from a sanitary sewer system which can reasonably be expected to discharge into a water of the State based on the size of the sewage spill, proximity to a drainage conveyance system, and the nature of the surrounding environment.

Receiving Water - A water of the State that receives a discharge of waste.

Sanitary sewer system - A system that is designed to convey sewage, including but not limited to, pipes, manholes, pump stations, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks, including:

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

For purpose of the Order, sanitary sewer systems include only systems owned and/or operated by the Enrollee.

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

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

Sewage - Sewage and its associated wastewater, is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system.

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

Spill Reporting System - Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.

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

Untreated or partially treated wastewater - Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

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

Waste Discharge Identification Number (WDID) – Number which identifies each individual sanitary sewer system enrolled under the General Order. A WDID number is assigned to each enrolled system upon an Enrollee’s approved regulatory coverage.

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

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

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

WDR – State Water Resources Control Board (SWRCB) Order No. 2022.0103-DWQ, known as the WASTE DISCHARGE REQUIREMENTS (WDR), which was adopted December 2, 2022 and became effective on June 5, 2023.

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Purpose and Background

In December 2022, the State of California's Water Resources Control Board (SWRCB) adopted Order Number WQ 2022-0103-DWQ that updated General WDRs for sanitary sewer systems designed to convey sewage greater than one (1) mile in length. The order became effective on June 5, 2023. This order supersedes the previous Order Number 2006-0003-DWQ and all amendments thereafter (i.e., Order No. WQ 2013-0058-EXEC). The WDR requires that all enrolled agencies develop a Sewer System Management Plan (SSMP) that describes the activities of the enrollee in managing, operating, and maintaining their sanitary sewer collection system. The purpose of the Order is to prevent sanitary sewer spills and to provide a plan and schedule for measures to be implemented for spill prevention including measures to effectively clean up and report spills. A copy of the reissued 2022 WDR is included in **Appendix A**.

The reissued WDR includes directives for owners and operators of sanitary sewer systems to demonstrate adequate and efficient management, operation, and maintenance of the sanitary sewer system. Generally, the WDR requires that:

- (a.) In the event of a spill, all feasible steps are taken to control the released volume and prevent untreated wastewater from entering storm drains, creeks, etc.
- (b.) If a spill occurs, it must be reported to the SWRCB using California Integrated Water Quality System (CIWQS), the online reporting system developed by the SWRCB.
- (c.) An SSMP with all mandatory elements be developed and approved by the governing body that owns or is responsible for the operation of the sanitary sewer system. The SSMP must include provisions to provide proper and efficient management, operation, and maintenance of the sanitary sewer system.

Spills often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. Spills may cause a public nuisance and/or a public health hazard particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. Spills may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.

Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), or excessive infiltration and inflow (I/I) which affect the likelihood of a spill. A proactive approach that requires agencies to ensure a system-wide operation, maintenance, and management plan is in place that will reduce the number and frequency of spills within the state. This approach will in turn decrease the risk to human health and the environment caused by spills.

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Elements of a SSMP

A Sewer System Management Plan (SSMP) is a living planning document that documents ongoing local sewer system management program activities, procedures, and decision-making – at the scale necessary to address the size and complexity of the subject sanitary sewer system(s). This SSMP may incorporate other programs and other plans by reference, to address short-term and long-term system resilience through:

- Proactive planning and decision-making;
- Local government ordinances;
- Updated operations and maintenance activities and procedures;
- Implementation of capital improvements;
- Sufficient local budget to support staff resources, contractors, equipment, and training; and
- Updated training of staff and contractors.

The Enrollee's development, update, and implementation of a SSMP addressing the pertinent requirements is an enforceable component of the General Order. As specified in the General Order, consistent with the Water Code and the State Water Board Enforcement Policy, the State Water Board or a Regional Water Board may consider the Enrollee's efforts in implementing an effective SSMP to prevent, contain, control, and mitigate spills when considering Water Code section 13327 factors to determine necessary enforcement of the General Order.

The eleven (11) required SSMP Elements that must be included in an SSMP are as follows:

1. Sewer System Management Plan Goal and Introduction
2. Organization
3. Legal Authority
4. Operations and Maintenance Program
5. Design and Performance Provisions
6. Spill Emergency Response Plan
7. Sewer Pipe Blockage Control Plan
8. System Evaluation, Capacity Assurance, and Capital Improvements
9. Monitoring, Measurement and Program Modifications
10. Internal Audits
11. Communication Program

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1 SSMP Goal and Introduction

This Sewer System Management Plan (SSMP) has been prepared in compliance with the requirements of the State Water Resources Control Board's Order Number WQ 2022-0103-DWQ. This chapter includes a summary of the regulations that serve as the impetus for the development of this SSMP, update schedule for the City of Pasadena's (City) SSMP, and a brief overview of the City's service area and sanitary sewer system.

Requirements:

D.1. SEWER SYSTEM MANAGEMENT PLAN GOAL AND INTRODUCTION: The goal of the Sewer System Management Plan (Plan) is to provide a plan and schedule to: (1) properly manage, operate, and maintain all parts of the Enrollee's sanitary sewer system(s), (2) reduce and prevent spills, and (3) contain and mitigate spills that do occur. The Plan must include a narrative Introduction section that discusses the following items:

1.1. Regulatory Context: The Plan Introduction section must provide a general description of the local sewer system management program and discuss Plan implementation and updates.

1.2. Sewer System Management Plan Update Schedule: The Plan Introduction section must include a schedule for the Enrollee to update the Plan, including the schedule for conducting internal audits. The schedule must include milestones for incorporation of activities addressing prevention of sewer spills.

1.3. Sewer System Asset Overview: The Plan Introduction section must provide a description of the Enrollee-owned assets and service area, including but not limited to:

- Location, including county(ies);
- Service area boundary;
- Population and community served;
- System size, including total length in miles, length of gravity mainlines, length of pressurized (force) mains, and number of pump stations and siphons;
- Structures diverting stormwater to the sewer system;
- Data management systems;
- Sewer system ownership and operation responsibilities between Enrollee and private entities for upper and lower sewer laterals;
- Estimated number or percent of residential, commercial, and industrial service connections; and
- Unique service boundary conditions and challenge(s).

Additionally, the Plan Introduction section must provide reference to the Enrollee's up-to-date map of its sanitary sewer system, as required in section 4.1 (Updated Map of Sanitary Sewer System) of the General Order's Attachment D.

1.1 Regulatory Context

The City has implemented this SSMP in accordance with the requirements of the State Water Resources Control Board's General Order. The City's last SSMP was written and adopted by the City Council in 2019. The City plans to obtain approval of this SSMP Update by the City Council in 2025. The SSMP has been audited in 2024 in compliance with the State Water Resources Control Board's regulations.

The WDR requires that the SSMP be updated and approved by the agency's elected governing body every six (6) years after the date of its last Plan Update due date. In addition, the City is to conduct an internal audit every three (3) years of the SSMP in order to assess the City's progress towards meeting the goals, objectives and requirements set forth in the SSMP. The due dates for the City's SSMP and SSMP audits can be found here using the City's WDID (4SSO10416): https://www.waterboards.ca.gov/water_issues/programs/sso/lookup/.

The SSMP along with all references in the document, self-audits, and the adoption documents approved by City Council will be kept on file at City offices, the City's website and an entry will be made in the California Integrated Water Quality System (CIWQS) database when SSMP updates and audits are completed.

The City has a goal of effectively implementing the SSMP to ensure cleaning, CCTV inspection, condition assessment, and rehabilitation are occurring regularly to ensure their sewer system is properly maintained.

1.2 Sewer System Management Plan Update Schedule

Table 1-1 shows important milestones and dates for the City to comply with the General Order in order to incorporate activities that shall prevent sewer spills.

Table 1-1: SSMP Update Schedule

Milestones	Frequency	Due DATES
Submit Annual Report	Annually	April 1 st annually
Update System Mapping	Monthly	3/1/2025, 4/1/2025, etc.
System Cleaning	Entire system every year	1/1/2026 for entire system
CCTV Inspections	Entire system seven (7) years (or ~14% a year)	1/1/2032 for entire system
SSMP Focused Training	Twice a year	1/1/2026 & 7/1/2026
Update Equipment Inventory	Monthly	3/1/2025, 4/1/2025, 5/1/2025, 6/1/2025, etc.
Evaluate Design Criteria and Construction Standards and Specifications	3 years	5/2/2027 (next audit)
Evaluate Spill Emergency Response Plan	3 years	5/2/2027 (next audit)
Evaluate Sewer Pipe Blockage Control Program	3 years	5/2/2027 (next audit)
CIP Development	5 years	7/1/2026
Review SSMP and Update Change Log	Annually	5/2/2026
SSMP Audit	3 years	5/2/2027
Evaluate Communication Program	3 years	5/2/2027 (next audit)
SSMP Update	6 years	5/2/2031

1.3 Sewer System Asset Overview

The City of Pasadena (City) is located in Los Angeles County in the San Gabriel Valley and is approximately 10 miles northeast of downtown Los Angeles in Southern California. The City is accessible via Interstates 110 and 210 as well as State Highway 134. The City's area is approximately 23.1 square miles. The City's population is approximately 139,000.

The City of Pasadena owns and operates the sanitary sewer collection system within its service area. The City provides sewer service to most businesses and residents within the City. **Table 1-2** documents the City's sewer system assets, and **Table 1-3** documents the number of service connections which connect into the City's sewer system. General maintenance of the sanitary sewer collection system is performed by City staff.

The City maintains up-to-date mapping of its sanitary sewer system and storm drain system in its iMap database and plans on developing a system to keep their GIS maps up-to-date. These maps show gravity line segments and manholes, pumping facilities, pressure pipes, and applicable stormwater conveyance facilities within the sewer system service area boundaries. Additional information on these maps is included in section 4.1 (Updated Map of Sanitary Sewer System).

Table 1-2: Sewer System Assets

City Assets	Value
Total Length	328.2 miles
Length of Gravity Mainlines	328 miles
Length of Pressure Force Mains	940 feet
Number of Lift Stations	3 (City-owned), 7 (privately owned)
Number of Siphons	10
Structures Diverting Stormwater to the Sewer System	NONE
Data Management Systems	Lucity GIS AUTOCAD
Sewer System Ownership and Operation Responsibilities between Enrollee and Private Entities for Upper and Lower Sewer Laterals	Enrollee is responsible for City-owned laterals. Property owner is responsible for the lateral up to the connection to the sewer main.
Estimated Number or Percent of Residential, Commercial, and Industrial Service Connections	See Table 1-3
Unique Service Boundary Conditions and Challenge(s)	City Limits

Table 1-3: Number of Service Connections

Customer Class	Service Connections
Single Family Residential	22,591
Multi-Family Residential	7,858
Commercial/Institutional	8,510
Industrial	1,122
Total Active Connections	40,081

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2 Organization

This chapter describes the City's organizational staffing responsible and integral for implementing the local Sewer System Management Plan.

Requirements:

D.2. ORGANIZATION: The Plan must identify organizational staffing responsible and integral for implementing the local Sewer System Management Plan through an organization chart or similar narrative documentation that includes:

- The name of the Legally Responsible Official as required in section 5.1 (Designation of a Legally Responsible Official) of the General Order;
- The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific Sewer System Management Plan elements;
- Organizational lines of authority; and
- Chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. (For example, county health officer, county environmental health agency, and State Office of Emergency Services.)

2.1 Name of Legally Responsible Official

The City's Assistant City Engineer serves as the City's Legally Responsible Official (LRO) and oversees the management of the City's sanitary sewer system. Currently, the LRO is Brent Maue which is the City's acting City Engineer. His contact information is (626) 744-4307 (office) and bmaue@cityofpasadena.net. In 2025, the City plans to designate the Public Works Administrator as the backup LRO.

Currently, only the LRO is authorized to certify electronic spill reports submitted to the SWRCB. Typically, the City Engineer/LRO will certify all electronic reports.

The Engineering department and the Streets and Maintenance staff are responsible for implementing and maintaining all elements of this SSMP.

2.2 Department Organization

The organizational lines of authority for the City's Department of Public Works are indicated in **Figure 2-1**. Detailed organizational charts for each division are provided in **Appendix B**.

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2.3 Roles and Responsibilities

The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific Sewer System Management Plan elements are indicated in **Table 2-1**. The responsibilities for these roles are detailed in **Table 2-2**. The positions that implement the SSMP are detailed in **Table 2-3**.

Table 2-1: Key Staff Roles

Role	Name	Phone Number	Email Address
Public Works Superintendent (Street Maintenance)	Jeffrey Wong	626- 744-4808	jeffreywong@cityofpasadena.net
Administrative			
Public Works Administrator (Street Maintenance)	Garret Crawford	626-744-3883	gcrawford@cityofpasadena.net
Public Works Administrator (Administrative Services Division and CSC)	Phyllis Hallowell	626-744-3952	phallowell@cityofpasadena.net
Public Information Officer	Lisa Derderian	626-744-4755	lderderian@cityofpasadena.net
Deputy City Attorney	Caroline Monroy	626-744-4143	cmonroy@cityofpasadena.net
Public Works Administrator Resource, Recovery & Recycling (RRR)	Thanos Gauthier	626-744-6472	tgauthier@cityofpasadena.net
Engineering			
Acting City Engineer (LRO)	Brent Maue	626-744-4307	bmaue@cityofpasadena.net
Acting Assistant City Engineer	Richard Yee	626-744-4643	ryee@cityofpasadena.net
Principal Engineer	James Tong	626-744-3971	jtong@cityofpasadena.net
Associate Engineer	Janina Lyka Baiza	626-744-3703	jbaiza@cityofpasadena.net
Street Maintenance			
Public Works Administrator (Street Maintenance)	Garrett Crawford	626-744-3883	gcrawford@cityofpasadena.net
Public Works Crew Supervisor II (Sewer Maintenance & Storm Drains)	Anthony Merjil	626-744-4161	amerjil@cityofpasadena.net

Table 2-2: Department Roles & Responsibilities

Role	Responsibilities
Public Works Administrator (Street Maintenance Division)	Under administrative direction plan, assign, direct and review through subordinate supervisors the work of staff performing preventive and corrective maintenance tasks including installation, maintenance and repair of streets, curbs, gutters, sidewalks; street painting and signing; streetlight and traffic signal repair; storm drain and sewer collection system maintenance; and street sweeping. Coordinate stand-by emergency response and/or respond to emergencies. Make regular field checks of crews in operation. Assist in the development of specifications for street maintenance and repair equipment. Work with elected officials, executive management, and the general public, as well as with federal, state, regional and other local agencies,

Table 2-2: Department Roles & Responsibilities

Role	Responsibilities
	departments, boards and commissions on street system, sewer and storm drain infrastructure maintenance.
City Engineer	Under administrative direction, plans, directs, and coordinates engineering activities relating to City public works engineering projects and capital improvement projects; provides supervision and technical direction to professional and non-professional staff; performs related work as assigned.
Assistant City Engineer	Under administrative direction, plans, directs, and coordinates engineering activities related to City public works engineering projects and capital improvement projects; performs related work as assigned.
Principal Engineer	Under general direction, plans, directs and supervises a section of professional and para-professional engineering teams engaged in the application of engineering to a variety of projects and programs; conceptualizes, develops, designs and implements all phases of difficult design and engineering research projects; performs related work as assigned.
Associate Engineer	Under general supervision, performs a variety of professional engineering work in the field or office; coordinates, assigns and oversees the work of professional and technical staff in engineering activities; performs related work as assigned.
Administration	
Public Works Administrator (Administrative Services Division and CSC)	Under supervision, performs analytical, administrative and/or management duties and responsibilities in various administrative staff functions including budget/financial analysis, program/organizational analysis, project management, legislative analysis and development, personnel administration, space management, asset control and contract administration; performs related work as assigned.
Public Works Administrator (Resource Recovery & Recycling [RRR])	Under administrative direction manages the City's refuse collection and disposal, and recycling collection programs; ensure effective and efficient service at controlled costs. Plan, assign, direct and review through subordinate supervisors, the work of refuse collection crews working on assigned routes; re-route and/or develop and implement new collection routes as needed. Manage contracts and administer solid waste franchise agreements to ensure standards/specifications are met; oversee contract work activities. Administer the A.B. 939 public education program and meet solid waste mandated legislative requirements. Develop and integrate new programs into existing operations on an ongoing basis. Prepare grant applications; administer grants ensuring compliance with grant terms and conditions. Coordinate the timely repair, maintenance, and procurement of equipment. Assist in the development of specifications for integrated waste equipment. Supervise the inspection of work crews while in progress; provide advice and assistance to subordinate supervisors. Regularly make field checks of crews in operation.
Public Information Officer	Under general direction, oversees, develops and coordinates the public affairs program of the City. Advises management in public information/relations activities and performs related work as assigned.

Table 2-2: Department Roles & Responsibilities

Role	Responsibilities
Deputy City Attorney	Under general supervision, performs a wide variety of professional legal duties, ranging in difficulty from moderate to complex, for all municipal departments, the City Council and advisory boards and commissions; prosecutes criminal misdemeanor cases; and performs related duties as assigned in either the Civil or Prosecution Division of the City Attorney/City Prosecutor's Office.
Street Maintenance	
Street Maintenance Superintendent (Sewer Maintenance & Storm Drains)	Under general direction, manages, directs and organizes one or more maintenance sections in the Department of Public Works; provides day-to-day management of the section, including the preparation of fiscal, administrative and operational reports and recommendations; performs other related duties as required.
Public Works Crew Supervisor II (Sewer Maintenance & Storm Drains)	Under general supervision, supervises the maintenance and repair of the City's streets, storm drains, sewers, graffiti and weed abatement, street painting, street signs; street sweeping; parks, park facilities, trees, trails, and landscaping, and irrigation systems maintenance; refuse collection and disposal; maintenance, repair, alteration and construction work to City facilities; maintenance and repair of Arroyo Seco and Rose Bowl; performs related work as assigned.

Table 2-3: Positions that Implement the City's SSMP

SSMP Element [WDR Section No.]	Position(s)
Legally Responsible Official (LRO) or Duly Authorized Representative [Section 5.1]	Assistant City Engineer
Goals [SSSWDR D.1]	Principal Engineer
Organization [SSSWDR D.2]	City Engineer
Legal Authority [SSSWDR D.3]	Deputy City Attorney
Operation and Maintenance Program [SSSWDR D.4]	Streets Maintenance Superintendent
Design and Performance Provisions [SSSWDR D.5]	Principal Engineer
Spill Emergency Response Program [SSSWDR D.6]	Public Works Administrator (Streets/Sewer) / Principal Engineer
Sewer Pipe Blockage Control Program [SSSWDR D.7]	Public Works Administrator (Streets/Sewer) / Stormwater Program Administrator/Public Works Administrator (Resource Recovery & Recycling (RRR))
System Evaluation, Capacity Assurance and Capital Improvements [SSSWDR D.8]	Principal Engineer
Monitoring, Measurement, and Program Modifications [SSSWDR D.9]	Public Works Administrator (Streets/Sewer) / Principal Engineer
SSMP Internal Audits [SSSWDR D.10]	Principal Engineer / Assistant City Engineer

Table 2-3: Positions that Implement the City's SSMP

SSMP Element [WDR Section No.]	Position(s)
Communication Program [SSSWDR D.11]	Principal Engineer / Public Information Officer
Funding [SSSWDR D.8.4]	Public Works Administrator (Administrative Services Division)

2.4 Chain of Communication

The Order requires the chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. **Figure 2-2** contains a flowchart depicting this chain of communication. **Table 2-4** lists contact phone numbers for the parties included in the chain of communication.

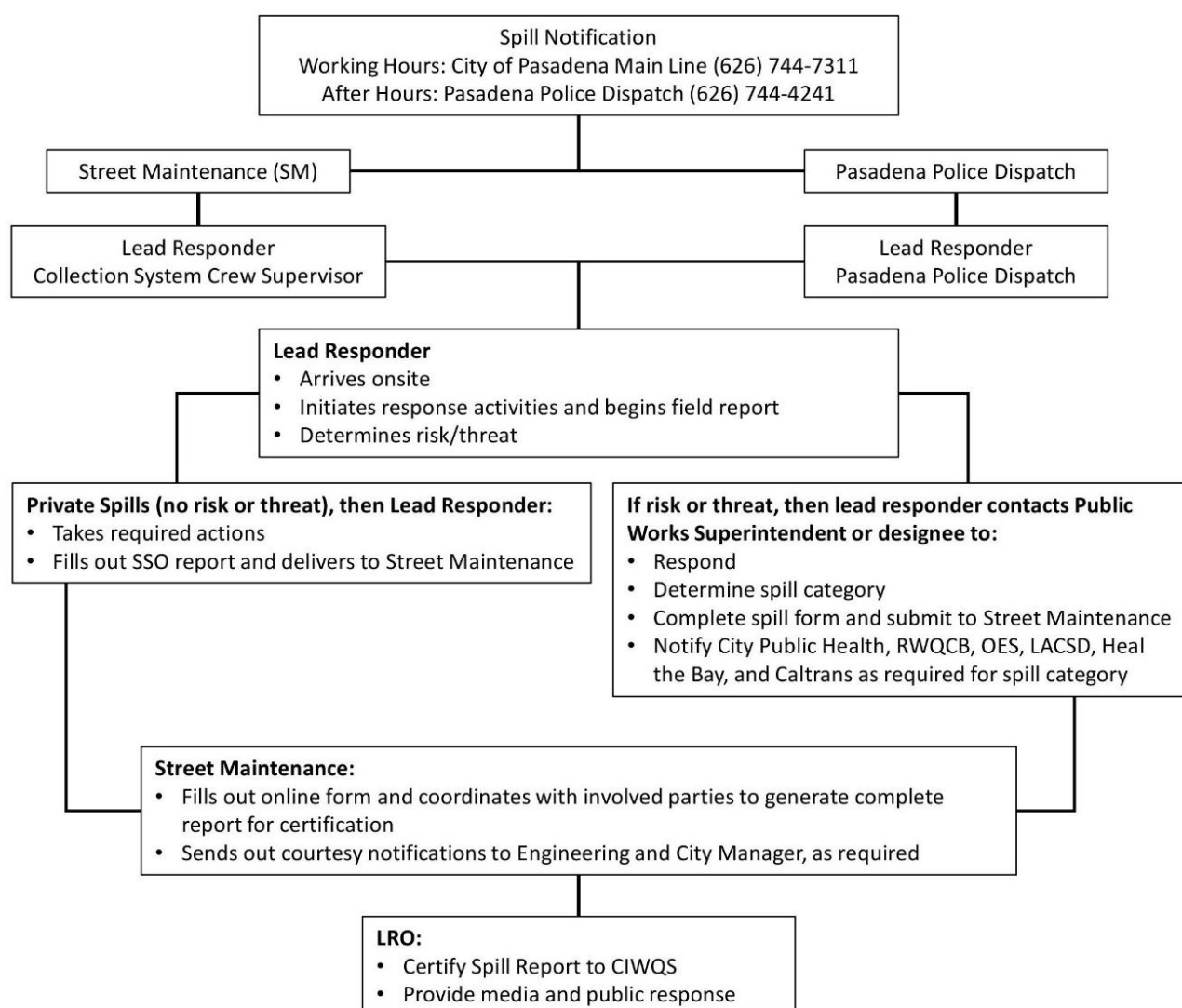
Figure 2-2: Spill Response Chain of Communication

Table 2-4: Contact Numbers for Chain of Communication

Contact	Telephone Number
City of Pasadena Main Line	626-744-7311
Public Works Department	626-744-3971
Street Maintenance Sewer Division	626-255-0778
Police Department Dispatch Center	626-744-4241
<u>Active Capital Improvement Program Contractors:</u> Southwest Pipeline and Trenchless Corp (Sewer Maintenance Services) GRB Con, Inc. Lift Stations: - Multi-Tek (Rosemont and Busch Garden) - Signal Mechanical (Rockwood)	(310) 329-8717 (626) 699-2380 (626) 333-2808 (949) 548-1125

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3 Legal Authority

This chapter describes the legal authority required to implement the SSMP plans and procedures.

Requirements:

D.3. LEGAL AUTHORITY: The Plan must include copies or an electronic link to the Enrollee's current sewer system use ordinances, service agreements and/or other legally binding procedures to demonstrate the Enrollee possesses the necessary legal authority to:

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

3.1 Compliance Documents

Supporting information for Element 3 is included in Appendices B and C. These appendices include the following documents:

1. Chapter 8.14 (Grease and Oil Disposal) of the City Municipal Code (**Appendix C**)
2. Chapter 13.24 (Sewer Construction and Maintenance) of the City Municipal Code (**Appendix D**)

3.1.1 City Charter

The legal authority required for the SSMP by the SWRCB is contained within the City's Charter:

Article III, General Law Powers, Section 301 General Law Powers - Provides for the declaration of power as provided for a charter city. (https://library.municode.com/ca/pasadena/codes/code_of_ordinances?nodeId=CH_ARTIIIPOCI_S301GEPO)

3.1.2 Municipal Code

The legal authority required for the SSMP by the SWRCB is also contained within the City's Municipal Code. Chapter 8.14 (Grease and Oil Disposal) and Chapter 13.24 (Sewer Construction and Maintenance) are dedicated to the sewer system.

(https://library.municode.com/ca/pasadena/codes/code_of_ordinances?nodeId=TIT13UTSE_CH13.24SECOMA)

3.2 Compliance Summary

The City's legal authority to operate and maintain its sanitary sewer collection system is within the City Municipal Code. The WDR requires that the City have the legal authority in the areas shown in **Table 3-1**.

Table 3-1: WDR Requirements

Legal Authority Order Requirements	Applicable Sections of the City Municipal Code
<p>a. Prevent illicit discharges into its sanitary sewer system from inflow and infiltration (I&I); unauthorized stormwater; chemical dumping; unauthorized debris; roots; fats, oils, and grease; and trash, including rags and other debris that may cause blockages</p>	<ul style="list-style-type: none"> • Section 13.24.370 applies to industrial waste discharges into sewer, restricts discharge into a sewer connection of anything that may cause stoppage, plugging, breakage or reduction of sewer capacity (including roots, grease, oil, refuse, etc.) • Section 13.24.380 restricts the discharge of corrosive and harmful wastes • Section 13.24.390 & .400 states it is unlawful to connect to the public sewer for the purpose of discharging any of the wastes mentioned above • Section 13.24.420 applies to illicit discharge of rainwater, storm water, ground water, etc. into sewer • Section 13.24.430 applies to proper disposal of swimming pool and cooling system discharge • Section 13.24.460 applies to illicit discharge of wastewater from automobile washing into the sewer • Section 13.24.540 provides general cleaning policy of interceptors to prevent illicit discharges • Section 13.24.620 applies to the maintenance of plants, interceptors, and other facilities so that they are kept in a safe and sanitary condition
<p>b. Collaborate with storm sewer agencies to coordinate emergency spill responses, ensure access to storm sewer systems during spill events, and prevent unintentional cross connections of sanitary sewer infrastructure to storm sewer infrastructure</p>	<ul style="list-style-type: none"> • The City's sewer and storm staff are all under the same Streets Maintenance Division at the City and therefore sewer staff are also well informed of the storm drain system. • The City coordinates with Los Angeles County Flood Control District (LACFCD) in the event of a spill.
<p>c. Require that sewer system components and connections be properly designed and constructed</p>	<ul style="list-style-type: none"> • Section 8.14.060 applies to grease interceptor requirements & standards • Section 8.14.070 applies to grease trap requirements & standards • Section 13.24.190 thru .360 applies to general sewer system design and construction

Table 3-1: WDR Requirements

Legal Authority Order Requirements	Applicable Sections of the City Municipal Code
	<ul style="list-style-type: none"> Section 13.16 applies to connections between private property and public sewer main
d. Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned and/or operated by the Enrollee	<ul style="list-style-type: none"> Section 8.14.080 allows for right of entry in order to inspect sewer connections Section 13.24.560 allows for access and inspection of treatment plants, house sewers, basins, etc. Section 13.24.550 allows for right to inspect any sewer connection discharging into the City's sewer
e. Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures	<ul style="list-style-type: none"> Section 8.14.090 allows for enforcement of violations from food service establishments Section 8.14.100 allows for enforcement of violations from commercial businesses Section 13.24.030 allows for enforcement of violations of industrial wastewater discharge regulations Section 13.24.170, & .180 allows for enforcement of violations to the connection, use, and construction of sewer systems.
f. Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable	<ul style="list-style-type: none"> Section 13.24.450 allows the City to access all facilities at all reasonable times.

3.2.1 Prevention of Illicit Discharges

All measures prohibiting illicit discharges are included in Sections 13.24.370, .380, .390, .400, .420, .430, .460 and 8.14 of the City's Municipal Code. The specific purpose of the chapter is to prevent the discharge of any pollutant into the sewers that would obstruct or damage the collection system, interfere with treatment, or threaten harm to human health or the environment.

- **Stormwater and I/I** - Section 13.24.420 prohibits the illicit discharge of rainwater, storm water, ground water, etc. into a sanitary sewer through direct or indirect connection.
- **Industrial Waste** – Section 13.24.400 requires all industrial waste dischargers to obtain a permit and prohibits discharge in excess of the permit allowance.
- **Chemical Dumping** – Section 13.24.370 provides general liquid waste disposal policy.
- **Unauthorized Debris; Roots; Fats, Oils, and Grease; and Trash** - Section 13.24.370 restricts discharge into a sewer connection of anything that may cause stoppage, plugging, breakage or reduction of sewer capacity. Section 8.14 restricts fats, oils, or grease being discharged into the City's sewer system.

3.2.2 Storm Water Agency Collaboration

The maintenance of the City's sewer and storm staff are all under the same Street Maintenance Division at the City and therefore sewer staff are also well informed of the storm drain system. The City controls their own Storm Water Protection Program which complies with all conditions of the State Water Resources Control Board. This enables a unified collaboration and flow of information between staff members. This department provides resources in responding to spills and access to storm sewer systems during spill events. Communication and training with staff

allow both agencies to know their part in responding to spills and recognizing areas at risk, develop strategies in containing and preventing spills, and reduce risks of cross contamination. Additionally, the City's personnel maintain knowledge of the locations of storm water collection facilities that are nearby sewer facilities.

Installation of sewer and storm water facilities are coordinated to prevent unintentional cross connections. To ensure that cross-connections between the City's sanitary sewer and storm drain systems do not occur, the City maintains records of the alignments of both systems and when they were constructed. Additionally, the City coordinates with LACFCD in the event of a spill.

No connections to either system are allowed without a permit being first obtained from the City's Public Works Department. Each such permit issued is to contain the following information:

- Line to which the connection was made
- Location of connection on the line
- Depth of the connection at property line

All connections to either system are inspected by a City inspector to ensure that all the above information is accurate and that the connection is made in accordance with established standards. Public Works inspectors, under the Engineering Division, are responsible for inspecting all connections within the public rights-of-way.

3.2.3 Proper Design and Construction of Sewers and Connections

Regulations pertaining to the design, construction, and inspection of private sewer systems, building sewers, and connections are included in Chapter 13 of the City's Municipal Code.

Permit Required - A permit is required prior to construction of any private sewage disposal system (plumbing code). A permit is also required prior to constructing a building or lateral sewer or connecting to a public sewer as discussed in Section 13.24. The permit application may include review of plans and specifications by the City.

- Section 13.16 applies to connections between private property and public sewer main
- Section 13.24.190 thru .360 applies to general sewer system design and construction

3.2.4 Lateral Maintenance Access

Property owners are responsible for maintaining the house lateral to the property line per section 13.24.610. Standard Drawings require a cleanout at the property line.

- Section 13.24.550 allows for right to inspect any sewer connection discharging into the City's sewer
- Section 13.24.560 allows for right of entry in order to inspect sewer connections

3.2.5 Enforcement Measures

Chapter 13 permits the enforcement of sewer provisions. Written notice is provided to persons in violation, with a time limit for correction. Further enforcement provisions include declaration of a public nuisance and disconnection from public sewers. The person in violation is liable to the city for expense, loss, or damage resulting from the violation.

- Section 8.14.090 allows for enforcement of violations from food service establishments
- Section 8.14.100 allows for enforcement of violations from commercial businesses

- Section 13.24.170 & .180 allows for enforcement of violations to the connection, use, and construction of sewer systems.
- Section 13.24.030 allows for enforcement of violations of industrial wastewater discharge regulations.

3.2.6 Easement Accessibility Agreements

Chapter 13, Section 24.450 grants the city engineer, superintendent, or chief engineer the authority to access and inspect sewer system connections at any reasonable time.

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4 Operation and Maintenance Program

This chapter describes the City's ability to properly manage, operate, and maintain all parts of the sanitary sewer system owned and operated by the City, and that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.

Requirements:

D.4. OPERATION AND MAINTENANCE PROGRAM: The Plan must include the items listed below that are appropriate and applicable to the Enrollee's system.

4.1. Updated Map of Sanitary Sewer System: An up-to-date map(s) of the sanitary sewer system, and procedures for maintaining and providing State and Regional Water Board staff access to the map(s). The map(s) must show gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities within the sewer system service area boundaries.

4.2. Preventive Operation and Maintenance Activities: A scheduling system and a data collection system for preventive operation and maintenance activities conducted by staff and contractors.

The scheduling system must include:

- Inspection and maintenance activities;
- Higher-frequency inspections and maintenance of known problem areas, including areas with tree root problems;
- Regular visual and closed-circuit television (CCTV) inspections of manholes and sewer pipes. The data collection system must document data from system inspection and maintenance activities, including system areas/components prone to root-intrusion potentially resulting in system backup and/or failure.

4.3. Training: In-house and external training provided on a regular basis for sanitary sewer system operations and maintenance staff and contractors. The training must cover:

- The requirements of the General Order;
- The Enrollee's Spill Emergency Response Plan procedures and practice drills;
- Skilled estimation of spill volume for field operators; and
- Electronic CIWQS reporting procedures for staff submitting data.

4.4. Equipment Inventory: An inventory of sewer system equipment, including the identification of critical replacement and spare parts.

4.1 Updated Map of Sanitary Sewer System

The City has created a comprehensive, customized, electronic based Geographic Information System (GIS) sewer collection system map, showing all pipeline segments and manholes within the City's jurisdictional boundary. The City will prioritize keeping the GIS up-to-date and will establish a formal procedure for updating it when new assets are added to the City's collection system or when existing assets are abandoned. The City has a full-time GIS/CAD technician that maintains the City's GIS. The City's engineering staff will improve communication with the Department of Information Technology to ensure new or rehabilitated sewer system assets are accurately reflected in the GIS.

At the current time, digital maps are available indicating general pipeline, lift station, and manhole locations. The City's iMap database's manhole and sewer pipeline IDs are used to store information in the City's scheduled preventive maintenance, repair, and cleaning database, such as work order history. The City's maintenance crew uses Lucy for accessing sewer line information and recording details of repairs and cleanings.

The City is responsible for maintaining the stormwater system and does have access to maps of the nearby storm water inlets and pipelines, as these are City-owned facilities.

The City will provide State and Regional Water Board staff with access to the map(s) through submitting the sewer geodatabase to the State and Regional Water Boards as well as including the map within this SSMP Update, which will be submitted to CIWQS once a year. An updated map of the sewer collection system is included in **Appendix E**.

4.2 Preventive Operation and Maintenance Activities

The City currently performs in-house preventive operation and maintenance activities. This includes periodic cleaning, regular inspection of pump stations, and investigation of customer complaints.

4.2.1 Sewer Cleaning & CCTV Inspection

The City has five dedicated crews, made up of two staff each, for sewer line cleaning. A regular schedule is performed to ensure that the entire system is cleaned annually by zone with hot spots cleaned at least quarterly. The City's maintenance crew, along with the current active CIP contractor, treats the sewer system for roots and addresses any emergency repairs.

CCTV inspection has recently been performed on an as-needed basis rather than on a regular schedule by the street maintenance crew. If a problem is identified in the CCTV inspection, the Street Maintenance Supervisor notifies the Capital Improvements Engineer. The engineer documents the defects found and includes the repair into the Annual Sewer Relining and Point Repair Project, which is a component of the Capital Improvement Program (CIP).

The City plans to develop and implement a regular CCTV inspection schedule to ensure that the entire system is CCTV inspected every 7 years (or approximately 14% a year). The City is planning to achieve this goal by developing a CCTV inspection schedule, including areas prone to root-intrusion. These inspections will be collected and filed in the City's system.

4.2.2 Lift Station Maintenance

Two of the City's sewer lift stations (Rosemont and Busch Garden) are maintained through an ongoing contract with MultiTech Pumps & Accessories, Co. The City has contracted Sigma to maintain one lift station (Rockwood). The

City has access to two backup generators in the case of a power outage. The contractors responsible for lift station maintenance are available 24 hours a day to service the pump stations as needed.

4.2.3 Odor Control

The City has received approximately 16 isolated odor complaints in the past 3 years, most of which were investigated and addressed. Although the City has no official odor control program in place, it responds to complaints by inspecting the condition of the pipe sections and ensuring proper flow.

4.2.4 Corrosion Control

Over 90 percent of the pipe material in the City's collection system is vitrified clay pipe (VCP), which is inert and does not need corrosion control. The remaining portion of the collection system is concrete pipe, cast iron pipe (CIP), or ductile iron pipe (DIP) which is not inert and does need corrosion control. To prevent corrosion, the City undertakes numerous relining projects as part of the Annual Sewer Relining and Point Repair Project within the annual Capital Improvement Program.

4.2.5 Investigation of Customer Complaints

The City promptly addresses customer complaints about the sewer system, which are typically related to sewer back-ups. The collection system staff responds immediately by conducting CCTV inspections of the lines and making necessary repairs to the affected sections or manholes. This response involves assessing the complaint and resolving the issue efficiently.

4.2.6 Data Collection

City staff document their cleanings and CCTV inspections electronically, filing them on the City's server. They are committed to continuing to thoroughly document all maintenance activities. The City intends to add this information to their GIS database. The City plans to continue documenting and monitoring system deficiencies with recurrent issues based off complaints, field inspections, and CCTV inspection results.

4.3 Training

The City sends staff to trainings on the SSMP and all aspects of the Spill Emergency Response Plan (SERP) one to two times per year. The City also has multiple tailgate safety meetings each year. Currently these tailgate training meetings are focused on certain elements of the SSMP, such as emergency bypass training, equipment inventory, and routine sewer maintenance. The City will continue to review its training program to meet the demands of maintaining the sewer system. The City is planning on performing semiannual meetings to review sections of the SSMP. The City intends to cover the full SSMP over a year long period. The City will continue to implement training on the requirements of the General Order, Spill Emergency Response Plan procedures and practice drills, skilled estimation of spill volume for field operators, and electronic CIWQS reporting procedures for staff submitting data.

Currently, the City's active CIP contractor does not conduct formal sewer spill response training. The contractor handles spill responses by following the documented SERP. The City plans to include formal SERP and SSMP training to its renewed contract with the active CIP contractor.

The City is committed to all trainings being documented and the records kept readily accessible.

4.4 Equipment Inventory

The City maintains an equipment inventory. All sewer pipeline equipment and replacement parts are stored at the City's Yards.

The City is responsible for ensuring that their equipment is kept in proper working condition and that backup supplies are available. The City ensures that their sewer trucks are in good working condition. The City has access to two backup generators in the case of a power outage.

The City contracts MultiTech Pumps & Accessories, Co. and Signa Mechanical for sewer pump station maintenance. Both service providers are responsible for managing their own equipment inventory, such as spare parts for pumps.

The City contracts Herc Rentals, Inc. in case additional equipment and parts are needed for emergency repairs.

The City will create a database for spare parts and track the current inventory, ensuring that staff are updating this as repairs are made and parts are ordered. The equipment and spare parts will be checked regularly to make sure that they are in working order for use in emergencies.

Table 4-1 details the City's current equipment and replacement parts inventory.

Table 4-1: Equipment and Replacement Parts Inventory

Item	Item
Jetter main lines	Gas Motors
Jetter nozzles	Proofer Skids
Upper Manhole Steel Roller Guide	3 count – 400' hose spools
Tiger-Tail with Removable Rope & Clip	1 count – CCTV Camera Truck
Root Cutter	4 count – Vactor Truck
Debris Baskets	1 count – Tripod & Harness
Catch Basin Spoons & Poles	4 count – Bypass Pumps
Hose Clamps	2 count – Temporary Pumps for Lift Stations

5 Design and Performance Provisions

This chapter references the design and construction standards & specifications for new sewer systems, pump stations, and other appurtenances, and for the rehabilitation and repair of existing sewer systems. Also included are the procedures and standards for the inspection and testing of these facilities.

Requirements:

D.5. DESIGN AND PERFORMANCE PROVISIONS: The Plan must include the following items as appropriate and applicable to the Enrollee's system:

5.1. Updated Design Criteria and Construction Standards and Specifications: Updated design criteria, and construction standards and specifications, for the construction, installation, repair, and rehabilitation of existing and proposed system infrastructure components, including but not limited to pipelines, pump stations, and other system appurtenances. If existing design criteria and construction standards are deficient to address the necessary component-specific hydraulic capacity as specified in the General Order section 8 (System Evaluation, Capacity Assurance and Capital Improvements) of the General Order's Attachment D, the procedures must include component-specific evaluation of the design criteria.

5.2. Procedures and Standards: Procedures and standards for the inspection and testing of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances.

5.1 Updated Design Criteria and Construction Standards and Specifications

The City has developed standard details for construction improvements (<https://www.cityofpasadena.net/public-works/engineering-and-construction/public-works-permitting/standard-plan-drawings/#standard-plan-code-300>). The City utilizes the current edition of the Standard Publication for Public Works and Standard Plans for Public Works (Greenbook) to provide design and performance provisions.

All City-owned public sewer mains and pump stations are designed by both City staff and the City-hired consultant and constructed by the City-hired capital improvement project (CIP) contractor. The City currently maintains on-call contracts with engineering firms for design of construction and rehabilitation related projects. Under these contracts, all projects are designed by a Professional Engineer registered in the State of California. The City ensures that all Contractors working on projects are licensed and insured.

5.2 Procedures and Standards

The City maintains that their sewer system pipelines, pumps, and other equipment and appurtenances are installed, tested, inspected, repaired, and rehabilitated according to the current Greenbook standards.

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6 Spill Emergency Response Plan

This chapter provides an overview and summary of the City's spill response, detection, mitigation, clean up, investigation, documentation, and reporting.

Requirements:

D.6. SPILL EMERGENCY RESPONSE PLAN: The Plan must include an up-to-date Spill Emergency Response Plan to ensure prompt detection and response to spills to reduce spill volumes and collect information for prevention of future spills. The Spill Emergency Response Plan must include procedures to:

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

6.1 Background

The City of Pasadena (City) Department of Public Works (DPW) operates and maintains its own sanitary collection system. The City's sanitary collection system consists of approximately 328 miles of gravity pipelines within its 23.1

square mile sewer service area. The City's wastewater collection system conveys untreated wastewater to Los Angeles County Sanitation District's (LACSD) trunk sewer system via 120 separate connections.

The City of Pasadena collection system is subject to regulation and permitted under the General Order WQ 2022-0103-DWQ and is identified under WDID 4SS010416. The City will annually review and assess the effectiveness of the Spill Emergency Response Plan (SERP) and update as necessary. The latest version of the SERP, updated in 2024, is available in **Appendix F**.

Note: During the 10-year period extending from January 1, 2014 to December 31, 2024, the City experienced thirty-one (31) spills from within its sanitary sewer collection system.

6.2 Known Collection System Problems

The following are currently known collection system problems within the City's system:

1. Heavy root intrusion – Tree roots infiltrate sewer pipes in search of moisture, often entering through small cracks or loose joints. Older pipes made from materials like clay, concrete, or metal are particularly susceptible to root intrusion.
2. Old and deteriorated pipes and manholes - the sanitary sewer system ranges in age from 18-138 years, with an average age of 91 years.
3. Manhole base erosion – There can be many reasons for manhole base erosion, such as heavy traffic loads, water infiltration, and hydrogen sulfide corrosion. Regular maintenance is crucial to prevent further degradation and ensure longevity of manholes.
4. Manhole cover failures - There are various possible reasons for manhole cover failures, such as heavy traffic loads, susceptibility to corrosion, and general wear and tear.
5. Cracks and fractures throughout sewer mains - Existing sewers are mostly clay pipes, which can crack as they deteriorate with age and by earth movement.

6.3 Causes of Sewer Backups

The following are currently known causes for sewer backups within the City's system:

1. Debris – Debris (i.e. rags, gloves, construction debris/materials, plastic bags, etc.) has caused frequent backups due to lack of scouring velocity in the laterals and main lines.
2. Root infiltration – Root infiltration has been identified as a cause of sewer backups in laterals.
3. Grease – Grease has been identified as a cause of sewer backups in laterals.

6.4 Preventative Maintenance

Refer to Section 4.2 for the City's preventative maintenance program.

6.5 Overflow Detection

Detection of a sanitary sewer spill may occur in numerous ways:

1. If an outside party calls in to report a spill, the Collection System Crew Supervisor in the Public Works/Street Maintenance Division or his/her designee shall be notified immediately.
 - a. If this occurs after hours, the caller is directed to the Police Dispatch who will notify the on-call personnel.
2. The Collection System Crew Supervisor, or his/her designee, upon determining that the sewer problem is the City's responsibility, will mobilize necessary City personnel and equipment to the spill location and contact the City's active sewer maintenance/capital improvement program (CIP) services contractor for emergency service, if needed.
3. If there is a risk or threat to public safety, the Collection System Crew Supervisor will notify the Public Works Superintendent, or his/her designee, to oversee the response.
4. If the spill is contained within private property and is the responsibility of the private party, City personnel shall assist the responsible private property owner in contacting a qualified contractor to remove the waste material from their property.
5. City personnel involved in the Sewer Spill Response shall forward a report of the incident to their department head. The report shall detail the cause of the spill, actions taken to limit the spill, damage caused by the spill and action taken to remove the waste.
6. The City's Legally Responsible Official (LRO), or his/her designee, shall report the spill event 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).

Section 2.4 of this SSMP details the chain of communication for reporting spills and contact numbers for these points of contact.

Pre-planned coordination and collaboration with the City's stormwater staff will be implemented prior, during, and after a spill event.

6.6 Initial Spill Response

6.6.1 Containment Procedures

The City's immediate response to a spill prioritizes containment. Following containment, City staff perform recovery operations, implement any necessary bypass procedures, and conduct emergency repairs. If the City crews require additional support, they may contact the City's active pipeline CIP contractors for emergency support. The City's active CIP contractors vary per fiscal year. The City's current emergency pipeline contractors and contact information are as follows:

Active CIP Contractor	Southwest Pipeline and Trenchless Corp	310-329-8717
Active CIP Contractor	GRBCon, Inc.	626-699-2380

The City's crew will attempt to keep the spill in as small an area as possible. If reasonable, the crew should attempt to keep the spill in the street and out of the storm drain or other surface water bodies. To ensure the spill is contained, the crew will use the following methods:

1. Contain the spill immediately. Contain sewage on the ground using a temporary or manmade berm, if applicable.
2. Isolate, contain, and/or divert sewage flow from any open channels and storm drain structures using sandbags, inflatable dams, or soil barriers. Sandbags or absorbent material can be used around the spill to collect the sewage and prevent it from spreading.
3. Protect storm drains by blocking upstream and downstream storm drain openings or diverting flow with sandbags and plastic sheets, prioritizing containment within the street or hard surface. Set up traffic control per the WATCH Manual. If traffic or crowd control is required, call police dispatch at (626) 744-4501.
4. Should the spill take place in an off-road area not normally accessible to the public (i.e. field, etc.) the crew will use any reasonable means to pool the flow in that area for recovery.
5. Capture the spill.
 - a. If necessary, berm flow and start pumping into the closest clear and flowing manhole.
 - b. Contact the Public Works Superintendent at (626) 744-4808.
 - c. Evaluate the sewer system spill rate. The most senior employee on scene will evaluate the spill rate.
6. Determine the source and/or cause of the spill (i.e., evaluate type and amount of debris, illegal activities, etc.). City staff may need to observe downstream manholes to establish the location of the cause of the spill such as a blockage.
 - a. If the cause is determined to be privately generated, and the damage is limited to the property, upon request the City may provide a list of contractors to the private owner to assist with clean up and/or pipe clearance.
7. Clear the obstruction and restore flow.
 - a. Restore system flow by hydro jetting, rodding, open cut excavating, or any other means to clear the blockage or failure point.
 - b. If necessary, set up a hydro jetter downstream of the blockage and jet upstream from a clear manhole.
 - c. Capture as much of the material causing the blockage as possible.
 - d. If unable to relieve the blockage, request immediate assistance from additional staff and appropriate equipment.
 - e. If still unable to clear the blockage, request immediate assistance with the establishment of bypass pumping and CCTV support to determine the problem.
 - f. If engineering consultation is necessary, contact the Public Works Superintendent (or City Engineer if he/she cannot be reached). He/she shall initiate an emergency work order to the City's on-call contractor to repair the pipe.
 - g. Ensure the downstream manholes are clear and flowing.
8. Should the flow be too much to be contained in the street and is identified as a danger to the public the crew will allow the flow to enter the storm drain or catch basin. The crew will plug upstream and downstream portions of impacted storm drains or catch basins and recover it from that point using a vacuum truck and/or set up a diversion to a downstream manhole.
9. If necessary, request additional personnel, materials, supplies, or equipment from Departments of Police, Fire and Health that will expedite and minimize the impact of the spill, such as traffic diversion, crowd control, and street closure.

10. Upon determining and correcting the source and/or cause of the spill, a sample of the sewage may be taken as evidence for possible analysis.
11. All sewage shall be captured and discharged into the closest clear and flowing manhole. Any contaminated materials unfit for the sewer and likely to cause blockages shall be transported to a local landfill for ultimate disposal. See Section 6.7 for treatment in dry or wet weather conditions and collection instructions.
12. Estimate volume of the spill as detailed in Section 6.13.2.
13. If required, safely perform all spill sampling as detailed in the Water Quality Monitoring Plan.
14. Notify regulatory agencies about the spill and follow any additional instructions they may have.

6.6.2 Sewer Bypassing

If the spill involves damage to or collapse of a pipeline, or the spill has been determined to be prolonged for any reason, and a bypass is necessary:

1. Bypass action is to be administered, as soon as conditions safely allow, by City personnel at the location where the damaged pipeline occurs.
2. Place appropriate pumps and hoses to keep sewage in the sewer line. Appropriate measures shall be taken to determine the proper size and number of pumps required to effectively handle the sewage flow. The City contracted Herc Rentals, Inc. for equipment rental in case additional pumps, piping, or hoses are required to conduct a bypass. The contact information for Herc Rentals, Inc. is provided below:

On-Call Equipment Rental Company	Phone
Herc Rentals, Inc.	818-762-9282

3. Continuous or periodic monitoring of the bypass pumping operation shall be implemented as required.
4. Perform repairs to the damaged sewer line as soon as conditions safely allow and as resources are available.
5. Regulatory agency issues shall be addressed in conjunction with emergency repairs.
6. If engineering consultation is necessary, the City has a list of On-Call Engineering Firms. The following includes a current list of the City's On-Call General Civil Engineering Firms:

On-Call Engineering Firm(s)*	Phone
Dudek	760-942-5147
KOA Corporation	714-573-0317
Tetra Tech, Inc.	949-250-6788
Ardurra Group, Inc.	714-504-2753
GHD, Inc.	562-206-7983
Transtech Engineers, Inc.	909-595-8599

***Note:** New On-Call Civil Engineering Firms will be contracted by fiscal year 2026 and changes will be noted in the Change Log.

6.7 Public Access and Warning

Where spills restrict public access and require public notice and/or health warnings, the Authority will perform the following to protect public health and safety:

1. Post warning signs at the site for the public to stay out of the area and block contaminated areas with yellow caution tape and/or barricades if spill poses a public threat or it has or will reach waters of the State.
2. Use traffic cones, barricades, or warning tapes to limit pedestrian and vehicle traffic access to affected areas.

3. If the spill discharges into surface waters or waters of the State, closures shall occur 100 feet upstream and downstream of the spill, unless regulatory agencies provide alternative instructions. Signage shall occur at the discharge point, and both upstream and downstream of the spill.
4. Warning signs and other public notices shall remain in effect until there is no further risk to public health and the environment.
5. The City's Public Information Office through the City Manager's Office is to communicate to the public.

6.8 Recovery and Clean-Up (Mitigation)

1. If the spill occurs during dry weather conditions:

- a. If necessary, contact Pasadena Police Dispatch Center at (626) 744-4241 to assist with street closure, traffic diversion, or crowd control.
- b. Secure the Spill Site: Restrict public access to the spill area until cleanup is complete.
- c. Remove Solid Waste: Once the spill has been eliminated, use manual tools (rakes, brooms, etc.) to scrape up and remove all solids and debris for proper disposal.
- d. Remove Remaining Wastewater: Any remaining standing sewage shall be vacuum pumped and discharged into a flowing, unobstructed manhole.
- e. Contaminated Soil Remediation:
 - i. Vacuum any free-standing wastewater from contaminated soil.
 - ii. Transport the contaminated soil to an approved landfill for disposal.
- f. Contaminated Structure Disinfection:
 - i. Disinfect contaminated structures (streets, sidewalks, buildings, etc.) by pressure spraying with a 25-ppm sodium hypochlorite solution (liquid bleach).
 - ii. Allow a 1-hour contact time for disinfection.
 - iii. Rinse the disinfected structures with water.
 - iv. Vacuum the wash water and dispose of it into a flowing, unobstructed manhole.
 - v. Important Considerations:
 1. Prior to pressure washing, remove all contaminated materials and soil, and block catch basins. Ensure a vacuum truck is ready to collect the wash water.
 2. Prevent any water, wastewater, bleach, or containment materials from entering the storm drain system.
 3. Avoid using bleach in heavily populated areas or within 100 feet of surface water or storm drain inlets. Consider less hazardous alternatives for surface disinfection.
 4. Document the team's standard sidewalk/structure cleaning procedure.
- g. Storm Drain Cleanup (if necessary): If wastewater enters a storm drain or catch basin, use a vactor truck to vacuum the sump at a downstream catch basin while flushing the upstream curb, gutter, and pipe with clean water. Vacuum until all wash water is collected.
- h. Final Cleanup: Thoroughly clean the area, removing all debris (rags, paper, etc.) from the contaminated zone and its surroundings.
- i. Site Restoration: Return the affected area to its original condition, or as close as possible.
- j. Documentation: Complete detailed documentation of all pertinent spill information before leaving the site.

2. If the spill occurs during wet weather conditions:

- a. If necessary, contact Pasadena Police Dispatch Center at (626) 744-4241 to assist with street closure, traffic diversion, or crowd control.
- b. Secure the Spill Site: Restrict public access to the spill area until cleanup is complete.
- c. Remove Solid Waste: Once the spill has been eliminated, use manual tools (rakes, brooms, etc.) to scrape up and remove all solids and debris for proper disposal.
- d. Remove Remaining Wastewater: Any remaining standing sewage shall be vacuum pumped and discharged into a flowing, unobstructed manhole.
- e. Contaminated Soil Remediation:
 - i. Vacuum any free-standing wastewater from contaminated soil.
 - ii. Transport the contaminated soil to an approved landfill for disposal.
- f. Contaminated Structure Disinfection: Clean contaminated structures (streets, sidewalks, buildings, etc.) using clean water. Avoid using bleach during wet weather to prevent environmental harm.
- g. Storm Drain Cleanup (if necessary): If wastewater enters a storm drain or catch basin, use a vactor truck to vacuum the sump at a downstream catch basin while flushing the upstream curb, gutter, and pipe with clean water. Vacuum until all wash water is collected.
- h. Final Cleanup: Thoroughly clean the area, removing all debris (rags, paper, etc.) from the contaminated zone and its surroundings.
- i. Site Restoration: Return the affected area to its original condition, or as close as possible.
- j. Documentation:
 - i. Complete detailed documentation of all pertinent spill information before leaving the site.
 - ii. If a spill is caused by lack of capacity during wet weather conditions, document the storm event and forward information to the Public Works Administrator (Street Maintenance).

6.9 Summary of Notification, Reporting, Monitoring, and Recordkeeping Requirements

The following tables provide a summary of notification, monitoring, reporting, and recordkeeping requirements, by spill category, and for City-owned laterals, for quick reference purposes only.

6.9.1 Notification and Reporting Requirements

Table 6-1: Spill Category 1: Spills to Surface Waters

Element	Requirement	Method
Notification	<p>Within two (2) hours of the City's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters:</p> <ul style="list-style-type: none"> Notify the California Office of Emergency Services and obtain a notification control number. Within 24 hours: 	<ul style="list-style-type: none"> Call Cal OES at: (800) 852-7550 Call or email RWQCB Region 4 at: (213) 576-6600 or rb4-ssswdr@waterboards.ca.gov Call Pasadena Police Department at: (626) 744-4501 Call Pasadena Public Health at: (626) 744-6000 Call LA County Public Health at: (888) 700-9995

Table 6-1: Spill Category 1: Spills to Surface Waters

Element	Requirement	Method
	<ul style="list-style-type: none"> Notify RWQCB Region 4, Pasadena Police Department, Pasadena Environmental Services, LA County Public Health, and Caltrans District 7 (if applicable). 	<ul style="list-style-type: none"> Call Pasadena Public Information Office at: (626) 744-7455 Call Caltrans District 7 (if applicable) (213) 897-3656 <p>See Appendix G.</p>
Reporting	<ul style="list-style-type: none"> Submit Draft Spill Report within three (3) business days of the City's knowledge of the spill; Submit Certified Spill Report within 15 calendar days of the spill end date; Submit Technical Report within 45 calendar days after the spill end date for a Category 1 spill in which 50,000 gallons or greater discharged to surface waters; and Submit Amended Spill Report within 90 calendar days after the spill end date. 	<p>Enter data into the online CIWQS Sanitary Sewer System Database¹ (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s)².</p> <p>See Appendix H, Section H-1.</p>
Water Quality Monitoring	<ul style="list-style-type: none"> Conduct spill-specific monitoring; Conduct water quality sampling of the receiving water within 18 hours of initial knowledge of spill of 50,000 gallons or greater to surface waters. 	Water quality records shall be maintained and uploaded into CIWQS as a part of Reporting requirement above.
Record Keeping	<ul style="list-style-type: none"> Spill event records Total annual spill records Collection system telemetry records if relied upon to document and/or estimate spill Volume 	<p>Self-maintained records shall be available during inspections or upon request.</p> <p>See Section 6.14.</p>

Table 6-2: Spill Category 2: Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters

Element	Requirement	Method
Notification	<p>Within two (2) hours of the City's knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p> <p>Within 24 hours:</p> <p>Notify RWQCB Region 4, Pasadena Police Department, Pasadena Environmental Services,</p>	<ul style="list-style-type: none"> Call or email RWQCB Region 4 at: (213) 576-6600 or rb4-ssswdr@waterboards.ca.gov Call Pasadena Police Department at: (626) 744-4501 Call Pasadena Public Health at: (626) 744-6000 Call LA County Public Health at: (888) 700-9995

¹ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

² The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

Table 6-2: Spill Category 2: Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters

Element	Requirement	Method
	LA County Public Health, and Caltrans District 7 (if applicable).	<ul style="list-style-type: none"> Call Caltrans District 7 (if applicable) (213) 897-3656 See Appendix G .
Reporting	<ul style="list-style-type: none"> Submit Draft Spill Report within three (3) business days of the City's knowledge of the spill; Submit Certified Spill Report within 15 calendar days of the spill end date; and Submit Amended Spill Report within 90 calendar days after the spill end date. 	Enter data into the online CIWQS Sanitary Sewer System Database ³ (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s) ⁴ . See Appendix H , Section H-2.
Water Quality Monitoring	<ul style="list-style-type: none"> Conduct spill-specific monitoring; 	Water quality records shall be maintained and uploaded into CIWQS as a part of Reporting requirement above.
Record Keeping	<ul style="list-style-type: none"> Spill event records Total annual spill records Collection system telemetry records if relied upon to document and/or estimate spill Volume 	Self-maintained records shall be available during inspections or upon request. See Section 6.14.

Table 6-3: Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters

Element	Requirement	Method
Notification	Not Applicable	Not Applicable
Reporting	<ul style="list-style-type: none"> Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occur; and Submit Amended Spill Reports within 90 calendar days after the Certified Spill Report due date. 	Enter data into the online CIWQS Sanitary Sewer System Database ⁵ (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s) ⁶ . See Appendix H , Sections H-3 and H-5.
Water Quality Monitoring	<ul style="list-style-type: none"> Conduct spill-specific monitoring; 	Water quality records shall be maintained and uploaded into CIWQS

³ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

⁴ The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

⁵ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

⁶ The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

Table 6-3: Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters

Element	Requirement	Method
		as a part of Reporting requirement above.
Record Keeping	<ul style="list-style-type: none"> Spill event records Total annual spill records Collection system telemetry records if relied upon to document and/or estimate spill Volume 	<p>Self-maintained records shall be available during inspections or upon request.</p> <p>See Section 6.14.</p>

Table 6-4: Spill Category 4: Spills Less Than 50 Gallons That Do Not Discharge to Surface Waters

ELEMENT	REQUIREMENT	METHOD
Notification	Not Applicable	Not Applicable
Reporting	<ul style="list-style-type: none"> If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred. Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. 	<p>Enter data into the online CIWQS Sanitary Sewer System Database⁷ (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s)⁸.</p> <p>See Appendix H, Sections H-4, H-6, and H-7.</p>
Water Quality Monitoring	<ul style="list-style-type: none"> Conduct spill-specific monitoring; 	Water quality records shall be maintained and uploaded into CIWQS as a part of Reporting requirement above.
Record Keeping	<ul style="list-style-type: none"> Individual spill event records Total annual spill records Collection system telemetry records if relied upon to document and/or estimate spill Volume 	<p>Self-maintained records shall be available during inspections or upon request.</p> <p>See Section 6.14.</p>

⁷ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

⁸ The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

Table 6-5: City Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters

Element	Requirement	Method
Notification	<p>Within two (2) hours of the City's knowledge of a spill of 1,000 gallons or greater, from a City- owned and/or operated lateral, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p> <p>Within 24 hours:</p> <p>Notify RWQCB Region 7, Imperial County Public Health, and Imperial County Environmental Health.</p> <p>Not applicable to a spill of less than 1,000 gallons.</p>	<ul style="list-style-type: none"> • Call Cal OES at: • (800) 852-7550 • Call or email RWQCB Region 7 at: • (760) 346-7491 or RB7SpillReporting@waterboards.ca.gov • Call Imperial County Public Health at: • (442) 265-1444 • Call Imperial County Environmental Health at: • (442) 265-1888 <p>See Appendix G.</p>
Reporting	<ul style="list-style-type: none"> • Upload and certify a report, in an acceptable digital format, of all lateral spills (that do not discharge to a surface water) to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. • Report a lateral spill of any volume that discharges to a surface water as a Category 1 spill. 	<p>Enter data into the online CIWQS Sanitary Sewer System Database⁹</p> <p>(http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s)¹⁰.</p> <p>See Appendix H, Sections H-6 and H-7.</p>
Water Quality Monitoring	<ul style="list-style-type: none"> • Conduct visual monitoring. 	<p>Water quality records shall be maintained and uploaded into CIWQS as a part of Reporting requirement above.</p> <p>See Appendix C within the attached SERP (Appendix F) for Water Quality Monitoring Plan.</p>
Record Keeping	<ul style="list-style-type: none"> • Individual spill event records • Total annual spill records • Collection system telemetry records if relied upon to document and/or estimate spill Volume 	<p>Self-maintained records shall be available during inspections or upon request.</p> <p>See Section 6.14.</p>

6.10 Notification

Appendix G of this SSMP details the notification requirements for reporting spills.

⁹ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

¹⁰ The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

6.11 Reporting

Appendix H of this SSMP details the reporting requirements for spills.

6.12 Monitoring

Appendix C of the attached SERP (**Appendix F**) details the Water Quality Monitoring Plan that will be implemented immediately upon discovery of any Category 1 sewage spill in which an estimated 50,000 gallons or greater are discharged into a surface water.

6.13 Spill-Specific Monitoring Requirements

6.13.1 Spill Location and Spread

The City shall visually assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools. The City shall document the critical spill locations, including:

- Photography and GPS coordinates for:
 - The system location where spill originated.
 - For multiple appearance points of a single spill event, the points closest to the spill origin.
- Photography for:
 - Drainage conveyance system entry locations,
 - The location(s) of discharge into surface waters, as applicable,
 - Extent of spill spread, and
 - The location(s) of clean up.

6.13.2 Spill Volume Estimation

To estimate the approximate magnitude and extent of a spill, the City will use updated volume estimation methods, calculations, and documentation for electronic reporting. Estimations are based on direct container measurements and dipstick readings. Spill volume is calculated using the rate at which a manhole fills during the event, based on its internal volume. As additional information becomes available during and after the spill, the City will update its notifications and reporting of the estimated volume, including any recovered spill.

6.14 Investigation, Recordkeeping and Documentation

For proper documentation of each spill, the City will perform the following, at a minimum:

1. Determine the Category of the spill.
2. Determine the size and extent of the spill. (Refer to Section 6.13 for additional information.)
3. Determine any potential hazards, such as vehicle and pedestrian traffic. (Refer to Section 6.7 for Public Access and Warning guidance.)
4. Identify receiving water that may be impacted by spill.

5. Document and recording all pertinent information of the spill. (Refer to **Appendix H** for a detailed list of information to be gathered.)
6. Determine the cause of the spill
7. Document findings of the investigation on the Public Works Emergency Call Out Sheet.
8. Determine what, if any, necessary repairs are needed.
9. Budget and schedule repairs, if required.

6.14.1 Recordkeeping Requirements

The City shall maintain records to document compliance with the provisions of the General Order, and previous General Order 2006-0003-DWQ as applicable, for each sanitary sewer system owned, including any required records generated by a City's contractor(s).

6.14.1.1 Recordkeeping Time Period

The City shall maintain records of this Spill Emergency Response Plan for five (5) years.

6.14.1.2 Availability of Documents

The City shall make the records readily available, either electronic or hard copies, for review by Water Board staff during on-site inspections or through an information request.

6.14.1.3 Spill Reports

The City shall maintain records for each of the following spill-related events and activities:

- Spill event complaint, including but not limited to records documenting how the City responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
 - Date, time, and method of notification
 - Date and time the complainant first noticed the spill, if available
 - Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available
 - Complainant's contact information, if available
 - Final resolution of the complaint
- Records documenting the steps and/or remedial action(s) undertaken by the City, using all available information
- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated
- All California Office of Emergency Services notification records, as applicable
- Records, in accordance with the Monitoring Requirements, once developed

6.14.2 Recordkeeping of Category 4 Spills and Non-Category 1 Lateral Spills

The City must maintain the following records for each individual Category 4 spill and for each individual non-Category 1 City-owned and/or operated lateral spill, and report in accordance with **Appendix H section H-6** (Annual Certified Spill Reporting of Category 4 and/or Lateral Spills).

6.14.2.1 Recordkeeping of Individual Category 4 Spill Information:

1. Contact information: Name and telephone number of City contact person to respond to spill-specific questions
2. Spill location name
3. Description and GPS coordinates for the system location where the spill originated
4. Did the spill reach a drainage conveyance system? If Yes:
 - a. Description of drainage conveyance system location
 - b. Estimated spill volume fully recovered within the drainage conveyance system
 - c. Estimated spill volume remaining within the drainage conveyance system
5. Estimated total spill volume exiting the sanitary sewer system
6. Spill date and start time
7. Spill cause(s) (for example, root intrusion, grease deposition, etc.)
8. System failure location (for example, main, pump station, etc.)
9. Description of spill response activities including description of immediate spill containment and cleanup efforts
10. Description of how the volume estimation was calculated, including, at minimum
 - a. The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - b. The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time
14. Description of implemented system modifications and operating/maintenance modifications.

6.14.2.2 Recordkeeping of Individual Lateral Spill Information:

1. Date and time the City was notified of, or self-discovered, the spill
2. Location of individual spill
3. Estimated individual spill volume
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.)
5. Description of how the volume estimations were calculated

6.14.2.3 Total Annual Spill Information:

For all Category 4 spills, the City will collect and maintain the following information:

1. Estimated total annual spill volume
2. Description of spill corrective actions, including at minimum:
 - a. Local regulatory enforcement action taken against the sewer lateral owner in response to a spill, as applicable, and
 - b. System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

6.14.3 Sewer System Telemetry Records

The City shall maintain the following sewer system telemetry records if used to document compliance with the General Order, and previous General Order 2006-0003-DWQ as applicable, including spill volume estimates:

- Supervisory control and data acquisition (SCADA) system(s)
- Alarm system(s)
- Flow monitoring device(s) or other instrument(s) used to estimate sewage flow rates, and/or volumes
- Computerized maintenance management system records
- Asset management-related records

6.14.4 Sewer System Management Plan Implementation Records

The City shall maintain records documenting the City's implementation of its Sewer System Management Plan, including documents supporting its Sewer System Management Plan audits, corrections, modifications, and updates to the Sewer System Management Plan.

6.14.5 Audit Records

The City will maintain, at minimum, the following records pertaining to its Sewer System Management Plan audits, which includes this Spill Emergency Response Plan, and other internal audits:

- Completed audit documents and findings
- Name and contact information of staff and/or consultants that conducted or involved in the audit
- Follow-up actions based on audit findings

6.14.6 Equipment Records

The City will maintain a log of all owned and leased sewer system cleaning, operational, maintenance, construction, and rehabilitation equipment.

6.14.7 Work Orders

The City will maintain record of work orders for operations and maintenance projects.

6.15 Post Spill Assessment

After a spill, the City is to assess their spill response. The City is to analyze:

- The cause of the spill
- Average and maximum response time
- Percent of total spill volume contained or returned to sewer
- Compliance with notification, monitoring, and reporting requirements
- Public Notification
- What repairs were performed

This assessment is to be used to update the Spill Emergency Response Plan as necessary and to conduct additional training where needed.

6.16 Annual Review

The City is to annually review and assess the effectiveness of the Spill Emergency Response Plan. Updates to the Spill Emergency Response Plan should be made as necessary based on this review.

6.17 Annual Report

Section H-8 of **Appendix H** of this SSMP details the reporting requirements for the City's Annual Report. The City shall update their previous year's Annual Report, by April 1 of each year after the Effective Date of the General Order, for each calendar year (January 1 through December 31).

6.18 Spill Response Equipment

The following is a list of the City's spill response equipment:

- a. One (1) Vactor Combination Hydro Jet/Vacuum Truck
- b. Three (3) Vacuum/Jetter Trucks
- c. 1500-ft of 6" lay flat hose
- d. 100-ft of Suction hose
- e. 100-gal Big Orange degreaser
- f. Video camera
- g. Absorbing sock
- h. Four (4) transfer pumps with a 3" suction and discharge capability
- i. Four (4) of the 3" X 100' discharge hose
- j. Two (2) of the 3" X 20' suction hose.

6.19 Training

Training is conducted through the City of Pasadena's Public Works Department. Staff and contractors are appropriately trained on the Spill Emergency Response Plan procedures and practice drills. Sewer staff and any contractors utilized for cleaning, CCTV inspection and/or emergency response are trained twice a year. The City implements training with staff from sewer and storm to know their part in responding to spills and recognizing areas at risk, develop strategies in containing and preventing spills, and reduce risks of cross contamination.

7 Sewer Pipe Blockage Control Program

This chapter discusses the City's sewer pipe blockage control measures, including identification of problem areas, focused cleaning, and source control.

Requirements:

D.7. SEWER PIPE BLOCKAGE CONTROL PROGRAM: The Sewer System Management Plan must include procedures for the evaluation of the Enrollee's service area to determine whether a sewer pipe blockage control program is needed to control fats, oils, grease, rags and debris. If the Enrollee determines that a program is not needed, the Enrollee shall provide justification in its Plan for why a program is not needed. The procedures must include, at minimum:

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

Fats, oils, and grease (FOG), rags and debris have been identified as one source of blockages in the City's collection system. The City implements a Sewer Pipe Blockage Control Program, which aims to prevent the discharge of FOG, rags, and debris into the sanitary sewer and storm drain systems. The program also aims to prevent spills and illegal discharge into the storm drain, subsequently improving public health and safety, protecting waterways, and reducing sewer maintenance costs.

Over the last 10 years (2015-2024), there have been twenty-nine (29) spills total, seven (7) spills of which are known to have been attributed to fats, oils, grease, rags, and debris. The City formally tracks sanitary sewer system sections subject to FOG blockages and cleans each segment on a quarterly basis. **Appendix I** provides a map showing the FOG cleaning runs across the city.

Chapter 8.14 (Grease and Oil Disposal Ordinance) of the City Municipal Code regulates the disposal of food service establishment cooking greases so as to prevent blockages in the city's sewer system caused by the collection of grease, thereby forcing raw sewage to escape through manhole covers, surface drainage systems or other inappropriate exit points.

All industrial dischargers are required to obtain a wastewater discharge permit from the City. All new restaurants are required to install a grease interceptor and must receive approval by the Department of Planning and Development (DPD) and Pasadena Public Health Department. Such establishments may request a variance to allow for the installation of only a grease trap or an alternative pre-treatment technology. Any device installation must conform to the latest California Plumbing Code (CPC) and are inspected by the Pasadena Public Health Department for conformance with the latest CPC.

Chapter 13.24 (Sewer Construction and Maintenance) of the City Municipal Code prohibits illicit discharges and identify measures to prevent spills and blockages to the City's sanitary sewer system. It provides the legal authority for site inspections and enforcement of violations of industrial wastewater discharge regulations and enforcing the 2002 FOG ordinance (see Appendix I).

In January 2023, the City's Stormwater Program Administrator embarked on a public outreach campaign with industrial and commercial facilities regarding the importance of National Pollutant Discharge Elimination System (NPDES) and FOG inspection programs to ensure public health safety, improve water quality and the environment. To reduce the impacts to municipal infrastructure, the City developed a formal FOG inspection program for inspecting and enforcing the 2002 FOG ordinance supported by a new fee assessment.

As of July 1st, 2024, all commercial and industrial facilities whose activities produce FOG, are required to be inspected bi-annually by the City. The inspection will provide educational awareness on proper FOG disposal and will enforce activities found to be in violation of City Code and ordinances through the Code Enforcement staff. The City created a procedure for when the sewer staff notices any problems with the system arising from FOG, and debris, and to coordinate with the discharger to create mitigation strategies. The City also ensures all inspections and enforcement measures are being formally tracked in the Stormwater Multiple Application and Report Tracking System (SMARTs).

To continue educating City facilities and the public on proper FOG disposal practices and its importance to protect public health and water quality, the City developed Pasadena-specific NPDES and FOG Fact Sheets that are provided along with other NPDES inspection-related materials during the bi-annual inspection and distributed in annual business license renewals. Department of Public Works is currently developing a public website that will house these educational links and other related materials on proper FOG disposal and overall best management practices (BMPs) for industrial and commercial facilities.

Additionally, California adopted Senate Bill 1383 (SB 1383) which requires communities to reduce organic waste disposal, such as food waste, by 75% by 2025. To achieve this mandate, the City launched its Curbside Organics Recycling program in 2022. Food waste shall no longer be going in the trash - residential refuse customers must include bagged food waste in their Yard Waste containers. Businesses and multi-family properties are also required to subscribe and participate in organics collection services through City approved franchise haulers. These organics collection services may contribute to a decreased amount of food waste, including FOG, being disposed of down the drain. Additional information can be found at <https://www.cityofpasadena.net/public-works/recycling-resources/organics-recycling/sb-1383-information-and-resources/>

The City also participates in the Used Oil Payment Program offered by the Department of Resources Recycling and Recovery (CalRecycle), which provides funding for used oil and used oil filter collection and recycling programs. The funding allocated to the City are used to promote used oil recycling through advertising, Oil Filter Exchange Events,

and our Curbside Used Motor Oil Pick-Up Program. The City aims to hold Oil Filter Exchange Events four to six times per year, depending on the funding and staffing availability, at local auto parts retailers. The goal of the event is to reward residents for recycling their used oil filters and provide them with oil change supplies that promote recycling and prevent spills. Customers who bring in used oil filters receive a coupon and exchange their used oil filters at the store for up to two new oil filters. The City promotes these events (and used oil recycling in general) via ads in local news outlets, City social media accounts, the City website, and flyers. **Appendix I** includes a sample flyer from one of the events promoting this program. Residents with City of Pasadena refuse service can also call our City Service Center (CSC) to schedule a pickup of their used motor oil and filters. City staff will deliver up to 5 containers to store the oil and pick them up at their regularly scheduled refuse pickup day by appointment only. The City also dedicates a section of their Waste Management and Recycling webpage to Used Motor Oil and Oil Filter Recycling. This includes information on the above services, a list of Certified Collection Centers in Pasadena, and emphasizes that motor oil should never be poured into storm drains. Additional information can be found at <https://www.cityofpasadena.net/public-works/recycling-resources/universal-hazardous-waste-recycling/used-motor-oil-filter-certified-collection-centers/>.

Lastly, the City created maintenance requirements, best management practices requirements, recordkeeping and reporting requirements, and design standards for the removal of grease interceptors for wastewater discharge permit holders. Businesses or residences can contact the City about FOG disposal through CSC. CSC is a centralized service to help Pasadena residents connect with the City. It is available via web, LiveChat, mobile app and phone to assist in answering questions about City programs, services and events. They are the main point of contact for residents reporting issues related to sewers or storm drains. Link to this application can be found at <https://www.cityofpasadena.net/city-service-center/>.

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8 System Evaluation, Capacity Assurance, and Capital Improvements

This chapter discusses the City's capacity management measures, including the most recent Master Plan and recommended capacity improvement projects.

Requirements:

D.8. SYSTEM EVALUATION, CAPACITY ASSURANCE AND CAPITAL IMPROVEMENTS: The Plan must include procedures and activities for:

- Routine evaluation and assessment of system conditions;
- Capacity assessment and design criteria;
- Prioritization of corrective actions; and
- A capital improvement plan.

8.1 System Evaluation and Condition Assessment: The Plan must include procedures to:

- Evaluate the sanitary sewer system assets utilizing the best practices and technologies available;
- Identify and justify the amount (percentage) of its system for its condition to be assessed each year;
- Prioritize the condition assessment of system areas that:
 - Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies;
 - Are located in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas;
 - Are within the vicinity of a receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List;
- Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection methods;
- Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State;
- Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and
- Identify system assets vulnerable to direct and indirect impacts of climate change, including but not limited to: sea level rise; flooding and/or erosion due to increased storm volumes, frequency, and/or intensity; wildfires; and increased power disruptions.

8.2. Capacity Assessment and Design Criteria: The Plan must include procedures to identify system components that are experiencing or contributing to spills caused by hydraulic deficiency and/or limited capacity, including procedures to identify the appropriate hydraulic capacity of key system elements for:

- Dry-weather peak flow conditions that cause or contributes to spill events;

- The appropriate design storm(s) or wet weather events that causes or contributes to spill events;
- The capacity of key system components; and
- Identify the major sources that contribute to the peak flows associated with sewer spills.

The capacity assessment must consider:

- Data from existing system condition assessments, system inspections, system audits, spill history, and other available information;
- Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;
- Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change;
- Increases of erosive forces in canyons and streams near underground and aboveground system components due to larger and/or higher-intensity storm events;
- Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events; and
- Necessary redundancy in pumping and storage capacities.

8.3. Prioritization of Corrective Action: The findings of the condition assessments and capacity assessments must be used to prioritize corrective actions. Prioritization must consider the severity of the consequences of potential spills.

8.4. Capital Improvement Plan: The capital improvement plan must include the following items:

- Project schedules including completion dates for all portions of the capital improvement program;
- Internal and external project funding sources for each project; and
- Joint coordination between operation and maintenance staff, and engineering staff/consultants during planning, design, and construction of capital improvement projects; and Interagency coordination with other impacted utility agencies.

8.1 System Evaluation and Condition Assessment

The City's last sewer system master plan was performed in 2019. The master plan included a model of the collection system. Hydraulic simulations were performed for the present (2019), 2035 and build out time frames. Surcharged pipes were identified and recommendations made for upgrade.

Currently, the City performs CCTV inspection on an as-needed basis. If a problem is identified in the CCTV inspection, this is tracked by the maintenance crew and sent to the Engineering Department so it can be added to the Annual Sewer Relining and Point Repair Project so that it can be scheduled for repair.

The City has budgeted a sewer system master plan to be performed in fiscal year 2029. In this upcoming master plan, the City plans to utilize CCTV evaluation to assess their sewer system, identify capacity deficiencies in their system, and identify potential repair and replacement projects. The City plans to establish a regular CCTV inspection and cleaning program with a goal to CCTV inspect and clean the entire system every seven (7) years (or approximately 14% a year).

With the recent sewer rate increase approved by the City Council in the summer of 2024, the City will be able to address known issues associated with structural damage, corrosion, roots, and manhole degradation.

8.2 Capacity Assessment and Design Criteria

The 2019 Master Plan included a capacity evaluation and identified capacity-related improvement projects for the collection system only. The capacity assessment completed as part of the City's Sewer Master Plan was based on hydraulic modeling of the City's collection system under current (2019) and future design flows. Surcharged pipes were identified, and these pipe segments were recommended for upgrade.

City requirements state that new developments proposing a net increase of 50 Equivalent Dwelling Units (EDUs) or more must be simulated in the City's sewer collection system hydraulic model to ensure the new connection does not negatively impact the existing system.

The City has not experienced any sanitary sewer overflows due to hydraulic deficiencies in the sewer system in the past four years. Likewise, modeling of the City's sewer system conducted during the preparation of the 2019 Sewer Master Plan indicated no overflows were anticipated due to hydraulic deficiencies.

The City plans to include a hydraulic model in the 2029 master plan that evaluates the sewer system's ability to convey existing and future peak flows. Additionally, this model will identify areas with limited capacity and the need for system improvements and rehabilitation based on any capacity issues identified.

8.3 Prioritization of Corrective Action

Previously, the City assessed recurring issues identified during CCTV inspections and prioritized them into specific projects. Additionally, problem areas within the sewer system were prioritized for lining as part of the Annual Sewer Relining and Point Repair Project.

8.4 Capital Improvement Plan

For capital improvements, the City has currently been performing rehabilitation and replacement projects as condition-related issues arise. If a pipeline condition-related problem is identified in the CCTV inspection, a work order is produced, and the repair is added to the annual program.

Pipelines needing immediate attention would be scheduled for rehabilitation or replacement immediately by the City's CIP Contractor. All other rehabilitation or replacements will be generated into a project after consultant review.

The City completed four sewer relining and point repair projects from their 2019 master plan, including multiple relining projects. The City is anticipating pump station upgrade projects in the next fiscal year.

The City rehabilitated or replaced approximately 34,200 LF of pipeline in 2021, 28,250 LF in 2022, and 7,300 LF in 2023 and is anticipating to line 25,000 LF in 2024/2025.

The City only uses local funds from sewer facility charges for sewer construction and maintenance.

Once potential projects are identified in the 2029 master plan, schedules with completion dates will be included for all portions of the capital improvement program. Funding sources will also be identified in the master plan. Any coordination necessary between operation and maintenance staff, and engineering staff/consultants during planning, design, and construction of capital improvement projects will be outlined.

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9 Monitoring, Measurement and Program Modifications

This section of the SSMP discusses parameters the City tracks to monitor the success of the SSMP and how the City plans to keep the SSMP current.

Requirements:

D.9. MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS: The Plan must include an Adaptive Management section that addresses Plan-implementation effectiveness and the steps for necessary Plan improvement, including:

- Maintaining relevant information, including audit findings, to establish and prioritize appropriate Plan activities;
- Monitoring the implementation and measuring the effectiveness of each Plan Element;
- Assessing the success of the preventive operation and maintenance activities;
- Updating Plan procedures and activities, as appropriate, based on results of monitoring and performance evaluations; and
- Identifying and illustrating spill trends, including spill frequency, locations and estimated volumes.

In the past, the City did not have a formal process for tracking the success of SSMP elements. As issues arose and elements changed, the City tracked certain segments of each element of the SSMP such as organizational changes and system maintenance. Currently, the City is motivated to be proactive about spill prevention and understand how tracking their SSMP elements will improve efficacy of this goal.

The City will perform regular tracking of the SSMP elements and their effectiveness. The City will develop a database, or similar tool, to maintain specific information related to the SSMP, as a central repository for changes to the SSMP and regularly track the success of SSMP elements, including the preventative maintenance activities noted above. The City will evaluate whether SSMP elements have changed so that changes can be documented in a Change Log to include the specific change, the date of the change and the name of the person making the change. The Change Log is included in **Appendix J**. Procedures and activities will be updated based on the tracking and assessment methods described therein. **Table 9-1** details a schedule for evaluating the Monitoring, Measurement, and Program Modifications.

Table 9-1: SSMP Update Schedule

Milestones	Frequency	Due DATES
Evaluate whether SSMP elements have changed	twice a year	1/1 and 7/1 every year
Track the Success of SSMP Elements	twice a year	1/1 and 7/1 every year
Assess the Preventative Operation and Maintenance Activities	twice a year	1/1 and 7/1 every year

The City has a renewed commitment to improved tracking and updating their procedures and activities as needed. SSMP Audit findings will also be tracked and used to determine any necessary SSMP modifications. **Table 9-2** describes the monitoring parameters for tracking the effectiveness of each Plan Element, which the City will also review during the SSMP Audit, in addition to the schedule depicted in Table 9-1.

Table 9-2: SSMP Monitoring Parameters, by SSMP Element

SSMP Element	Summary of Element Purpose	Parameters for Tracking Effectiveness (Annual)
SSMP Goal and Introduction	Provide a plan and schedule to: (1) properly manage, operate, and maintain all parts of the City's sanitary sewer system(s), (2) reduce and prevent spills, and (3) contain and mitigate spills that do occur	<ul style="list-style-type: none"> City is following SSMP Update Schedule Annually review section
Organization	Document LRO(s), organization of City staff, contact information, and chain of communication for spill response	<ul style="list-style-type: none"> Annually review section
Legal Authority	Ensure the City has sufficient legal authority required to implement the SSMP plans and procedures	<ul style="list-style-type: none"> Annually review section
Operations and Maintenance Program	Minimize blockages and spills; properly manage, operate, and maintain all parts of the sanitary sewer system; ensure system operators (including employees, contractors, or other agents) are adequately trained	<ul style="list-style-type: none"> Percentage of gravity sewer lines cleaned Percentage of sewer lines inspected by televising Number of lift station failures Number of pipe failures Regular training related to SSMP requirements Equipment inventory tracked Annually review section
Design and Performance Provisions	Maintain updated design and construction standards & specifications for new sewer systems, pump stations, and other appurtenances, and for the rehabilitation and repair of existing sewer systems.	<ul style="list-style-type: none"> Annually review section
Spill Emergency Response Plan	Provide timely and effective response, detection, mitigation, clean up, investigation, and documentation to spill emergencies; and comply with regulatory reporting requirements	<ul style="list-style-type: none"> Average and maximum response time Percent of total overflow volume contained or returned to sewer Compliance with notification, monitoring, and reporting requirements Staff and contractors are implementing the Spill Emergency Response Plan Perform regular training on the Spill Emergency Response Plan. Contain any spills and prevent/minimize discharge to waters of the State or any drainage conveyance system Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State

Table 9-2: SSMP Monitoring Parameters, by SSMP Element

SSMP Element	Summary of Element Purpose	Parameters for Tracking Effectiveness (Annual)
		<ul style="list-style-type: none"> • Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters • Spill events are documented and reported as required in the General Order • Spill responses are assessed • Conduct annual review of Spill Emergency Response Plan • Annually review section
Sewer Pipe Blockage Control Plan	Incorporating sewer pipe blockage control measures, including identification of problem areas, focused cleaning, and source control.	<ul style="list-style-type: none"> • Number of blockages due to FOG, rags, debris, etc. • Number of overflows due to FOG, rags, debris, etc. • Number of FOG producing facilities inspected • Number of enforcement measures at FOG producing facilities • An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning schedule • Implementation of source control measures • Plan and schedule for a public education and outreach program • Annually review section
System Evaluation, Capacity Assurance, and Capital Improvements	Evaluate procedures and activities for: (1) routine evaluation and assessment of system conditions; (2) capacity assessment and design criteria; (3) prioritization of corrective actions; and (4) a capital improvement plan.	<ul style="list-style-type: none"> • Number of spills due to capacity limitations or wet weather • Date of completion of most recent sewer master plan, including flow metering and/or hydraulic modeling • 3-year backlog for capacity improvement projects • Utilize CCTV inspection and assessment and tracking system deficiencies • Prioritize projects based on their need for repair and replacement • Evaluate system deficiencies with recurrent issues and how these can be turned into rehabilitation or replacement projects. • Creation of a schedule to complete these projects • Document system evaluation and condition assessment inspections and activities • Determine solutions to address infiltration & inflow (I/I), aging infrastructure, corrosion due to sulfuric acid, and sags in the system due to unstable soil

Table 9-2: SSMP Monitoring Parameters, by SSMP Element

SSMP Element	Summary of Element Purpose	Parameters for Tracking Effectiveness (Annual)
		<ul style="list-style-type: none"> • Determine solutions to protect from heavy rains, earthquakes, and other impacts of climate change • Determine funding sources • Annually review section
Monitoring, Measurement and Program Modifications	Evaluate effectiveness of SSMP, keep SSMP up-to-date, and identify necessary changes	<ul style="list-style-type: none"> • Document SSMP information • Follow schedule for reviewing SSMP information • Determine effectiveness of each Plan Element • Assess the success of preventive operation and maintenance activities; • Update Plan procedures and activities based on evaluation • Identify and illustrate spill trends • Annually review section
Internal Audits	Formally identify SSMP effectiveness, limitations, and necessary changes	<ul style="list-style-type: none"> • Date of completion of last annual audit • Audits occur during original audit cycle • Audit is uploaded to CIWQS within 6 months of due date • Deficiencies found during the audit are addressed and corrected • Annually review section
Communication Program	Communicate with the public and satellite agencies.	<ul style="list-style-type: none"> • SSMP is uploaded/updated on City's website & CIWQS • Plan and schedule for a public education and outreach program • Notification program to the public for sewer system management and information on spills and discharges • Annually review section

The City will use the specific monitoring parameters listed in Table 9-2 and documented on the tracking sheet included in **Appendix K** to assist in completion of the annual SSMP Audit described in Plan Element 10, Internal Audits. The City will also continue to collect data for all performance measures currently tracked. This additional information that the City collects, such as customer complaints and length of pipe cleaned, will be used to support or further evaluate the success and limitations of the SSMP as needed.

The City tracked scheduled preventative maintenance, repairs, and cleaning activities and is committed to improve on the consistency of this tracking, including beginning to track system deficiencies with recurrent issues to further support the success of the SSMP. The City has consistently tracked the components listed in **Table 9-3** to quantitatively determine the effectiveness of preventive operation and maintenance activities. Using this data and comparing it to spill data shown in **Table 9-4**, the current preventative operation and maintenance activities appear to be successful in reducing spills. However, once the City establishes a regular CCTV inspection program, they are confident this will ensure spills are further minimized by reaching their goal to CCTV inspect the entire system every seven (7) years (or approximately 14% a year), as well as performing regular rehabilitation and replacement projects to rectify condition- and capacity-deficient pipelines and infrastructure.

Table 9-3 Preventive Operation and Maintenance Activities to Track

Description of work event
Total length of gravity sewer lines cleaned
Percentage of gravity sewer lines cleaned
Total number of manhole inspections
Total length of sewer lines inspected by televising
Percentage of sewer lines inspected by televising

Table 9-4 shows the spill trends for the City. If spills do occur in the future, the City will include data related to spill frequency, locations, and estimated volumes.

Table 9-4: Spill Trends from 2014 to 2024

Year	No. of Spills				
	Category 1	Category 2	Category 3	Category 4 ¹	Total Spills
2014	0	0	2	N/A	2
2015	0	0	4	N/A	4
2016	1	3	6	N/A	10
2017	0	3	1	N/A	4
2018	0	0	0	N/A	0
2019	0	0	0	N/A	0
2020	1	0	0	N/A	1
2021	0	0	0	N/A	0
2022	4	0	2	N/A	6
2023	1	1	1	N/A	3
2024	0	0	0	1	1

Note:

¹ Category 4 spills will be reported in 2023 and beyond.

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10 Internal Audits

This chapter discusses the City's SSMP auditing program.

Requirements:

D.10. INTERNAL AUDITS: The Plan shall include internal audit procedures, appropriate to the size and performance of the system, for the Enrollee to comply with section 5.4 (Sewer System Management Plan Audits) of the General Order.

The reissued State Water Resources Control Board's Order Number WQ 2022-0103-DWQ requires that an agency conduct an internal audit of its SSMP at least once every three (3) years. The audit is to evaluate how the City has developed and implemented each of the eleven elements of the SSMP and how each element is functioning to assist in the prevention of sanitary sewer spills. The audit report shall be kept on file at the City offices and uploaded to the online California Integrated Water Quality System (CIWQS) database within 6 months after the end of the 3-year audit period. Any deficiencies found during the audit are addressed and corrected.

The due dates for the City's SSMP and SSMP audits can be found here using the City's WDID (4SS010416):

https://www.waterboards.ca.gov/water_issues/programs/sso/lookup/

In 2024, the City contracted with Dudek to complete its audit and work closely with the City's staff to review the SSMP, its implementation, and the effectiveness of the City's efforts in reducing spills.

The City plans to complete audit requirements and due dates corresponding to the original audit cycle. The City's next SSMP audit is to be completed and uploaded to CIWQS by 5/2/2027. During this next audit, the City will review the progress of SSMP elements and their success, areas of improvement in implementing the SSMP and preventing spills, evaluate whether they are tracking monitoring, measurement, and program modifications under Element 9, provide a description of system improvements from the previous year, and provide a description and schedule of system improvements for the upcoming year. Audit findings and recommendations will be incorporated into future SSMP Updates.

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11 Communication Program

This section of the SSMP discusses the City's communications with the public.

Requirements:

D.11. COMMUNICATION PROGRAM: The Plan must include the following items as appropriate and applicable to the Enrollee's system:

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

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

The City maintains a website (<https://www.cityofpasadena.net>) to inform the public about City activities. The City's website is an effective communication channel for providing alerts and news to the public. The main page of the website provides important announcements, agendas and minutes for City Council meetings, and other key information for City residents.

Once approved by the council on June 2, 2025, the City will maintain its SSMP on the City's Public Works section of their website (<https://www.cityofpasadena.net/public-works/>). The link to the document on the City's website will include opportunities for public input on plan implementation and updates. The Pasadena City Council incorporates opportunities for public input regarding any sewer system concerns at its Board meetings. The City has presented the 2019 Master Sewer Plan in several public meetings and has provided the public an opportunity to comment on its findings and financial implications related to sewer use fees.

The City plans to communicate with LACSD regularly about any changes with its local industrial waste pretreatment and/or FOG program to enhance local source control efforts and improve local wastewater effluent as appropriate.

The City will use a section of the website to notify the public of important upcoming activities related to sewer system management in addition to information on spills and discharges requiring closures of public areas or that enter a source of drinking water. The City has a Public Information Office through the City Manager's Office responsible for communicating to the public regarding the SSMP, as well as any spills and discharges. The City plans to hold public awareness events and presentations regarding SSMP implementation and updates.

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Appendix A

The Reissued WDR: Order Number WQ 2022-0103-DWQ

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STATE WATER RESOURCES CONTROL BOARD
1001 I Street, Sacramento, California 95814
ORDER WQ 2022-0103-DWQ
STATEWIDE WASTE DISCHARGE REQUIREMENTS
GENERAL ORDER FOR SANITARY SEWER SYSTEMS

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

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

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

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

CERTIFICATION

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

AYE: Chair E. Joaquin Esquivel
Vice Chair Dorene D'Adamo
Board Member Sean Maguire
Board Member Laurel Firestone
Board Member Nichole Morgan

NAY: None

ABSENT: None

ABSTAIN: None

 for

Jeanine Townsend
Clerk to the Board

STATEWIDE SANITARY SEWER SYSTEMS GENERAL ORDER

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STATEWIDE SANITARY SEWER SYSTEMS GENERAL ORDER

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STATEWIDE SANITARY SEWER SYSTEMS GENERAL ORDER

1. INTRODUCTION

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

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

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

For the purpose of this General Order, a spill is a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow, operational failure, and/or infrastructure failure. Sewage and its associated wastewater spilled from a sanitary sewer system may threaten public health, beneficial uses of waters of the State, and the environment.

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

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

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

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

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

2. REGULATORY COVERAGE AND APPLICATION REQUIREMENTS

2.1. Requirements for Continuation of Existing Regulatory Coverage

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

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

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

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

2.2. Requirements for New Regulatory Coverage

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

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

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

2.2.1. Application Package Requirements

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

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

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

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

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

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

2.2.3. Electronic Reporting Account for New Enrollee

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

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

2.3. Regulatory Coverage Transfer

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

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

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

3. FINDINGS

3.1. Legal Authorities

3.1.1. Federal and State Regulatory Authority

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

3.1.2. Discharge of Sewage

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

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

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

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

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

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

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

3.1.4. Water Board Authority to Prescribe General Waste Discharge Requirements

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

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

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

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

3.1.5. Previous Statewide General Waste Discharge Requirements

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

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

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

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

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

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

3.1.6. Existing Memorandum of Agreement with California Water Environment Association

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

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

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

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3.2. General

3.2.1. Waters of the State

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

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

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

More specifically, sanitary sewer spills may:

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

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

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

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

3.2.3. Proactive Sanitary Sewer System Management to Eliminate Spill Causes

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

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

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

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- Sea level rise impacts including flooding, coastal erosion, seawater intrusion, tidal inundation and submerged lands;
- Increased surface water flows due to higher intensity rain events;
- Flooding;
- Wildfires and wildfire induced impacts;
- Earthquake induced damage;
- Landslides; and
- Subsidence.
- Infrastructure deficiencies and failures, including but not limited to:
 - Pump station mechanical failures;
 - System age;
 - Construction material failures;
 - Manhole cover failures;
 - Structural failures; and
 - Lack of proper operation and maintenance.
- Insufficient system capacity (temporary or sustained), due to factors including but not limited to:
 - Excessive and/or increased storm or groundwater inflow/infiltration;
 - Insufficient capacity due to population increase and/or new connections from industrial, commercial and other system users; and
 - Stormwater capture projects utilizing a sanitary sewer system to convey stormwater to treatment facilities for reuse.
- Community impacts, including but not limited to:
 - Power outages;
 - Vandalism; and
 - Contractor-caused or other third party-caused damages.

3.2.4. Underground Sanitary Sewer System Leakage

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

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

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

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

3.3. Water Quality Control Plans, Policies and Resolutions

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

3.3.1. State Water Board Antidegradation Policy

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

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

3.3.2. State Water Board Sources of Drinking Water Policy

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

3.3.3. State Water Board Cost of Compliance Resolution

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

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

3.3.4. State Water Board Human Right to Water Resolution

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

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

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

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

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

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

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

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

3.3.5. State Water Board Open Data Resolution

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

3.3.6. State Water Board Response to Climate Change

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

3.4. California Environmental Quality Act

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

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

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

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

(https://www.waterboards.ca.gov/water_issues/programs/grants_loans/)

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

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

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

3.6. Notification to Interested Parties

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

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

4. PROHIBITIONS

4.1 Discharge of Sewage from a Sanitary Sewer System

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

4.2 Discharge of Sewage to Waters of the State

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

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4.3. Discharge of Sewage Creating a Nuisance

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

5. SPECIFICATIONS

5.1. Designation of a Legally Responsible Official

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

- Possess a recognized degree or certificate related to operations and maintenance of sanitary sewer systems, and/or
- Have professional training and experience related to the management of sanitary sewer systems, demonstrated through extensive knowledge, training and experience.

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

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

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

5.2. Sewer System Management Plan Development and Implementation

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

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

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

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

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

For a new Enrollee:

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

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

5.3. Certification of Sewer System Management Plan and Plan Updates

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

5.4. Sewer System Management Plan Audits

The Enrollee shall conduct an internal audit of its Sewer System Management Plan, and implementation of its Plan, at a minimum frequency of once every three years. The audit must be conducted for the period after the end of the Enrollee's last required audit period. **Within six months after the end of the required 3-year audit period**, the Legally Responsible Official shall submit an audit report into the online CIWQS Sanitary Sewer System Database per the requirements in section 3.10 (Sewer System Management Plan Audit Reporting Requirements) of Attachment E1 of this General Order.

Audit reports submitted to the CIWQS Sanitary Sewer System Database will be viewable only to Water Boards staff.

The internal audit shall be appropriately scaled to the size of the system(s) and the number of spills. The Enrollee's sewer system operators must be involved in completing the audit. At minimum, the audit must:

- Evaluate the implementation and effectiveness of the Enrollee's Sewer System Management Plan in preventing spills;
- Evaluate the Enrollee's compliance with this General Order;
- Identify Sewer System Management Plan deficiencies in addressing ongoing spills and discharges to waters of the State; and

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- Identify necessary modifications to the Sewer System Management Plan to correct deficiencies.

The Enrollee shall submit a complete audit report that includes:

- Audit findings and recommended corrective actions;
- A statement that sewer system operators' input on the audit findings has been considered; and
- A proposed schedule for the Enrollee to address the identified deficiencies.

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

See the following tables for clarification:

Initial Audit Period and Audit Due Date for New Enrollees

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

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

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

Three-Year Ongoing Audit Period

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

5.5. Six-Year Sewer System Management Plan Update

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

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

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

5.6. System Resilience

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

5.7. Allocation of Resources

The Enrollee shall:

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

5.8. Designation of Data Submitters

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

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

5.9. Reporting Certification

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

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

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

5.10. System Capacity

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

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

5.11. System Performance Analysis

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

Graph 1 – Total Spill Volume per Year:

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

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

Graph 2 – Total Number of Spills per Year:

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

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

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

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

5.12. Spill Emergency Response Plan and Remedial Actions

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

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

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For New Enrollees:

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

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

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

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

5.13. Notification, Monitoring, Reporting and Recordkeeping Requirements

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

5.13.1. Spill Categories

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

- **Category 1 Spill**

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

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

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

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

- **Category 2 Spill**

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

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

- **Category 3 Spill**

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

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

- **Category 4 Spill**

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

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

5.13.2. Annual Report

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

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

5.14. Electronic Sanitary Sewer System Service Area Boundary Map

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

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

The Legally Responsible Official shall submit, to the State Water Board, geospatial data detailing the locations of the Enrollee's sanitary sewer system service area boundary, per the required content and specifications in section 3.8 (Electronic Sanitary Sewer System Service Area Boundary Map) of Attachment E1 of this General Order, for each system identified by a WDID number.

An Enrollee of a disadvantaged community that may need assistance developing an electronic map to comply with this requirement, may contact State Water Board staff for assistance at SanitarySewer@waterboards.ca.gov.

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

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

<https://ciwqs.waterboards.ca.gov>:

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

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

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

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

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

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

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

5.17. Unintended Failure to Report

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

5.18. Duty to Report to Water Boards

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

5.19. Operation and Maintenance

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

6. PROVISIONS

6.1. Enforcement Provisions

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

6.1.1. Enforceability of Clean Water Act and Water Code Violations

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

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

6.1.2. Monetary Penalties

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

6.1.3. Falsifying or Failure to Report

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

6.1.4. Severability of General Order

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

6.1.5. Indirect Discharges

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

6.1.6. Water Boards' Considerations for Discretionary Enforcement

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

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

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- Implementation of available equipment, technologies, strategies, and recommended industry practices for maintaining and managing sewer systems to prevent spills, and contain and eliminate discharges to waters of the State; and
- The spill duration and factors beyond the reasonable control of the Enrollee causing the event.

6.1.7. Enforcement Discretion Based on Reporting Compliance

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

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

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

6.2. Other Regional Water Board Orders

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

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

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

6.3. Sewer System Management Plan Availability

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

6.4. Entry and Inspection

6.4.1. Entry and Availability of Information

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

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

6.4.2. Pre-Inspection Questionnaire

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

ATTACHMENT A - DEFINITIONS

Annual Report

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

Basin Plan

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

Beneficial Uses

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

California Integrated Water Quality System (CIWQS)

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

Data Submitter

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

Disadvantaged Community

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

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

Drainage Conveyance System

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

Enrollee

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

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

Environmentally Sensitive Area

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

Exfiltration

Exfiltration is the underground exiting of sewage from a sanitary sewer system through cracks, offset or separated joints, or failed infrastructure due to corrosion or other factors.

Flood Control Channel

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

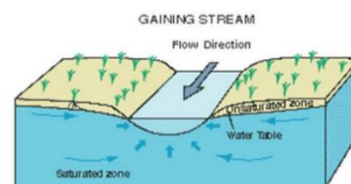
Governing Entity

A governing entity includes but is not limited to the following:

- A publicly elected governing board, council, or commission of a municipal agency;
- A Department or Division director of a federal or state agency that is not governed by a board;
- A governing board or commission of an organization or association; and
- A private system owner/manager that is not governed by a board.

Hydrologically Connected

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



Lateral (including Lower and Upper Lateral)

A lateral is an underground segment of smaller diameter pipe that transports sewage from a customer's building or property (residential, commercial, or industrial) to the Enrollee's main sewer line in a street or easement. Upper and lower lateral boundary definitions are subject to local jurisdictional codes and ordinances, or private system ownership.

A lower lateral is the portion of the lateral located between the sanitary sewer system main, and either the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations.

An upper lateral is the portion of the lateral from the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations, to the building or property.

Legally Responsible Official

A Legally Responsible Official is an official representative, designated by the Enrollee, with authority to sign and certify submitted information and documents required by this General Order.

Nuisance

For the purpose of this General Order, a nuisance, as defined in Water Code section 13050(m), is anything that meets all of the following requirements:

- Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property;
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and
- Occurs during, or as a result of, the treatment or disposal of wastes.

Private Sewer Lateral

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

Private Sanitary Sewer System

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

Potential to Discharge, Potential Discharge

Potential to Discharge, or Potential Discharge, means any exiting of sewage from a sanitary sewer system which can reasonably be expected to discharge into a water of the State based on the size of the sewage spill, proximity to a drainage conveyance system, and the nature of the surrounding environment.

Receiving Water

A receiving water is a water of the State that receives a discharge of waste.

Resilience

Resilience is the ability to recover from or adjust to adversity or change, and grow from disruptions. Resilience can be built through planning, preparing for, mitigating, and adapting to changing conditions.

Sanitary Sewer System

A sanitary sewer system is a system that is designed to convey sewage, including but not limited to, pipes, manholes, pump stations, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks, including:

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

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

Satellite Sewer System

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

Sewer System Management Plan

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

Sewage

Sewage, and its associated wastewater, is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system.

Spill

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

Training

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

Wash Down Water

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

Waste

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

Waste Discharge Identification Number (WDID)

A waste discharge identification number (WDID) identifies each individual sanitary sewer system enrolled under this General Order. A WDID number is assigned to each enrolled system upon an Enrollee's approved regulatory coverage.

Waters of the State

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

Waters of the United States

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

Water Quality Objective

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

ATTACHMENT B – APPLICATION FOR ENROLLMENT

1. Enrollment Status: (Mark only one item)

☐ New Enrollee

☐ New Enrollee with previous regulatory coverage under Order 2006-0003-DWQ
(that failed to certify continuation of coverage in CIWQS per Order 2022-XXXX-DWQ)

Existing WDID Number: _____

2. Applicant Information:

Legally Responsible Official Submitting Application

First and Last Name: _____

Title: _____

Phone: _____

Email: _____

System Owner/Operator Name: _____

Mailing Address: _____

City, State, Zip: _____

County: _____

Sanitary Sewer System Name: _____

Regional Water Quality Control Board(s): _____

Signature and Date: _____

3. Applicant Type (Check one):

☐ City ☐ County ☐ State ☐ Federal ☐ Special District

☐ Government Combination ☐ Private ☐ Other Non-governmental Entity

4. Wastewater Treatment Plant Receiving Sanitary Sewer System Waste:

Wastewater Treatment Plant Permittee: _____

WDID No.: _____

5. Billing Information

Billing Address: _____

City, State, Zip: _____

Billing Contact Person and Title: _____

Phone and Email Address: _____

6. Application Fee:

The application fee, as required by Water Code section 13260, is based on the daily population served by the sanitary sewer system. See updated [Fee Schedule](https://www.waterboards.ca.gov/resources/fees/water_quality/).
(https://www.waterboards.ca.gov/resources/fees/water_quality/)

Check one of the following and enter fee amount:

☐ Population Served < 50,000 – Total Fee submitted: \$ _____

☐ Population Served ≥ 50,000 – Total Fee submitted: \$ _____

Make the fee payment payable to the State Water Resources Control Board and mail the complete application package to:

State Water Resources Control Board, Accounting Office

P. O. Box 1888

Sacramento, CA 95812-1888

Attention: Statewide Sanitary Sewer System Program

7. Application Submittal Certification

I certify under penalty of perjury under the laws of the State of California that to the best of my knowledge and belief, the information in the submitted application package is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Print Name: _____

Title: _____

Signature: _____ Date: _____

ATTACHMENT C - NOTICE OF TERMINATION

1. Enrollee Information

Enrollee Name: _____

WDID No: _____

Legally Responsible Official Requesting Termination of Coverage: _____

First and Last Name: _____

Title: _____

Phone: _____

Email: _____

Mailing Address: _____

City, State, Zip: _____

County: _____

Sanitary Sewer System Name(s) or Unique Identifier(s): _____

Regional Water Quality Control Board(s): _____

Signature and Date: _____

2. Basis of Termination

Explanation of termination, including subsequent regulatory coverage and subsequent owner/operator of enrolled sanitary sewer system, as applicable:

[illegible]

3. Regulatory Coverage Termination Certification

I certify under penalty of perjury under the laws of the State of California that to the best of my knowledge: 1) the sanitary sewer system I officially represent is not required to be regulated under the Statewide Waste Discharge Requirements for Sanitary Sewer Systems Order 2022-XXXX-DWQ, and 2) the information submitted in this Notice of Termination is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I understand that the submittal of this Notice of Termination does not release sanitary sewer system agencies from liability for any violations of the Clean Water Act.

Print Name: _____

Title: _____

Signature: _____ Date: _____

For State Water Board Use Only

☐ Approved for Termination

☐ Denied and Returned to Enrollee

Deputy Director of Water Quality Signature: _____

Date: _____ Notice of Termination Effective Date: _____

ATTACHMENT D – SEWER SYSTEM MANAGEMENT PLAN – REQUIRED ELEMENTS

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ATTACHMENT D – SEWER SYSTEM MANAGEMENT PLAN – REQUIRED ELEMENTS

A Sewer System Management Plan (Plan) is a living planning document that documents ongoing local sewer system management program activities, procedures, and decision-making – at the scale necessary to address the size and complexity of the subject sanitary sewer system(s). This Plan may incorporate other programs and other plans by reference, to address short-term and long-term system resilience through:

- Proactive planning and decision-making;
- Local government ordinances;
- Updated operations and maintenance activities and procedures;
- Implementation of capital improvements;
- Sufficient local budget to support staff resources, contractors, equipment, and training; and
- Updated training of staff and contractors.

The Enrollee's development, update, and implementation of a Sewer System Management Plan addressing the requirements of this Attachment is an enforceable component of this General Order. As specified in Provision 6.1 (Enforcement Provisions) of this General Order, consistent with the Water Code and the State Water Board Enforcement Policy, the State Water Board or a Regional Water Board may consider the Enrollee's efforts in implementing an effective Sewer System Management Plan to prevent, contain, control, and mitigate spills when considering Water Code section 13327 factors to determine necessary enforcement of this General Order.

This Attachment includes the following required elements that the Enrollee shall address in its Plan and subsequent updates. The Enrollee shall identify any requirement in this Attachment that is not applicable to the Enrollee's sewer system and shall explain in its Plan why the requirement is not applicable.

1. SEWER SYSTEM MANAGEMENT PLAN GOAL AND INTRODUCTION

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

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

1.1. Regulatory Context

The Plan Introduction section must provide a general description of the local sewer system management program and discuss Plan implementation and updates.

1.2. Sewer System Management Plan Update Schedule

The Plan Introduction section must include a schedule for the Enrollee to update the Plan, including the schedule for conducting internal audits. The schedule must include milestones for incorporation of activities addressing prevention of sewer spills.

1.3. Sewer System Asset Overview

The Plan Introduction section must provide a description of the Enrollee-owned assets and service area, including but not limited to:

- Location, including county(ies);
- Service area boundary;
- Population and community served;
- System size, including total length in miles, length of gravity mainlines, length of pressurized (force) mains, and number of pump stations and siphons;
- Structures diverting stormwater to the sewer system;
- Data management systems;
- Sewer system ownership and operation responsibilities between Enrollee and private entities for upper and lower sewer laterals;
- Estimated number or percent of residential, commercial, and industrial service connections; and
- Unique service boundary conditions and challenge(s).

Additionally, the Plan Introduction section must provide reference to the Enrollee's up-to-date map of its sanitary sewer system, as required in section 4.1 (Updated Map of Sanitary Sewer System) of this Attachment.

2. ORGANIZATION

The Plan must identify organizational staffing responsible and integral for implementing the local Sewer System Management Plan through an organization chart or similar narrative documentation that includes:

- The name of the Legally Responsible Official as required in section 5.1 (Designation of a Legally Responsible Official) of this General Order;
- The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific Sewer System Management Plan elements;
- Organizational lines of authority; and
- Chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. (For example, county

health officer, county environmental health agency, and State Office of Emergency Services.)

3. LEGAL AUTHORITY

The Plan must include copies or an electronic link to the Enrollee's current sewer system use ordinances, service agreements and/or other legally binding procedures to demonstrate the Enrollee possesses the necessary legal authority to:

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

4. OPERATION AND MAINTENANCE PROGRAM

The Plan must include the items listed below that are appropriate and applicable to the Enrollee's system.

4.1. Updated Map of Sanitary Sewer System

An up-to-date map(s) of the sanitary sewer system, and procedures for maintaining and providing State and Regional Water Board staff access to the map(s). The map(s) must show gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities within the sewer system service area boundaries.

4.2. Preventive Operation and Maintenance Activities

A scheduling system and a data collection system for preventive operation and maintenance activities conducted by staff and contractors.

The scheduling system must include:

- Inspection and maintenance activities;

- Higher-frequency inspections and maintenance of known problem areas, including areas with tree root problems;
- Regular visual and closed-circuit television (CCTV) inspections of manholes and sewer pipes.

The data collection system must document data from system inspection and maintenance activities, including system areas/components prone to root-intrusion potentially resulting in system backup and/or failure.

4.3. Training

In-house and external training provided on a regular basis for sanitary sewer system operations and maintenance staff and contractors. The training must cover:

- The requirements of this General Order;
- The Enrollee's Spill Emergency Response Plan procedures and practice drills;
- Skilled estimation of spill volume for field operators; and
- Electronic CIWQS reporting procedures for staff submitting data.

4.4. Equipment Inventory

An inventory of sewer system equipment, including the identification of critical replacement and spare parts.

5. DESIGN AND PERFORMANCE PROVISIONS

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

5.1. Updated Design Criteria and Construction Standards and Specifications

Updated design criteria, and construction standards and specifications, for the construction, installation, repair, and rehabilitation of existing and proposed system infrastructure components, including but not limited to pipelines, pump stations, and other system appurtenances. If existing design criteria and construction standards are deficient to address the necessary component-specific hydraulic capacity as specified in section 8 (System Evaluation, Capacity Assurance and Capital Improvements) of this Attachment, the procedures must include component-specific evaluation of the design criteria.

5.2. Procedures and Standards

Procedures, and standards for the inspection and testing of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances.

6. SPILL EMERGENCY RESPONSE PLAN

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

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

7. SEWER PIPE BLOCKAGE CONTROL PROGRAM

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

The procedures must include, at minimum:

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

8. SYSTEM EVALUATION, CAPACITY ASSURANCE AND CAPITAL IMPROVEMENTS

The Plan must include procedures and activities for:

- Routine evaluation and assessment of system conditions;
- Capacity assessment and design criteria;
- Prioritization of corrective actions; and
- A capital improvement plan.

8.1 System Evaluation and Condition Assessment

The Plan must include procedures to:

- Evaluate the sanitary sewer system assets utilizing the best practices and technologies available;

- Identify and justify the amount (percentage) of its system for its condition to be assessed each year;
- Prioritize the condition assessment of system areas that:
 - Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, capacity issues, or other system deficiencies;
 - Are located in or within the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas;
 - Are within the vicinity of a receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List;
- Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection methods;
- Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the State;
- Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and
- Identify system assets vulnerable to direct and indirect impacts of climate change, including but not limited to: sea level rise; flooding and/or erosion due to increased storm volumes, frequency, and/or intensity; wildfires; and increased power disruptions.

8.2. Capacity Assessment and Design Criteria

The Plan must include procedures to identify system components that are experiencing or contributing to spills caused by hydraulic deficiency and/or limited capacity, including procedures to identify the appropriate hydraulic capacity of key system elements for:

- Dry-weather peak flow conditions that cause or contributes to spill events;
- The appropriate design storm(s) or wet weather events that causes or contributes to spill events;
- The capacity of key system components; and
- Identify the major sources that contribute to the peak flows associated with sewer spills.

The capacity assessment must consider:

- Data from existing system condition assessments, system inspections, system audits, spill history, and other available information;
- Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;

- Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change;
- Increases of erosive forces in canyons and streams near underground and above-ground system components due to larger and/or higher-intensity storm events;
- Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events; and
- Necessary redundancy in pumping and storage capacities.

8.3. Prioritization of Corrective Action

The findings of the condition assessments and capacity assessments must be used to prioritize corrective actions. Prioritization must consider the severity of the consequences of potential spills.

8.4. Capital Improvement Plan

The capital improvement plan must include the following items:

- Project schedules including completion dates for all portions of the capital improvement program;
- Internal and external project funding sources for each project; and
- Joint coordination between operation and maintenance staff, and engineering staff/consultants during planning, design, and construction of capital improvement projects; and Interagency coordination with other impacted utility agencies.

9. MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

The Plan must include an Adaptive Management section that addresses Plan-implementation effectiveness and the steps for necessary Plan improvement, including:

- Maintaining relevant information, including audit findings, to establish and prioritize appropriate Plan activities;
- Monitoring the implementation and measuring the effectiveness of each Plan Element;
- Assessing the success of the preventive operation and maintenance activities;
- Updating Plan procedures and activities, as appropriate, based on results of monitoring and performance evaluations; and
- Identifying and illustrating spill trends, including spill frequency, locations and estimated volumes.

10. INTERNAL AUDITS

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

11. COMMUNICATION PROGRAM

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

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

ATTACHMENT E1 – NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

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ATTACHMENT E1– NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

The Notification Requirements (section 1), Spill-specific Monitoring Requirements (section 2), Reporting Requirements (section 3) and Recordkeeping Requirements (section 4) in this Attachment are pursuant to Water Code section 13267 and section 13383, and are an enforceable component of this General Order. For the purpose of this General Order, the term:

- Notification means the notifying of appropriate parties of a spill event or other activity.
- Spill-specific Monitoring means the gathering of information and data for a specific spill event to be reported or kept as records.
- Reporting means the reporting of information and data into the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database.
- Recordkeeping means the maintaining of information and data in an official records storage system.

Failure to comply with the notification, monitoring, reporting and recordkeeping requirements in this General Order may subject the Enrollee to civil liabilities of up to \$10,000 a day per violation pursuant to Water Code section 13385; up to \$1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement.

Water Code section 13193 et seq. requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Resources Control Board (State Water Board) to collect sanitary sewer spill information for each spill event and make this information available to the public. Sanitary sewer spill information for each spill event includes but is not limited to: Enrollee contact information for each spill event, spill cause, estimated spill volume and factors used for estimation, location, date, time, duration, amount discharged to waters of the State, response and corrective action(s) taken.

1. NOTIFICATION REQUIREMENTS

1.1. Notification of Spills of 1,000 Gallons or Greater to the California Office of Emergency Services

Per Water Code section 13271, for a spill that discharges in or on any waters of the State, or discharges or is deposited where it is, or probably will be, discharged in or on any waters of the State, the Enrollee shall notify the California Office of Emergency Services and obtain a California Office of Emergency Services Control Number as soon as possible **but no later than two (2) hours** after:

- The Enrollee has knowledge of the spill; and
- Notification can be provided without substantially impeding cleanup or other emergency measures.

The notification requirements in this section apply to individual spills of 1,000 gallons or greater, from an Enrollee-owned and/or operated laterals, to a water of the State.

1.2. Spill Notification Information

The Enrollee shall provide the following spill information to the California Office of Emergency Services before receiving a Control Number, as applicable:

- Name and phone number of the person notifying the California Office of Emergency Services;
- Estimated spill volume (gallons);
- Estimated spill rate from the system (gallons per minute);
- Estimated discharge rate (gallons per minute) directly into waters of the State or indirectly into a drainage conveyance system;
- Spill incident description:
 - Brief narrative of the spill event, and
 - Spill incident location (address, city, and zip code) and closest cross streets and/or landmarks;
- Name and phone number of contact person on-scene;
- Date and time the Enrollee was informed of the spill event;
- Name of sanitary sewer system causing the spill;
- Spill cause or suspected cause (if known);
- Amount of spill contained;
- Name of receiving water body receiving or potentially receiving discharge; and
- Description of water body impact and/ or potential impact to beneficial uses.

1.3. Notification of Spill Report Updates

Following the initial notification to the California Office of Emergency Services and until such time that the Enrollee certifies the spill report in the online CIWQS Sanitary Sewer System Database, the Enrollee shall provide updates to the California Office of Emergency Services regarding substantial changes to:

- Estimated spill volume (increase or decrease in gallons initially estimated);
- Estimated discharge volume discharged directly into waters of the State or indirectly into a drainage conveyance system (increase or decrease in gallons initially estimated); and
- Additional impact(s) to the receiving water(s) and beneficial uses.

2. SPILL-SPECIFIC MONITORING REQUIREMENTS

2.1 Spill Location and Spread

The Enrollee shall visually assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools. The Enrollee shall document the critical spill locations, including:

- Photography and GPS coordinates for:
 - The system location where spill originated.
For multiple appearance points of a single spill event, the points closest to the spill origin.
- Photography for:
 - Drainage conveyance system entry locations,
 - The location(s) of discharge into surface waters, as applicable,
 - Extent of spill spread, and
 - The location(s) of clean up.

2.2 Spill Volume Estimation

To assess the approximate spill magnitude and spread, the Enrollee shall estimate the total spill volume using updated volume estimation techniques, calculations, and documentation for electronic reporting. The Enrollee shall update its notification and reporting of estimated spill volume (which includes spill volume recovered) as further information is gathered during and after a spill event.

2.3. Receiving Water Monitoring

2.3.1. Receiving Water Visual Observations

Through visual observations and use of best available spill volume-estimating techniques and field calculation techniques, the Enrollee shall gather and document the following information for spills discharging to surface waters:

- Estimated spill travel time to the receiving water;
- For spills entering a drainage conveyance system, estimated spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water;
- Estimated spill volume entering the receiving water; and
- Photography of:
 - Waterbody bank erosion,
 - Floating matter,
 - Water surface sheen (potentially from oil and grease),

- Discoloration of receiving water, and
- Impact to the receiving water.

2.3.2. Receiving Water – Water Quality Sampling and Analysis

For sewage spills in which an estimated 50,000 gallons or greater are discharged into a surface water, the Enrollee shall conduct the following water quality sampling no later than **18 hours** after the Enrollee's knowledge of a potential discharge to a surface water:

- Collect one water sample, each day of the duration of the spill, at:
 - The DCS-001 location as described in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment, if sewage discharges to a surface water via a drainage conveyance system; and/or
 - Each of the three receiving water sampling locations in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment;

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

The Enrollee shall analyze the collected receiving water samples for the following constituents per section 2.3.3 (Water Quality Analysis Specifications) of this Attachment:

- Ammonia, and
- Appropriate bacterial indicator(s) per the applicable Basin Plan water quality objectives, including one or more of the following, unless directed otherwise by the Regional Water Board:
 - Total Coliform Bacteria
 - Fecal Coliform Bacteria
 - *E-coli*
 - Enterococcus

Dependent on the receiving water(s), sampling of bacterial indicators shall be sufficient to determine post-spill (after the spill) compliance with the water quality objectives and bacterial standards of the California Ocean Plan or the California Inland Surface Water Enclosed Bays, and Estuaries Plan, including the frequency and/or number of post-spill receiving water samples as may be specified in the applicable plans.

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

2.3.3. Water Quality Analysis Specifications

Spill monitoring must be representative of the monitored activity (40 Code of Federal Regulations section 122.41(j)(1)).

Sufficiently Sensitive Methods

Sample analysis must be conducted according to sufficiently sensitive test methods approved under 40 Code of Federal Regulations Part 136 for the sample analysis of pollutants. For the purposes of this General Order, a method is sufficiently sensitive when the minimum level of the analytical method approved under 40 Code of Federal Regulations Part 136 is at or below the receiving water pollutant criteria.

Environmental Laboratory Accreditation Program-Accredited Laboratories

The analysis of water quality samples required per this General Order must be performed by a laboratory that has accreditation pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code. (Water Code section 13176(a).) The State Water Board accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

2.3.4. Receiving Water Sampling Locations

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

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

Sampling Location	Sampling Location Description
DCS-001	A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.

Receiving Surface Water Sampling (RSW)¹

Sampling Location	Sampling Location Description
RSW-001 Point of Discharge	A point in the receiving water where sewage initially enters the receiving water.
RSW-001U: Upstream of Point of Discharge	A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.

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

¹ The Enrollee must use its best professional judgment to determine the upstream and downstream distances based on receiving water flow, accessibility to upstream/downstream waterbody banks, and size of visible sewage plume.

2.4. Safety and Access Exceptions

If the Enrollee encounters access restrictions or unsafe conditions that prevents its compliance with spill response requirements or monitoring requirements in this General Order, the Enrollee shall provide documentation of access restrictions and/or safety hazards in the corresponding required report.

3. REPORTING REQUIREMENTS

All reporting required in this General Order must be submitted electronically to the online [CIWQS Sanitary Sewer System Database](https://ciwqs.waterboards.ca.gov) (<https://ciwqs.waterboards.ca.gov>), unless specified otherwise in this General Order. Electronic reporting may solely be conducted by a Legally Responsible Official or Data Submitter(s) previously designated by the Legally Responsible Official, as required in section 5.8 (Designation of Data Submitters) of this General Order.

The Enrollee shall report any information that is protected by the Homeland Security Act, by email to SanitarySewer@waterboards.ca.gov, with a brief explanation of the protection provided by the Homeland Security Act for the subject report to be protected from unauthorized disclosure and/or public access, and for official Water Board regulatory purposes only.

3.1. Reporting Requirements for Individual Category 1 Spill Reporting

3.1.1. Draft Spill Report for Category 1 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 1 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;

5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;
 - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
 - Description of the drainage conveyance system transporting the spill;
 - Photographs of the drainage conveyance system entry location(s);
 - Estimated spill volume fully recovered from the drainage conveyance system;
 - Estimated spill volume remaining within the drainage conveyance system;
11. Description and photographs of all discharge point(s) into the surface water;
12. Estimated spill volume that discharged to surface waters; and
13. Estimated total spill volume recovered.

3.1.2. Certified Spill Report for Category 1 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for Category 1 spills, to the online CIWQS Sanitary Sewer System Database. Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.1.1 (Draft Spill Report for Category 1 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;

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4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, lateral, pump station, etc.);
6. Description of the pipe material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion;
14. Name and type of receiving water body(s);
15. Description of the water body(s), including but not limited to:
 - Observed impacts on aquatic life,
 - Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill,
 - Responsible entity for closing/restricting use of water body, and
 - Number of days closed/restricted as a result of the spill.
16. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and
17. If water quality samples were collected, identify sample locations and the parameters the water quality samples were analyzed for. If no samples were taken, Not Applicable shall be selected.

3.1.3. Spill Technical Report for Individual Category 1 Spill in which 50,000 Gallons or Greater Discharged into a Surface Water

For any spill in which 50,000 gallons or greater discharged into a surface water, **within 45 calendar days** of the spill end date, the Enrollee shall submit a Spill Technical Report to the online CIWQS Sanitary Sewer System Database. The Spill Technical Report, at minimum, must include the following information:

1. Spill causes and circumstances, including at minimum:
 - Complete and detailed explanation of how and when the spill was discovered;

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- Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
 - Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
 - Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
 - Detailed description of the spill cause(s);
 - Description of the pipe material, and estimated age of the pipe material, at the failure location;
 - Description of the impact of the spill;
 - Copy of original field crew records used to document the spill; and
 - Historical maintenance records for the failure location.
2. Enrollee's response to the spill:
- Chronological narrative description of all actions taken by the Enrollee to terminate the spill;
 - Explanation of how the Sewer System Management Plan Spill Emergency Response Plan was implemented to respond to and mitigate the spill; and
 - Final corrective action(s) completed and a schedule for planned corrective actions, including:
 - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable,
 - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences, and
 - Necessary modifications to the Emergency Spill Response Plan to incorporate lessons learned in responding to and mitigating the spill.
3. Water Quality Monitoring, including at minimum:
- Description of all water quality sampling activities conducted;
 - List of pollutant and parameters monitored, sampled and analyzed; as required in section 2.3 (Receiving Water Monitoring) of this Attachment;
 - Laboratory results, including laboratory reports;
 - Detailed location map illustrating all water quality sampling points; and
 - Other regulatory agencies receiving sample results (if applicable).
4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

3.1.4. Amended Certified Spill Reports for Individual Category 1 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.2. Reporting Requirements for Individual Category 2 Spill Reporting

3.2.1. Draft Spill Report for Category 2 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 2 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;

If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;

8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
 - Description of the drainage conveyance system transporting the spill;
 - Photographs of the drainage conveyance system entry location(s);
 - Estimated spill volume fully recovered from the drainage conveyance system;
 - Estimated spill volume remaining within the drainage conveyance system;

- Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable; and

11. Estimated total spill volume recovered.

3.2.2. Certified Spill Report for Category 2 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for the Category 2 spill, to the online [CIWQS Sanitary Sewer System Database](https://ciwqs.waterboards.ca.gov) (<https://ciwqs.waterboards.ca.gov>). Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.2.1 (Draft Spill Report for Category 2 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, pump station, etc.);
6. Description of the pipe/infrastructure material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion; and

14. Whether or not the spill was located within 1,000 feet of a municipal surface water intake.

3.2.3. Amended Certified Spill Reports for Individual Category 2 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.3. Monthly Certified Spill Reporting for Category 3 Spills

The Enrollee shall report and certify all Category 3 spills to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occurred. (For example, all Category 3 spills occurring in the month of February shall be reported and certified by March 30th). After the Legally Responsible Official certifies the spills, the online CIWQS Sanitary Sewer System Database will issue a spill event identification number for each spill.

The monthly reporting of all Category 3 spills must include the following items for each spill:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Description, photographs, and GPS coordinates where the spill originated:
 - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
7. Estimated total spill volume exiting the system;
8. Description and photographs of the extent of the spill and spill boundaries;
9. Did the spill reach a drainage conveyance system? If Yes:
 - Description of the drainage conveyance system transporting the spill;
 - Photographs of the drainage conveyance system entry locations(s);
 - Estimated spill volume fully recovered from the drainage conveyance system; and

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- Estimated spill volume discharged to a groundwater infiltration basis or facility, if applicable.
- 10. Estimated total spill volume recovered;
- 11. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reaches of the spill;
- 12. Spill end date and time;
- 13. Description of how the spill volume estimations were calculated, including, at minimum:
 - The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
- 14. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
- 15. System failure location (for example, main, pump station, etc.);
- 16. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location;
- 17. Description of the impact of the spill;
- 18. Whether or not the spill was associated with a storm event;
- 19. Description of spill response activities including description of immediate spill containment and cleanup efforts;
- 20. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum:
 - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
 - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including:
 - Adjusted schedule/method of preventive maintenance,
 - Planned rehabilitation or replacement of sanitary sewer asset,
 - Inspected, repaired asset(s), or replaced defective asset(s),
 - Capital improvements,
 - Documentation verifying immediately implemented system modifications and operating/maintenance modifications,
 - Description of spill response activities,

- Spill response completion date, and
- Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill;

21. Detailed narrative of investigation and investigation findings of cause of spill.

3.4. Monthly Certified Spill Reporting for Category 4 Spills

The Enrollee shall report and certify the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, within 30 calendar days after the end of the month in which the spills occurred.

3.5. Amended Certified Spill Reports for Category 3 Spills

Within 90 calendar days of the certified Spill Report due date, the Enrollee may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After 90 calendar days, the Legally Responsible Official shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a certified Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the 90-day timeframe for amending the certified Spill Report, as provided above.

3.6. Annual Certified Spill Reporting of Category 4 and/or Lateral Spills

For all Category 4 spills and spills from its owned and/or operated laterals that are caused by a failure or blockage in the lateral and that do not discharge to a surface water, the Enrollee shall:

- Maintain records per section 4.4. of this Attachment;
The Enrollee shall provide records upon request by State Water Board or Regional Water Board staff.
- Annually upload and certify a report, in an appropriate digital format, of all recordkeeping of spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occurred.

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

3.7. Monthly Certification of “No-Spills” or “Category 4 Spills” and/or “Non-Category 1 Lateral Spills”

If either (1) no spills occur during a calendar month or (2) only Category 4, and/or Enrollee-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the Enrollee shall certify, within 30 calendar days after

the end of each calendar month, either a “No-Spill” certification statement, or a “Category 4 Spills” and/or “Non-Category 1 Lateral Spills” certification statement, in the online CIWQS Sanitary Sewer System Database, certifying that there were either no spills, or Category 4 and/or Non-Category 1 Lateral Spills that will be reported annually (per section 3.6 of this Attachment) for the designated month.

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

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

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

3.8. Electronic Sanitary Sewer System Service Area Boundary Map

The Legally Responsible Official shall submit, to the State Water Board, an up-to-date electronic spatial map of its sewer system service area boundaries. The map must be in accordance with section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order and the specification provided on the statewide Sanitary Sewer Systems program website. The map must include the location of wastewater treatment facility(ies) that treats the sewer system waste, if in the same sewer service boundary.

By the Effective Date of this General Order, specifications for the electronic sanitary sewer service area boundary map format will be provided on the statewide Sanitary Sewer Systems Order program website.

3.9. Annual Report (Previously termed as Collection System Questionnaire in General Order 2006-0003-DWQ)

A new Enrollee shall complete and submit its first certified Annual Report into the online CIWQS Sanitary Sewer System Database, **within 30 days of obtaining a CIWQS account**; Subsequent Annual Reports are due by April 1 of each year.

All enrollees shall update their previous year’s Annual Report, **by April 1 of each year after the Effective Date of this General Order**, for each calendar year (January 1 through December 31).

The Annual Report must be entered directly into the online CIWQS Sanitary Sewer System Database. The Enrollee’s Legally Responsible Official shall certify the Annual Report as instructed in CIWQS;

The Annual Report must address, and update as applicable, the following items:

- Population served;

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- Updated sewer system service area boundary map, if service area boundary has changed from original map submitted per section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order;
- Number of system operation and maintenance staff:
 - Entry level (less than two years of experience),
 - Journey level (greater than two years of experience),
 - Supervisory level, and
 - Managerial level;
- Number of operation and maintenance staff certified as a certified collection system operator by the California Water Environmental Association (CWEA), with:
 - Corresponding number of certified collection system operator grade levels (Grade I, II, III, IV, and V);
- System information:
 - Miles of system gravity and force mains,
 - Number of upper and lower service laterals connected to system,
 - Estimated number of upper and lower laterals owned and/or operated by the Enrollee,
 - Portion of laterals that is Enrollee's responsibility,
 - Average age the major components of system infrastructure,
 - Number and age of pump stations, and
 - Estimated total miles of the system pipeline not accessible for maintenance;
- Name and location of the treatment plant(s) receiving sanitary sewer system's waste;
- Name of satellite sewer system tributaries;
- Number of system's gravity sewer above or underground crossings of water bodies throughout system;
- Number of force main (pressurized pipe) above or underground crossings of water bodies throughout system;
- Number of siphons used to convey waste throughout the sewer system;
- Miles of sewer system cleaned;
- Miles of sewer system video inspected, or comparable (i.e., video closed-circuit television or alternative inspection methods);
- System Performance Evaluation as specified in section 5.11 (System Performance Analysis) of this General Order;
- Major spill causes (for example, root intrusion, grease deposition);

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- System infrastructure failure points (for example, main, pump station, lateral, etc.);
- Ongoing spill investigations; and
- Actions taken to address system deficiencies.

3.10. Sewer System Management Plan Audit Reporting Requirements

The Enrollee shall submit its Sewer System Management Plan Audit and other pertinent audit information, in accordance with section 5.4 (Sewer System Management Plan Audits) of this General Order, to the online CIWQS Sanitary Sewer System Database **by six (6) months after the end of the 3-year audit period.**

If a Sewer System Management Plan Audit is not conducted as required: the Enrollee shall:

- Update the online CIWQS Sanitary Sewer System Database and select the justification for not conducting the Audit; and
- Notify its corresponding Regional Water Board (see Attachment F (Regional Water Quality Control Board Contact Information)) of the justification for the lapsed requirements.

The Enrollee's reporting of a justification for not conducting a timely Audit does not justify non-compliance with this General Order. The Enrollee shall:

- Submit the late Audit as required in this General Order; and
- Comply with subsequent Audit requirements and due dates corresponding with the original audit cycle.

3.11. Sewer System Management Plan Reporting Requirements

For an Existing Enrollee previously regulated by Order 2006-0003-DWQ: **Within every six (6) years after the required due date of its last Plan Update**, the Legally Responsible Official shall upload and certify a local governing entity-approved Sewer System Management Plan Update to the online CIWQS Sanitary Sewer System Database. If the electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its updated Sewer System Management Plan posted on its own website.

Order 2006-0003-DWQ required each enrollee to develop its initial Sewer System Management Plan per the following schedule, with required Plan updates at a frequency of 5-years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2009

Between 100,000 and 10,000: August 2, 2009

Between 10,000 and 2,500: May 2, 2010

Less than 2,500: August 2, 2010

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This Order carries forth the previously-required Plan Update schedule per Order 2006-0003-DWQ. Per the six-year Plan Update frequency required in this Order, the Enrollee shall upload and certify its first Plan Update, to the online CIWQS Sanitary Sewer System Database by the following due dates, with subsequent Plan Updates at the frequency of six years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2025

Between 100,000 and 10,000: August 2, 2025

Between 10,000 and 2,500: May 2, 2026

Less than 2,500: August 2, 2026

For a New Enrollee: **Within twelve (12) months of its Application for Enrollment Approval date**, the Legally Responsible Official of a new Enrollee shall upload and certify a local governing entity-approved Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database. If electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its Sewer System Management Plan posted on its own website. The due date for subsequent 6-year Plan updates, is six (6) years from the submittal due date of the new Enrollee's first Sewer System Management Plan.

4. RECORDKEEPING REQUIREMENTS

The Enrollee shall maintain records to document compliance with the provisions of this General Order, and previous General Order 2006-0003-DWQ as applicable, for each sanitary sewer system owned, including any required records generated by an Enrollee's contractor(s).

4.1. Recordkeeping Time Period

The Enrollee shall maintain records of documents required in this Attachment, including records collected for compliance with this General Order, and records collected in accordance with previous General Order 2006-0003-DWQ, for five (5) years.

4.2. Availability of Documents

The Enrollee shall make the records required in this General Order readily available, either electronic or hard copies, for review by Water Board staff during onsite inspections or through an information request.

4.3. Spill Reports

The Enrollee shall maintain records for each of the following spill-related events and activities:

- Spill event complaint, including but not limited to records documenting how the Enrollee responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
 - Date, time, and method of notification,

- Date and time the complainant first noticed the spill, if available,
- Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available,
- Complainant's contact information, if available, and
- Final resolution of the complaint;
- Records documenting the steps and/or remedial action(s) undertaken by the Enrollee, using all available information, to comply with this General Order, and previous General Order 2006-0003-DWQ as applicable;
- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated;
- All California Office of Emergency Services notification records, as applicable; and
- Records, in accordance with the Monitoring Requirements in this Attachment.

4.4. Recordkeeping of Category 4 Spills and Non-Category 1 Lateral Spills

An Enrollee must maintain the following records for each individual Category 4 spill and for each individual non-Category 1 Enrollee-owned and/or operated lateral spill, and report in accordance to section 3.6 (Annual Certified Spill Reporting of Category 4 and/or Lateral Spills) of this Attachment.

Recordkeeping of Individual Category 4 Spill Information:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Description and GPS coordinates for the system location where the spill originated;
4. Did the spill reach a drainage conveyance system? If Yes:
 - Description of drainage conveyance system location,
 - Estimated spill volume fully recovered within the drainage conveyance system, and
 - Estimated spill volume remaining within the drainage conveyance system;
5. Estimated total spill volume exiting the sanitary sewer system;
6. Spill date and start time;
7. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
8. System failure location (for example, main, pump station, etc.);
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of how the volume estimation was calculated, including, at minimum:

- The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
- The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;

11. Description of implemented system modifications and operating/maintenance modifications.

Recordkeeping of Individual Lateral Spill Information:

1. Date and time the Enrollee was notified of, or self-discovered, the spill;
2. Location of individual spill;
3. Estimated individual spill volume;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.); and
5. Description of how the volume estimations were calculated.

Total Annual Spill Information:

1. Estimated total annual spill volume;
2. Description of spill corrective actions, including at minimum:
 - Local regulatory enforcement action taken against the sewer lateral owner in response to a spill, as applicable, and
 - System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

4.5. Sewer System Telemetry Records

The Enrollee shall maintain the following sewer system telemetry records if used to document compliance with this General Order, and previous General Order 2006-0003-DWQ as applicable, including spill volume estimates:

- Supervisory control and data acquisition (SCADA) system(s);
- Alarm system(s);
- Flow monitoring device(s) or other instrument(s) used to estimate sewage flow rates, and/or volumes;
- Computerized maintenance management system records; and
- Asset management-related records.

4.6. Sewer System Management Plan Implementation Records

The Enrollee shall maintain records documenting the Enrollee's implementation of its Sewer System Management Plan, including documents supporting its Sewer System Management Plan audits, corrections, modifications, and updates to the Sewer System Management Plan.

4.7. Audit Records

The Enrollee shall maintain, at minimum, the following records pertaining to its Sewer System Management Plan audits, and other internal audits:

- Completed audit documents and findings;
- Name and contact information of staff and/or consultants that conducted or involved in the audit; and
- Follow-up actions based on audit findings.

4.8. Equipment Records

The Enrollee shall maintain a log of all owned and leased sewer system cleaning, operational, maintenance, construction, and rehabilitation equipment.

4.9. Work Orders

The Enrollee shall maintain record of work orders for operations and maintenance projects.

ATTACHMENT E2 – SUMMARY OF NOTIFICATION, MONITORING AND REPORTING REQUIREMENTS

This Attachment provides a summary of notification, monitoring and reporting requirements, by spill category, and for Enrollee-owned and/or operated laterals as required in Attachment E1 of this General Order, for quick reference purposes only.

Table E2-1

Spill Category 1: Spills to Surface Waters

Spill Requirement	Due	Method
Notification	<p>Within two (2) hours of the Enrollee's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters:</p> <p>Notify the California Office of Emergency Services and obtain a notification control number.</p>	<p>California Office of Emergency Services at: (800) 852-7550</p> <p>(Section 1 of Attachment E1)</p>
Monitoring	<ul style="list-style-type: none"> Conduct spill-specific monitoring; Conduct water quality sampling of the receiving water within 18 hours of initial knowledge of spill of 50,000 gallons or greater to surface waters. 	<p>(Section 2 of Attachment E1)</p>
Reporting	<ul style="list-style-type: none"> Submit Draft Spill Report within three (3) business days of the Enrollee's knowledge of the spill; Submit Certified Spill Report within 15 calendar days of the spill end date; Submit Technical Report within 45 calendar days after the spill end date for a Category 1 spill in which 50,000 gallons or greater discharged to surface waters; and Submit Amended Spill Report within 90 calendar days after the spill end date. 	<p>(Section 3.1 of Attachment E1)</p>

Table E2-2**Spill Category 2: Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters**

Spill Requirements	Due	Method
Notification	<p>Within two (2) hours of the Enrollee's knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p>	<p>California Office of Emergency Services at: (800) 852-7550</p> <p>(Section 1 of Attachment E1)</p>
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> • Submit Draft Spill Report within three (3) business days of the Enrollee's knowledge of the spill; • Submit Certified Spill Report within 15 calendar days of the spill end date; and • Submit Amended Spill Report within 90 calendar days after the spill end date. 	(Section 3.2 of Attachment E1)

Table E2-3**Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters**

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within 30 calendars days after the end of the month in which the spills occur; and Submit Amended Spill Reports within 90 calendar days after the Certified Spill Report due date. 	(Section 3.3 and 3.5 of Attachment E1)

Table E2-4**Spill Category 4: Spills Less Than 50 Gallons That Do Not Discharge to Surface Waters**

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred. Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. 	(Section 3.4, 3.6, 3.7 and 4.4 of Attachment E1)

Table E2-5**Enrollee Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters**

Spill Requirements	Due	Method
Notification	<p>Within two (2) hours of the Enrollee's knowledge of a spill of 1,000 gallons or greater, from an enrollee-owned and/or operated lateral, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p> <p>Not applicable to a spill of less than 1,000 gallons.</p>	<p>California Office of Emergency Services at: (800) 852-7550</p> <p>(Section 1 of Attachment E1)</p>
Monitoring	Conduct visual monitoring.	(Section 2 of Attachment E1)
Reporting	<ul style="list-style-type: none"> • Upload and certify a report, in an acceptable digital format, of all lateral spills (that do not discharge to a surface water) to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. • Report a lateral spill of any volume that discharges to a surface water as a Category 1 spill. 	(Sections 3.6, 3.7 and 4.4 of Attachment E1)

ATTACHMENT F – REGIONAL WATER QUALITY CONTROL BOARD CONTACT INFORMATION

This Attachment provides a map, list of counties, and contact information to assist the Enrollee in identifying the corresponding Regional Water Quality Control Board office, for all Regional Water Board notification requirements in this General Order.



Region 1 -- North Coast Regional Water Quality Control Board:

Del Norte, Glenn, Humboldt, Lake, Marin, Mendocino, Modoc, Siskiyou, Sonoma, and Trinity counties.

RB1SpillReporting@waterboards.ca.gov or (707) 576-2220

Region 2 -- San Francisco Bay Regional Water Quality Control Board:

Alameda, Contra Costa, San Francisco, Santa Clara (Northern most part of Morgan Hill), San Mateo, Marin, Sonoma, Napa, Solano counties.

RB2SpillReports@waterboards.ca.gov or (510) 622-2369

Region 3 -- Central Coast Regional Water Quality Control Board:

Santa Clara (most of Morgan Hill), San Mateo (Southern portion), Santa Cruz, San Benito, Monterey, Kern (small portions), San Luis Obispo, Santa Barbara, Ventura (Northern portion) counties.

CentralCoast@waterboards.ca.gov or (805) 549-3147

Region 4 -- Los Angeles Regional Water Quality Control Board:

Los Angeles, Ventura counties (small portions of Kern and Santa Barbara counties).

rb4-ssswdr@waterboards.ca.gov or (213) 576-6600

Region 5 -- Central Valley Regional Water Quality Control Board:

Rancho Cordova (Sacramento) Office: Colusa, Lake, Sutter, Yuba, Sierra, Nevada, Placer, Yolo, Napa, (North East), Solano (West), Sacramento, El Dorado, Amador, Calaveras, San Joaquin, Contra Costa (East), Stanislaus, Tuolumne counties.

RB5sSpillReporting@waterboards.ca.gov or (916) 464-3291

Fresno Office: Fresno, Kern, Kings, Madera, Mariposa, Merced, and Tulare counties, and small portions of San Benito and San Luis Obispo counties.

RB5fSpillReporting@waterboards.ca.gov or (559) 445-5116

Redding Office: Butte, Glen, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Tehama counties.

RB5rSpillReporting@waterboards.ca.gov or (530) 224-4845

Region 6 -- Lahontan Regional Water Quality Control Board:

Lake Tahoe Office: Alpine, Modoc (East), Lassen (East side and Eagle Lake), Sierra, Nevada, Placer, El Dorado counties.

RB6sSpillReporting@waterboards.ca.gov or (530) 542-5400

Victorville Office: Mono, Inyo, Kern (East), San Bernardino, Los Angeles (North East corner) counties.

RB6vSpillReporting@waterboards.ca.gov or (760) 241-6583

Region 7 -- Colorado River Basin Regional Water Quality Control Board:

Imperial county and portions of San Bernardino, Riverside, San Diego counties.

RB7SpillReporting@waterboards.ca.gov or (760) 346-7491

Region 8 -- Santa Ana Regional Water Quality Control Board:

Orange, Riverside, San Bernardino counties.

RB8SpillReporting@waterboards.ca.gov or (951) 782-4130

Region 9 -- San Diego Regional Water Quality Control Board:

San Diego county and portions of Orange and Riverside counties.

RB9Spill_Report@waterboards.ca.gov or (619) 516-1990

End of Order 2022-0103-DWQ

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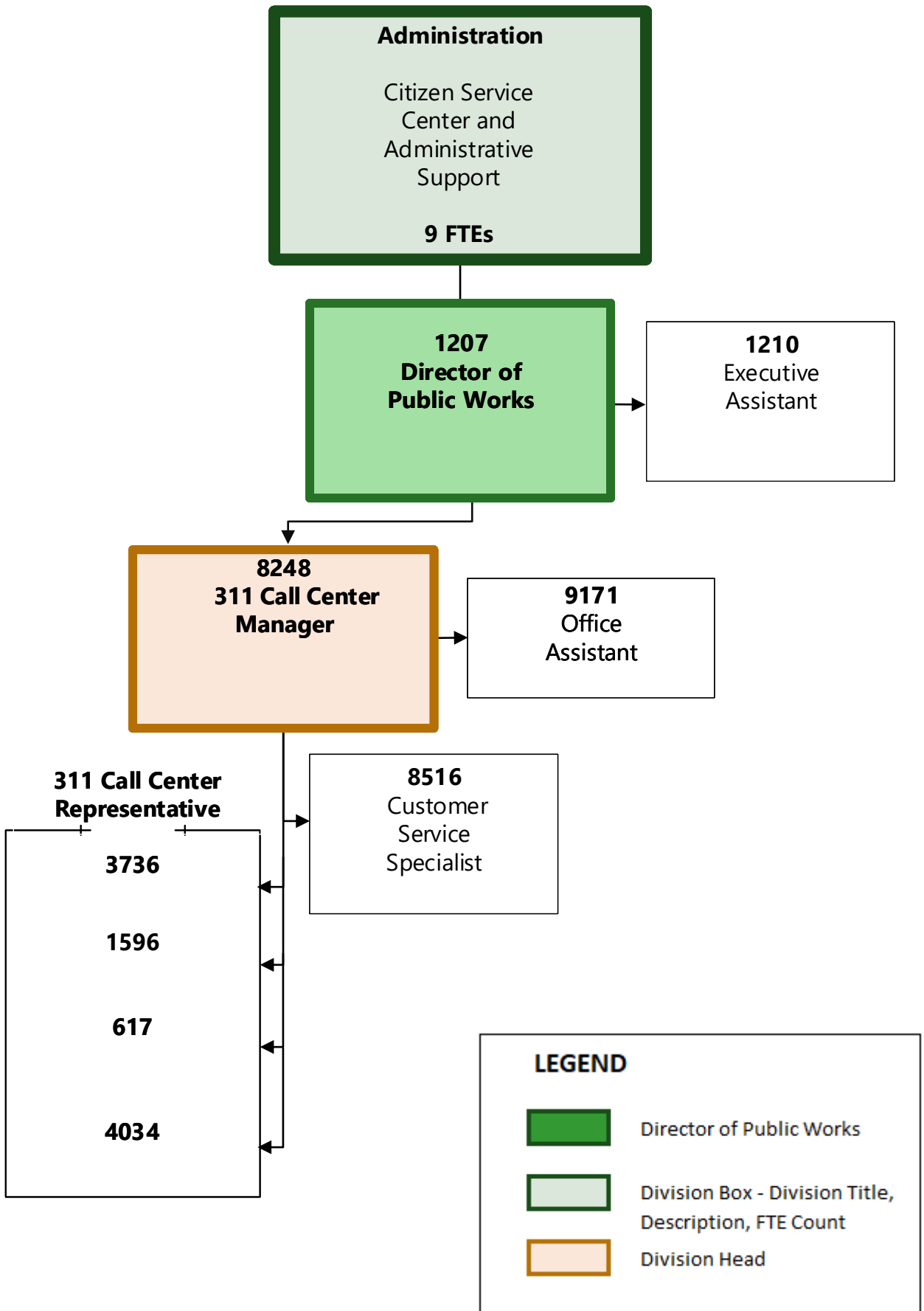


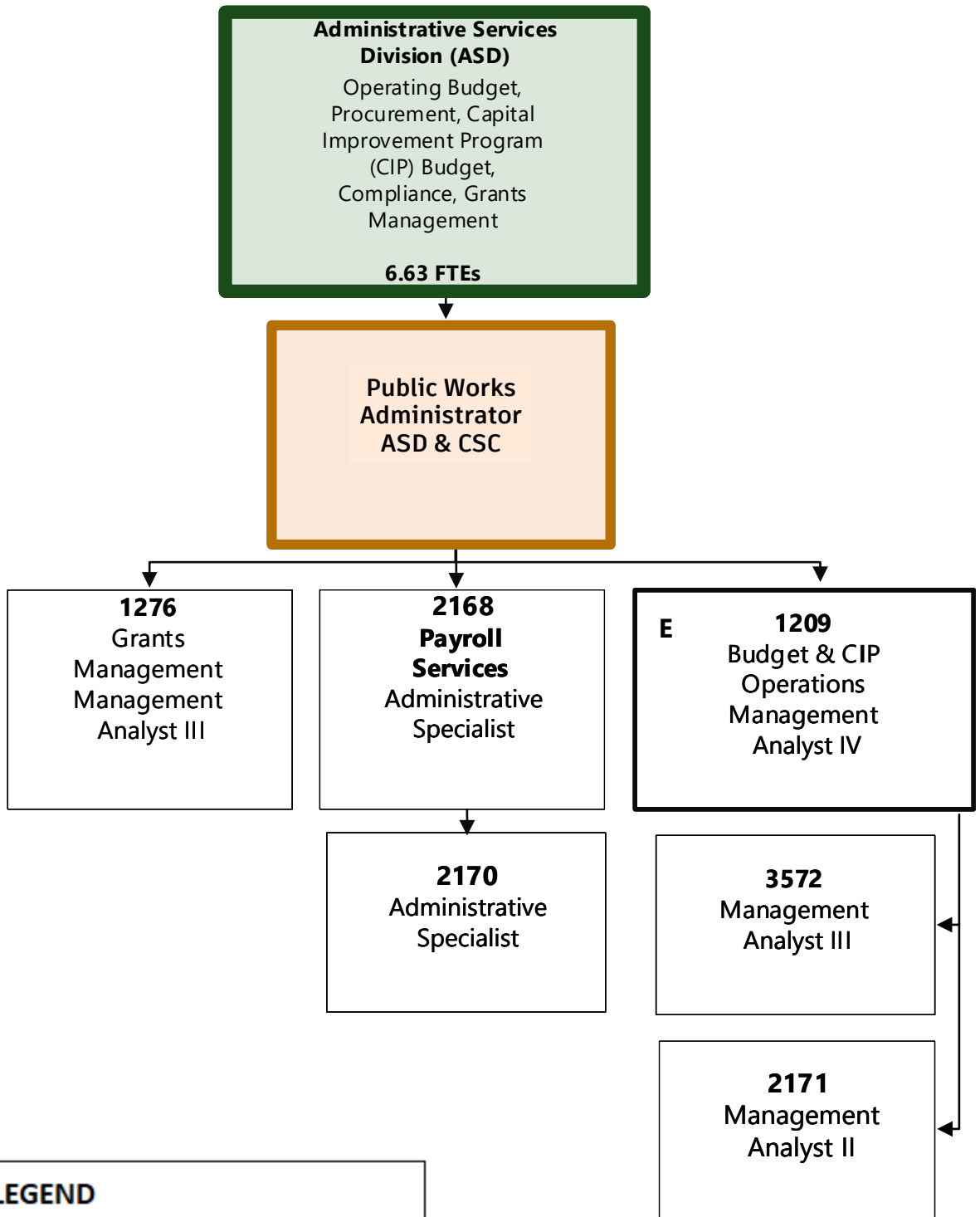
Appendix B

Public Works Department Organizational Charts

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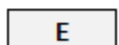
Division Box - Division Title,
Description, FTE Count



Division Head

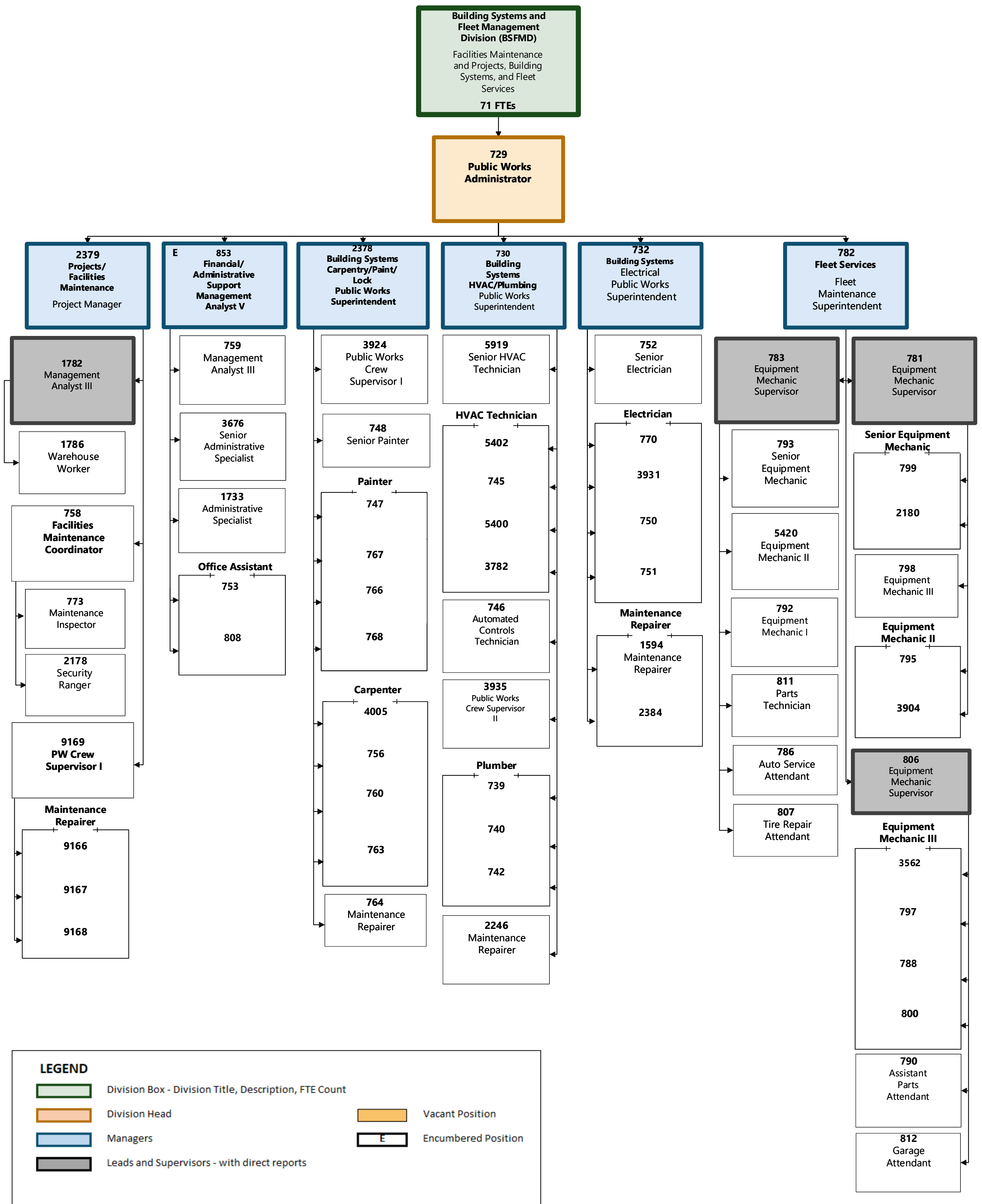


Vacant Position



E

Encumbered Position



Engineering

Civil, Facilities, Street
Lights & Traffic
Signals, Engineering
Service, Inspections

50 FTEs

1256
Deputy
Director/
City Engineer

2264
Management
Analyst IV

1278
Senior Office
Assistant

City Temporary
Worker

5234

3227

5083
Assistant City
Engineer

1255
Stormwater
Program
Administrator

1277
Office
Assistant

1247
Engineering
Services
Principal
Engineer

1266
Facilities
Principal
Engineer

1257
Civil
Principal
Engineer

1423
Street Lights &
Traffic Signals
Principal
Engineer

1260
Engineer

1269
Program
Coordinator II

1259
Assistant
Engineer

Senior Engineering
Technician

5378

2175

2193
Engineering
Technician

Construction
Inspector II

2117

5709

1251
Administrative
Specialist

3762
Senior Office
Assistant

E 8234
Senior Office
Assistant

3163
Office
Assistant

Senior Project
Manager

2318

1264

1265

Project Manager

5221

5792

5906
Associate
Engineer

1279
Senior
Engineering
Technician

1234
Construction
Inspector I

5379
Office
Assistant

Engineer

8503

3725

Associate Engineer

E 1271

3399

5016
Assistant
Engineer

E 1263
Senior
Engineering
Technician

2115
Survey Party
Chief

E 1222
Inspection
Supervisor

1223
Construction
Inspector II

Engineer

1258

1262

E 1275
Senior Project
Manager

3224
Associate
Engineer

Engineering Technician

1284

1280

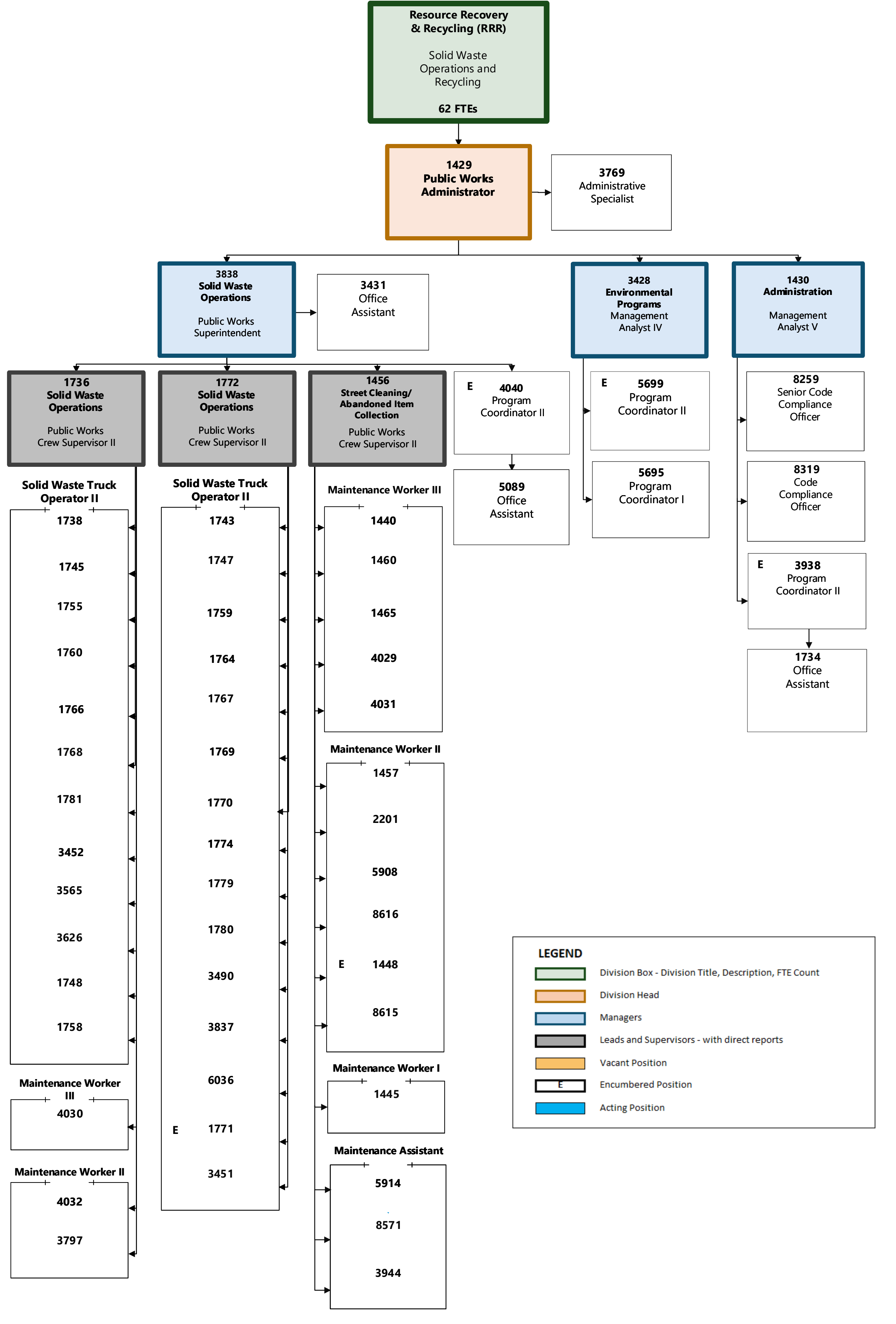
2175

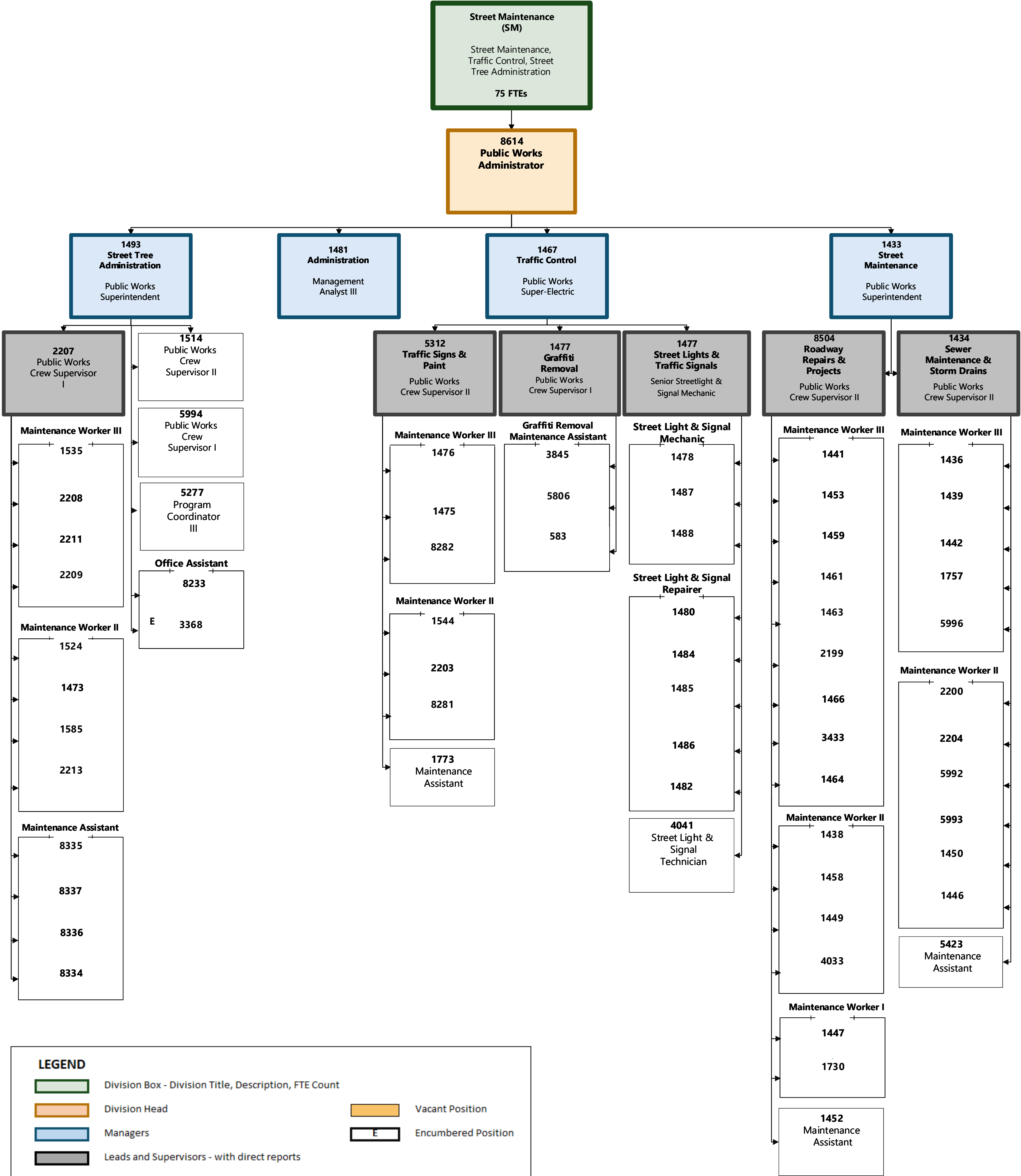
1224
Construction
Inspector II

LEGEND

- Division Box - Division Title, Description, FTE Count
- City Engineer
- Assistant City Engineer
- Managers
- Vacant Position
- E

Encumbered Position





Appendix C

Charter Chapter 8.14 (Grease and Oil Disposal
Ordinance) of the Municipal Code

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Chapter 8.14 - GREASE AND OIL DISPOSAL ORDINANCE

Sections:

8.14.010 - Short title.

This chapter shall be known as the "grease and oil disposal" ordinance.

(Ord. 6893 § 2 (part), 2002)

8.14.020 - Finding and purpose.

The city council finds that sewage overflow released at inappropriate exit points releases contamination, creating public health risks and property damage. Cooking grease and oil from a heavy concentration of restaurants in a small area can enter the city's sewer system. The purpose of this chapter is to regulate the disposal of food service establishment cooking greases so as to prevent blockages in the city's sewer system caused by the collection of grease, thereby forcing raw sewage to escape through manhole covers, surface drainage systems or other inappropriate exit points.

(Ord. 6893 § 2 (part), 2002)

8.14.030 - Definitions.

As used in this chapter, the following terms have the meanings set forth below:

- A. "Best management practices" means activities, prohibitions of practices, maintenance procedures, and other management practices as determined by the Public Health Department and the Public Works and Transportation Department to prevent or reduce the discharge of fats, oils and greases into the public sewer and storm drain systems.
- B. "Fats, oils and greases" means organic polar compounds derived from animal and/or plant sources, containing multiple carbon chain triglyceride molecules, detectable and measurable using analytical test procedures established in Section 136 of Title 40 of the Code of Federal Regulations, as amended, hereafter sometimes referred to as "grease" or "greases."
- C. "Grease trap" means a device hooked directly to the outgoing drains of sinks and dishwashers, inside the restaurant near the food preparation areas, intended for separating the grease from the wastewater before it enters the sewer collection and treatment system.
- D. "Grease interceptor" means a large underground tank installed outside the restaurant and connected to the restaurant's outgoing sewer drainage system, designed for removing and preventing fats, oils, and grease from entering the sewer collection system.
- E.

"Food service establishment" means a facility engaged in preparing food for consumption by the public such as a restaurant, commercial kitchen, caterer, hotel, school, hospital, prison, correctional facility, or care institution, which prepares food by frying, baking, grilling, sauteing, broiling, rotisserie cooking, boiling, blanching, roasting, toasting, poaching, infrared heating, barbecuing, or any other method of food preparation that produces a hot, nondrinkable food product in or on a receptacle that requires washing.

- F. "Minimum design capability" means the design features of a grease interceptor and the capacity or volume required effectively to intercept and retain grease from grease-laden wastewater discharged into the sewer collection and treatment system.
- G. "Solid waste disposal" means disposing of small amounts of grease by wrapping the grease in paper or storing it in a container for disposal with the restaurant's daily trash and garbage.
- H. "Wastewater" means used or spent water from homes, communities, farms and businesses that contains enough harmful material to damage the water's quality. Wastewater includes both the domestic sewage and industrial waste from manufacturing sources.

(Ord. 6893 § 2 (part), 2002)

8.14.040 - Public nuisance.

Any condition caused or permitted to exist in violation of the requirements of this chapter shall be deemed and is declared to be a public nuisance.

(Ord. 6893 § 2 (part), 2002)

8.14.050 - Food service establishment requirements.

All food service establishments which discharge wastewater into the city's sewer collection and treatment system shall implement the following requirements:

- A. Owners and employees of a food service establishment shall implement and be able to demonstrate compliance with the best management practices for handling fats, oils and grease.
- B. Containers used for storage of fats, oils and grease shall be kept in leak-proof containers and shall be secured with close-fitting lids so as to minimize the creation of a nuisance condition. The storage container shall be kept in a location on the premises so that there is no possibility of an accidental or deliberate spillage of the waste onto the public right-of-way. All stored fats, oils, and grease shall be removed for recycling as frequently as may be necessary to prevent the creation of a nuisance. Spillage of any fats, oils and grease shall be removed and cleaned immediately.
- C.

All new food service establishments shall be required to submit to the Public Health Department plans outlining the manner in which they will comply with the grease interceptor requirements. All existing food service establishments which plan modifications in plumbing improvements, with a building permit evaluation of \$20,000 or more, shall be required to include in the plan the manner in which they will comply with the grease interceptor requirements.

- D. Food service establishments subject to the grease interceptor requirements (as outlined in subsection C above) may be granted a variance if the enforcement official determines that installation of a grease interceptor would be infeasible due to space constraints or other factors. The enforcement official may authorize the installation of a grease trap or other alternative pre-treatment technology where the installation of a grease interceptor is infeasible. The food service establishment shall bear the burden of demonstrating that the installation of a grease interceptor is infeasible.
- E. All alternative pre-treatment technology shall be appropriately sized and approved by the enforcement official prior to installation. Alternate pre-treatment technology includes, but is not limited to, devices used to trap, separate and store grease from wastewater, preventing it from being discharged into the city's sewer collection and treatment system.

(Ord. 6893 § 2 (part), 2002)

8.14.060 - Grease interceptor requirements.

Grease interceptors shall conform with the following standards:

- A. Grease interceptor sizing and installation shall conform to the requirements in the 1998 California Plumbing Code.
- B. Grease interceptors shall be constructed in accordance with a design approved by the city engineer and shall have a minimum of two compartments with fittings designed for grease retention.
- C. Grease interceptors shall be installed at a location easily accessible for inspection, cleaning, and removal of intercepted grease. The grease interceptor shall not be installed in any part of the building where food is handled. The location of the grease interceptor must be approved by the city engineer.
- D. All such grease interceptors shall be serviced and emptied of accumulated waste contents as required in order to maintain minimum design capacity or effective volume. These devices must be inspected at least monthly.
- E. Users who are required to main a grease interceptor shall provide for a minim hydraulic retention time in accordance with the 1998 California Plumbing Code, and remove any accumulated grease cap and sludge pocket as required.
- F.

Grease interceptors shall be kept free of inorganic solid materials such as grit, rocks, gravel, sand, eating utensils, cigarettes, shells, towels, rags, etc., which could settle into the sludge pocket and thereby reduce the effective volume of the device.

- G. The grease interceptor user shall maintain a written record of inspection and maintenance for three (3) years. All such records shall be made available for on-site inspection by enforcement officials during all business operating hours.
- H. Sanitary wastes shall not be allowed to be connected to sewer lines intended for grease interceptor service.
- I. Users shall provide access manholes, with a minimum diameter of 24 inches, over each grease interceptor chamber and sanitary tee. The access manholes shall extend at least to finished grade and be designed and maintained to prevent water inflow or infiltration. The manholes shall also have readily removable covers to facilitate inspection, grease removal, and wastewater sampling activities.

(Ord. 6893 § 2 (part), 2002)

8.14.070 - Grease trap requirements.

Grease traps shall conform with the following standards:

- A. Upon approval by the enforcement officials, a grease trap complying with the provisions in this section, shall be installed in the waste line leading from sinks, drains, and other fixtures or equipment in food service establishments where grease may be introduced into the drainage or sewage system in quantities that could effect line stoppage or hinder sewage treatment or private sewage disposal.
- B. Grease trap sizing and installation shall conform to the requirements in the 1998 California Plumbing Code.
- C. No grease trap shall be installed which has a stated rate flow of more than 55 gallons per minute nor less than 20 gallons per minute, except when specifically authorized by the enforcement officials.
- D. Grease traps shall be maintained in efficient operating condition by periodic removal of the accumulated grease. No such collected grease shall be introduced into any drainage piping, or public or private sewer.
- E. No food waste disposal unit or dishwasher shall be connected to or discharge into any grease trap.
- F. Wastewater in excess of 140 degrees Fahrenheit, or 60 degrees Celsius shall not be discharged into a grease trap.

(Ord. 6893 § 2 (part), 2002)

8.14.080 - Enforcement officials.

The provisions of this chapter shall be jointly enforced by the Environmental Health Division Manager and the city engineer. They or their authorized representatives are hereby authorized to make such inspections and take such actions, including lawful entry upon such premises, as may be required to enforce the provisions of this chapter.

(Ord. 6893 § 2 (part), 2002)

8.14.090 - Administrative hearing procedure.

When the enforcement officials determine that a food service establishment may be in violation of the provisions of this chapter, an administrative hearing may be scheduled to resolve the matter.

- A. The owner of the food service establishment shall be issued a notice of administrative hearing at least ten (10) days before the scheduled hearing. The notice shall state the name and address of the property, the name of the owner of record, the nature of the alleged violation, the date, time and place of the hearing, and the enforcement official who shall hear the case.
- B. Before the hearing commences; the enforcement official shall provide the food service establishment owner a copy of the staff report outlining the city's inspection activities related to the alleged violation and a proposed abatement plan if the official determines that a public nuisance exists on the property.
- C. The owner shall be permitted to submit evidence to rebut the existence of a violation caused by the food service establishment.
- D. At the conclusion of the hearing, the enforcement official shall make a finding concerning the allegation of public nuisance. This shall be the final administrative decision in the matter and a written determination letter shall be mailed to the owner.

(Ord. 6893 § 2 (part), 2002)

8.14.100 - Violation and penalty.

It is declared unlawful and a misdemeanor for the owner, manager or other employee of a commercial or nonprofit food service establishment to violate any of the provisions of this chapter. Alternatively, the city may address violations of this chapter through the administrative citation process outlined in Chapter 1.26 of the code. The city manager shall appointment an administrative hearing officer regarding any disputed administrative citations issued pursuant to Chapter 1.26.

(Ord. 6893 § 2 (part), 2002)

8.14.110 - Exemptions.

The following entities shall be exempt from this ordinance: retail food markets such as supermarkets, convenience stores, liquor stores, juice and beverage bars, candy stores and snack shops; sandwich shops; and movie theaters.

(Ord. 6893 § 2 (part), 2002)

Appendix D

Charter Chapter 13.24 (Sewer Construction and
Maintenance) of the City Municipal Code

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Chapter 13.24 - SEWER CONSTRUCTION AND MAINTENANCE

Article I. - Definitions and General Provisions

13.24.010 - Definitions.

For the purposes of this chapter, unless it is plainly evident from the context that a different meaning is intended, certain terms used herein are defined as follows:

- A. "Approved" means approval by the city engineer, superintendent and chief engineer as the result of investigation and tests conducted by them, or by reason of accepted principles or tests by national authorities, technical or scientific organizations.
- B. "Board" means the board of directors of the city of Pasadena.
- C. "Boiler blow-off" means the condensed steam or hot water from a boiler when "blownoff" to remove scale and slime or "blown-down" from cleaning and repair.
- D. "Cesspool" or "dry well" means an excavation in the ground which receives the discharge of a house sewer and which is constructed as required by Ordinance No. 3881.
- E. "Chief engineer" means the chief engineer of the Los Angeles County sanitation districts or his authorized deputy or representative.
- F. "Chimney" means a vertical section of a house sewer extending from a vertical tee or wye in the main sewer or from a long radius 1/4 bend set vertically in the house sewer at the property line and in either case suitably reinforced with concrete.
- G. "City" means the city of Pasadena.
- H. "City engineer" means the city engineer and superintendent of streets of the city of Pasadena, or his authorized representative or inspector.
- I. "Domestic sewage" means sewage derived solely from residences, business buildings or institutions.
- J. "Effluent" means partially or completely treated sewage flowing out of any sewage treatment device.
- K. "House sewer" means that part of the horizontal piping beginning 24 inches from the exterior wall of the building or structure and extending to its connection with the public sewer or cesspool, or septic tank or sewage treatment plant through which is discharged domestic or industrial liquid waste.
- L. "Industrial liquid waste" means any waterborne waste from a manufacturing process or industry, except domestic sewage and uncontaminated cooling water.
- M.

"Industrial liquid waste pretreatment plant" means any works or device for pretreatment of industrial liquid wastes prior to discharge into the public sewer.

- N. "Inspector" means the authorized inspector, deputy, agent or representative of the city engineer, the superintendent or the chief engineer.
- O. "Interceptor" means a device for retaining sand, silt, grit, mineral material, petroleum solvent, grease or oil by gravity-differential separation from waste effluent and of a design and capacity approved by the city engineer.
- P. "Lot" means any piece or parcel of land bounded, defined or shown upon a plot or deed recorded in the office of the county recorder of Los Angeles County which conforms to the boundaries of such lot as shown upon such recorded map, plat or deed; provided, however, that in the event any building or structure covers more area than a lot as herein defined, the term "lot" shall include all such pieces or parcels of land upon which the building or structure is wholly or partly located.
- Q. "Main sewer" means any sewer in which changes of alignment and grade occur only at manholes that provide access for cleaning and inspection. Such sewers are usually 8 inches or more in diameter.
- R. "Ordinance" means an ordinance of the city of Pasadena.
- S. "Person" means any individual, firm, copartnership, joint adventure, association, social club, fraternal organization, corporation, estate, trust, business trust, receiver, syndicate, municipality, district or other political subdivision, or any other group or combination acting as a unit and the plural as well as the singular number.
- T. "Public sewer" means the main sewer or trunk sewer, constructed in a street, highway, alley, place or right-of-way dedicated to public use. "Public sewer" does not include house sewer.
- U. "Reimbursement agreement" means a contract entered into between the city and any other person, firm, corporation, political subdivision, school district or other public or private entity, hereinafter called "contractor," providing for the construction of sanitary sewer facilities by contractor and for the collection by city of a fee or charge for the connection with such sanitary sewer facilities by any other person, firm or corporation and for reimbursement to the contractor out of the proceeds of such charges.
- V. "Running trap" means a depressed section of the house sewer constructed of fittings so as to create a water seal to prevent the passage of gas from the public sewer.
- W. "Section" means a section of this chapter unless some other ordinance or statute is mentioned.
- X. "Septic tank" means a structure for treating sewage before disposal in a cesspool, seepage hole or leaching system, constructed as required by Ordinance No. 3881.
- Y.

"Sewage" means the waterborne wastes from dwellings, kitchens, restaurants, institutions, stables, dairies, business buildings and other similar structures, but excluding any storm water, rainwater, surface water, ground water, roof or yard drainage.

- Z. "Sewage pumping plant or ejector" means any works or device used to raise sewage from a lower to a higher level or to overcome friction in a pipe line.
- AA. "Sewage treatment plant" means any works or device for treating sewage except any septic tank, settling tank or cesspool designed to dispose of domestic sewage from 1 lot.
- BB. Shall and May. "Shall" is mandatory and "may" is permissive.
- CC. Short Title. This chapter shall be known as the "sanitary sewer code" and may be cited as such.
- DD. "Specifications No. 31" means specifications for the construction of street improvements including storm drains, sanitary sewers and appurtenances in the city of Pasadena, California, adopted by the board of directors March 30, 1926, and subsequent amendments thereto.
- EE. "Superintendent" means the superintendent of building of the city or his authorized representative or inspector.
- FF. "Tee" or "T" means a fitting for a branch, on which the spur joins the barrel of the pipe at an angle of approximately 90 degrees.
- GG. "Trunk sewer" means a sewer under the jurisdiction of a public entity other than the city of Pasadena.
- HH. "Wye" or "Y" means a fitting for a branch, on which the spur joins the barrel or the pipe at an angle of approximately 45 degrees.

(Ord. 4845 § 1, 1967; Ord. 4170 § 1.01, 1950)

13.24.020 - House sewer—Closing procedure.

Whenever the use of a house sewer is discontinued by reason of connection to another house sewer or by reason of moving, wrecking or burning of a building or for any other reason, such house sewer shall be sealed at the property line or easement line or at the public sewer. Whenever the city engineer finds that a house sewer has not been sealed as required herein, he shall serve notice and post the property and otherwise follow the provisions of Ordinance No. 3665, codified at Chapter 12.04, in lieu of Section 13.24.170.

(Ord. 4170 § 4.01, 1950)

13.24.030 - Enforcement of other provisions.

The city engineer may disconnect from the public sewer any industrial house sewer connection which is constructed or connected without permit or which is used contrary to the provisions of this chapter governing industrial liquid waste. The city engineer shall make every reasonable effort to notify the owner or occupant of the premises affected by any proposed disconnection and may grant a reasonable time for elimination of the violation.

(Ord. 4170 § 4.02, 1950)

13.24.040 - House sewer—Disconnection reimbursement.

Whenever a house sewer has been disconnected from the public sewer by the city engineer as provided in Section 13.24.030 for failure to comply with the provisions of this chapter, reconnection shall be made only upon issuance of a permit in writing therefor by the city engineer. Before such permit is issued, the applicant shall reimburse the city for the cost of the disconnection made, and the city engineer may require the installation of a manhole for the purpose of measuring the flow, or for making periodic tests of the wastes from such connection.

(Ord. 4170 § 4.03, 1950)

13.24.050 - House sewer—Repair reimbursement.

Whenever a house sewer connection permittee or any other person by reason of violation of this chapter causes obstruction, damage or destruction of a public sewer, he shall reimburse the city for the cost of flushing, cleaning, repairing and reconnection of such sewer made necessary by such violation within 30 days after the city engineer shall render an invoice for same.

(Ord. 4170 § 4.04, 1950)

13.24.060 - Charge for Y or T.

The city engineer shall make a charge of \$7.50 for permission to connect a house sewer to a public sewer at a point where no special Y or T has been previously installed.

(Ord. 5368 § 24, 1978; Ord. 4170 § 4.05, 1950)

13.24.070 - Construction—Reimbursement agreements.

Whenever a contractor has been required by city to install off-site sanitary sewer facilities as a condition precedent to the issuance of a building permit, or as a condition precedent to the approval of a tentative or final subdivision or parcel map, and such contractor has at his own expense constructed such facilities in accordance with the requirements of city, and it is found by the city board of directors that such facilities will

be for the benefit of or usable by other persons or properties in the city, the city board of directors may enter into a reimbursement agreement with such contractor whereby the city will collect from any other person using or connecting with such facilities within a period of 10 years from the dedication of such facilities to city for public use, a charge for making such connection. The amount of the charge made shall be the amount set forth in the reimbursement agreement. No such contract may be entered into unless the other contracting party agrees thereby to dedicate the said sanitary sewer facilities to the city for public use.

(Ord. 4845 § 2 (part), 1967: Ord. 4170 § 4.055(a), 1950)

13.24.080 - Construction—Reimbursement district established.

Upon the execution of such a contract, there shall be established a reimbursement district consisting of those properties that the city board of directors finds will be benefitted by the facilities. Charges shall be levied only upon those persons desiring to connect to said sewer facilities whose property lies in whole or in part within the district. A map of the district shall be maintained in the office of the city clerk for examination by the public. There shall be indicated thereon the amounts or charges necessary to make connection with said sewer facilities and a reference to the contract establishing such charge.

(Ord. 4845 § 2 (part), 1967: Ord. 4170 § 4.055(b), 1950)

13.24.090 - Reimbursement district connection fees.

After the execution of a reimbursement agreement and the filing of the necessary reimbursement district map, no other person, firm or corporation shall connect to the sewer facilities indicated thereon without payment of the charges provided for in such agreement. No sewer connection permit shall be issued by any city or county department, officer or employee until the city clerk has certified that the payment has been made as required; provided, however, that no charge may be made unless and until said facilities have been dedicated to the city for public use; and provided further that no such charge shall be made after 10 years from the dedication of such facilities to city for public use have elapsed.

(Ord. 4845 § 2 (part), 1967: Ord. 4170 § 4.055(c), 1950)

13.24.100 - Sewer reimbursement fund.

There is created a sewer reimbursement fund in the city treasury and all charges made and received in accordance with reimbursement agreements shall be deposited in the fund to be transferred semi-annually to contractors, together with a description of properties for which the payments have been made.

(Ord. 4845 § 2 (part), 1967: Ord. 4170 § 4.055(d), 1950)

13.24.110 - Construction—Reimbursement agreement not required for city.

Nothing in this chapter shall be construed as requiring city to enter into any such reimbursement agreement even though it may have required the installation of off-site sanitary facilities, nor shall the city be liable for reimbursement of the cost of such facilities except from the proceeds of such charges.

(Ord. 4845 § 2 (part), 1967: Ord. 4170 § 4.055(e), 1950)

13.24.120 - Addition to connection charge.

If any of the costs and expenses of the construction of a public sewer is in excess of that portion which the city may have paid under the requirements of Section 3 of Article 9 of the Charter of the city either from its general funds or from moneys derived from a general bond issue, and is in excess of any amount which may have been paid by assessment of the property to pay such costs and expenses the city engineer shall, before issuing a permit to connect to said sewer, receive payment of an amount equal to \$2.00 per front foot of the lot or parcel sought to be connected if the lot or parcel is rectangular and has an average depth of 100 feet or more. If the shape of the lot or parcel is other than the usual rectangular shape or unusual in area and the strict adherence to the above-mentioned provision would require a property owner to pay an amount not commensurate with the benefits to be received, the provisions of this section as to the amount to be charged may be modified as determined by the city engineer.

(Ord. 4170 § 4.06, 1950)

13.24.130 - Chapter administration.

The city engineer shall administer the provisions of this chapter unless otherwise specified herein, and for such purpose shall have the powers of a peace officer.

(Ord. 4170 § 4.07, 1950)

13.24.140 - Delegation of powers.

Whenever a power is granted to, or a duty is imposed upon the city engineer, or any other public officer, the power may be exercised or the duty may be performed by a deputy of said officer or a person authorized by said officer.

(Ord. 4170 § 4.08, 1950)

13.24.150 - Exceptions granted when.

The city engineer may grant an exception to any requirement of this chapter if he finds that literal compliance with such provision is impossible or impractical because of peculiar conditions in no way the fault of the person requesting such exception, and that the purposes of this chapter will be accomplished

and public safety secured by an alternative construction or procedure.

(Ord. 4170 § 4.09, 1950)

13.24.160 - Exemptions designated.

Sewage treatment plants, and sewage pump plants under the jurisdiction of a county sanitation district are exempted from all the provisions of this chapter.

(Ord. 4170 § 4.10, 1950)

13.24.170 - Violation—Penalty.

Any person who violates any provisions of this chapter is guilty of a misdemeanor and upon conviction thereof shall be punishable by a fine not exceeding \$500.00 or by imprisonment in the city jail for a period of not more than 6 months, or by both such fine and imprisonment.

(Ord. 4170 § 4.13, 1950)

13.24.180 - Violation—Continued.

Each day during which any violation of the provisions of this chapter continues shall constitute a separate offense punishable as provided in this chapter.

(Ord. 4170 § 4.14, 1950)

Article II. - Design and Construction

13.24.190 - Main sewers specifications.

- A. All main sewers constructed under contract with the city shall meet the requirements of Specifications No. 31 unless otherwise specifically excepted.
- B. All main sewers constructed by any person including a municipally owned public utility shall meet the requirements of Specifications No. 31 and Ordinance No. 3387, codified at Chapter 12.24.

(Ord. 4170 § 2.01, 1950)

13.24.200 - House sewers—Specifications.

- A. All house sewers from the main sewer to the property line or easement line constructed under contract with the city shall meet the requirements of Specifications No. 31 unless otherwise specifically excepted.
- B.

All house sewers from the main sewer to the property line or easement line constructed by any person including a municipally owned public utility shall meet the requirements of Specifications No. 31 and Ordinance No. 3387 (Excavation Ordinance).

- C. All house sewers from the property line to within 24 inches of the exterior wall of the building or structure shall meet the requirements of Ordinance No. 3881 (Plumbing Code).

(Ord. 4170 § 2.02, 1950)

13.24.210 - House sewers—Existing—Requirements.

The following requirements shall apply to existing house sewers:

- A. If the construction of a new house sewer on a lot is to include any portion of an existing house sewer on such lot, such construction shall be included and accepted only when it meets all the requirements for new house sewers and is of a material acceptable to the superintendent or city engineer.
- B. When it is found necessary to replace any portion of an existing house sewer between the street curb and lot line, all that portion of the house sewer between these limits shall be replaced to meet the requirements for new house sewers.
- C. When it is found necessary to replace any portion of an existing house sewer between the curb and public sewer, all that portion of the house sewer between these limits shall be replaced to meet the requirements for new house sewers.

(Ord. 4170 § 2.03, 1950)

13.24.220 - House sewers—Trunk sewer connections.

All house sewers which are to be connected to a trunk sewer shall include a running trap, the type and location of which shall meet the approval of the city engineer and chief engineer.

(Ord. 4170 § 2.04, 1950)

13.24.230 - House sewers—Unnecessary bends or fittings.

All house sewers shall be laid by the most direct route feasible, free of pinched joints, changes of grade, or unnecessary bends or fittings.

(Ord. 4170 § 2.05, 1950)

13.24.240 - Excavations.

All excavations shall have sufficient width to allow proper workmanship and permit adequate inspection and shall be supported in the manner set forth in the rules, orders and regulations prescribed by the Industrial Accident Commission of the state. Sheet piling and other timbers shall be withdrawn in such a manner as to prevent caving of the walls of the excavation or disturbance of the sewer pipe.

(Ord. 4170 § 2.06, 1950)

13.24.250 - Y or T saddle.

- A. The Y or T saddle shall be installed by cutting a hole in the main line sewer pipe and fitting the saddle snugly in place with heavy (12 gauge) galvanized asphalt painted iron wire bound around the main line pipe and the flange of the saddle. The Y saddle shall be placed in the side of the main line pipe with the Y branch upward at approximately 45 degrees from the horizontal and so as to direct the flow from the house connection sewer down stream into the main sewer. The T saddle shall be placed in the top of the main line sewer pipe. The T saddle shall be used only for the construction of a chimney pipe.
- B. After the saddle is in place, an imbedment of cement concrete shall be placed under and around the main line sewer pipe and saddle as required for a standard chimney pipe in accordance with the standard plan on file in the office of the city engineer. The inside of the joint between pipe and saddle shall be pointed with 1:2 cement mortar.

(Ord. 4170 § 2.07, 1950)

13.24.260 - House sewer—Construction after street dedication.

No person shall connect or cause to be connected any sewer which has been, or may hereafter be, constructed in any street, highway, alley, right-of-way, or other public place prior to the dedication and acceptance of such street, alley, right-of-way or other public place by the board on behalf of the public, with any public sewer of the city, unless such sewer first mentioned shall have been laid under the supervision and/or to the satisfaction of the city engineer and in accordance with all provisions of this chapter.

(Ord. 4170 § 2.08, 1950)

13.24.270 - Connections through adjoining property.

- A. No connection from any building or other structure shall hereafter be made to any public sewer, if such connection or any portion thereof is in, under or upon any lot other than the lot on which such building or structure is located, except a house court or an auto trailer court.
- B.

If a lot or parcel of land requiring a sewer connection is so situated that access to the public sewer is not possible except across some other lot or parcel of land, a sewer connection may be placed in a recorded public easement which includes the right to lay and maintain such connection and is appurtenant to the lot or parcel of land to be served by such sewer connection.

- C. Each building having separate frontage on a public street on which there is a public sewer must be separately connected to the public sewer.

(Ord. 4170 § 2.09, 1950)

13.24.280 - Connecting cesspools or septic tanks.

No person shall connect or cause to be connected any cesspool or septic tank to any public sewer or to any house sewer leading thereto.

(Ord. 4170 § 2.10, 1950)

13.24.290 - Abandoned cesspools, septic tanks, seepage holes or dry wells.

Upon connection of a house sewer to the public sewer, every septic tank, cesspool, seepage hole or dry well which was not constructed of brick or concrete as required by Ordinance No. 3881 as amended, and every dry pit privy hole which has been abandoned and discontinued from use, shall be backfilled solidly with earth to the satisfaction of the superintendent or engineer.

(Ord. 4170 § 2.11, 1950)

13.24.300 - Backwater traps and valves.

In every case where a plumbing outlet or plumbing fixture is installed or located below the elevation of the curb or property line, an approved type of backwater trap or an approved type of backwater sewer valve shall be installed between the outlet and the public sewer in such a manner as to prevent sewage from flowing back or backing up into any such outlet or plumbing fixture. Every such trap or valve shall be installed in the basement, or in a box or manhole of concrete, or cast iron, or other material approved by the superintendent so that it will be readily accessible at all times. The trap or valve shall be placed only in the drain line serving the fixtures that are located below the elevation of the above-mentioned curb or property line and no drainage from fixtures located above this elevation shall pass through such trap or valve.

(Ord. 4170 § 2.12, 1950)

13.24.310 - Interceptors—Capacity.

Every interceptor shall be of proper design and of an adequate size to prevent sand, silt, grit, mineral material, petroleum, solvent, grease or oil from entering the sewer. The size and design shall be as approved by the superintendent and city engineer.

(Ord. 4170 § 2.13, 1950)

13.24.320 - Interceptors—Residuum retention.

Every interceptor shall be so constructed and arranged that flowing wastes will not wash out or carry away any of the grease, sand or petroleum solvents previously collected in such interceptor. The city engineer may require screens to be placed in interceptors to prevent rags from entering the public sewer.

(Ord. 4170 § 2.14, 1950)

13.24.330 - Interceptors—Existing altered when.

Existing interceptors which are found upon inspection to be of inadequate size or of improper design shall be revised as directed by the city engineer within 30 days after notice upon penalty of immediate disconnection from the sewer and fined as provided in Section 13.24.170. Notice of inadequate interception facilities shall be given by registered mail and shall be deemed effective as of the 5th day after receipt of said notice.

(Ord. 4170 § 2.15, 1950)

13.24.340 - Interceptor—Special types.

In event a special type of interceptor is required to adequately protect the sewer, a competent engineer shall be retained to fully investigate the processes at the plant and provide adequate facilities for the retention of undesirable wastes by interceptors or other suitable means. The proposed design shall be submitted to the city engineer for his approval prior to installation and connection to the sewer.

(Ord. 4170 § 2.16, 1950)

13.24.350 - Interceptor—Testing.

The city engineer may adopt, in writing, such test requirements as he finds necessary to determine the collecting efficiency of various types and kinds of interceptors and to establish the rate of flow, grease or sand retention capacity or other rating thereof. The city engineer may revise from time to time, as he finds necessary, such test requirements.

(Ord. 4170 § 2.17, 1950)

13.24.360 - Construction of special structures.

All industrial liquid waste pretreatment plants, grease interceptors, sand interceptors, sewage treatment plants, sewage pumping plants or ejectors, septic tanks, cesspools, dry wells, dilution chambers and neutralization tanks shall be constructed in accordance with Ordinance No. 3881 (Plumbing Code) unless otherwise provided in this chapter.

(Ord. 4170 § 2.18, 1950)

Article III. - Maintenance and Operation

13.24.370 - Discharge—Objectionable materials.

Except as otherwise provided by this section, it is unlawful to place, deposit or discharge or to cause, suffer or permit to be placed, deposited or discharged either directly or indirectly into any public sewer of this city or into any house sewer connection therewith in the city, or on or upon any street, alley or public place or on or upon any private property or any other place in the city in such manner that the same will be permitted to run into any such public sewer or house sewer, any of the following substances:

- A. Any oil, petroleum, naphtha, liquid asphaltum or petroleum product, or any fatty matter, rags, sand, earth or stone dust;
- B. Dead animals, fish, fruit or vegetable matter in any form except garbage deposited into the sanitary sewer system by means of garbage grinders as in this chapter provided;
- C. Any refuse or industrial liquid waste other than domestic sewage that will not readily disintegrate in the sewage treatment plant or that will cause or tend to cause obstructions in the sewer system or the sewage treatment plant or interfere or tend to interfere with the efficient and successful operation of said system or said plant, or cause a potential hazard or objectionable odor;
- D. Any chemicals or waste destructive to masonry;
- E. Grease except in quantities commonly contained in domestic sewage;
- F. Any effluent of a temperature exceeding 140 degrees Fahrenheit;
- G. Any radioactive waste except where special permit has been granted by the city engineer and in type and amounts as specified from time to time by the city engineer. Permission to discharge radioactive waste shall be terminated immediately at the discretion of the city engineer if in his opinion the discharge constitutes or may constitute a public health hazard;
- H.

Any industrial waste including but not limited to mineral salts, molds, or wastes resulting from their manufacture and other products which will tend to sterilize activated sludge, trickling filter slimes, or slime growth on artificial or natural slow sand filters.

(Ord. 4170 § 3.01(a), 1950)

13.24.380 - Discharge—Corrosive and harmful wastes.

Before any person may discharge alkalis, acids or other corrosive or harmful wastes into the public sewer, he shall reduce the biochemical oxygen demand and control the pH to the extent which the city engineer finds adequate taking all circumstances into consideration.

(Ord. 4170 § 3.01(b), 1950)

13.24.390 - Discharge—Unlawful conduct.

Except as provided in Section 13.24.400, it is unlawful for any person to make or maintain any connection with any part of the public sewer for the purpose of discharging sewage or waste which contains any of such objectionable substances mentioned in this section.

(Ord. 4170 § 3.01(c), 1950)

13.24.400 - Discharge—Objectionable substances permit.

- A. Whenever any person desires to make or maintain any connection with any part of the public sewer for the purpose of discharging sewage or waste which contains any of such objectionable substances, such person shall apply to the city engineer for a permit for said purpose. The permit shall be issued only when the city engineer is satisfied that an adequate intercepting appliance has been provided to prevent such objectionable substance or substances from entering the public sewer. The permit shall be issued only upon payment to the city engineer of the sum of \$7.50 and shall expire 1 year after the date of its issuance.
- B. The permit shall be revocable whenever it appears to the city engineer that the holder thereof has violated any provision of this chapter or when such intercepting appliance does not prevent such objectionable substance or substances from entering the public sewer. The permit shall be revoked by registered mail to the permittee at the address set forth in the permit. The permit shall be deemed revoked as of the 5th day after receipt of said notice.
- C. It is unlawful for the holder of any permit issued pursuant to this chapter to fail to maintain such appliance in a satisfactory working condition.
- D. Permits issued under this chapter shall be nontransferable.
- E.

Before granting a permit to any applicant to discharge any industrial liquid waste or industrial sewage into the public sewer, the city engineer shall determine either that the waste is one which will not damage or destroy the public sewer or cause an unwarranted increase in the cost of maintenance of the public sewer or retard or inhibit the treatment of the sewage, or is one that can be made acceptable by pretreatment.
(Ord. 5368 § 25, 1978; Ord. 4170 § 3.01(d), 1950)

13.24.410 - Requirements not applicable to certain persons.

The provisions of this chapter requiring the installation of adequate intercepting appliances and the obtaining of permits shall not apply to any person, firm or corporation maintaining a connection with the public sewer upon the effective date of the ordinance codified herein until the expiration of 60 days from said effective date.

(Ord. 4170 § 3.01(e), 1950)

13.24.420 - Rain and surface water prohibited.

No person shall connect or cause or permit to be connected any roof drain, yard drain or other conduit used for carrying off rain or surface water, with any public sewer or house sewer leading thereto. No person shall cause or permit any indirect connection to the public sewer or house sewer leading thereto by means of which rain or surface waters are permitted to enter the public sewer.

(Ord. 4170 § 3.02, 1950)

13.24.430 - Swimming pool and cooling system waters prohibited.

- A. Unpolluted waters from refrigeration systems, air conditioning systems or industrial cooling operation shall be discharged into a storm sewer or dry well, except as provided in Ordinance No. 3881 (Plumbing Code).
- B. Unpolluted waters from swimming pools shall be discharged into a storm sewer where such sewer is available or into a dry well where space and soil conditions permit the installation of a dry well.

(Ord. 4170 § 3.03, 1950)

13.24.440 - Stopping overflows into public sewers.

Whenever it comes to the attention of the city engineer that sewage is overflowing from any plumbing fixture which is below manhole grade in street or right-of-way due to the backing up of sewage in the public sewer, or due to pressure in the public sewer, or due to any cause whatsoever, except a temporary

stoppage in any such plumbing fixture, the city engineer may order and require such plumbing fixture to be plugged up, or capped, or may require that a backwater trap or backwater sewer valve, required by Section 13.24.300 be installed to prevent such overflow.

(Ord. 4170 § 3.04, 1950)

13.24.450 - Discharge—Garbage allowed.

- A. Garbage resulting from the preparation of any food or drink prepared and served or proposed to be served on the premises may be ground and discharged into the public sewer upon approval of the city engineer and the superintendent as to the fineness of content determined by an analysis made with United States Standard sieves and based on wet drained weights in accordance with the following:
 - 1. Not less than 40% shall pass a No. 8 sieve;
 - 2. Not less than 65% shall pass a No. 3 sieve;
 - 3. Not less than 100% shall pass a ¼ inch screen.
- B. The method of discharge permitted under this section shall be by flushing with water directly into a trapped outlet into the house plumbing leading to the public sewer. The city engineer may limit the permissible quantity of garbage to be disposed of through garbage grinders.

(Ord. 4170 § 3.05, 1950)

13.24.460 - Automobile washing areas.

No person engaged in washing motor vehicles or other equipment, exclusive or incidental to any other business, shall permit any water or effluent from such operation to flow into any public sewer or house sewer unless the washing area is equipped with an approved interceptor. Such washing area shall be roofed over and shall be so constructed as to prevent any water from flowing over any street or public property or any storm or surface water from entering any public sewer.

(Ord. 4170 § 3.06, 1950)

13.24.470 - Cellar and shower drainage.

Cellar drains and showers in basements or yards shall be protected to prevent the admission of sand, detritus and storm or surface water into the public sewer, or into any house sewer leading thereto. When necessary, in the opinion of the city engineer or the superintendent such appurtenances shall be equipped with an approved interceptor.

(Ord. 4170 § 3.07, 1950)

13.24.480 - Steam exhaust and boiler blow-off.

No person shall cause, or permit the exhaust from any steam engine or the blow-off from any boiler to be discharged directly into any public sewer or into any house sewer leading thereto. Such exhaust or blow-off shall first be discharged into a watertight sump which may in turn be connected to the public sewer.

(Ord. 4170 § 3.08, 1950)

13.24.490 - Cesspools prohibited.

- A. Any person owning, using or controlling any premises to which a public sewer is available shall connect to such sewer before the expiration of 12 months after such sewer becomes available to him.
- B. This section shall not apply to persons owning, using or controlling premises which are located in territories which become annexed to the city on or after the effective date of the ordinance codified herein. Such persons, so long as they have a private sewage disposal system, must connect to such sewer before the expiration of 7 years after such sewer becomes available, or when the health department declares any such private sewage disposal system to be a health problem, whichever occurs sooner. In no case shall a new cesspool or other private sewage disposal system be constructed.
- C. For the purpose of this section a public sewer shall be deemed available to any premises if it lies in the street, alley or easement abutting the premises. In the application of this section any rear portion of any lot, regardless of the matter of ownership, shall be deemed to be a part of the premises included within the lot as shown by the recorded subdivision of which it is a part. Should any sewer in front of any premises be of insufficient depth to serve the rear portion of such lot by gravity, any person desiring to install plumbing thereon shall make provision for conveying sewage therefrom to the public sewer by pumping or by transmission to some other public sewer, it being the intent hereof that when any portion of the city has been sewered, cesspools therein shall be prohibited, even though it may not be physically possible to provide gravity sewer service.
- D. Failure to comply with the provisions of this section constitutes a public nuisance.

(Ord. 4810 § 1, 1967; Ord. 4170 § 3.09, 1950)

13.24.500 - Privies unlawful.

It is declared to be a nuisance and it is unlawful for any person to keep or maintain, or suffer or permit to be kept or maintained at or upon any premises in the city owned, occupied or controlled by him or it, any privy or dry closet for the reception of human excrement or fecal matter.

(Ord. 4170 § 3.10, 1950)

13.24.510 - Laundries connected.

It is declared to be a nuisance, and it is unlawful for any person to use or suffer or permit to be used in the city, for the purpose of a laundry or washhouse, any building or premises unless the same is connected with a public sewer, or to convey or suffer or permit to be conveyed any slops, wash water or refuse substance from any laundry or washhouse within the city into any sink, cesspool, pit or on the ground, or in any manner disposing of the same except by conducting the same into a public sewer provided such sewer is available as stated in Section 13.24.490. Where no such public sewer is available, such wastes shall be discharged into a cesspool constructed according to Ordinance No. 3881.

(Ord. 4170 § 3.11, 1950)

13.24.520 - Flushing sewer connection needed when.

Every industrial waste pretreatment plant shall be equipped with an adequate fresh water supply easily available for diluting and flushing, and all sewer connections shall be thoroughly flushed after discharge of each batch of industrial liquid wastes.

(Ord. 4170 § 3.12, 1950)

13.24.530 - Industrial waste pretreatment facilities.

Every industrial waste pretreatment facility shall be adequately maintained to accomplish its intended purpose. Abandonment or failure to properly maintain such equipment shall be cause for immediate revocation of the industrial connection sewer permit and disconnection from the public sewer.

(Ord. 4170 § 3.13, 1950)

13.24.540 - Interceptor—Cleaning.

Every interceptor shall be cleaned by the operator thereof as often as necessary to prevent objectionable materials from entering the public sewer.

(Ord. 4170 § 3.14, 1950)

13.24.550 - Inspection of installations.

The city engineer, the superintendent or the chief engineer may make inspections at any reasonable time of all interceptors or other installations on any premises, and shall require that any such interceptor or other installation be used and maintained as required by this chapter, and be kept in a clean and sanitary

condition, and may prosecute any person managing, operating or having control of any such premises, or portion thereof, for failing, refusing or neglecting to comply with the provisions of this chapter, using the penal provisions of this chapter for any such prosecution.

(Ord. 4170 § 3.15, 1950)

13.24.560 - Maintenance instructions.

The city engineer, the superintendent, or the chief engineer may inspect as often as he deems necessary, every sewage pumping plant, sewage treatment plant, industrial liquid waste pretreatment plant, house sewer, interceptor, dilution basin, neutralization basin, backwater trap or valve, or other similar appurtenances to ascertain whether such facilities are maintained and operated in accordance with the provisions of this chapter. All persons shall permit the city engineer, the superintendent or the chief engineer to have access to all such facilities at all reasonable times.

(Ord. 4170 § 3.16, 1950)

13.24.570 - Sewer removal or damage.

No person shall remove or cause to be removed, or damage or cause to be damaged, any portion of any public sewer, or any house sewer in a public easement, or use or cause to be used, or cause to be taken, any water from any sewer or flushing apparatus for any use whatever.

(Ord. 4170 § 3.17, 1950)

13.24.580 - Opening manholes for dumping purpose.

No person shall open or enter, or cause to be opened or entered, any manhole in any public sewer, to dispose of garbage or other deleterious substances, or storm or surface waters, or for any other like purpose.

(Ord. 4170 § 3.18, 1950)

13.24.590 - Dumping cesspool effluent.

Cesspool effluent which does not contain concentrations of industrial liquid wastes, oil, greases or other deleterious substances, may be dumped into certain specific manholes when permission in writing is secured from the city engineer. No person shall dump cesspool effluent in any manholes other than those designated by the city engineer, or do so without permission in writing. Such permission may be granted only upon application in writing by a person engaged in the business of disposing of such effluent. Such

application shall state the street address of each location from which such effluent is to be obtained. The permit shall give the date and location of the manhole to be used. The city engineer may refuse to grant such permission to any person who fails to comply with provisions of this chapter.

(Ord. 4170 § 3.19, 1950)

13.24.600 - Cleaning manholes.

When cesspool effluent is dumped into a specified manhole under permission from the city engineer, it shall be discharged through a pipe or hose in such a manner that none of the effluent shall be left adhering to the sides or shelf of the manhole, and if any such effluent is inadvertently allowed to adhere to the sides or shelf of the manhole, the manhole shall be thoroughly cleaned with clear water.

(Ord. 4170 § 3.20, 1950)

13.24.610 - House sewer—Working order maintained.

All house sewers and appurtenances thereto, now existing or hereafter constructed, shall be maintained by the owner of the property served in a safe and sanitary condition, and all devices or safeguards which are required by this chapter for the operation thereof shall be maintained in good working order.

(Ord. 4170 § 3.21, 1950)

13.24.620 - Maintenance of plants, interceptors and other facilities.

- A. The requirements contained in this chapter, covering the maintenance of sanitary sewage treatment plants, sewage pumping plants, industrial liquid waste pretreatment plants, dairy screen chambers, interceptors or other appurtenances, shall apply to all such facilities now existing or hereafter constructed. All such facilities shall be maintained by the owner thereof in a safe and sanitary condition, and all devices or safeguards which are required by this chapter for the operation of such facilities shall be maintained in good working order.
- B. This section shall not be construed as permitting the removal or nonmaintenance of any devices or safeguards on existing facilities unless authorized in writing by the superintendent.

(Ord. 4170 § 3.22, 1950)

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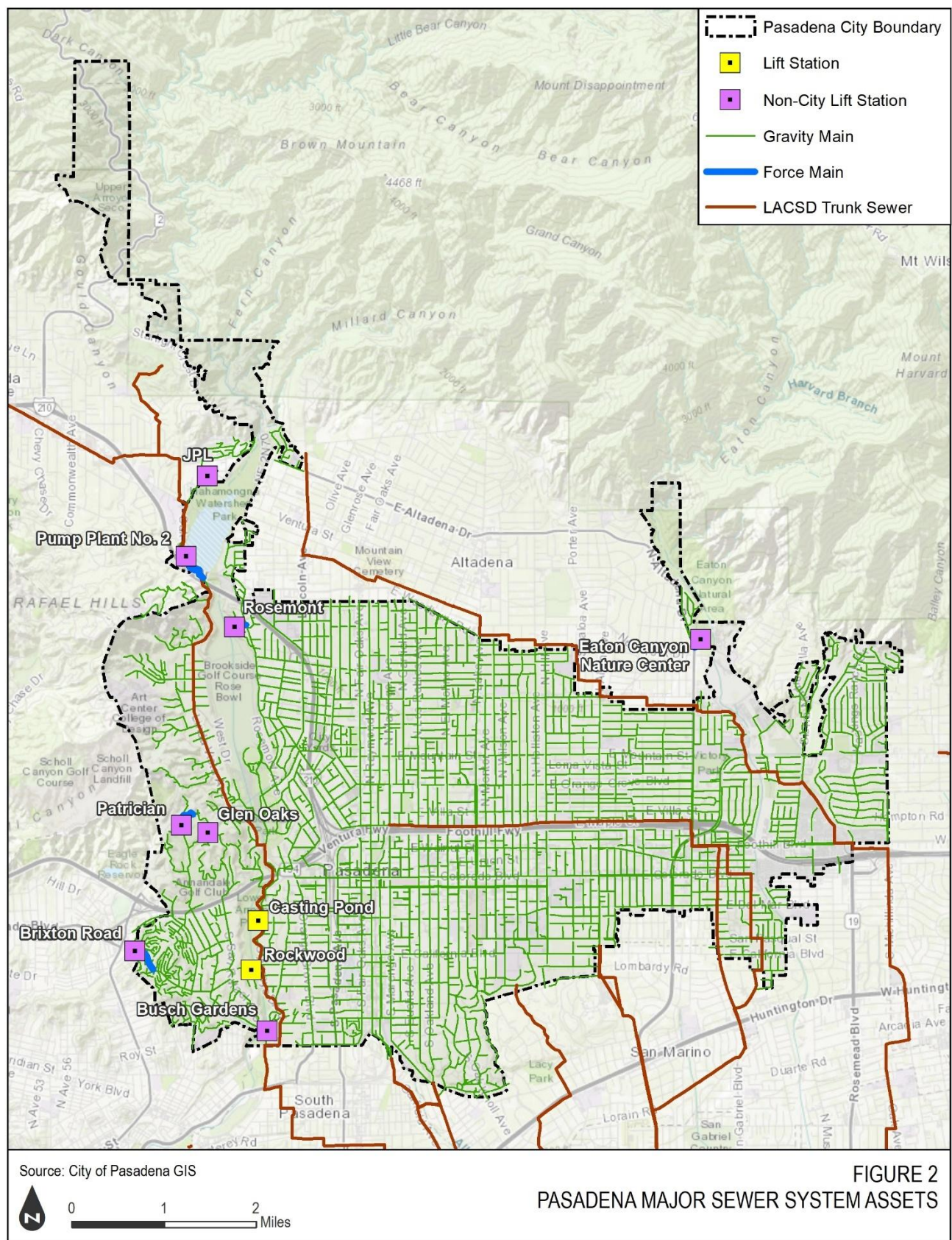


Appendix E

Updated Sewer Collection System Map

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Appendix F

Spill Emergency Response Plan



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PASADENA

City of Pasadena Spill Emergency Response Plan

California State Resources Control Board

Prepared for:

City of Pasadena Department of Public Works
100 N. Garfield Avenue, Room N306
Pasadena, CA 91101

Contact: Richard Yee, P.E., Assistant City Engineer

October 2024

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2 Acronyms and Abbreviations

BMP	Best Management Practice
CCTV	Closed-Circuit Television
CIP	Capital Improvement Program
City	City of Pasadena
CIWQS	California Integrated Water Quality System
CWEA	California Water Environment Association
EOC	Emergency Operations Center
FSE	Food Service Establishment
FY	Fiscal year
GIS	Geographic Information System
GPS	Global Positioning System
Greenbook	Standard Publication for Public Works and Standard Plans for Public Works
I&I	Inflow & Infiltration
LRO	Legally Responsible Official
MACP	Manhole Assessment Certification Program
NASSCO	National Association of Sewer Service Companies
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and Maintenance
OES	Office of Emergency Services (aka Cal OES)
Order	SWRCB Order No. 2022-0103-DWQ adopted December 6, 2022 and effective June 5, 2023
PACP	Pipeline Assessment Certification Program
PD	Police Department
PVC	Polyvinyl chloride
RWQCB	Regional Water Quality Control Board

SERP	Spill Emergency Response Plan
SSMP	Sewer System Management Plan
SWRCB	State Water Resources Control Board
VCP	Vitrified Clay Pipe
WDID	Waste Discharge Identification Number
WDR	Waste Discharge Requirements, also referred to as the Sanitary Sewer Systems Waste Discharge Requirements (SSSWDR)
WWTP	Wastewater Treatment Plant

3 Definitions

Annual Report - A mandatory report in which the Enrollee provides a calendar-year update of its efforts to prevent spills.

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

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

Enrollee - A public, private, or other non-governmental entity that has obtained approval for regulatory coverage under the General Order, including:

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

Exfiltration - The underground exiting of sewage from a sanitary sewer system through cracks, offset or separated joints, or failed infrastructure due to corrosion or other factors.

Governing Entity - A governing entity includes but is not limited to the following:

- A publicly elected governing board, council, or commission of a municipal agency;
- A Department or Division director of a federal or state agency that is not governed by a board;
- A governing board or commission of an organization or association; and
- A private system owner/manager that is not governed by a board.

Lateral (including Lower and Upper Lateral) - An underground segment of smaller diameter pipe that transports sewage from a customer's building or property (residential, commercial, or industrial) to the Enrollee's main sewer line in a street or easement. Upper and lower lateral boundary definitions are subject to local jurisdictional codes and ordinances, or private system ownership. A lower lateral is the portion of the lateral located between the sanitary sewer system main, and either the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations. An upper lateral is the portion of the lateral from the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations, to the building or property.

Legally Responsible Official - An official representative, designated by the Enrollee, with authority to sign and certify submitted information and documents required by the General Order.

Nuisance - California Water Code Section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:

- Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- Occurs during, or as a result of, the treatment or disposal of wastes.

Potential to Discharge, Potential Discharge - Any exiting of sewage from a sanitary sewer system which can reasonably be expected to discharge into a water of the State based on the size of the sewage spill, proximity to a drainage conveyance system, and the nature of the surrounding environment.

Receiving Water - A water of the State that receives a discharge of waste.

Sanitary sewer system - A system that is designed to convey sewage, including but not limited to, pipes, manholes, pump stations, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks, including:

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

For purpose of the Order, sanitary sewer systems include only systems owned and/or operated by the Enrollee.

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

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

Sewage - Sewage and its aspillciated wastewater, is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system.

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

Spill Reporting System - Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.

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

Untreated or partially treated wastewater – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

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

Waste Discharge Identification Number (WDID) – Number which identifies each individual sanitary sewer system enrolled under the General Order. A WDID number is assigned to each enrolled system upon an Enrollee's approved regulatory coverage.

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

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

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

WDR – State Water Resources Control Board (SWRCB) Order No. 2022.0103-DWQ, known as the WASTE DISCHARGE REQUIREMENTS (WDR), which was adopted December 2, 2022 and became effective on June 5, 2023.

4 Spill Emergency Response Plan

This chapter provides an overview and summary of the City's spill response, detection, mitigation, clean up, investigation, documentation, and reporting.

Requirements:

D.6. spill EMERGENCY RESPONSE PLAN: The Plan must include an up-to-date Spill Emergency Response Plan to ensure prompt detection and response to spills to reduce spill volumes and collect information for prevention of future spills. The Spill Emergency Response Plan must include procedures to:

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

4.1 Background

The City of Pasadena (City) Department of Public Works (DPW) operates and maintains its own sanitary collection system. The City's sanitary collection system consists of approximately 328 miles of gravity pipelines within the City's 23.1 square mile sewer service area. The City's wastewater collection system conveys untreated wastewater to Los Angeles County Sanitation District's (LACSD) trunk sewer system via 120 separate connections.

The City of Pasadena collection system is subject to regulation and permitted under the General Order WQ 2022-0103-DWQ and is identified under WDID 4SSO10416. The City will annually review and assess the effectiveness of the Spill Emergency Response Plan (SERP) and update as necessary.

Note: During the 4-year period extending from the beginning of fiscal year (FY) 2020/2021 through the end of FY 2023/2024, the City experienced 15 certified spills from within its sanitary sewer collection system.

4.2 Chain of Communication

The Order requires the chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. **Figure 1-1** contains a flowchart depicting this chain of communication. **Table 1-1** lists contact phone numbers for the parties included in the chain of communication.

Figure 1-1: Spill Response Chain of Communication

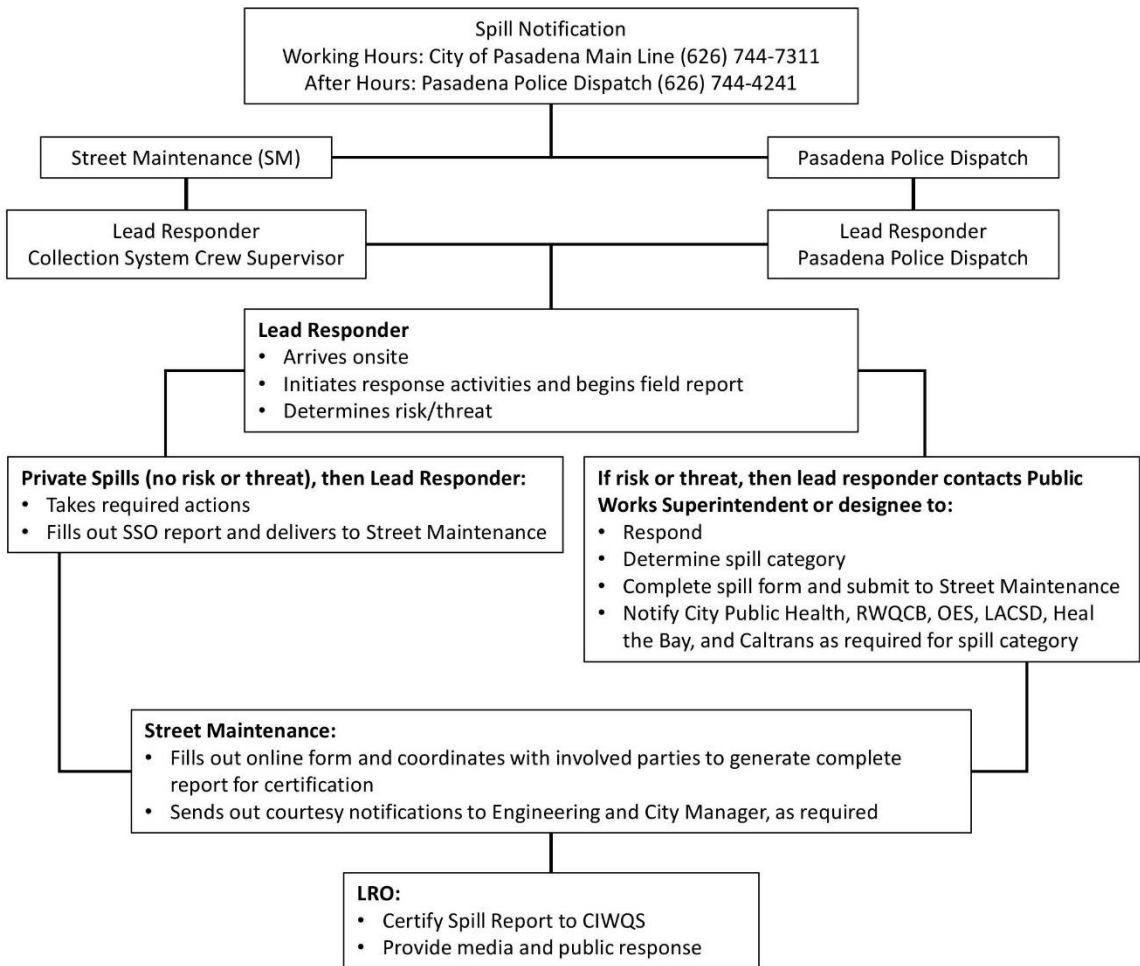


Table 1-1: Contact Numbers for Chain of Communication

Contact	Telephone Number
City of Pasadena Main Line	(626) 744-7311
Public Works Department	(626) 744-3971
Street Maintenance	(626) 255-0778
Police Department Dispatch Center	(626) 744-4241
<u>Active Capital Improvement Program Contractors:</u>	
Southwest Pipeline and Trenchless Corp (Sewer Maintenance Services)	(310) 329-8717
Multi-Tek (Lift Station Maintenance)	(626) 333-2808

4.3 Known Collection System Problems

The following are currently known collection system problems within the City's system:

1. Heavy root intrusion
2. Old and deteriorated pipes and manholes
3. Manhole base erosion
4. Manhole cover failures
5. Cracks and fractures throughout sewer mains

4.4 Causes of Sewer Backups

The following are currently known causes for sewer backups within the City's system:

1. Heavy root intrusion
2. Pipe collapse
3. Construction material failures
4. Grease build-up
5. Structural failures
6. Concrete infiltration caused by Contractors
7. Excess debris
8. Damage due to construction

4.5 Preventative Maintenance

Refer to Section 5.2 of the City's December 2019 SSMP (included in **Appendix E** herein) for the City's preventative maintenance program.

4.6 Spill Detection

Detection of a sanitary sewer spill may occur in numerous ways:

1. If an outside party calls in to report a spill, the Collection System Crew Supervisor in the Public Works/Street Maintenance Division or his/her designee shall be notified immediately.
 - a. If this occurs after hours, the caller is directed to the Police Dispatch who will notify the on-call personnel.
2. The Collection System Crew Supervisor, or his/her designee, upon determining that the sewer problem is the City's responsibility, will mobilize necessary City personnel and equipment to the spill location and contact the City's active sewer maintenance/capital improvement program (CIP) services contractor for emergency service, if needed.
3. If there is a risk or threat to public safety, the Collection System Crew Supervisor will notify the Public Works Superintendent, or his/her designee, to oversee the response.
4. City personnel shall attempt to limit the spread of sewage by safe and appropriate means.
5. If the spill is contained within private property and is the responsibility of the private party. City personnel shall assist the responsible private property owner in contacting a qualified contractor to remove the waste material from their property.
6. City personnel involved in the Sewer Spill Response shall forward a report of the incident to their department head. The report shall detail the cause of the spill, actions taken to limit the spill, damage caused by the spill and action taken to remove the waste.
7. The City's Legally Responsible Official (LRO), or his/her designee, shall report the spill event 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).

Section 4.2 of this Spill Emergency Response Plan details the chain of communication for reporting spills and contact numbers for these points of contact.

Pre-planned coordination and collaboration with the City's stormwater staff will be implemented prior, during, and after a spill event.

4.7 Initial Spill Response

The Sanitary Sewer Overflow Response Procedure presents a strategy for the City of Pasadena to mobilize labor, materials, tools and equipment to correct or repair any condition which may cause or contribute to an un-permitted discharge. The plan considers a wide range of potential system failures that could create a sanitary sewer overflow (spill) to surface waters, land or buildings.

4.7.1 Receipt of Information Regarding a Spill

A spill may be detected by system employees or by others. During regular working hours Street Maintenance is primarily responsible for receiving phone calls from the public of possible spill from the wastewater collection system. After hours, the Police Department Dispatch is the primarily responsible for contacting the necessary personnel to respond to a spill. The Police Dispatch (PD) number is staffed 24 hours a day every day of the year.

1. The telephone operator receiving the call should obtain all relevant information available regarding the overflow including:

- a. Time and date call was received;
- b. Specific location;
- c. Description of problem;
- d. Time possible overflow was noticed by the caller;
- e. Caller's name and phone number;
- f. Observations of the spill (e.g., odor, duration, back or front of property); and
- g. Other relevant information that will enable the responding personnel to quickly locate, assess, contain and stop the overflow.

If the call is received during working hours the SMIWM division telephone operator then records the spill information and creates a work order for assignment to Collection System Crew Supervisor (CSCS). If the call is received after hours and dispatched by the PD, the responding stand-by personnel will document their actions to be recorded at the first available opportunity.

2. Pump station failures are monitored and received by the CSCS. Should there be a failure; the CSCS will immediately initiate the investigation and response action.
3. Spills detected by any personnel in the course of their normal duties shall be reported immediately to the SMIWM division. Dispatch personnel should record all relevant spill information and dispatch the CSCS or appropriate crew.
4. The CSCS shall confirm the spill. Until verified, the report of a possible spill will not be referred to as a "sanitary sewer overflow or a spill."
5. Spill incidents will be tracked on the City of Pasadena's daily sewer maintenance sheet and then downloaded to the Collection System Sections software tracking system

4.7.2 Dispatch of Appropriate Personnel to Site, Site Assessment and Coordination

Failure of any element within the wastewater collection system that threatens to cause or causes a spill will trigger an immediate response from the CSCS, who is on call for duty, to isolate and correct the problem. Personnel and equipment shall be available to respond to any spill location. Response personnel will be dispatched to any site of a reported spill immediately.

1. Dispatching Personnel

- Dispatchers should receive notification of sewer overflows as outlined above in Section 4.7.1 entitled "Receipt of Information Regarding a Spill" and dispatch the CSCS and/or the appropriate personnel and resources as required.
- Dispatchers shall notify the appropriate manager or supervisor by any means necessary regarding spills and field personnel locations.

2. Personnel Instructions and Work Orders

- Responding crews should be dispatched by the Call Center (311), or any means necessary. Street

Maintenance should receive instructions from sewer investigators or their supervisors regarding appropriate personnel, materials, supplies, and equipment needed.

- Dispatchers shall ensure that the entire message has been received and acknowledged by the personnel who are dispatched. All standard communications procedures should be followed. All personnel being dispatched shall proceed immediately to the site of the overflow. Any delays or conflicts in assignments must be immediately reported to the CSCS for resolution.
- Response personnel should in all cases report their findings, including possible damage to private and public property, to the CSCS immediately upon making their investigation. If the CSCS has not received findings from the field personnel within 30 minutes of being dispatched, the CSCS shall contact the response personnel to determine the status of the investigation.
- CSCS shall refer all pertinent information to the Public Works Superintendent, including any details of the problems described by customers.

3. Additional Resources

- CSCS should receive and shall convey to appropriate parties' requests for additional personnel, material, supplies, and equipment from crews working at the site of spill.

4. Site Assessment

City staff shall investigate and assess the site conditions where the spill occurred using the following methods:

- Determine the Category of the spill. (Refer to Section 4.9, "Spill Categories," for more information.)
- Determine the size and extent of the spill.
- Determine any potential hazards, such as vehicle and pedestrian traffic.
- Identify receiving water that may be impacted by spill.
- Document and recording all pertinent information of the spill.
- Implement traffic control measures as needed per the WATCH Manual. Should you need traffic or crowd control assistance, call Police dispatch at (626) 744-4501 to assist with street closure, traffic diversion, or crowd control.
- Post warning signs and block contaminated areas with yellow caution tape and/or barricades if spill poses a public threat or it has or will reach waters of the State.
- If spill overflow location calls for it, the CSCS will contact the Public Works Superintendent to arrange for a partial activation of the Emergency Operations Center (EOC).

5. Preliminary Assessment of Damage to Private and Public Property

- The response personnel shall not enter private property for purposes of assessing damage. It is the primary responsibility of the response personnel to contain sewage and attempt to clear any blockage in the collection system.

- Given consent by the private property owners, the Public Works Superintendent is responsible for entering private property taking the appropriate still photographs and/or video footage. If possible, pictures should be taken of all indoor and outdoor areas the spill has impacted.
- Thoroughly document the nature and extent of impacts.
- Available photographs are to be forwarded to Public Works Superintendent for documentation purposes.

6. Field Supervision and Inspection

- The Public Works Superintendent, who is on call, should visit the site of the spill to ensure that provisions of this SERP and other directives are met.
- The Public Works Superintendent is responsible for confirming that the spill is documented correctly, and that information conveyed to the SMIWM Division Administrator.

7. Coordination with Hazardous Material Response

- Upon arrival at the scene of a sewer spill, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g., gasoline) not common to the sewer system be detected, the CSCS or the response personnel should immediately contact their supervisor for guidance before taking further action.
- Should the supervisor determine the need to alert the hazardous material response team, the CSCS and/or personnel on the scene shall await the arrival of the City of Pasadena's Hazardous Materials Personnel (COPHMP) to take over the scene.
- Remember that any vehicle engine, portable pump or open flame (e.g., cigarette lighter) can provide the ignition for an explosion or fire should flammable fluids or vapors be present. Keep a safe distance and observe cautiously until assistance arrives.
- Upon arrival of the COPHMP, the CSCS and/or Collection System Personnel will take direction from the person with the lead authority of that team. Only when that authority determines it is safe and appropriate for the CSCS and/or Collection System Personnel to proceed under the SERP with the containment, clean-up activities and correction.

4.8 Spill Correction and Containment

Spills of various volumes occur from time to time in spite of concerted prevention efforts. Spills may result from blocked sewers, pipe failures, or mechanical malfunctions among other natural or man-made causes. City of Pasadena is constantly on alert and should be ready to respond upon notification and confirmation of a spill.

This section describes specific actions to be performed by the crews during a spill. The objectives of these actions are:

- To protect public health, environment and property from sewage spills and restore surrounding area back to normal as soon as possible;
- To establish perimeters and control zones with appropriate traffic cones and barricades, vehicles or use

of natural topography (e.g., hills, berms);

- To promptly notify the regulatory agency's communication center of preliminary spill information and potential impacts;
- To contain the sewer spill to the maximum extent possible including preventing the discharge of sewage into surface waters; and
- To minimize the City of Pasadena's exposure to any regulatory agency penalties and fines.

Under most circumstances, the City of Pasadena will handle all response actions with its own maintenance forces. They have the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response is to ensure that the temporary actions necessary to divert flows and mitigate or control the problem. For example, repair of a force main could require the temporary shutdown and diversion of the flow at an upstream location. If the closure is not handled properly, sewage system back-ups may create other SSO.

4.8.1 Responsibilities of Response Crew upon Arrival

It is the responsibility of the first personnel who arrive at the site of a sewer spill to protect the health and safety of the public by mitigating the impact of the overflow to the extent possible. Should the spill not be the responsibility of City of Pasadena but there is imminent danger to public health, public or private property, or to the quality of waters of the State, then prudent emergency action should be taken until the responsible party assumes responsibility and provides actions.

It should be noted that in case of emergency when public health, safety and welfare is jeopardized as declared by the Health Department, the following parties are empowered as Peace Officers to enter into private properties for immediate spill response: Police Officers, Fire Fighters, City Engineer and/or Public Works Director, and Health Officials.

Upon arrival at a spill, the response crew should do the following:

- Determine the cause of the spill, e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.;
- Once cause is determined, ownership of the problem needs to be identified.
- Identify and request, if necessary, assistance or additional resources to correct and/or contain spill or to assist in the determination of its cause;
- Determine if private property is impacted. If yes, the dispatcher should be informed so that the Pasadena Health Department may be advised.
- Upon determination of private property being damaged as a result of City of Pasadena collection system generated spill, the CSCS will contact a water damage clean-up contractor to execute emergency clean up at City expense.
- Take immediate steps to stop the spill, e.g. relieve pipeline blockage, manually operate pump station controls, repair pipe, etc. Extraordinary steps may be considered where spills from private property threaten public health and safety (e.g., a spill running off of private property into the public right-of-way);
- If the cause is determined to be private generated spill, and the damage is limited to the property, upon request the CSCS may provide a list of contractors to assist with clean up and/or pipe clearance.
- If necessary, request additional personnel, materials, supplies, or equipment from Departments of Police, Fire and Health that will expedite and minimize the impact of the overflow, such as traffic diversion, crowd control, and street closure.

4.8.2 Containment Procedures

Containment of the spill is the top priority. City staff respond initially to spill calls and perform spill to correct blockages, perform spill recovery and any necessary emergency repairs. If the City crews require additional support, they may contact the City's active pipeline CIP contractor for emergency support. The City's active CIP contractor varies per fiscal year. The City's current emergency pipeline contractor and contact information are listed in this section by the City and are noted below:

Active CIP Contractor	Southwest Pipeline and Trenchless Corp	(310) 329-8717
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The City's crew will attempt to keep the spill in as small an area as possible. If reasonable, the crew should attempt to keep the spill in the street and out of the storm drain or other surface water bodies. To ensure the spill is contained, the crew will use the following methods:

1. Contain the spill immediately. Contain sewage on the ground using a manmade berm if applicable.
2. Isolate, contain, and/or divert sewage flow from any open channels and storm drain structures using sandbags, inflatable dams, or soil barriers. Sandbags or absorbent material can be used around the spill to collect the sewage and prevent it from spreading.
3. Block the storm drain openings or divert flow with sandbags and plastic sheets, which are available at several locations around the City. If reasonable, keep the flow contained on the street. Pay special attention to blocking storm drain inlets of any kind, both downstream and upstream of the spill. Setup traffic control per the WATCH Manual. Should you need traffic or crowd control assistance, call police dispatch at (626) 744-4501.
4. Should the spill take place in an area not normally accessible to the public (i.e. field, etc.) the crew will use any reasonable means to pool the flow in that area for recovery.
5. Capture the spill.
 - a. If necessary, berm flow and start pumping into the closest clear and flowing manhole.
 - b. Contact the Public Works Superintendent at (626) 744-4808.
 - c. Evaluate the sewer system spill rate. The most senior employee on scene will evaluate the spill rate.
6. Determine the source and/or cause of the spill (i.e., evaluate type and amount of debris, illegal activities, etc.). City staff may need to observe downstream manholes to establish the location of the cause of the spill such as a blockage.
 - a. If the cause is determined to be privately generated, and the damage is limited to the property, upon request the CSCS may provide a list of contactors to assist with clean up and/or pipe clearance.
7. Clear the obstruction and restore flow.
 - a. Restore system flow by hydro jetting, rodding, open cut excavating, or any other means to clear the blockage or failure point.
 - b. If necessary, City Staff should set up a hydro jetter downstream of the blockage and jet upstream from a clear manhole.
 - c. Capture as much of the material causing the blockage as possible.
 - d. If unable to relieve the blockage, request immediate assistance from additional staff and appropriate equipment.
 - e. If still unable to clear the blockage, request immediate assistance with the establishment of bypass pumping and CCTV support to determine the problem.
 - f. If engineering consultation is necessary, contact the Public Works Superintendent (or Public

Works Director if he/she cannot be reached). He/she shall initiate an emergency work order to the City's on-call contractor to repair the pipe.

- g. Ensure the downstream manholes are clear and flowing.
8. Should the flow be too much to be contained in the street and is identified as a danger to the public the crew will allow the flow to enter the storm drain or catch basin. The crew will plug upstream and downstream portions of impacted storm drains or catch basins and recover it from that point using a vacuum truck and/or set up a diversion to a downstream manhole.
9. If necessary, request additional personnel, materials, supplies, or equipment from Departments of Police, Fire and Health that will expedite and minimize the impact of the spill, such as traffic diversion, crowd control, and street closure.
10. Upon determining and correcting the source and/or cause of the spill, a sample of the sewage may be taken as evidence for possible analysis.
11. All sewage shall be captured and discharged into the closest clear and flowing manhole. Any contaminated materials unfit for the sewer and likely to cause blockages shall be transported to a local landfill for ultimate disposal. See Section 4.9 for treatment in dry or wet weather conditions and collection instructions.
12. Estimate volume of the spill as detailed in Section 4.16.2.
13. Notify regulatory agencies about the spill and follow any additional instructions they may have.

4.8.3 Sewer Bypassing

If the spill involves damage to or collapse of a pipeline, or the spill has been determined to be prolonged for any reason, and a by-pass is necessary:

1. By-pass action is to be administered, as soon as conditions safely allow, by City personnel at the location where the damaged pipeline occurs.
2. Place appropriate pumps and hoses to keep sewage in the sewerline. Appropriate measures shall be taken to determine the proper size and number of pumps required to effectively handle the sewage flow. The City is considering keeping a list of contacts for equipment rental companies or contractors in case additional pumps, piping, or hoses are required to conduct a bypass. If this list is created, it will be in the change log.
3. Continuous or periodic monitoring of the by-pass pumping operation shall be implemented as required.
4. Perform repairs to the damaged sewerline as soon as conditions safely allow and as resources are available.
5. Regulatory agency issues shall be addressed in conjunction with emergency repairs.
6. If engineering consultation is necessary, the City has a list of On-Call Engineering Firms. The following includes a current list of the City's On-Call General Civil Engineering Firms:

On-Call Engineering Firm(s)	Phone
Dudek	(760) 942-5147

4.9 Recovery and Clean-Up (Mitigation)

1. **If the spill occurs during dry weather conditions:**

- a. If necessary, Police Officers should be dispatched to assist street closure, traffic diversion, or crowd control.
- b. The spill site is to be secured to prevent contact by members of the public until the site has been thoroughly cleaned.
- c. Once the spill has been eliminated, use rakes, brooms, and other applicable tools to scrape up and remove all solids and debris and transported for proper disposal.
- d. Any remaining standing sewage shall be vacuum pumped and discharged into the closest manhole (ensure it is clear and flowing).
- e. Any contaminated soil shall have free standing sewage or water vacuumed up, lime applied, allowed to dry, and then removed (as necessary) by means of heavy equipment and transported to a local landfill for ultimate disposal.
- f. Any contaminated structures such as streets, sidewalks, buildings, etc., shall be disinfected by pressure spraying with a 25 ppm sodium hypochlorite (liquid bleach) solution. After providing a contact time of 1 hour, the disinfected structures shall be rinsed with city water, and the wash water vacuumed and disposed of into the closest manhole (ensure it is clear and flowing).
 - i. BEFORE PRESSURE WASHING CONTAMINATED AREA, ALL CONTAMINATED MATERIALS AND CONTAMINATED SOIL MUST BE REMOVED AND CATCH BASINS MUST BE BLOCKED. VACUUM MUST BE READY TO PICK UP WATER FROM PRESSURE WASHING. No water, sewage, bleach, or containment materials are to be washed into the storm drain system.
 - ii. If the spill occurred in a heavily populated area or is within 100 feet of surface water, bleach should not be used.
- g. If wastewater enters the storm drain or catch basin, a vactor truck may be used to vacuum the sump at a downstream catch basin, while clean water is used to flush the curb, gutter, and pipe upstream.
- h. Leave the area as clean as possible picking up rags, papers, etc. Emphasis should be placed on removing all materials that are on or around the contaminated area.
- i. Restore the area to its original condition, or as close as possible.
- j. Documentation and recording of all pertinent information of the spill shall be completed prior to leaving the site.

2. If the spill occurs during wet weather conditions:

- a. If necessary, Police Officers should be dispatched to assist street closure, traffic diversion, or crowd control.
- b. The spill site is to be secured to prevent contact by members of the public until the site has been thoroughly cleaned.
- c. Once the spill has been eliminated, use rakes, brooms, and other applicable tools to scrape up and remove all solids and debris and transported for proper disposal.
- d. Any remaining standing sewage shall be vacuum pumped and discharged into the closest clear and flowing manhole.
- e. Any contaminated soil shall have free standing sewage or water vacuumed up, lime applied, allowed to either dry or sit for an hour, and then removed (as necessary) by means of heavy equipment and transported to a local landfill for ultimate disposal.
 - i. Omit lime application during heavy storm events with heavy runoff, where the surface water cannot be contained.
- f. Any contaminated structures such as streets, sidewalks, buildings, etc., shall be cleaned with clean water. Avoid using bleach during wet weather as the bleach can harm the environment.
- g. If wastewater enters the storm drain or catch basin, a vactor truck may be used to vacuum the sump at a downstream catch basin, while clean water is used to flush the curb, gutter, and pipe

upstream.

- h. Leave the area as clean as possible picking up rags, papers, etc. Emphasis should be placed on removing all materials that are on or around the contaminated area.
- i. Restore the area to its original condition, or as close as possible.
- j. Documentation and recording of all pertinent information of the spill shall be completed prior to leaving the site.
 - i. If a spill is caused by lack of capacity during wet weather conditions, document the storm event and forward information to the Public Works Manager.

4.10 Spill Categories

Per the Reissued WDR, there are now four (4) categories of spills. Individual spill notification, monitoring and reporting must be in accordance with the following spill categories:

4.10.1 Category 1 Spill

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

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

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

A spill from a City-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the City will report all Category 1 spills per Appendix B, Section B-1 of this document.

4.10.2 Category 2 Spill

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

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

4.10.3 Category 3 Spill

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

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

4.10.4 Category 4 Spill

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

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

4.11 Spill Reporting and Tracking

Spill documentation shall be completed by the CSCS and reviewed by the Public Works Superintendent. Public Works Supervisor shall promptly notify the Street Maintenance (SM) Division Administrator when the overflow is eliminated. Information regarding the spill should include the following:

1. Indication that the spill had reached surface waters, i.e., all spills where sewage was observed running to surface waters or a drainage system where the flows were not fully captured, or there was obvious indication (e.g. sewage residue) that sewage flowed to surface waters; and
2. Indication that the spill had not reached surface waters. Guidance in characterizing these spills to include:
 - a. Sewage spills to covered storm drains (with no public access) where personnel verify, by inspection, that the entire volume is contained in a sump or impoundment and where complete clean-up occurs leaving no residue.
 - b. Preplanned or emergency maintenance jobs involving bypass pumping if access by the public to a bypass channel is restricted and subsequent complete clean-up occurs leaving no residue (Any preplanned bypass under these circumstances will not be considered spill); and
 - c. Spills where observation or on-site evidence clearly indicates all sewage was retained on land and did not reach a surface water and where complete cleanup occurs leaving no residue.
3. Determination of the start time of the spill by one of the following methods:
 - a. Date and time information received and/or reported to have begun and later substantiated by the CSCS or response crew;
 - b. Visual observation.
4. Determination of the stop time of the spill by one of the following methods:
 - a. When the blockage is cleared or flow is controlled or contained; or
 - b. The arrival time of the CSCS or response crew, if the spill stopped between the time it was reported and the time of arrival.
5. Visual observations, such as:
 - a. An estimation of the rate of spill in gallons per minute (GPM) by one of the following criteria:
 - i. Direct observations of the overflow; or

- ii. Measurement of actual overflow from the sewer main.
6. Determination of the volume of the sewer overflow:
 - a. When the rate of spill is known, multiply the duration of the spill by the spill rate; or
 - b. When the rate of spill is not known, investigate the surrounding area for evidence of ponding or other indications of spill volume; and
 - c. Refer to Section 4.16.2 for Spill Volume Estimation.
7. Photographs of the event, when possible.
8. Assessment of any damage to the exterior areas of public/private property. CSCS shall enter private property for purposes of estimating damage to structures, floor and wall coverings, and personal property.

4.12 Summary of Notification, Reporting, Monitoring, and Recordkeeping Requirements

The following tables provide a summary of notification, monitoring, reporting, and recordkeeping requirements, by spill category, and for City-owned laterals, for quick reference purposes only.

4.12.1 Notification and Reporting Requirements

Table 6-1: Spill Category 1: Spills to Surface Waters

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION	<p>Within two (2) hours of the City's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters:</p> <p>Notify the California Office of Emergency Services and obtain a notification control number.</p> <p>Within 24 hours:</p> <p>Notify RWQCB Region 4, Pasadena Police Department, Pasadena Environmental Services, LA County Public Health, and Caltrans District 7 (if applicable).</p>	<ul style="list-style-type: none"> • Call Cal OES at: (800) 852-7550 • Call or email RWQCB Region 4 at: (213) 576-6600 or rb4-ssswdr@waterboards.ca.gov • Call Pasadena Police Department at: (626) 744-4501 • Call Pasadena Public Health at: (626) 744-6000 • Call LA County Public Health at: (888) 700-9995 • Call Caltrans District 7 (if applicable) (213) 897-3656 <p>See Appendix A.</p>

ELEMENT	REQUIREMENT	METHOD
REPORTING	<ul style="list-style-type: none"> • Submit Draft Spill Report within three (3) business days of the City's knowledge of the spill; • Submit Certified Spill Report within 15 calendar days of the spill end date; • Submit Technical Report within 45 calendar days after the spill end date for a Category 1 spill in which 50,000 gallons or greater discharged to surface waters; and • Submit Amended Spill Report within 90 calendar days after the spill end date. 	<p>Enter data into the online CIWQS Sanitary Sewer System Database¹</p> <p>(http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s)².</p> <p>See Appendix B, Section B-1.</p>
WATER QUALITY MONITORING	<ul style="list-style-type: none"> • Conduct spill-specific monitoring; • Conduct water quality sampling of the receiving water within 18 hours of initial knowledge of spill of 50,000 gallons or greater to surface waters. 	<p>Water quality records shall be maintained and uploaded into CIWQS as a part of Reporting requirement above.</p>
RECORD KEEPING	<ul style="list-style-type: none"> • Spill event records • Total annual spill records • Collection system telemetry records if relied upon to document and/or estimate spill Volume 	<p>Self-maintained records shall be available during inspections or upon request.</p> <p>See Section 4.15.</p>

¹ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

² The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

Table 6-2: Spill Category 2: Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION	<p>Within two (2) hours of the City's knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p> <p>Within 24 hours:</p> <p>Notify RWQCB Region 4, Pasadena Police Department, Pasadena Environmental Services, LA County Public Health, and Caltrans District 7 (if applicable).</p>	<ul style="list-style-type: none"> • Call or email RWQCB Region 4 at: (213) 576-6600 or rb4-ssswdr@waterboards.ca.gov • Call Pasadena Police Department at: (626) 744-4501 • Call Pasadena Public Health at: (626) 744-6000 • Call LA County Public Health at: (888) 700-9995 • Call Caltrans District 7 (if applicable) (213) 897-3656 <p>See Appendix A.</p>
REPORTING	<ul style="list-style-type: none"> • Submit Draft Spill Report within three (3) business days of the City's knowledge of the spill; • Submit Certified Spill Report within 15 calendar days of the spill end date; and • Submit Amended Spill Report within 90 calendar days after the spill end date. 	<p>Enter data into the online CIWQS Sanitary Sewer System Database³</p> <p>(http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s)⁴.</p> <p>See Appendix B, Section B-2.</p>
WATER QUALITY MONITORING	<ul style="list-style-type: none"> • Conduct spill-specific monitoring; 	<p>Water quality records shall be maintained and uploaded into CIWQS as a part of Reporting requirement above.</p>
RECORD KEEPING	<ul style="list-style-type: none"> • Spill event records • Total annual spill records • Collection system telemetry records if relied upon to document and/or estimate spill Volume 	<p>Self-maintained records shall be available during inspections or upon request.</p> <p>See Section 4.15.</p>

³ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

⁴ The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

Table 6-3: Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION	Not Applicable	Not Applicable
REPORTING	<ul style="list-style-type: none"> Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occur; and Submit Amended Spill Reports within 90 calendar days after the Certified Spill Report due date. 	<p>Enter data into the online CIWQS Sanitary Sewer System Database⁵ (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s)⁶.</p> <p>See Appendix B, Sections B-3 and B-5.</p>
WATER QUALITY MONITORING	<ul style="list-style-type: none"> Conduct spill-specific monitoring; 	Water quality records shall be maintained and uploaded into CIWQS as a part of Reporting requirement above.
RECORD KEEPING	<ul style="list-style-type: none"> Spill event records Total annual spill records Collection system telemetry records if relied upon to document and/or estimate spill Volume 	<p>Self-maintained records shall be available during inspections or upon request.</p> <p>See Section 4.15.</p>

Table 6-4: Spill Category 4: Spills Less Than 50 Gallons That Do Not Discharge to Surface Waters

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION	Not Applicable	Not Applicable
REPORTING	<ul style="list-style-type: none"> If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer 	Enter data into the online CIWQS Sanitary Sewer System Database ⁷

⁵ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

⁶ The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

⁷ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

ELEMENT	REQUIREMENT	METHOD
	<p>System Database, within 30 days after the end of the calendar month in which the spills occurred.</p> <ul style="list-style-type: none"> • Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. 	<p>(http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s)⁸.</p> <p>See Appendix B, Sections B-4, B-6, and B-7.</p>
WATER QUALITY MONITORING	<ul style="list-style-type: none"> • Conduct spill-specific monitoring; 	<p>Water quality records shall be maintained and uploaded into CIWQS as a part of Reporting requirement above.</p>
RECORD KEEPING	<ul style="list-style-type: none"> • Individual spill event records • Total annual spill records • Collection system telemetry records if relied upon to document and/or estimate spill Volume 	<p>Self-maintained records shall be available during inspections or upon request.</p> <p>See Section 4.15.</p>

Table 6-5: City Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION	<p>Within two (2) hours of the City's knowledge of a spill of 1,000 gallons or greater, from a City- owned and/or operated lateral, discharging or threatening to discharge to waters of the State:</p> <p>Notify California Office of Emergency Services and obtain a notification control number.</p> <p>Within 24 hours:</p> <p>Notify RWQCB Region 4, Pasadena Police Department, Pasadena Environmental Services, LA County Public Health, and Caltrans District 7 (if applicable).</p> <p>Not applicable to a spill of less than 1,000 gallons.</p>	<ul style="list-style-type: none"> • Call Cal OES at: (800) 852-7550 • Call or email RWQCB Region 4 at: (213) 576-6600 or rb4-ssswdr@waterboards.ca.gov • Call Pasadena Police Department at: (626) 744-4501 • Call Pasadena Public Health at: (626) 744-6000 • Call LA County Public Health at: (888) 700-9995 • Call Caltrans District 7 (if applicable) (213) 897-3656 <p>See Appendix A.</p>

⁸ The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

ELEMENT	REQUIREMENT	METHOD
REPORTING	<ul style="list-style-type: none"> • Upload and certify a report, in an acceptable digital format, of all lateral spills (that do not discharge to a surface water) to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. • Report a lateral spill of any volume that discharges to a surface water as a Category 1 spill. 	<p>Enter data into the online CIWQS Sanitary Sewer System Database⁹ (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s)¹⁰.</p> <p>See Appendix B, Sections B-6 and B-7</p>
WATER QUALITY MONITORING	<ul style="list-style-type: none"> • Conduct visual monitoring. 	<p>Water quality records shall be maintained and uploaded into CIWQS as a part of Reporting requirement above.</p>
RECORD KEEPING	<ul style="list-style-type: none"> • Individual spill event records • Total annual spill records • Collection system telemetry records if relied upon to document and/or estimate spill Volume 	<p>Self-maintained records shall be available during inspections or upon request.</p> <p>See Section 4.15.</p>

4.13 Notification

Appendix A of this Spill Emergency Response Plan details the notification requirements for reporting spills.

4.14 Reporting

Appendix B of this Spill Emergency Response Plan details the reporting requirements for spills.

4.15 Monitoring

Appendix C contains the City's Water Quality Monitoring Plan, which will be implemented immediately upon discovery of any Category 1 sewage spill in which an estimated 50,000 gallons or greater are discharged into a surface water.

⁹ In the event that the CIWQS database is not available, the City will notify SWRCB by phone and will fax or e-mail all required information to the RWQCB office in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS database when it becomes available. A copy of all documents shall be retained in the spill file.

¹⁰ The City always has at least one LRO. Any change in the LRO(s) including deactivation or a change to contact information, will be submitted to the SWRCB within 30 days of the change by calling (866) 792-4977 or emailing help@ciwqs.waterboards.ca.gov

4.16 Spill-Specific Monitoring Requirements

4.16.1 Spill Location and Spread

The City shall visually assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools. The City shall document the critical spill locations, including:

- Photography and GPS coordinates for:
 - The system location where spill originated.
 - For multiple appearance points of a single spill event, the points closest to the spill origin.
- Photography for:
 - Drainage conveyance system entry locations,
 - The location(s) of discharge into surface waters, as applicable,
 - Extent of spill spread, and
 - The location(s) of clean up.

4.16.2 Spill Volume Estimation

To assess the approximate spill magnitude and spread, the City shall estimate the total spill volume using updated volume estimation techniques, calculations, and documentation for electronic reporting. The City utilizes direct measurement based on container volume as well as dipstick measurements. The estimated spill volume is calculated by the rate at which the manhole fills during the spill, using the volume inside the manhole. The City shall update its notification and reporting of estimated spill volume (which includes spill volume recovered) as further information is gathered during and after a spill event.

4.17 Public Access and Warning

1. Post warning signs at the site for the public to stay out of the area and block contaminated areas with yellow caution tape and/or barricades if spill poses a public threat or it has or will reach waters of the State.
2. Use traffic cones, barricades, or warning tape to limit pedestrian and vehicle traffic access to affected areas.
3. If the spill discharges into surface waters or waters of the State, closures shall occur 100 feet upstream and downstream of the spill, unless regulatory agencies provide alternative instructions. Signage shall occur at the discharge point, upstream, and downstream of the spill.
4. Warning signs and other public notices shall remain in effect until there is no further risk to public health and the environment.
5. The City's Public Information Office through the City Manager's Office is to communicate to the public.

4.18 Investigation and Documentation

For each spill, the City is to:

1. Determine the Category of the spill.
2. Determine the size and extent of the spill.
3. Determine any potential hazards, such as vehicle and pedestrian traffic.
4. Identify receiving water that may be impacted by spill.

5. Document and recording all pertinent information of the spill.
6. Determine the cause of the spill
7. Document findings of the investigation on the Public Works Emergency Call Out Sheet.
8. Determine what, if any, necessary repairs are needed.
9. Budget and schedule repairs, if required.

4.18.1 Recordkeeping Requirements

The City shall maintain records to document compliance with the provisions of the General Order, and previous General Order 2006-0003-DWQ as applicable, for each sanitary sewer system owned, including any required records generated by a City's contractor(s).

4.18.1.1 Recordkeeping Time Period

The City shall maintain records of this Spill Emergency Response Plan for five (5) years.

4.18.1.2 Availability of Documents

The City shall make the records readily available, either electronic or hard copies, for review by Water Board staff during onsite inspections or through an information request.

4.18.1.3 Spill Reports

The City shall maintain records for each of the following spill-related events and activities:

- Spill event complaint, including but not limited to records documenting how the City responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
 - a. Date, time, and method of notification,
 - b. Date and time the complainant first noticed the spill, if available,
 - c. Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available,
 - d. Complainant's contact information, if available, and
 - e. Final resolution of the complaint;
- Records documenting the steps and/or remedial action(s) undertaken by the City, using all available information
- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated;
- All California Office of Emergency Services notification records, as applicable; and
- Records, in accordance with the Monitoring Requirements, once developed.

4.18.2 Recordkeeping of Category 4 Spills and Non-Category 1 Lateral Spills

The City must maintain the following records for each individual Category 4 spill and for each individual non-Category 1 City-owned and/or operated lateral spill, and report in accordance with Appendix B section B-6 (Annual Certified Spill Reporting of Category 4 and/or Lateral Spills).

4.18.2.1 Recordkeeping of Individual Category 4 Spill Information:

1. Contact information: Name and telephone number of City contact person to respond to spill-specific questions;
2. Spill location name;
3. Description and GPS coordinates for the system location where the spill originated;
4. Did the spill reach a drainage conveyance system? If Yes:
 - a. Description of drainage conveyance system location,
 - b. Estimated spill volume fully recovered within the drainage conveyance system, and
 - c. Estimated spill volume remaining within the drainage conveyance system;
5. Estimated total spill volume exiting the sanitary sewer system;
6. Spill date and start time;
7. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
8. System failure location (for example, main, pump station, etc.);
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of how the volume estimation was calculated, including, at minimum:
 - a. The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - b. The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
11. Description of implemented system modifications and operating/maintenance modifications.

4.18.2.2 Recordkeeping of Individual Lateral Spill Information:

1. Date and time the City was notified of, or self-discovered, the spill;
2. Location of individual spill;
3. Estimated individual spill volume;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.); and
5. Description of how the volume estimations were calculated.

4.18.2.3 Total Annual Spill Information:

1. Estimated total annual spill volume;
2. Description of spill corrective actions, including at minimum:
 - a. Local regulatory enforcement action taken against the sewer lateral owner in response to a spill, as applicable, and
 - b. System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

4.18.3 Sewer System Telemetry Records

The City shall maintain the following sewer system telemetry records if used to document compliance with the General Order, and previous General Order 2006-0003-DWQ as applicable, including spill volume estimates:

- Supervisory control and data acquisition (SCADA) system(s);

- Alarm system(s);
- Flow monitoring device(s) or other instrument(s) used to estimate sewage flow rates, and/or volumes;
- Computerized maintenance management system records; and
- Asset management-related records.

4.18.4 Sewer System Management Plan Implementation Records

The City shall maintain records documenting the City's implementation of its Sewer System Management Plan, including documents supporting its Sewer System Management Plan audits, corrections, modifications, and updates to the Sewer System Management Plan.

4.18.5 Audit Records

The City shall maintain, at minimum, the following records pertaining to its Sewer System Management Plan audits, which includes this Spill Emergency Response Plan, and other internal audits:

- Completed audit documents and findings;
- Name and contact information of staff and/or consultants that conducted or involved in the audit; and
- Follow-up actions based on audit findings.

4.18.6 Equipment Records

The City shall maintain a log of all owned and leased sewer system cleaning, operational, maintenance, construction, and rehabilitation equipment.

4.18.7 Work Orders

The City shall maintain record of work orders for operations and maintenance projects.

4.19 Post Spill Assessment

After a spill, the City is to assess their spill response. The City is to analyze:

- The cause of the spill;
- Average and maximum response time;
- Percent of total spill volume contained or returned to sewer;
- Compliance with notification, monitoring, and reporting requirements;
- Public Notification; and
- What repairs were performed.

This assessment is to be used to update the Spill Emergency Response Plan as necessary and to conduct additional training where needed.

4.20 Annual Review

The City is to annually review and assess the effectiveness of the Spill Emergency Response Plan. Updates to the Spill Emergency Response Plan should be made as necessary based on this review.

4.21 Annual Report

Section B-8 of Appendix B of this Spill Emergency Response Plan details the reporting requirements for the City's Annual Report. The City shall update their previous year's Annual Report, by April 1 of each year after the Effective Date of the General Order, for each calendar year (January 1 through December 31).

4.22 Spill Response Equipment

The following is the City's list of spill response equipment:

- a. Vactor Combination Hydro Jet/Vacuum Truck
- b. Vacuum/Jetter Truck
- c. Sewer snake machine
- d. Trash pumps 4" and 6"
- e. 1500-ft of 6" lay flat hose
- f. 100-ft of Suction hose
- g. 1-Backhoe
- h. 2-Dump Trucks
- i. 3-Service Trucks
- j. 100-gal Big Orange degreaser
- k. SDR 35 Sewer Pipe – 4", 6", 8"
- l. Flexible Fernco Coupling
- m. Video camera
- n. 30 sacks of white Lime powder
- o. Absorbing sock
- p. 2 transfer pumps with a 3" suction and discharge capability
- q. 4 of the 3" X 100' discharge hose
- r. 2 of the 3" X 20' suction hose.

4.23 Training

Training is conducted through the City of Pasadena's Public Works Department. Staff and contractors are appropriately trained on the Spill Emergency Response Plan procedures and practice drills. Sewer staff and any contractors utilized for cleaning, CCTV inspection and/or emergency response are trained every two months. The City implements training with staff from sewer and storm to know their part in responding to spills and recognizing areas at risk, develop strategies in containing and preventing spills, and reduce risks of cross contamination.

4.24 SERP Change Log

A change log for the SERP is included in **Appendix D**. The City will use this log to document changes and maintain up to date information about the SERP.

Appendix A

Notification Requirements

NOTIFICATION REQUIREMENTS

A-1 Notification of Spills of 1,000 Gallons or Greater to the California Office of Emergency Services

Per Water Code section 13271, for a spill that discharges in or on any waters of the State, or discharges or is deposited where it is, or probably will be, discharged in or on any waters of the State, the City shall notify the California Office of Emergency Services and obtain a California Office of Emergency Services Control Number as soon as possible but no later than two (2) hours after:

- The City has knowledge of the spill; and
- Notification can be provided without substantially impeding cleanup or other emergency measures.

The notification requirements in this section apply to individual spills of 1,000 gallons or greater, from a City-owned and/or operated laterals, to a water of the State.

The control number must be referred to in all communication, oral and written.

A-2 Spill Notification Information

The City shall provide the following spill information to the California Office of Emergency Services before receiving a Control Number, as applicable:

- Name and phone number of the person notifying the California Office of Emergency Services;
- Estimated spill volume (gallons);
- Estimated spill rate from the system (gallons per minute);
- Estimated discharge rate (gallons per minute) directly into waters of the State or indirectly into a drainage conveyance system;
- Spill incident description:
 - Brief narrative of the spill event, and
 - Spill incident location (address, city, and zip code) and closest cross streets and/or landmarks;
- Name and phone number of contact person on-scene;
- Date and time the City was informed of the spill event;
- Name of sanitary sewer system causing the spill;
- Spill cause or suspected cause (if known);
- Amount of spill contained;
- Name of receiving water body receiving or potentially receiving discharge; and
- Description of water body impact and/ or potential impact to beneficial uses.

A-3 Notification of Spill Report Updates

Following the initial notification to the California Office of Emergency Services and until such time that the City certifies the spill report in the online CIWQS Sanitary Sewer System Database, the City shall provide updates to the California Office of Emergency Services regarding substantial changes to:

Appendix A: Notification Requirements

- Estimated spill volume (increase or decrease in gallons initially estimated);
- Estimated discharge volume discharged directly into waters of the State or indirectly into a drainage conveyance system (increase or decrease in gallons initially estimated); and
- Additional impact(s) to the receiving water(s) and beneficial uses.

Appendix B

Reporting Requirements

REPORTING REQUIREMENTS

All reporting required in the General Order must be submitted electronically to the online CIWQS Sanitary Sewer System Database (<https://ciwqs.waterboards.ca.gov>), unless specified otherwise in the General Order. Electronic reporting may solely be conducted by a Legally Responsible Official or Data Submitter(s) previously designated by the Legally Responsible Official, as required in section 5.8 (Designation of Data Submitters) of the General Order.

The City shall report any information that is protected by the Homeland Security Act, by email to SanitarySewer@waterboards.ca.gov, with a brief explanation of the protection provided by the Homeland Security Act for the subject report to be protected from unauthorized disclosure and/or public access, and for official Water Board regulatory purposes only.

B-1 Reporting Requirements for Individual Category 1 Spill Reporting

B-1-1 Draft Spill Report for Category 1 Spills

Within three (3) business days of the City's knowledge of a Category 1 spill, the City shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of City contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the City was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the City notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;
 - a. If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
 - a. Description of the drainage conveyance system transporting the spill;
 - b. Photographs of the drainage conveyance system entry location(s);
 - c. Estimated spill volume fully recovered from the drainage conveyance system;
 - d. Estimated spill volume remaining within the drainage conveyance system;
11. Description and photographs of all discharge point(s) into the surface water;
12. Estimated spill volume that discharged to surface waters; and
13. Estimated total spill volume recovered.

B-1-2 Certified Spill Report for Category 1 Spills

Within 15 calendar days of the spill end date, the City shall submit a Certified Spill Report for Category 1 spills, to the online CIWQS Sanitary Sewer System Database.

Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section B-1.1 (Draft Spill Report for Category 1 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - a. The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - b. The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, lateral, pump station, etc.);
6. Description of the pipe material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was aspillciated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion;
14. Name and type of receiving water body(s);
15. Description of the water body(s), including but not limited to:
 - a. Observed impacts on aquatic life,
 - b. Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill,
 - c. Responsible entity for closing/restricting use of water body, and
 - d. Number of days closed/restricted as a result of the spill.
16. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and
17. If water quality samples were collected, identify sample locations and the parameters the water quality samples were analyzed for. If no samples were taken, Not Applicable shall be selected.

B-1-3 Spill Technical Report for Individual Category 1 Spill in which 50,000 Gallons or Greater Discharged into a Surface Water

For any spill in which 50,000 gallons or greater discharged into a surface water, **within 45 calendar days** of the spill end date, the City shall submit a Spill Technical Report to the online CIWQS Sanitary Sewer System Database. The Spill Technical Report, at minimum, must include the following information:

1. Spill causes and circumstances, including at minimum:
 - a. Complete and detailed explanation of how and when the spill was discovered;
 - b. Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
 - c. Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
 - d. Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
 - e. Detailed description of the spill cause(s);
 - f. Description of the pipe material, and estimated age of the pipe material, at the failure location;
 - g. Description of the impact of the spill;
 - h. Copy of original field crew records used to document the spill; and
 - i. Historical maintenance records for the failure location.
2. City's response to the spill:
 - a. Chronological narrative description of all actions taken by the City to terminate the spill;
 - b. Explanation of how the Sewer System Management Plan Spill Emergency Response Plan was implemented to respond to and mitigate the spill; and
 - c. Final corrective action(s) completed and a schedule for planned corrective actions, including:
 - i. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable,
 - ii. Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences, and
 - iii. Necessary modifications to the Emergency Spill Response Plan to incorporate lessons learned in responding to and mitigating the spill.
3. Water Quality Monitoring, including at minimum:
 - a. Description of all water quality sampling activities conducted;
 - b. List of pollutant and parameters monitored, sampled and analyzed; as required in Water Quality Monitoring Plan, once developed;
 - c. Laboratory results, including laboratory reports;
 - d. Detailed location map illustrating all water quality sampling points; and
 - e. Other regulatory agencies receiving sample results (if applicable).
4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

B-1-4 Amended Certified Spill Reports for Individual Category 1 Spills

The City shall update or add additional information to a Certified Spill Report **within 90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The City shall certify the amended report.

After 90 calendar days, the City shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

B-2 Reporting Requirements for Individual Category 2 Spill Reporting

B-2-1 Draft Spill Report for Category 2 Spills

Within three (3) business days of the City's knowledge of a Category 2 spill, the City shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of City contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the City was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the City notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;

If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;

8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
 - a. Description of the drainage conveyance system transporting the spill;
 - b. Photographs of the drainage conveyance system entry location(s);
 - c. Estimated spill volume fully recovered from the drainage conveyance system;
 - d. Estimated spill volume remaining within the drainage conveyance system;
 - e. Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable; and
11. Estimated total spill volume recovered.

B-2-2 Certified Spill Report for Category 2 Spills

Within 15 calendar days of the spill end date, the City shall submit a Certified Spill Report for the Category 2 spill, to the online CIWQS Sanitary Sewer System Database (<https://ciwqs.waterboards.ca.gov>). Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section B-2.1 (Draft Spill Report for Category 2 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - a. The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - b. The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, pump station, etc.);
6. Description of the pipe/infrastructure material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was aspillciated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion; and
14. Whether or not the spill was located within 1,000 feet of a municipal surface water intake.

B-2-3 Amended Certified Spill Reports for Individual Category 2 Spills

The City shall update or add additional information to a Certified Spill Report **within 90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The City shall certify the amended report.

After 90 calendar days, the City shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

B-3 Monthly Certified Spill Reporting for Category 3 Spills

The City shall report and certify all Category 3 spills to the online CIWQS Sanitary Sewer System Database **within 30 calendar days** after the end of the month in which the spills occurred. (For example, all Category 3 spills occurring in the month of February shall be reported and certified by March 30th). After the Legally Responsible Official certifies the spills, the online CIWQS Sanitary Sewer System Database will issue a spill event identification number for each spill.

The monthly reporting of all Category 3 spills must include the following items for each spill:

1. Contact information: Name and telephone number of City contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the City was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Description, photographs, and GPS coordinates where the spill originated:
 - a. If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
7. Estimated total spill volume exiting the system;
8. Description and photographs of the extent of the spill and spill boundaries;
9. Did the spill reach a drainage conveyance system? If Yes:
 - a. Description of the drainage conveyance system transporting the spill;
 - b. Photographs of the drainage conveyance system entry locations(s);
 - c. Estimated spill volume fully recovered from the drainage conveyance system; and
 - d. Estimated spill volume discharged to a groundwater infiltration basis or facility, if applicable.
10. Estimated total spill volume recovered;
11. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reaches of the spill;
12. Spill end date and time;
13. Description of how the spill volume estimations were calculated, including, at minimum:
 - a. The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - b. The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
14. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
15. System failure location (for example, main, pump station, etc.);
16. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location;
17. Description of the impact of the spill;
18. Whether or not the spill was associated with a storm event;
19. Description of spill response activities including description of immediate spill containment and cleanup efforts;
20. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent

reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum:

- a. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
- b. Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including:
 - i. Adjusted schedule/method of preventive maintenance,
 - ii. Planned rehabilitation or replacement of sanitary sewer asset,
 - iii. Inspected, repaired asset(s), or replaced defective asset(s),
 - iv. Capital improvements,
 - v. Documentation verifying immediately implemented system modifications and operating/maintenance modifications,
 - vi. Description of spill response activities,
 - vii. Spill response completion date, and
 - viii. Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill;

21. Detailed narrative of investigation and investigation findings of cause of spill.

B-4 Monthly Certified Spill Reporting for Category 4 Spills

The City shall report and certify the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, **within 30 calendar days** after the end of the month in which the spills occurred.

B-5 Amended Certified Spill Reports for Category 3 Spills

Within 90 calendar days of the certified Spill Report due date, the City may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The City shall certify the amended report.

After 90 calendar days, the Legally Responsible Official shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a certified Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the 90-day timeframe for amending the certified Spill Report, as provided above.

B-6 Annual Certified Spill Reporting of Category 4 and/or Lateral Spills

For all Category 4 spills and spills from its owned and/or operated laterals that are caused by a failure or blockage in the lateral and that do not discharge to a surface water, the City shall:

- Maintain records per section 1.15; The City shall provide records upon request by State Water Board or Regional Water Board staff.
- Annually upload and certify a report, in an appropriate digital format, of all recordkeeping of spills to the online CIWQS Sanitary Sewer System Database, **by February 1st** after the end of the calendar year in which the spills occurred.

A spill from an City-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the City shall report all Category 1 spills per Water Quality Monitoring Plan, once developed.

B-7 Monthly Certification of “No-Spills” or “Category 4 Spills” and/or “Non-Category 1 Lateral Spills”

If either (1) no spills occur during a calendar month or (2) only Category 4, and/or City-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the City shall certify, **within 30 calendar days** after the end of each calendar month, either a “No-Spill” certification statement, or a “Category 4 Spills” and/or “Non-Category 1 Lateral Spills” certification statement, in the online CIWQS Sanitary Sewer System Database, certifying that there were either no spills, or Category 4 and/or Non-Category 1 Lateral Spills that will be reported annually (per Water Quality Monitoring Plan, once developed) for the designated month.

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

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

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

B-8 Annual Report (Previously termed as Collection System Questionnaire in General Order 2006-0003-DWQ)

The City shall update their previous year’s Annual Report, **by April 1 of each year after the Effective Date of the General Order**, for each calendar year (January 1 through December 31).

The Annual Report must be entered directly into the online CIWQS Sanitary Sewer System Database. The City’s Legally Responsible Official shall certify the Annual Report as instructed in CIWQS;

The Annual Report must address, and update as applicable, the following items:

- Population served;
- Updated sewer system service area boundary map, if service area boundary has changed from original map submitted per section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of the General Order;
- Number of system operation and maintenance staff:
 - Entry level (less than two years of experience),
 - Journey level (greater than two years of experience),
 - Supervisory level, and
 - Managerial level;
- Number of operation and maintenance staff certified as a certified collection system operator by the California Water Environmental Aspillciation (CWEA), with:
 - Corresponding number of certified collection system operator grade levels (Grade I, II, III, IV, and

- V);
- System information:
 - Miles of system gravity and force mains,
 - Number of upper and lower service laterals connected to system,
 - Estimated number of upper and lower laterals owned and/or operated by the City,
 - Portion of laterals that is City's responsibility,
 - Average age the major components of system infrastructure,
 - Number and age of pump stations, and
 - Estimated total miles of the system pipeline not accessible for maintenance;
 - Name and location of the treatment plant(s) receiving sanitary sewer system's waste;
 - Name of satellite sewer system tributaries;
 - Number of system's gravity sewer above or underground crossings of water bodies throughout system;
 - Number of force main (pressurized pipe) above or underground crossings of water bodies throughout system;
 - Number of siphons used to convey waste throughout the sewer system;
 - Miles of sewer system cleaned;
 - Miles of sewer system video inspected, or comparable (i.e., video closed-circuit television or alternative inspection methods);
 - System Performance Evaluation as specified in section 5.11 (System Performance Analysis) of the General Order;
 - Major spill causes (for example, root intrusion, grease deposition);
 - System infrastructure failure points (for example, main, pump station, lateral, etc.);
 - Ongoing spill investigations; and
 - Actions taken to address system deficiencies.

Appendix C

Water Quality Monitoring Plan

City of Pasadena

Sanitary Sewer Spill Water Quality Monitoring Plan

MAY 2025

Prepared for:

CITY OF PASADENA

Public Works

100 North Garfield Avenue

Pasadena, CA 91101

Contact: James Tong

Prepared by:

DUDEK

605 Third Street

Encinitas, California 92024

Contact: Shannon Brown, PE

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1 Introduction

The Sanitary Sewer System Spill water Quality Monitoring Plan (Monitoring Plan) provides technical information for water quality monitoring locations and techniques that may be used to characterize the relative impacts to the receiving water quality in the event of a sanitary sewer spill (spill) within the City of Pasadena (City) service area. In the event of a spill, it is assumed response actions identified in the City's Spill Emergency Response Plan and Sewer System Management Plan (SSMP) will be implemented to protect public health and the environment. This plan covers details on monitoring receiving water quality separate from the emergency response and cleanup efforts.

Recent updates to the waste discharge requirements general order for sanitary sewer systems¹ (WDR) require timely implementation of spill-specific notification, monitoring, and reporting tasks for spill events that exceed certain volume thresholds. In the event of a spill >50,000 gallons, the WDR outlines monitoring requirements generally aligned to estimate spill location and spread as well as receiving water conditions to support impact analysis documented in a spill report. This Monitoring Plan provides technical and procedural details to allow for rapid implementation of water quality monitoring activities that may be used to characterize the extent and magnitude of potential impacts related to a spill. These water quality activities are based on standard procedures implemented as part of municipal and industrial water quality monitoring programs.

Surface runoff in the geographical area served by City flows into both City of Pasadena storm drains and Los Angeles County Flood Control District (LACFCD) storm drains. Receiving water quality monitoring has been conducted in these drains as part of various compliance, special study, and third-party efforts over the past two decades. The suite of previously monitored locations provides a resource for efficient identification of logistically feasible locations for City spill response monitoring. Wet and/or dry weather water quality samples have been collected at these monitored locations. These data may be comparable to samples collected as part of a spill response or for other purposes.

The City operates and maintains a wide array of sanitary sewer piping, manholes, pump stations, force mains, and other associated infrastructure. The location of major collection system assets and components, watershed configuration, drainage characteristics, safety, and accessibility were used to select a distributed array of water quality monitoring locations that may be used during a spill response event. In the event of a spill, it is recommended that City staff evaluate the spill size, location, duration, volume, and ambient weather conditions to develop a focused water quality monitoring strategy and monitoring plan.

The overall purpose of this document is to provide the following information:

- A geographic overview of City assets
- Representative water quality monitoring locations that may be used for a spill response or guide identification of alternative locations in the future
- Site description and access information for the representative water quality monitoring locations

¹ Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems. Order WQ 2022-0103-DWQ

- A summary of water quality monitoring methods and protocols

The following sections provide background information and sample collection methodology for the proposed monitoring locations. Detailed site descriptions for each proposed monitoring location are provided in Section 6.

2 Background

Wastewater and stormwater² discharges from the City are regulated through state issued permits that define management, monitoring, and reporting requirements. These WDRs are created based on evaluation of the City's threat to water quality and quality of the receiving waters.

The City operates under the Coastal Watersheds of Los Angeles County Phase I municipal separate storm sewer system (MS4) permit (MS4 Permit) and is part of the Upper Los Angeles River Watershed Management Area Group. Under the MS4 Permit, the City monitors storm drain outfalls during wet- and dry-weather to detect non-storm water discharges to its MS4 and monitoring water quality during storm events as part of the Coordinated Integrated Monitoring Program (CIMP). Non-stormwater discharges may come from many sources including, but not limited to, illicit connections, illicit discharges, and sewage spills. This document pertains to water quality as a result of a sewage spill, however, monitoring results from the regional CIMP are useful for comparison with spill event samples.

2.1 Spill Monitoring Plan Framework

The WDR Attachment E1 (Appendix A) includes spill notification, spill location and spread observations, monitoring, and reporting requirements. Implementation requirements for these elements are summarized below.

Notification

For any spill that discharges in or on any waters of the State, the discharger is to notify the California Office of Emergency Services (Cal OES) as soon as possible but no later than two (2) hours after: a) knowledge of the spill; and b) notification can be provided without interfering with cleanup/emergency measures.

Cal OES Warning Center: (800) 852-7550

Location and Spread Observations

In the event of a spill, the discharger visually assesses the spill locations and extent using photography, global positioning system (GPS) and other tools such as a measuring devices to quantify the spill area/length and depth. Key documentation includes:

- The system location where spill originated
 - For multiple appearance points of a single spill event, the points closest to the spill origin.

² National Pollutant Discharge Elimination System (NPDES) Waste Discharge Requirements (WDRs) for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except those Discharges originating from the City of Long Beach MS4 Order R4-2012-0175-A01 NPDES NO. CAS004001

- Drainage conveyance system spill entry locations
- Locations where spill discharges to receiving water
- Extent of spread and locations of cleanup

Additionally, the discharger needs to estimate the spill volume using appropriate techniques, calculations, and documentation for electronic reporting.

Following spill volume estimation, the discharger is required to perform visual observations for spills that discharge to receiving waters. Key documentation includes:

- Estimated spill travel time to receiving water
 - For spills entering a drainage conveyance system, this includes travel time from entry into the drainage conveyance system to receiving water discharge
- Spill volume entering receiving water
- Photography:
 - Waterbody bank erosion (if applicable)
 - Floating matter
 - Surface sheen (oil and grease)
 - Discoloration of receiving waters

Monitoring

A spill estimated at 50,000 gallons or greater discharged to receiving water requires the discharger to perform water quality monitoring. Monitoring must be conducted no later than 18-hours after the discharger's knowledge of a potential discharge to a surface water.

Daily samples must be collected at the discharge point to the receiving water and at locations upstream and downstream of the discharge point. If the spill entered the receiving water from a drainage conveyance, a sample must be taken from within the conveyance as well, given spill material is still present. Upstream samples should be taken at a sufficient distance from the discharge point to capture ambient conditions absent of spill material. The upstream sample point is ideally collected where the receiving water enters the City boundary, at a point where the water quality is unaffected by discharges from the City. Downstream sample point must be taken far enough from the discharge point where the spill material is fully mixed with the receiving water. The downstream sample point should be evaluated for conditions in the receiving water at the time spill such as flow rate and velocity. If a spill occurs during a large rain event, then mixing will occur more quickly (and less distance downstream from the spill) than during dry weather or low flow conditions. The furthest downstream point before the receiving water leaves the City boundary will yield the best mixing condition.

Once collected, the samples must be submitted to a certified laboratory in a timely manner for analysis of ammonia and fecal indicator bacteria.

Reporting

Electronic reporting to the California Integrated Water Quality System (CIWQS)³ is required for all spills. For spills greater than 50,000 gallons and discharged to receiving waters, a Spill Technical Report is required within 45 days of the spill end date. The Spill Technical Report must contain the following:

- Spill causes and circumstances
- Discharger's response to spill
- Water quality monitoring information
- Evaluation of spill impacts, including short- and long-term impact(s) to beneficial uses of surface waters

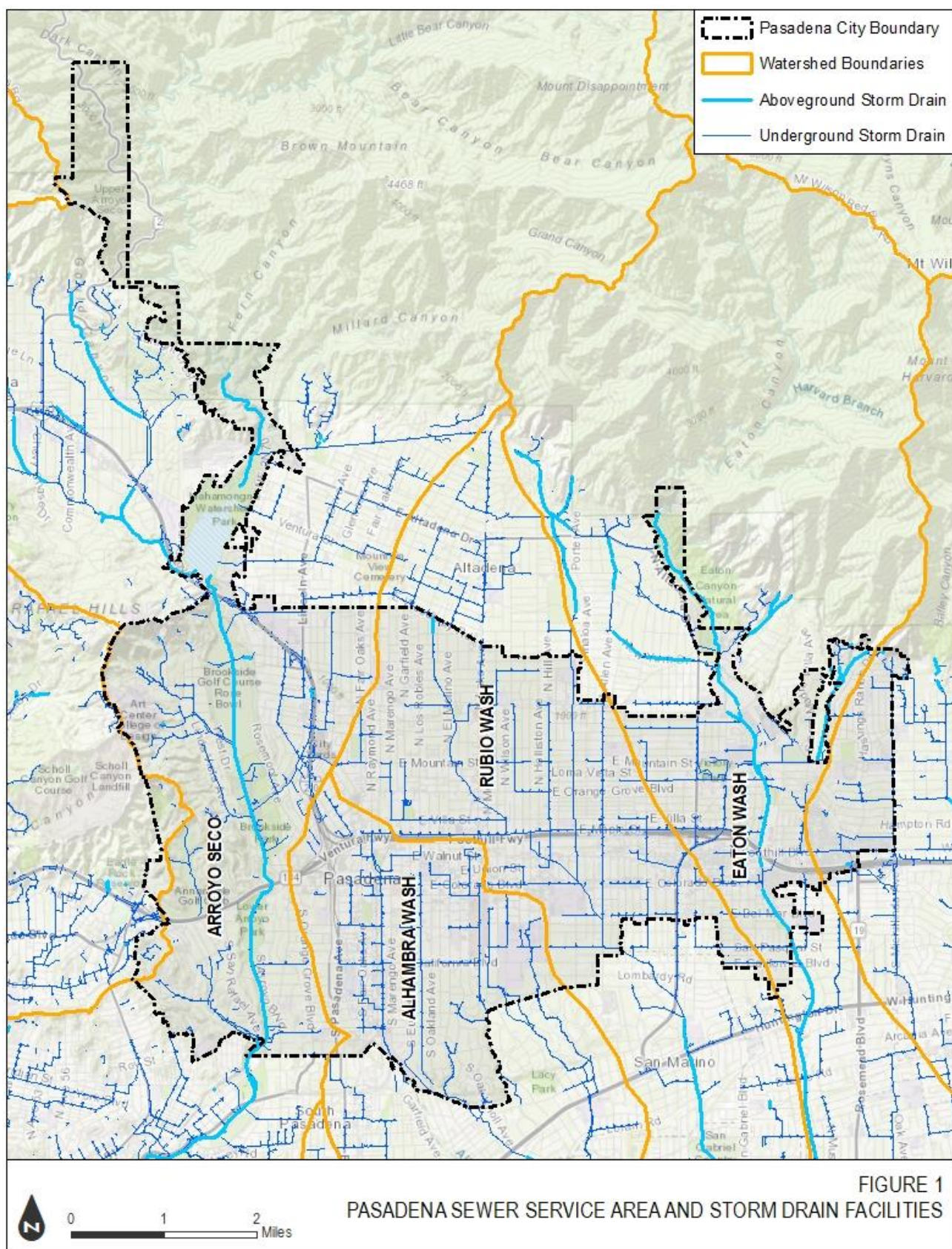
Spill report information is then used by Regional Water Quality Control Board staff to evaluate the relative impact to the environment and to form the basis of potential spill-specific enforcement actions.

2.2 Geographic Setting

The City's sewer service area includes 23.1 square miles. Major water bodies within the City include three primary runoff drainages with seasonal and permanent water impoundments (Figure 1).

The City drains to the south and ranges in elevation from approximately 1,800 feet above mean sea level (AMSL) to 466 feet AMSL⁵. The major drainage areas within the City include Arroyo Seco, Alhambra Wash, Rubio Wash, and Eaton Wash. Generally, these drainage areas flow north to south. Arroyo Seco and Eaton Wash have surface water channels within the City whereas the portions of the City that are in Alhambra and Rubio Wash do not.

³ <https://ciwqs.waterboards.ca.gov/>



2.3 Pasadena Assets

The City operates and maintains a sanitary sewer collection system that provides service to approximately 133,560 residents⁴. The City operates and maintains approximately 328 miles of gravity pipelines and 41 miles of force mains, which serve the majority of the City's 23.1 square mile City limits and conveys an annual average flow of approximately 14 million gallons per day⁵. The City's sanitary collection system conveys these untreated flows to the Los Angeles County Sanitation District's (LACSD) trunk sewer system. A summary of the City's pump stations and force mains are presented below in Figure 2. In general, these assets constitute infrastructure that have potential to contribute to spills that may require a monitoring program and were used in the sample location assessment presented in Section 3.

2.4 Potential Monitoring Locations

Within the context of the City's geography and sewer system assets, a suite of potential spill monitoring locations were identified for this Monitoring Plan. The monitoring locations were selected to provide core representation of locations where critical sewer infrastructure has potential for a large spill event, adjacent stormwater conveyance and other infrastructure has potential to be impacted by a large spill event, and during/post-event monitoring at the selected locations may provide reasonable capacity to characterize impacts to water quality from a spill. While specific monitoring locations have been identified, the City may at any time change these locations because of access constraints and/or changes in operations.

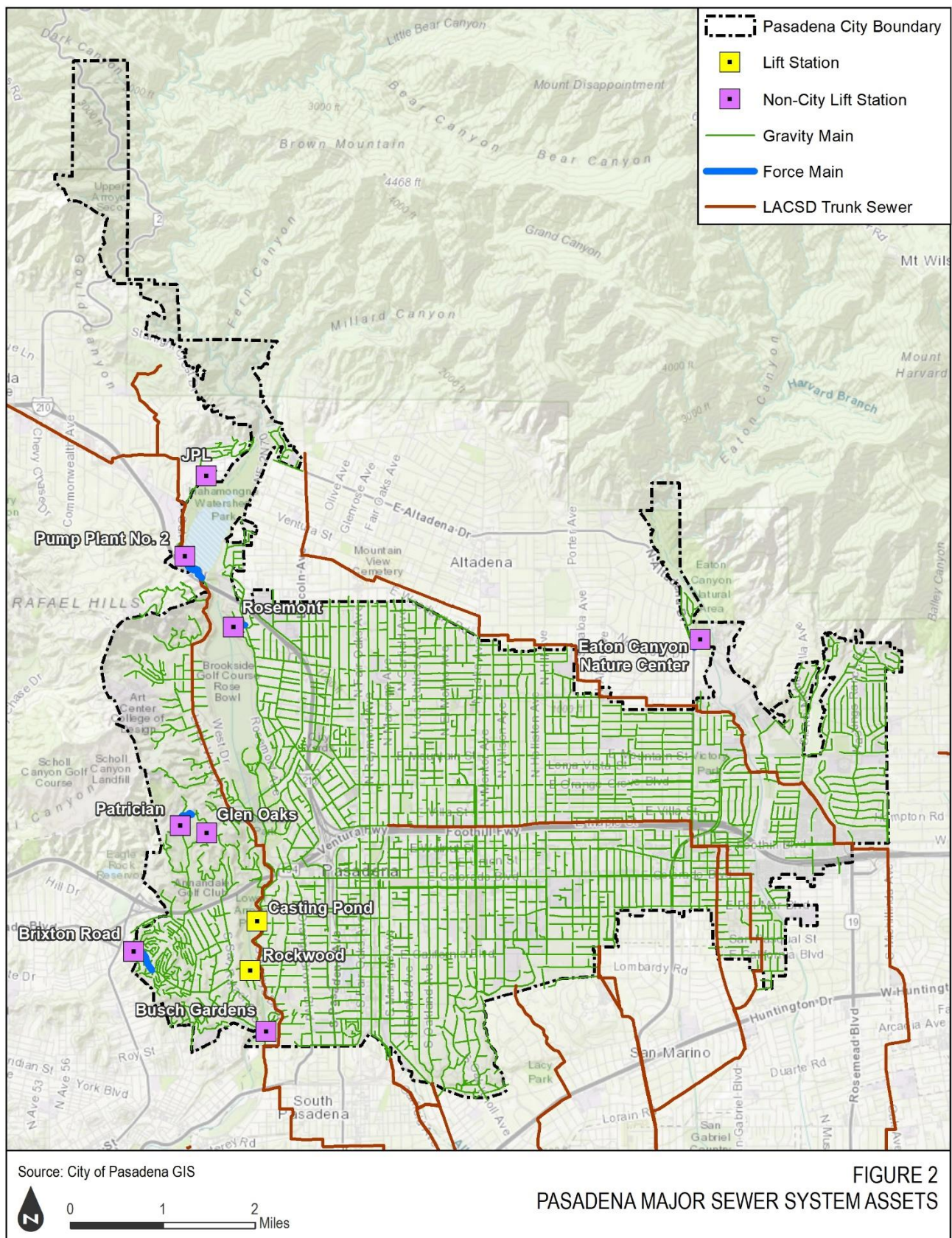
A spill that impacts water quality is likely to be conveyed through the MS4 before reaching the receiving water, however, in limited situations a spill immediately adjacent to a receiving water may discharge directly to the water body. The WDR defines four distinct monitoring location types (Figure 3):

- Flow in MS4 or non-sewer infrastructure conveyance(s) prior to the discharge point
- Receiving Surface Water (RSW) discharge point
- RSW upstream of the discharge point
- RSW downstream of the discharge point

The location of a spill event will determine the exact monitoring location(s) needed to be sampled based on discharge point to the receiving water. However, the core monitoring locations and methods documented in this Monitoring Plan allow for rapid identification and implementation of a monitoring program that will both meet the requirements of the WDR and provide critical information that may be used to inform the required Spill Technical Report impact analysis. Accordingly, this Monitoring Plan only identifies potential upstream and downstream monitoring locations. Monitoring in the MS4 or non-sewer infrastructure conveyance(s) as well as RSW discharge point monitoring locations will be assessed by the City on a spill-by-spill basis.

⁴ U.S. Census Bureau. 2023.

⁵ City of Pasadena Sewer System Management Plan Report, 2019



2.5 Water Quality Sample Constituents

Attachment E of the WDRs list two required constituents to monitor in surface water impacted by a sewer spill. All water quality samples are required to measure the concentration of ammonia and the concentration of the appropriate bacterial indicator(s) per the applicable Basin Plan water quality objectives. For Pasadena, the Los Angeles Regional Board's Basin Plan⁶ identifies *E-coli* and Enterococcus as the fecal indicator bacteria for the region. Table 1 identifies the required constituents to sample for and information on the specific requirements for each sample method.

⁶ Water Quality Control Plan Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
[Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties | Los Angeles Regional Water Quality Control Board \(ca.gov\)](#)

Conceptual Spill Monitoring Approach

Four sample points are required:

1. **Drainage Conveyance System (DCS)** Location in conveyance where sewage is closest to but has not mixed with receiving water.
 2. **Receiving Surface Water (RSW)** Location in receiving water where spill first enters water.
 3. **Receiving Surface Water Upstream (RSW-U)** Location in receiving water upstream of and not influenced by spill.
 4. **Receiving Surface Water Downstream (RSW-D)** Location in receiving water downstream where spill is 'fully mixed' with receiving water.
- Practice best professional judgment should be used to determine the upstream and downstream distances based on receiving water flow, accessibility to upstream/downstream waterbody banks, and size of visible sewage plume.

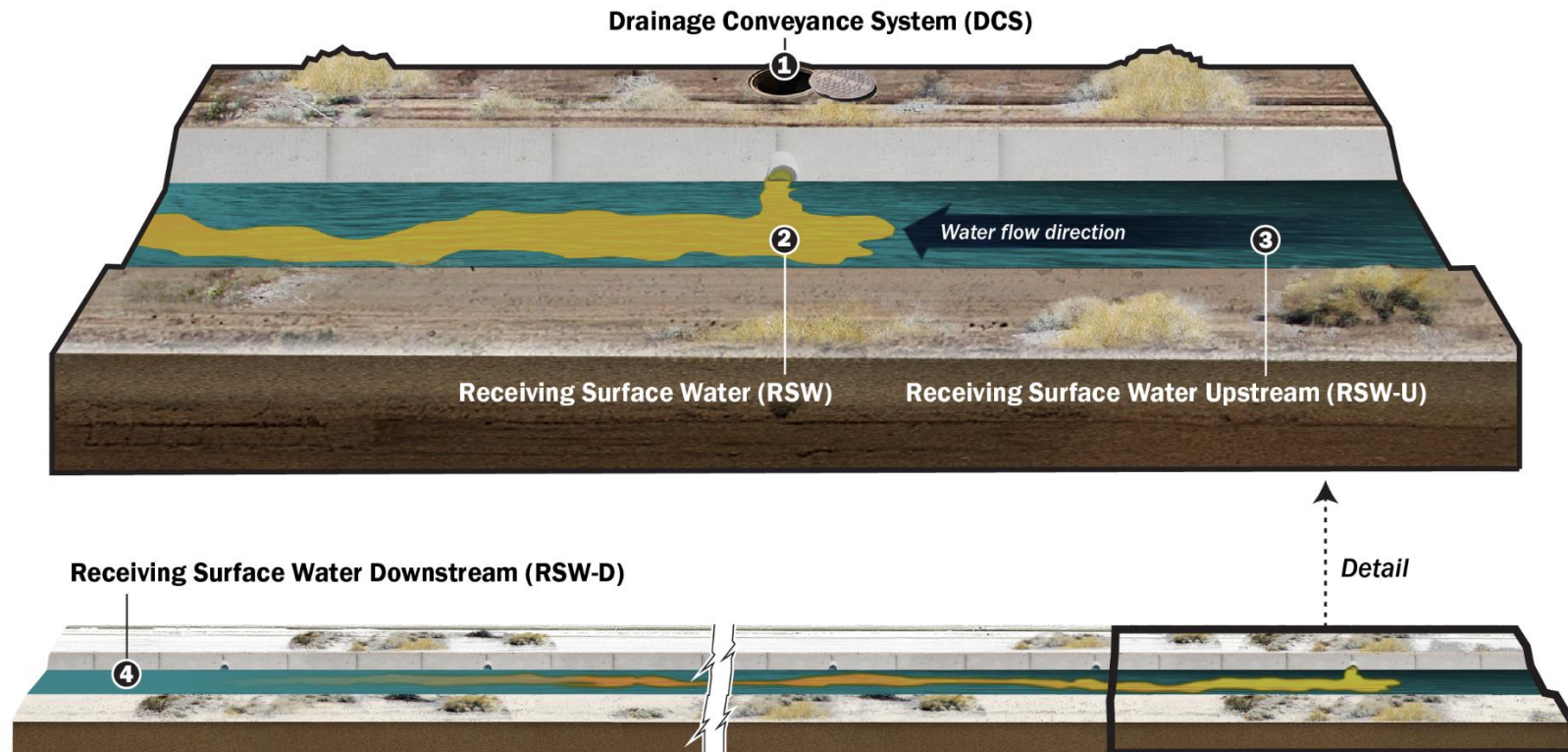


Figure 3. Sewer Spill Water Quality Monitoring Locations

Table 1. Water Quality Sample Collection, Preservation, and Analysis

Constituent	Analytical Method	Minimum Sample Volume	Sample Container	Preservation Method	Maximum Holding Time
Ammonia	EPA 350.1	250 mL	Plastic	Sulfuric Acid, 4 °Celcius	28 days
<i>E. Coli</i>	SM-9223-B	100 mL	Plastic	Sodium thiosulfate, 4 °Celcius	6 hours
Enterococcus	Enterolert	100 mL	Plastic	Sodium thiosulfate, 4 °Celcius	6 hours

3 Monitoring Site Selection

A desktop analysis was conducted using the location of known City assets, watershed boundaries, and the City boundary in geographic information system (GIS). The analysis resulted in a suite of potential monitoring locations that were prioritized based on the following characteristics:

- Proximity to City sewer assets
- Ability for a spill to flow to a receiving water
- Potential for monitoring site to serve as a reference point for the City

The monitoring sites included in this Monitoring Plan were chosen based on their ability to characterize water quality conditions before and after being influenced by a spill. Due to the transient nature of a spill, only specific upstream and downstream monitoring locations are identified at this time.

3.1 Downstream Monitoring Sites

Downstream monitoring locations are defined in the WDR as being “a point in the receiving water, downstream of the point of sewage discharge, where the spill is fully mixed with the receiving water.” Receiving waters in the City are defined by four separate watersheds: Arroyo Seco, Alhambra Wash, Rubio Wash, and Eaton Wash. For Arroyo Seco, only a single downstream point is necessary to monitor a spill since this watershed has a single above ground channel leaving the City boundary. This point represents where a spill that discharged into Arroyo Seco upstream either from a storm drain outfall or direct surface runoff is fully mixed with the receiving water.

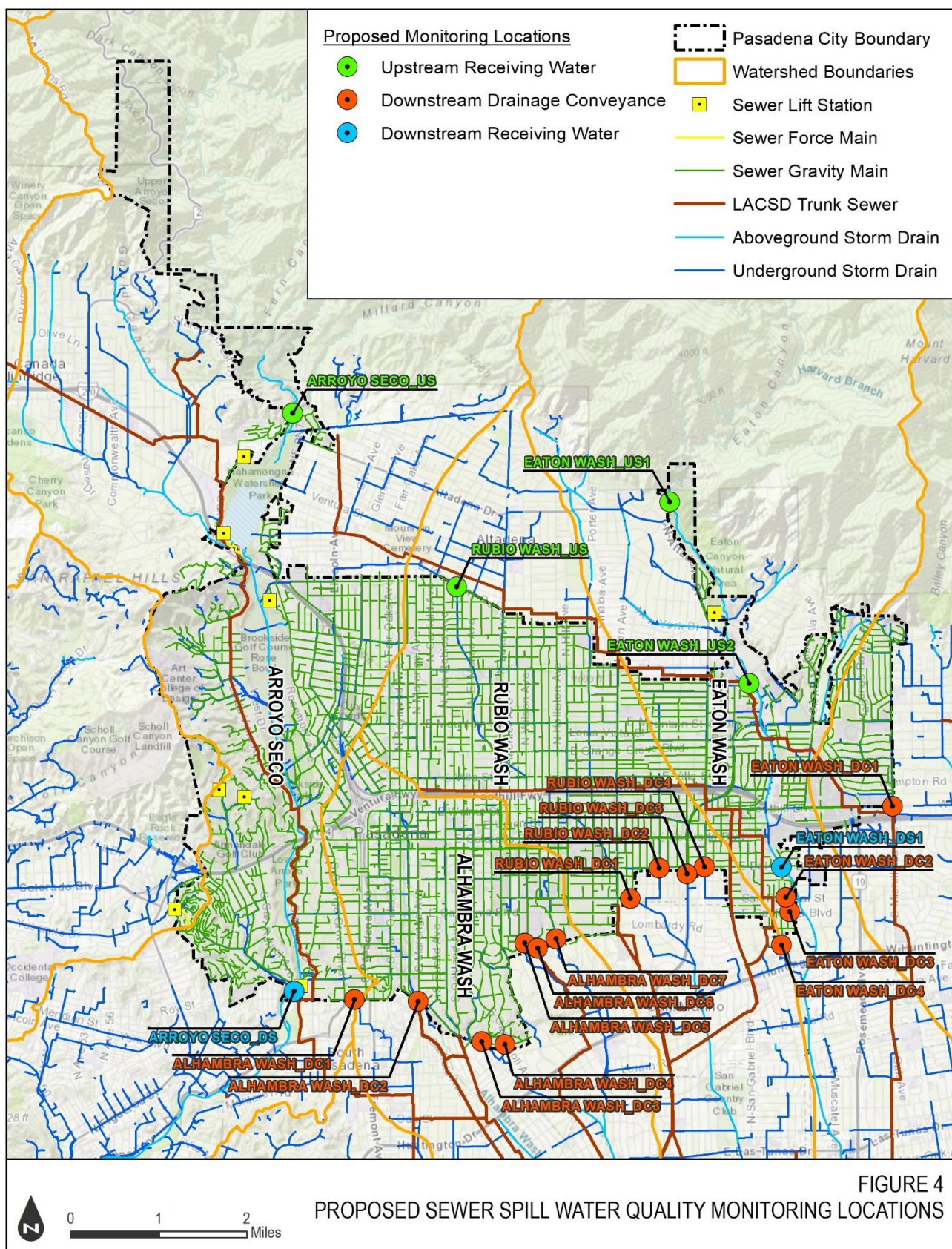
Alhambra and Rubio Wash do not have surface level receiving waters within the City boundary. Runoff in Alhambra and Rubio Wash leaves the City boundary through 11 underground discharge points that connect into the adjacent jurisdictions’ storm drains. Since the City does not have control over the water quality in the storm drain once it leaves the City, downstream drainage conveyance monitoring sites have been established for these 11 underground discharge points at the closest manhole before runoff leaves city limits. These specific locations act as the most downstream points in Alhambra and Rubio Wash to monitor water quality in the event of a sewer spill upstream within the washes.

Eaton Wash has both a downstream receiving water monitoring location as well as multiple drainage conveyance monitoring locations. Due to the geography and jurisdictional boundaries along the southeastern edge of the City, There are portions of Eaton Wash that receive runoff (or a spill) from the City but the open channel of the wash itself is outside the City boundary. Therefore, a receiving water monitoring location was placed at the most downstream point of the open channel portion of Eaton Wash before leaving the City, and downstream drainage conveyance monitoring locations were placed on the storm drains that leave the City south of the surface water monitoring point.

3.2 Upstream Monitoring Sites

The WDR defines an upstream monitoring site as being “a point in the receiving water, upstream of the point of sewer discharge, to capture ambient conditions absent of sewage discharge impacts.” For the Monitoring Plan, upstream monitoring locations were selected for each of the major drainage areas upstream of City sewer assets and storm drain outfalls. Upstream monitoring locations were also selected based on proximity to major roads and ease of access to the receiving water. Upstream monitoring locations presented in this Monitoring Plan are intended to be used for any spill that occurs downstream in the specified drainage area. Specific monitoring locations have been identified in Arroyo Seco, Rubio Wash, and Eaton Wash. Since the Alhambra Wash originates within the City, the upstream monitoring location will be assessed by the City on a case by case basis as there may not be an upstream flow in the storm drain depending on the timing of the spill.

A suite of core monitoring locations derived from this assessment are presented below in Figure 4. More detailed site-specific fact sheets for these locations are presented in Section 6. In the event of a spill, it is recommended that City staff evaluate the spill location with respect to the sample locations presented in Figure 4 to determine an appropriate upstream and downstream monitoring location. Selection of drainage conveyance and discharge point monitoring location should be identified by visually inspecting the spill pattern on the ground surface and identifying if any material has flowed into the MS4 and/or directly discharged into a surface water.



4 Monitoring Procedures Overview

In general, the core monitoring locations are located in open stormwater channels and use methodology derived from industry standard water quality sample collection procedures. Standard methods include documenting site conditions and sample characteristics (color, odor, turbidity, etc.), flow estimations, and other observations and activities that may be used to evaluate water quality or sample collection specifics.

Water quality monitoring requires the coordination of both field personnel and the selected analytical laboratory during monitoring events, as well as proper management of field and laboratory data. Monitoring event preparation includes allocating sample collection equipment, bottles, labels, and chain of custodies (CoCs). Activities to be performed during a monitoring event include the proper collection and handling of water samples and the submission of samples within laboratory holding times. In addition to the field effort involved with monitoring, such as travel, parking, sample collection and handling, additional effort is required after a monitoring event to ensure the proper management of field and analytical data.

Monitoring locations should be assessed for representative conditions prior to collecting a water sample. For example, collection of a sample should target flowing water in riverine locations and avoid stagnant pools. If a monitoring location does not offer such conditions, a sample may still be collected, but field notes shall include observations such as pooled water, presence of algae (and volume estimates), and other biological conditions. It is recommended that City staff review available sample collection and handling resources [e.g., Caltrans Monitoring Guidance Manual⁷ (Caltrans 2020), NPDES Stormwater Sampling Guidance Document⁸ (EPA 1992)] prior to a monitoring event, and/or consult a water quality professional, as necessary. A brief synopsis of the key monitoring and flow measurement protocol are provided below in Section 4.1 and 4.2.

4.1 Manual Sample Collection

Manual sample collection involves filling a container from a runoff stream or receiving waterbody. This can be done either by collecting the sample directly into laboratory-supplied bottles or by using an intermediate container to pour the sample into the lab bottles. Note that samples for certain constituents, including oil and grease, bacteria, and low-level mercury, are best if collected directly into the appropriate sample bottle without use of an intermediate container to reduce the potential for cross contamination. However, in certain situations such as high flow it may not be feasible to collect directly into the sample bottle, therefore an intermediate container can be used to collect and transfer the sample.

An intermediate sample container can be an unused laboratory bottle. Sample collection can be assisted by a device that is extended to dip, lower, or reach the sample container into the waterbody. This method is



Manual sample collection methods using an intermediate container

⁷ <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/ctws-ot-20-350-04-01-monitoring-guidance-manual-a11y.pdf>

⁸ <https://www3.epa.gov/npdes/pubs/owm0093.pdf>

ordinarily used when the waterbody is difficult to access, and an intermediate container must be lowered into the water or reached across some distance to collect a sample. Additionally, the use of an intermediate container when filling pre-preserved laboratory bottles can be beneficial because it eliminates the risk of accidentally rinsing out the preservative while filling the bottles.

4.2 Flow Rate Estimation via Float Velocity Method

To use this method, first it is necessary to determine the cross-sectional area of the flow at a specific location. This requires estimation of flow depth and width, as well as a general assessment of the bottom channel shape such as rectangular or trapezoidal. Then field technicians mark two places on the bank of the channel at least five feet apart (using a longer distance between the two points will result in a more accurate flow measurement).

When this setup is complete, the flow can be measured by releasing a buoyant object into the channel upstream of the two marked points on the bank and measuring the time it takes to flow between them. The rate of flow can be calculated by the following formula:

Equation 1:

$$\text{Flow Rate } (ft^3/sec) = \frac{\text{Distance Between Points } (ft)}{\text{Traverse Time } (sec)} \times \text{Cross Sectional Area } (ft^2)$$

There are some disadvantages to the float method: (1) measuring the cross-sectional area of a large water body can be difficult, and inaccuracies in this value will affect the accuracy of the flow measurement, and (2) the method measures velocity of flow only at the surface of a channel, which may not be representative of the velocity throughout the entire cross section of flow. Therefore, when using this method, multiple measurements should be taken at different points across the channel and the results averaged.

The accuracy of the float method is improved by using an object that has a density similar to water and that tends to float totally submerged. For example, oranges are good floating objects for this method because they are easy to see, remain buoyant, and are environmentally safe.

The float method should only be used if a mechanical flow meter is not available. Mechanical flow meters, such as a turbine flow meter or ultrasonic flow meter, will provide more accurate flow velocity at a given point. The Cross-sectional area will still need to be estimated to calculate a flow rate, however, flow meters help reduce the time, effort, and potential inaccuracy introduced by the manual float method.

4.3 Monitoring Equipment

The use of proper monitoring equipment is necessary to ensure the safety of personnel collecting the samples and integrity of the samples themselves. Contact with raw sewage can have acute and long-term impacts to human health that can be avoided using the proper personal protective equipment (PPE). Additionally, contamination of the sample may occur if inappropriate equipment or handling methods are used.

Recommended PPE for receiving water monitoring includes:

- Disposable latex gloves

- Close-toed shoes, long pants, and long sleeve shirt
- Optional Tyvek suit or similar if contact with the spill material is likely
- Eye protection (glasses or goggles) and/or face shield
- Disinfecting wipes and hand sanitizer

To be ready for a spill, it is recommended the following list of equipment is procured and stored in a centralized location. Store enough sampling bottles to be able to collect up to four days of samples at each of the four monitoring location types described in Section 2.4. In the event that any of the bottles are lost or compromised, it is recommended to also have a full set of backup bottles.

- Four days' worth of sample bottles plus one days' worth of back-up includes:
 - 40 100 mL plastic bottles with Sodium thiosulfate preservative
 - 20 250 mL plastic bottles with Sulfuric acid preservative
- Sample bottle labels and water-resistant marker
- CoC sheets (Appendix B)
- Visual observation log (Appendix C)
- Cooler for ice to keep samples at or below 4°C
- Grab pole to safely reach into drains as needed

For additional resources, the Caltrans and/or EPA guidance documents referenced at the beginning of this section can serve as a general guide for collecting water quality samples. While these documents focus on stormwater sampling, the safety protocols and handling methods apply to the receiving water monitoring discussed in this plan.

4.4 Water Quality Laboratory

Monitoring samples must be taken to an Environmental Laboratory Accreditation Program (ELAP) certified laboratory for analysis. The City of Pasadena Water Quality Laboratory and Los Angeles Dept. of Water & Power, Water Quality Laboratory located in Pasadena are classified as non-public certified laboratories. The City should consider creating a purchase order with either of these laboratories to process monitoring results in case of a spill. Otherwise, the closest public ELAP certified laboratory is in South Pasadena:

- EMSL Analytical, Inc. (public). Located at 520 Mission Street, South Pasadena.

In the event that the local laboratories are unavailable during a spill event, consult the State Water Resources Control Board ELAP webpage⁹ for a mapping tool that shows the closest laboratories and their contact information.

⁹ https://www.waterboards.ca.gov/drinking_water/certlic/labs/

5 Site Access and Safety Considerations

Access to monitoring locations must be assessed for safety considerations during each visit. Field staff should use caution at all times in evaluating roadway safety and right of way conditions. Specific safety concerns relating to surface water sampling includes potential slip, trip, and fall hazards, biological hazards, and swift water. To reduce safety risks, grab poles should be considered for sample collection at difficult to reach monitoring locations.

Unlike receiving water monitoring locations, drainage conveyance monitoring locations are often located in the street and require some level of traffic control based on the type of road and time of day. Compounding this issue is that spills frequently occur during rain events which make for even more dangerous road conditions. Monitoring locations presented in this plan are intended to represent the most optimal location from a data standpoint, but not necessarily from a personnel safety standpoint. At all times, personnel safety should be the top priority, and monitoring should be delayed or relocated if safety is potentially compromised.

Site-specific access and safety considerations are presented in the following section.

6 Site Descriptions

Site-specific location, access, and monitoring considerations are presented on the following site information sheets. For the purposes of this document, the core monitoring locations are identified using the name of the drainage and a designation of the monitoring location as upstream (US) or downstream (DS) or drainage conveyance (DC). A numeric value is added to monitoring location name where there is two or more of the same type within the same drainage area.

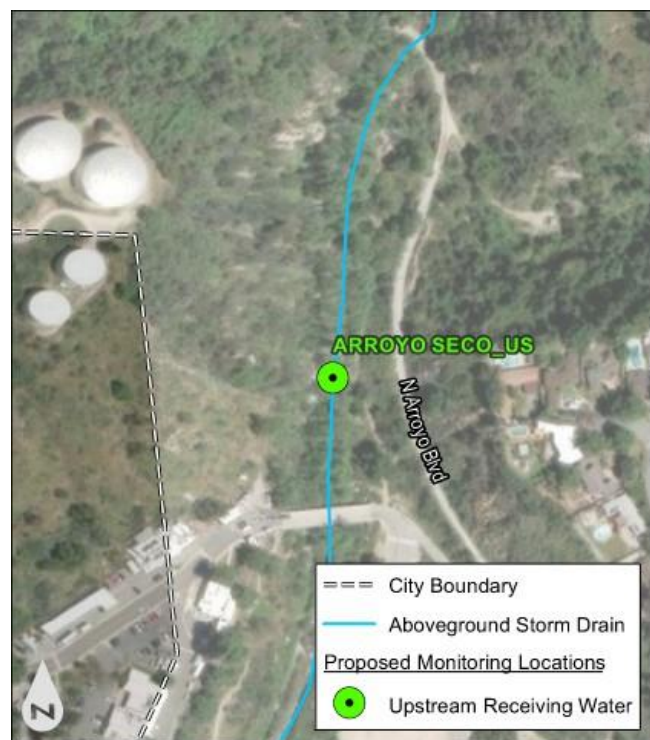
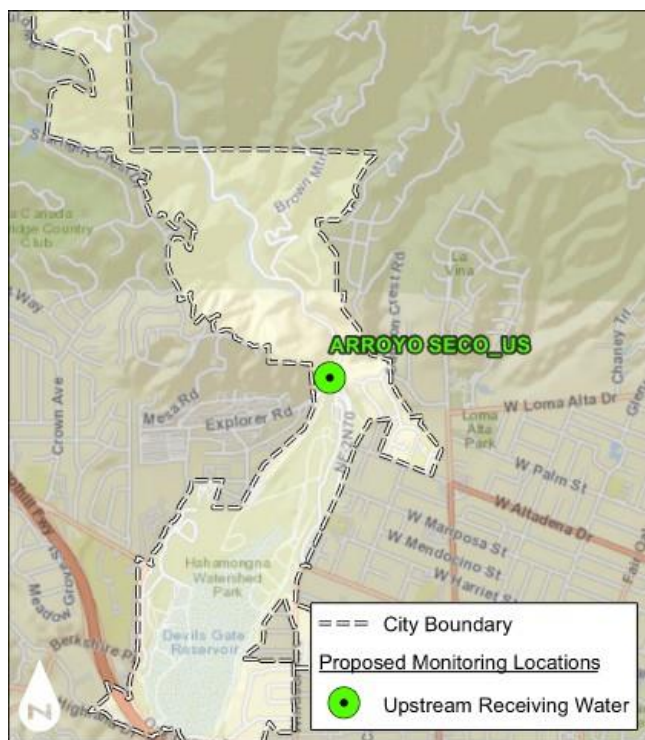
As described in Section 3, spill monitoring locations are identified based on location and size of the spill, specific weather and hydrology conditions, and specific management considerations. A geographic reference for all sample location is provided in Figure 3.

6.1 Receiving Water Monitoring Locations

The following sections identify pre-determined US and DS surface water monitoring locations. Since we do not know the location of a potential future spill, the discharge point into the receiving water as well as the DC monitoring point are unknown. Therefore, specific locations for these samples cannot be pre-planned. US and DS monitoring locations can be pre-planned since they are best taken from where a water body enters a city before being influenced by runoff or non-stormwater discharges (i.e. sewer spills) and where a water body leaves a city before it comeslingles and is influenced by downstream conditions that are outside of the city's control. Section 6.1.1 through 6.1.6 detail US and DS locations that fit these criteria as closely as possible. However, in certain situations, like with Alhambra and Rubio Wash and the eastern edge of Eaton Wash, there is not a receiving water present (channelized into storm drains). Therefore, DC monitoring locations as shown in Section 6.2.1 through 6.2.15 have been identified where the City may collect samples to categorize water in the storm drain before it crosses over the City boundary.

6.1.1 ARROYO SECO_US

Monitoring Location ID	ARROYO SECO_US
Receiving Water Name	Arroyo Seco
Monitoring Location Type	Receiving Surface Water (RSW) Upstream
Address/Intersection	Gabrielino Trail 300 feet north of Explorer Rd
Latitude/Longitude	34.203241N, -118.166446W

**Site Description:**

The ARROYO SECO_US site is located in the Arroyo Seco Channel 300 feet north of the Explorer Rd bridge. The site is used to characterize the upstream condition of Arroyo Seco before comingling with storm drain outfalls. The site is a natural stream at the mouth of an undeveloped canyon and may experience high flows during storm events.

Access Notes:

Access to the site is by foot from the Gabrielino Trail or from Explorer Rd. There is a large dirt parking lot at the Explorer Rd bridge, however, access might be restricted by the adjacent Jet Propulsion Laboratory. Access to Gabrielino Trail is by foot from the trailhead at the end of W. Altadena Dr.

Sampling Notes:

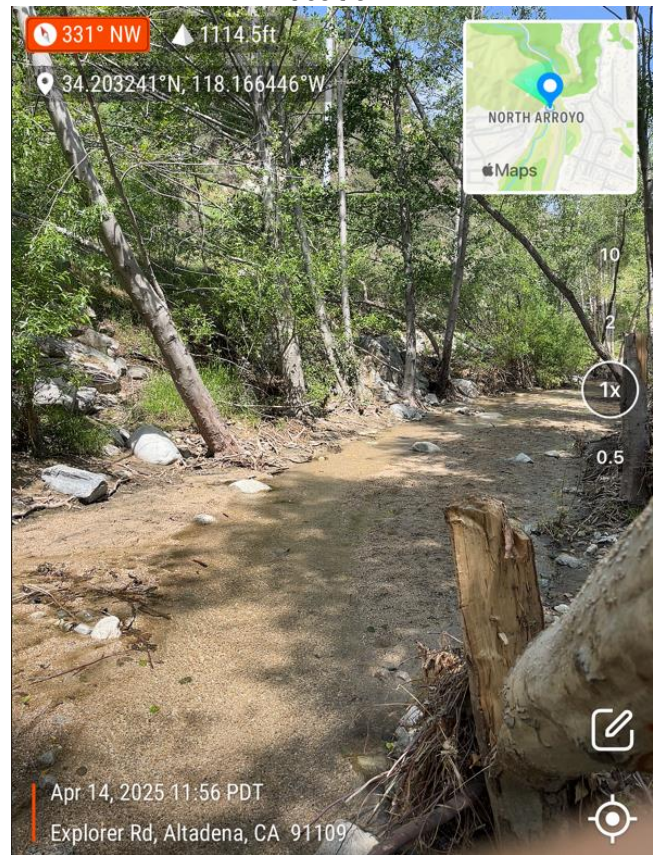
The trail provides access to the creek for sample collection using the grab pole or other non-contact method.

Google Earth Site Photos

Parking Along Explorer Rd to the left and Gabrielino Trail to the right

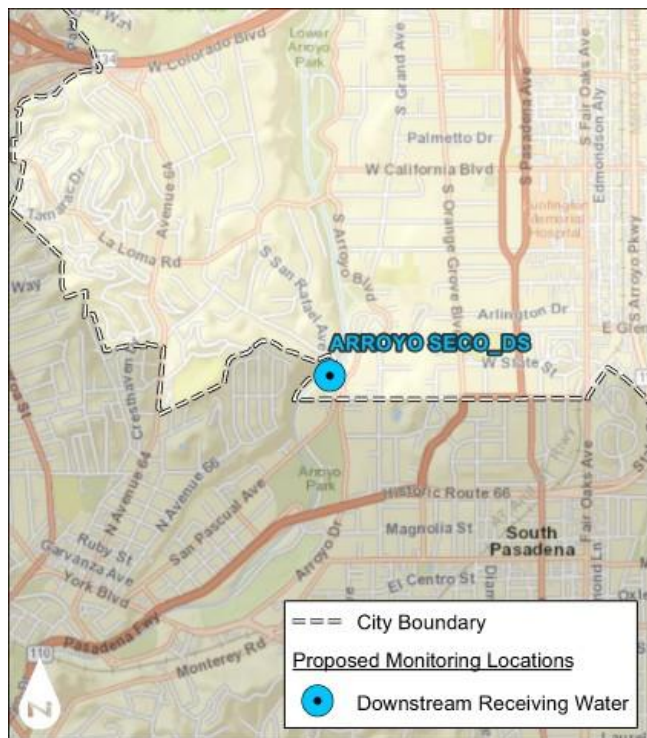


Arroyo Seco at the upstream monitoring location



6.1.2 ARROYO SECO_DS

Monitoring Location ID	ARROYO SECO_DS
Receiving Water Name	Arroyo Seco
Monitoring Location Type	Receiving Surface Water (RSW) Downstream
Address/Intersection	SW of S San Rafael Ave & S Arroyo Blvd
Latitude/Longitude	34.125137N, -118.166203W

**Site Description:**

The ARROYO SECO_DS site is located in the Arroyo Seco Channel 0.06 miles west of S Arroyo Rd. The site is located downstream of the confluence with Central Drain No. 3 as well as all other stormwater conveyances that drain the City. ARROYO SECO_DS is used as the RSW downstream sampling location for the ARROYO SECO_US upstream sewer spill monitoring location.

Access Notes:

Access to the site is from an unpaved road past the Saint Clair Equestrian parking lot that leads to bridge access to Arroyo Seco Channel. The unpaved road intersects with San Pascual Ave approximately 0.14 miles south of the sampling bridge location. Driving on the unpaved road should be avoided if conditions are slippery during wet weather.

Sampling Notes:

The bridge provides access to the channel for sample collection using the grab pole. Samples collected at this location are used to characterize the downstream condition from any spill that occurs within the Arroyo Seco Channel.

Site Photos

S San Rafael Ave looking south at sampling point from the bridge

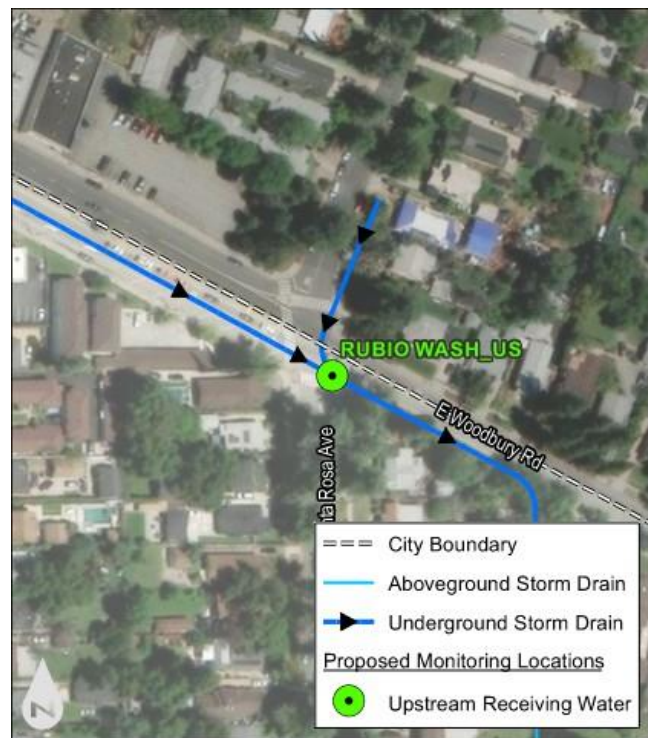
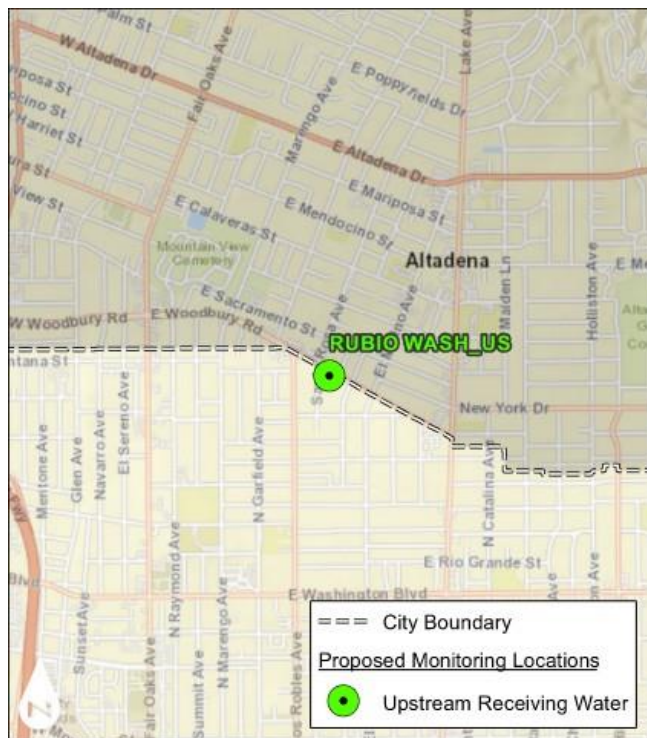


Edge of parking lot of Saint Clair Equestrian looking north at drain access bridge



6.1.3 RUBIO WASH_US

Monitoring Location ID	RUBIO WASH_US
Receiving Water Name	Rubio Wash
Monitoring Location Type	Receiving Surface Water (RSW) Upstream
Address/Intersection	E Woodbury Rd SE of Santa Rosa Ave
Latitude/Longitude	34.180604N, -118.140239W

**Site Description:**

The RUBIO WASH_US site is located where the Rubio Wash enters the City and discharges into a channel east of the intersection of Santa Rosa Ave & E Woodbury Rd. The site is used to characterize the upstream condition in Rubio Wash before it comesling with stormwater outfalls south of the City boundary.

Access Notes:

The site is located at the manhole at the intersection of Santa Rosa Ave & E Woodbury Rd. Manhole access will likely require the setup of traffic cones to ensure safety during sampling.

Sampling Notes:

Collect samples using a grab pole or from the surface through the manhole. Observe the drain to ensure samples are collected from flowing pools.

Site Photos

View looking north at the sampling point along E Woodbury Rd

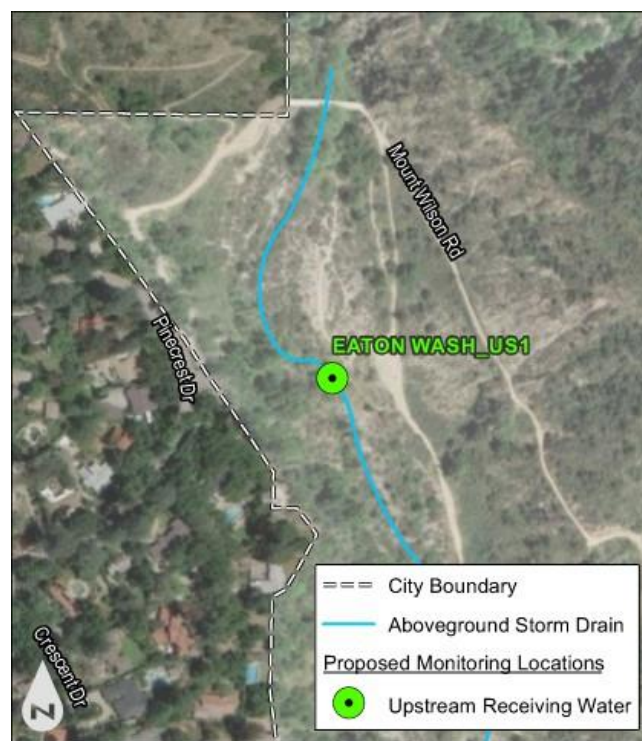


View looking east at the sampling point along E Woodbury Rd



6.1.4 EATON WASH_US1

Monitoring Location ID	EATON WASH_US1
Receiving Water Name	Eaton Wash
Monitoring Location Type	Receiving Surface Water (RSW) Upstream
Address/Intersection	Mt. Wilson Toll Rd & Pinecrest Dr
Latitude/Longitude	34.191672N, -118.104471W
Contact Information	Name: Kevin Regan Affiliation: LA County Parks and Recreation Phone/Email: KRegan@parks.lacounty.gov

**Site Description:**

EATON WASH_US site is located in Eaton Canyon Park at the northern edge of the City 0.3 miles down Mt. Wilson Toll Rd from the intersection with Pinecrest Dr. The site is used to characterize the upstream condition in Eaton Wash before it comes along with stormwater outfalls from Altadena as well Pasadena.

Access Notes:

Access to the site is by foot from Pinecrest Dr. Follow Mt. Wilson Toll Rd north until you reach the bottom of the canyon, then cross the bridge and access the open water from the east side of the wash. Sample location should be determined on-site based on access to flowing water.

Sampling Notes:

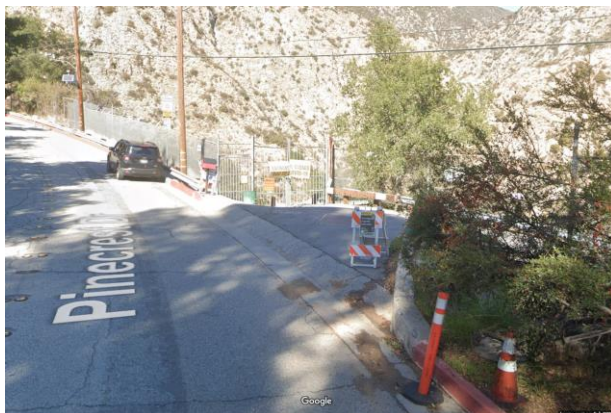
Collect samples from the drain's banks by hand or using a grab pole.

Site Photos

View looking north at the access point to the Eaton Wash sampling point off of Mt. Wilson Toll Rd.

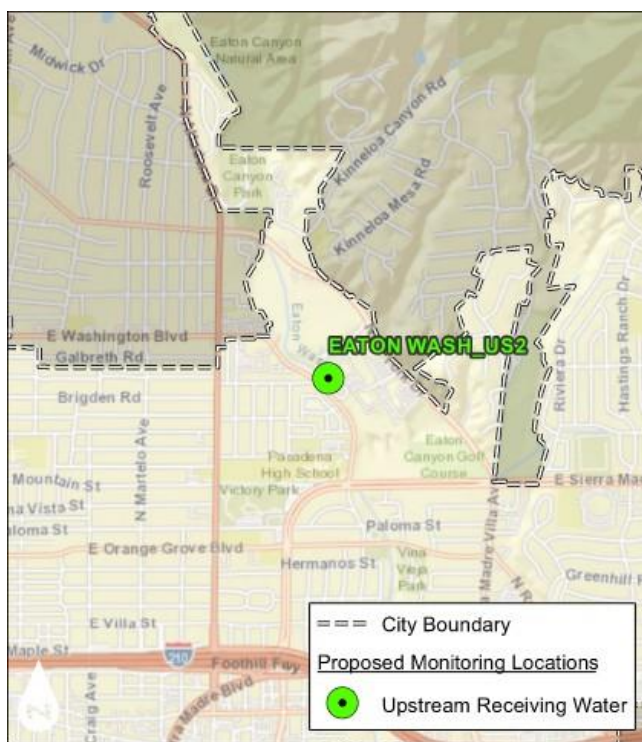


Mt. Wilson Toll Rd. Turnoff from Pinecrest Dr.



6.1.5 EATON WASH_US2

Monitoring Location ID	EATON WASH_US2
Receiving Water Name	Eaton Wash
Monitoring Location Type	Receiving Surface Water (RSW) Upstream
Address/Intersection	SE of N Altadena Dr & E Washington Blvd
Latitude/Longitude	34.16856389N, -118.094597222W
Contact Information	Affiliation: Los Angeles County Public Works Department Phone/Email: (626) 798-6761

**Site Description:**

EATON WASH_US2 site is located in the above ground channel downstream of the Eaton Canyon Reservoir, maintained by Los Angeles County Public Works Department. This site should be considered a secondary monitoring location EATON WASH_US1 because it is downstream of a few City storm drains along Eaton Wash upstream of the reservoir. However, if EATON WASH_US1 is inaccessible, EATON WASH_DS2 maybe be a suitable alternative.

Access Notes:

The access gate to the channel is located along E Washington Blvd, adjacent to the building Fastest Labs of Pasadena. Access to the site is gated and may require coordination with Los Angeles County Public Works Department at (626) 798-6761.

Sampling Notes:

Collect samples from the drain's banks using a grab pole.

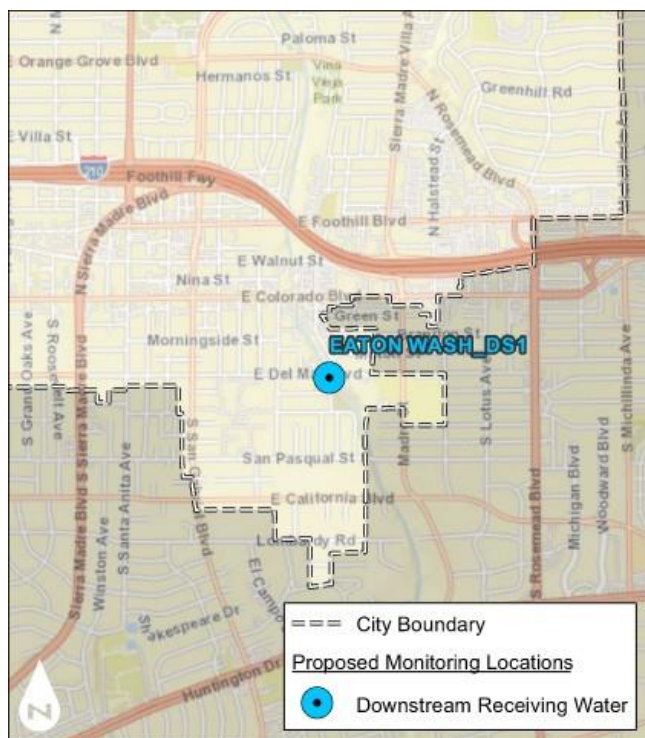
Site Photos

View of driveway access point on E Washington Blvd from Woodlyn Rd



6.1.6 EATON WASH_DS1

Monitoring Location ID	EATON WASH_DS1
Receiving Water Name	Eaton Wash
Monitoring Location Type	Receiving Surface Water (RSW) Downstream
Address/Intersection	E Del Mar Blvd SW of S Kinneloa Ave
Latitude/Longitude	34.142026N, -118.086098W



Site Description:

The EATON WASH_DS1 site is located in the open channel at the most downstream location before leaving the City boundary. Due to the topography and jurisdictional boundaries, there are portions of the City that drain into Eaton Wash downstream from this location and are monitored through separate downstream drainage conveyance monitoring locations. Unless there is a spill in the area tributary to these downstream drainage conveyance monitoring locations, this location is used as the primary RSW downstream monitoring location for the two Eaton Wash upstream monitoring location.

Access Notes:

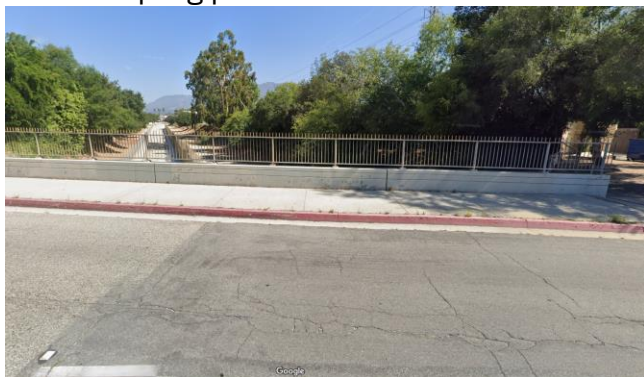
Access to the site is from the adjacent right of way along E. Del Mar Blvd.

Sampling Notes:

Collect samples by lowering a sample container over the bridge using a grab pole.

Site Photos

View looking south at Eaton Wash bridge
sampling point from E. Del Mar Blvd.



View looking north at E. Del Mar Blvd. from
edge of Eaton Wash.



6.2 Drainage Conveyance Monitoring Locations

Portions of Pasadena, specifically in Alhambra and Rubio Wash and the far eastern edge of the City along Eaton Wash, do not have a receiving water location for the purpose of spill monitoring within city limits. Therefore, the City should consider identifying downstream drainage conveyance monitoring locations (typically in a storm drain manhole or inlet) just upstream of where the storm drains cross the City boundary. Monitoring at these locations will provide valuable data on the impact from spill that made its way into the storm before being influenced by runoff or other non-stormwater discharges from a downstream jurisdiction that's outside of the City's control.

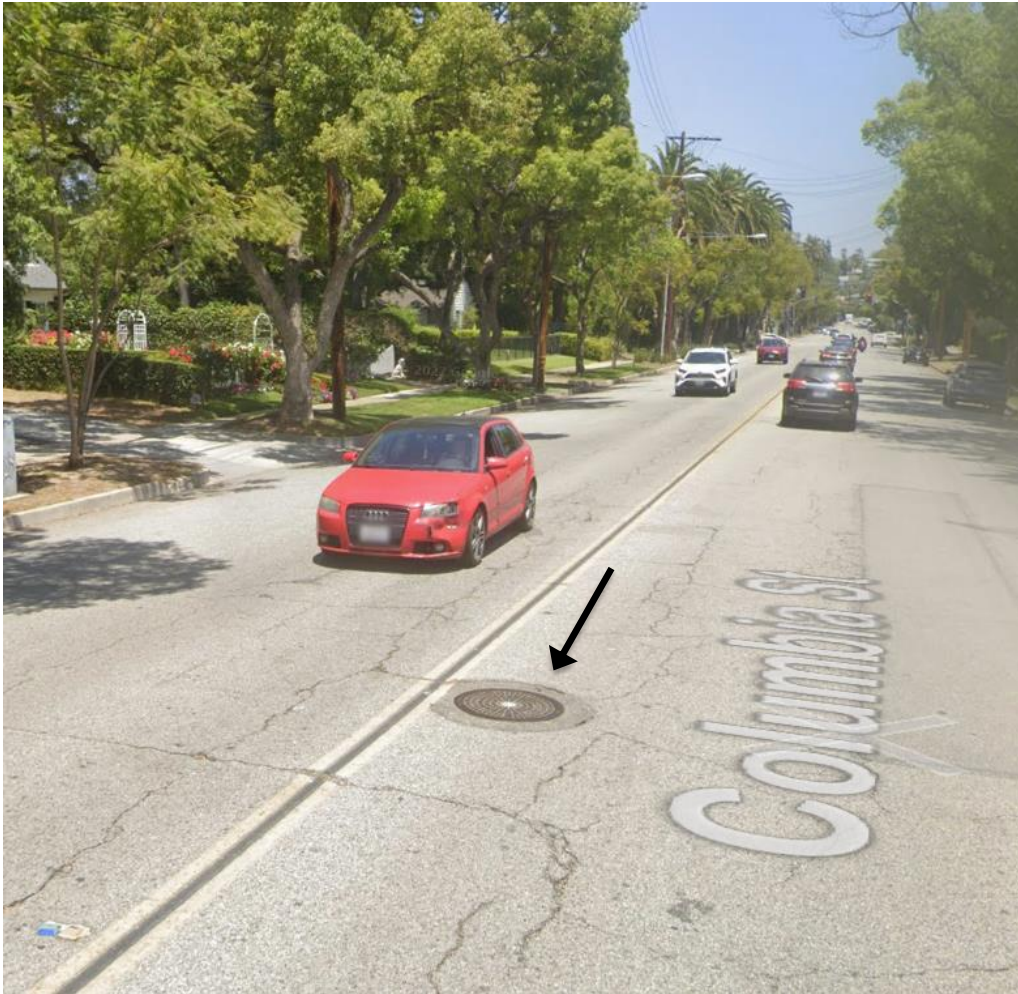
The following sections provide overview maps and street view images for the downstream drainage conveyance system monitoring locations identified for Alhambra Wash, Rubio Wash and Eaton Wash. In Eaton Wash, the majority of the area can be monitored at the designed downstream monitoring location (EATON WASH_DS1) except for the eastern most edge of the drainage area that flows into Arcadia and East Pasadena. In this area, a designated drainage conveyance monitoring point is located in the storm drain at the intersection of Foothill Blvd and Michillinda Ave. In Alhambra and Rubio Wash, drainage conveyance monitoring locations have been identified for each storm drain that crosses the City boundary.

6.2.1 ALHAMBRA WASH_DC1

Monitoring Location ID	ALHAMBRA WASH_DC1
Receiving Water Name	Alhambra Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	Columbia St E/O Brookmere Rd.
Latitude/Longitude	34.124025N, -118.156297W

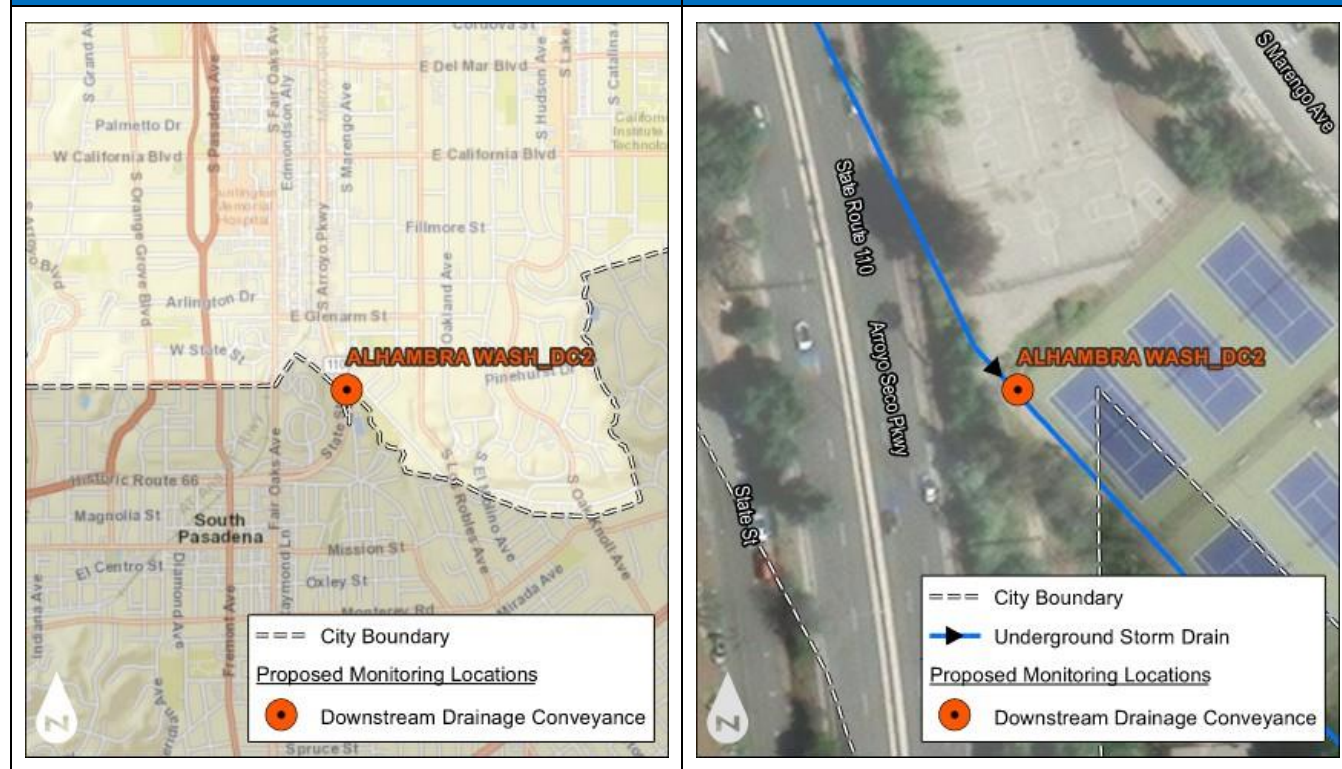


ALHAMBRA WASH_DC1
Street View



6.2.2 ALHAMBRA WASH_DC2

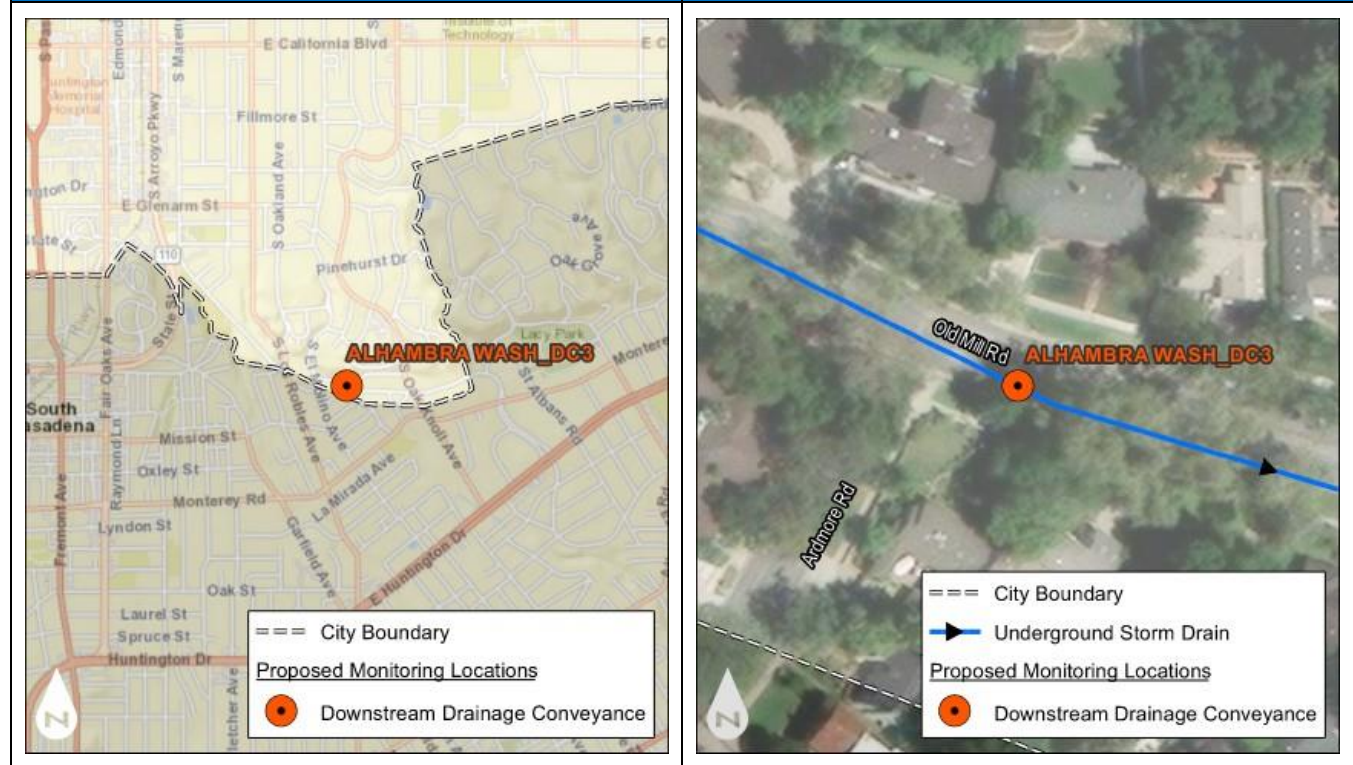
Monitoring Location ID	ALHAMBRA WASH_DC2
Receiving Water Name	Alhambra Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	Blair High School (1201 S Marengo Ave, Pasadena, CA 91106)
Latitude/Longitude	34.123957N, -118.145978W
Contact Information	Name: Blair High School – Pasadena Unified School District Affiliation: Operations and Maintenance Phone/Email: (626) 396-5850



A photograph of a paved path leading to a fenced-in area, with a manhole cover in the foreground and a map inset in the top left corner. The path is made of light-colored gravel or crushed stone. To the left is a chain-link fence, and to the right is a concrete retaining wall. In the foreground, a black arrow points to a circular manhole cover. The map inset in the top left shows the location in Pasadena, CA, near the intersection of Ohio St and S Oakhurst Ave, with a blue pin marking the spot. The map also shows the 66 and 10 freeways and the area around Aymond Hill. The photo was taken on Monday, April 21, 2025, at 11:20 AM, at Blair High School, Pasadena, CA 91106, with coordinates 34.123957°N, 118.145978°W. The photo is credited to Timemark.

6.2.3 ALHAMBRA WASH_DC3

Monitoring Location ID	ALHAMBRA WASH_DC3
Receiving Water Name	Alhambra Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	Old Mill Rd E/O Ardmore Rd
Latitude/Longitude	34.118305N, -118.135383W



ALHAMBRA WASH_DC3
Street View



6.2.4 ALHAMBRA WASH_DC4

Monitoring Location ID	ALHAMBRA WASH_DC4
Receiving Water Name	Alhambra Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	Old Mill Rd E/O Staats Pl
Latitude/Longitude	34.117902N, -118.131586W



ALHAMBRA WASH_DC4
Street View



6.2.5 ALHAMBRA WASH_DC5

Monitoring Location ID	ALHAMBRA WASH_DC5
Receiving Water Name	Alhambra Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	Arden Rd W/O S. Wilson Ave
Latitude/Longitude	34.131702N, -118.128295W

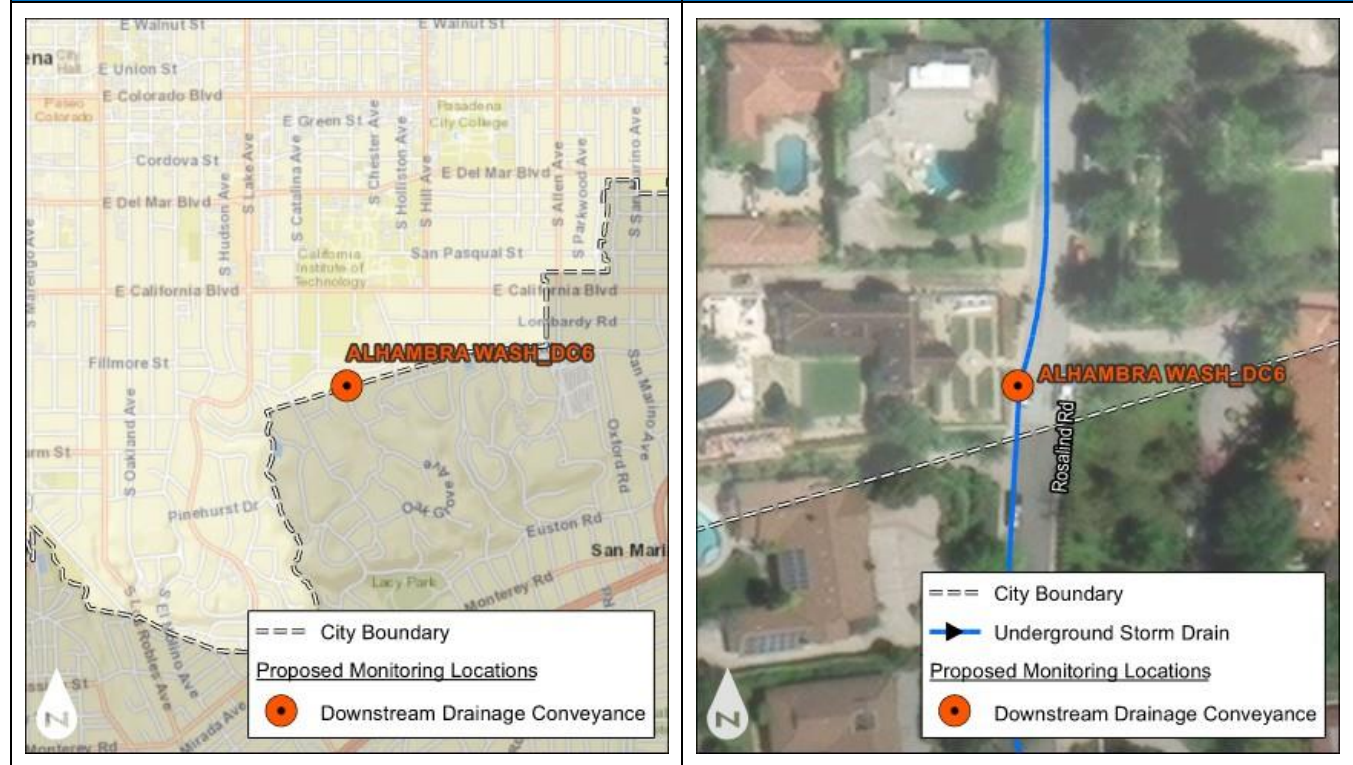


ALHAMBRA WASH_DC5
Street View



6.2.6 ALHMAMBRA WASH_DC6

Monitoring Location ID	ALHAMBRA WASH_DC6
Receiving Water Name	Alhambra Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	Rosalind Rd S/O Arden Rd
Latitude/Longitude	34.130987N, -118.126189W

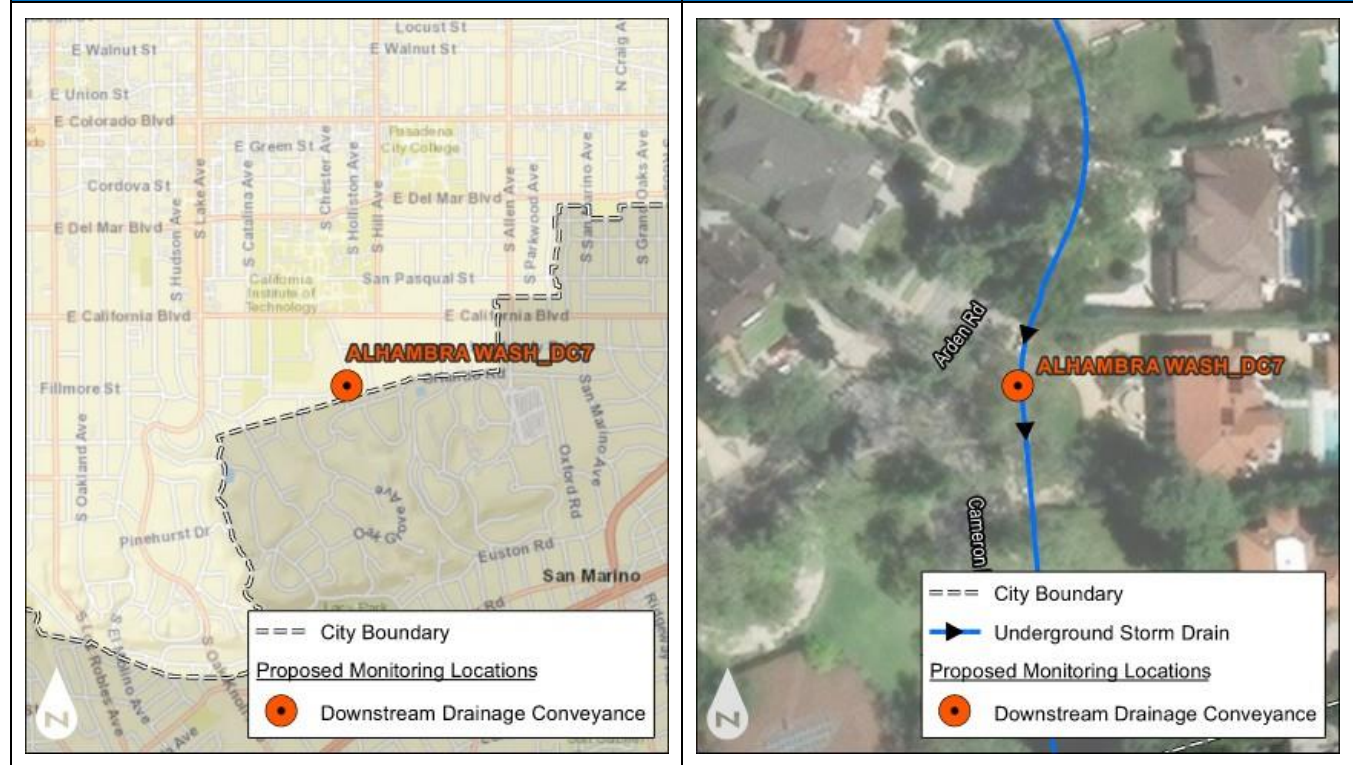


ALHAMBRA WASH_DC6
Street View



6.2.7 ALHAMBRA WASH_DC7

Monitoring Location ID	ALHAMBRA WASH_DC7
Receiving Water Name	Alhambra Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	Arden Rd & Cameron Dr
Latitude/Longitude	34.132289N, -118.123186W



ALHAMBRA WASH_DC7
Street View



6.2.8 RUBIO WASH_DC1

Monitoring Location ID	RUBIO WASH_DC1
Receiving Water Name	Rubio Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	San Pasqual St W/O S. Greenwood Ave
Latitude/Longitude	34.137759N, -118.110923W



RUBIO WASH_DC1
Street View

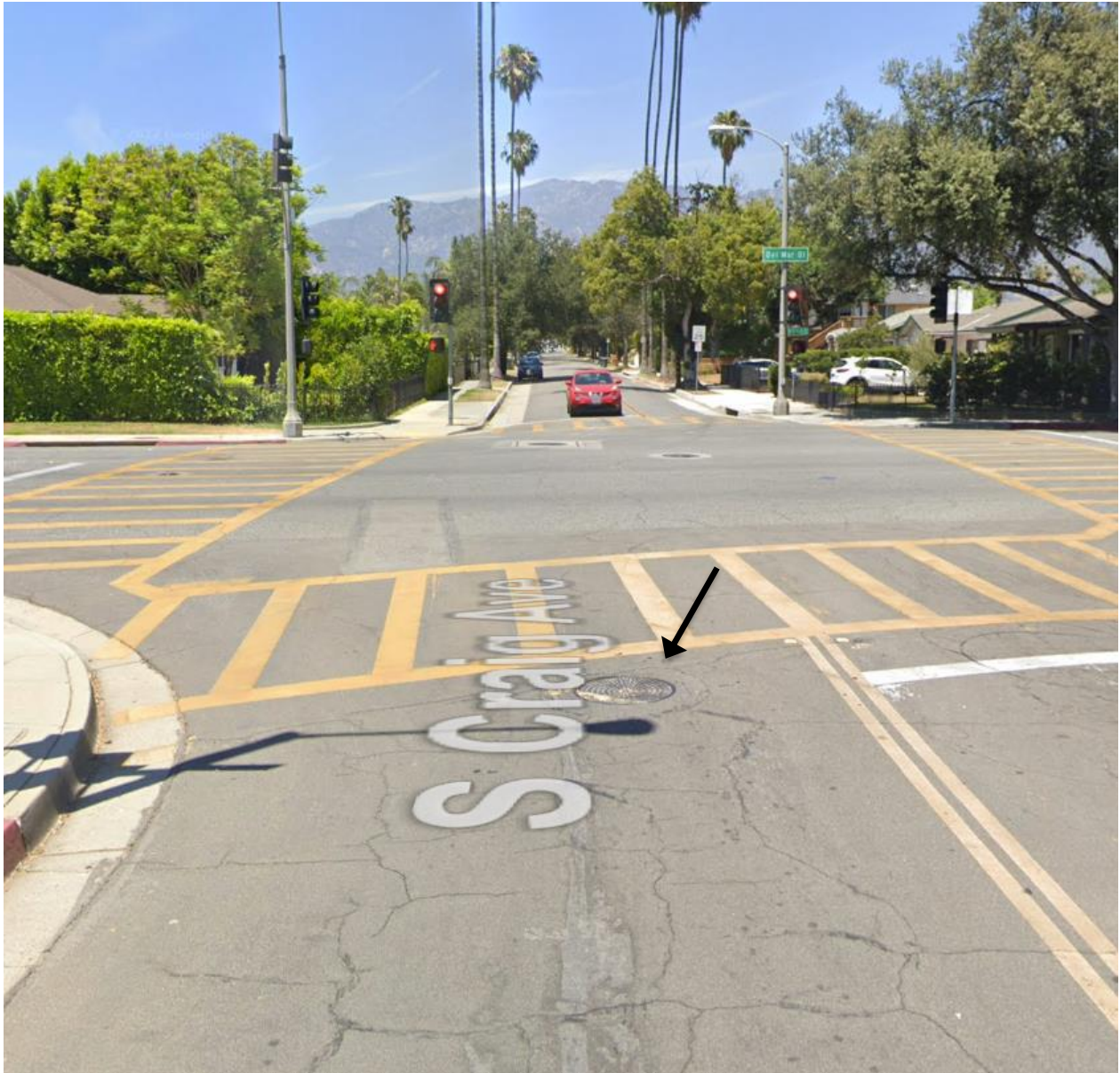


6.2.9 RUBIO WASH_DC2

Monitoring Location ID	RUBIO WASH_DC2
Receiving Water Name	Rubio Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	S. Craig Ave S/O E. Del Mar Blvd
Latitude/Longitude	34.141882N, -118.106193W



RUBIO WASH_DC2
Street View



6.2.10 RUBIO WASH_DC3

Monitoring Location ID	RUBIO WASH_DC3
Receiving Water Name	Rubio Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	S. Sierra Madre Blvd N/O Oneida St
Latitude/Longitude	34.14112N, -118.101615W

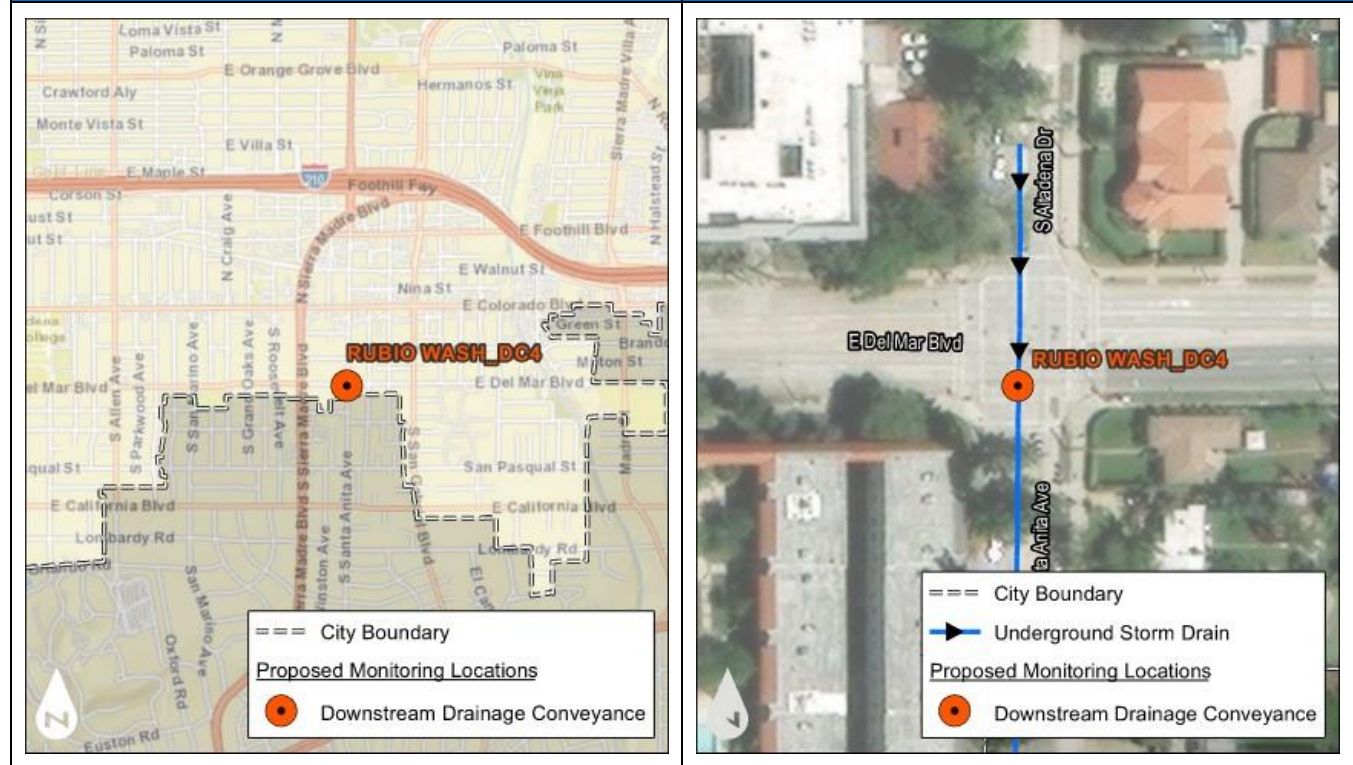


RUBIO WASH_DC3
Street View

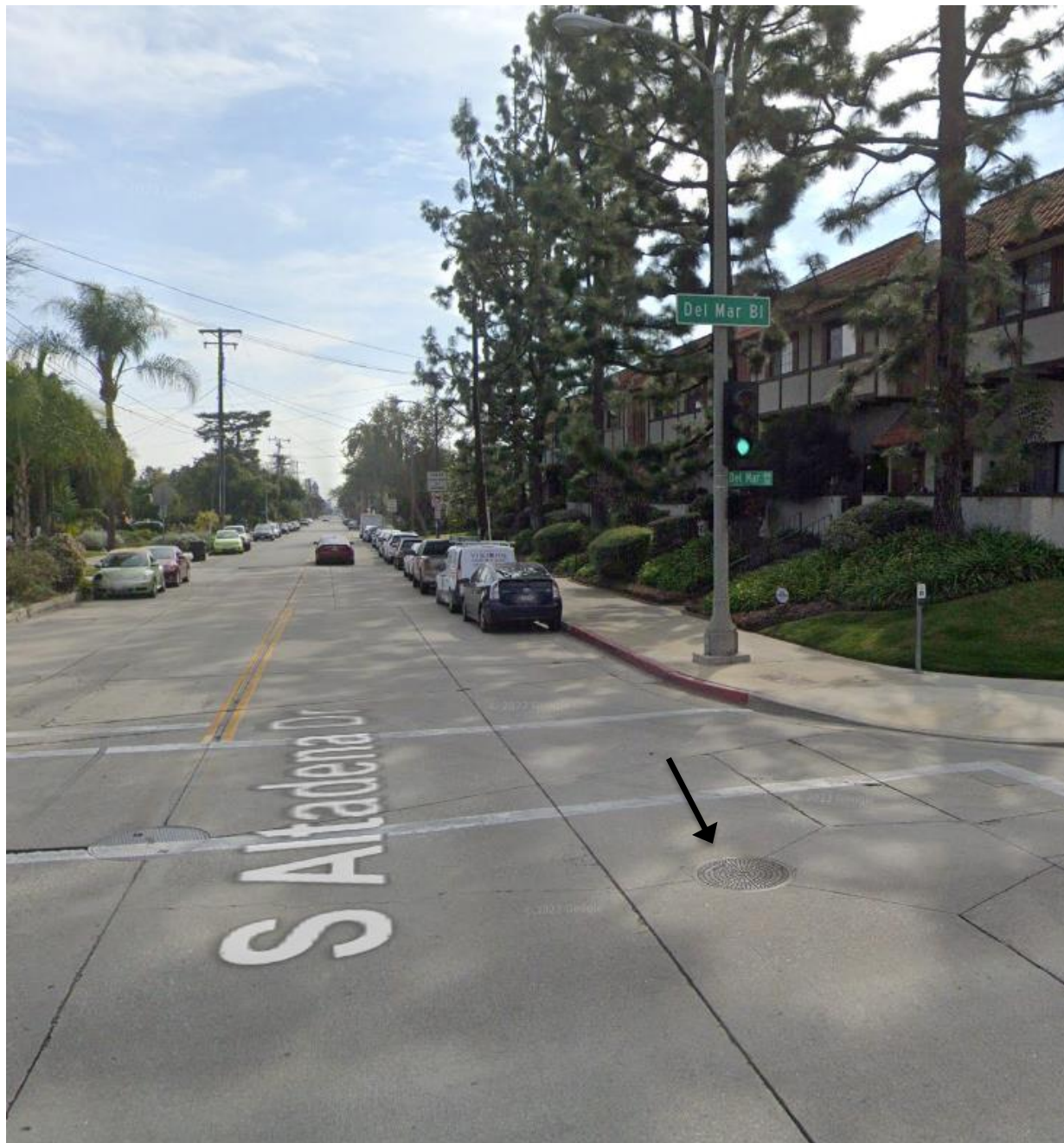


6.2.11 RUBIO WASH_DC4

Monitoring Location ID	RUBIO WASH_DC4
Receiving Water Name	Rubio Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	E. Del Mar Blvd & S. Altadena Dr
Latitude/Longitude	34.142053N, -118.098749W



RUBIO WASH_DC4
Street View

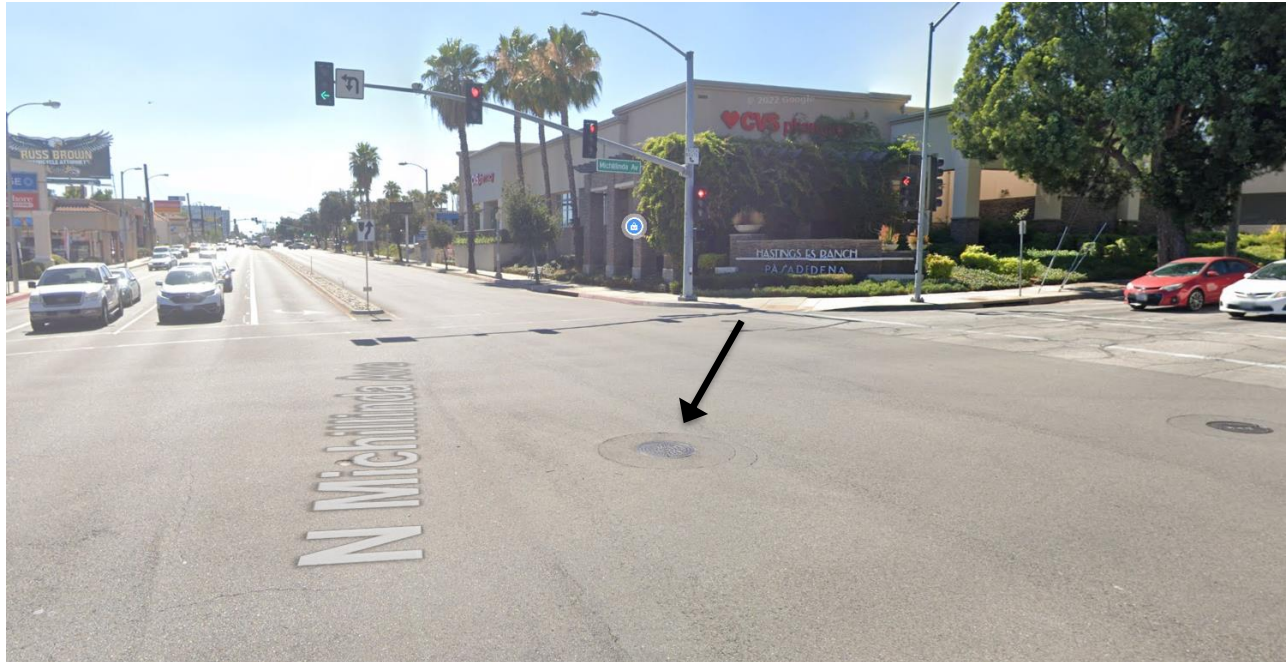


6.2.12 EATON WASH_DC1

Monitoring Location ID	EATON WASH_DC1
Receiving Water Name	Eaton Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	E. Foothill Blvd & N. Michillinda Ave
Latitude/Longitude	34.150322N, -118.06783W



EATON WASH_DC1
Street View



6.2.13 EATON WASH_DC2

Monitoring Location ID	EATON WASH_DC2
Receiving Water Name	Eaton Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	San Pasqual St & Plumosa Dr
Latitude/Longitude	34.13793717N, -118.0853948W



EATON WASH_DC2
Street View



6.2.14 EATON WASH_DC3

Monitoring Location ID	EATON WASH_DC3
Receiving Water Name	Eaton Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	E California Blvd & Brightside Ln
Latitude/Longitude	34.135932N, -118.084759W

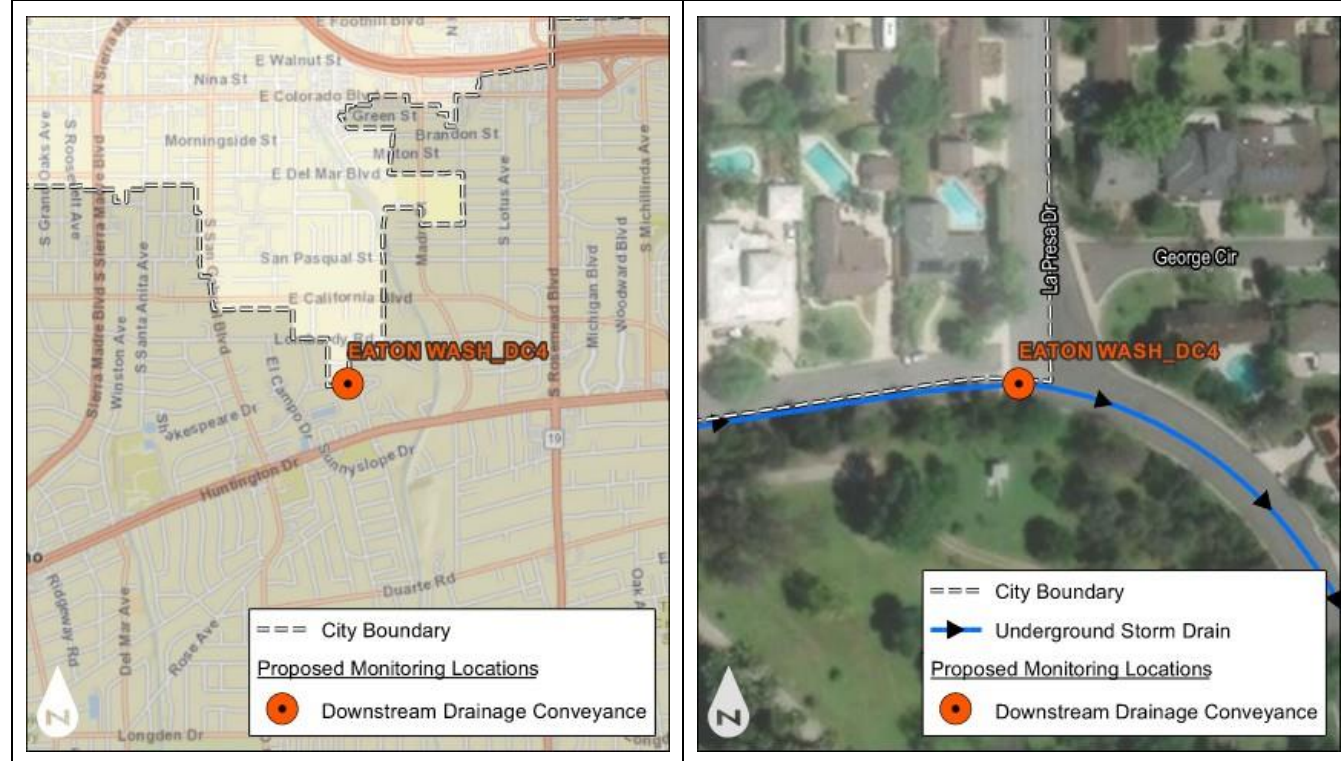


EATON WASH_DC3
Street View



6.2.15 EATON WASH_DC4

Monitoring Location ID	EATON WASH_DC4
Receiving Water Name	Eaton Wash
Monitoring Location Type	Drainage Conveyance (DC)
Address/Intersection	Sunnyslope Blvd & Le Presa Dr
Latitude/Longitude	34.131425N, -118.086064W



EATON WASH_DC4
Street View



7 Summary

This Monitoring Plan provides the City with technical guidance for monitoring receiving water quality in the event of a sewer spill. Water quality monitoring can help the City determine the relative impact of a spill and help guide management decisions relating to remediation and spill response. These monitoring protocols, and site-specific descriptions, provide City staff with a detailed guidance document for performing water quality monitoring and assessing impact to waterbodies following a sewer spill.

Selection of the monitoring locations for this Monitoring Plan was determined based on proximity to City assets, drainage characteristics, safety, accessibility, and ability to isolate runoff from a spill that is only influenced by the City. This document provides multiple locations that may be used as downstream and upstream monitoring locations to assess, not only the downstream impacts of spills, but also the upstream pollutant characteristics to document the relative impact in each receiving water. Drainage conveyance and point of discharge monitoring locations will be determined in real time if a spill reaches the receiving water. All monitoring sites are subject to change should a different site be identified as preferable for properly characterizing impacts to water quality from a spill event. It is recommended that the City annually visit the monitoring locations identified in this plan to ensure access is still available and safe.

8 References

Caltrans 2020. Stormwater Monitoring Guidance Manual. <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/ctws-ot-20-350-04-01-monitoring-guidance-manual-a11y.pdf>

Environmental Protection Agency 1992. NPDES Storm Water Sampling Guidance Document. <https://www3.epa.gov/npdes/pubs/owm0093.pdf>

State Water Resources Control Board 2022. Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems. Order WQ 2022-0103-DWQ. https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2022/wqo_2022-0103-dwq.pdf

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Appendix A

Waste Discharge Requirements (WQ 2003-0005-DWQ) Attachment E.1

ATTACHMENT E1 – NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

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ATTACHMENT E1– NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

The Notification Requirements (section 1), Spill-specific Monitoring Requirements (section 2), Reporting Requirements (section 3) and Recordkeeping Requirements (section 4) in this Attachment are pursuant to Water Code section 13267 and section 13383, and are an enforceable component of this General Order. For the purpose of this General Order, the term:

- Notification means the notifying of appropriate parties of a spill event or other activity.
- Spill-specific Monitoring means the gathering of information and data for a specific spill event to be reported or kept as records.
- Reporting means the reporting of information and data into the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database.
- Recordkeeping means the maintaining of information and data in an official records storage system.

Failure to comply with the notification, monitoring, reporting and recordkeeping requirements in this General Order may subject the Enrollee to civil liabilities of up to \$10,000 a day per violation pursuant to Water Code section 13385; up to \$1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement.

Water Code section 13193 et seq. requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Resources Control Board (State Water Board) to collect sanitary sewer spill information for each spill event and make this information available to the public. Sanitary sewer spill information for each spill event includes but is not limited to: Enrollee contact information for each spill event, spill cause, estimated spill volume and factors used for estimation, location, date, time, duration, amount discharged to waters of the State, response and corrective action(s) taken.

1. NOTIFICATION REQUIREMENTS

1.1. Notification of Spills of 1,000 Gallons or Greater to the California Office of Emergency Services

Per Water Code section 13271, for a spill that discharges in or on any waters of the State, or discharges or is deposited where it is, or probably will be, discharged in or on any waters of the State, the Enrollee shall notify the California Office of Emergency Services and obtain a California Office of Emergency Services Control Number as soon as possible **but no later than two (2) hours** after:

- The Enrollee has knowledge of the spill; and
- Notification can be provided without substantially impeding cleanup or other emergency measures.

The notification requirements in this section apply to individual spills of 1,000 gallons or greater, from an Enrollee-owned and/or operated laterals, to a water of the State.

1.2. Spill Notification Information

The Enrollee shall provide the following spill information to the California Office of Emergency Services before receiving a Control Number, as applicable:

- Name and phone number of the person notifying the California Office of Emergency Services;
- Estimated spill volume (gallons);
- Estimated spill rate from the system (gallons per minute);
- Estimated discharge rate (gallons per minute) directly into waters of the State or indirectly into a drainage conveyance system;
- Spill incident description:
 - Brief narrative of the spill event, and
 - Spill incident location (address, city, and zip code) and closest cross streets and/or landmarks;
- Name and phone number of contact person on-scene;
- Date and time the Enrollee was informed of the spill event;
- Name of sanitary sewer system causing the spill;
- Spill cause or suspected cause (if known);
- Amount of spill contained;
- Name of receiving water body receiving or potentially receiving discharge; and
- Description of water body impact and/ or potential impact to beneficial uses.

1.3. Notification of Spill Report Updates

Following the initial notification to the California Office of Emergency Services and until such time that the Enrollee certifies the spill report in the online CIWQS Sanitary Sewer System Database, the Enrollee shall provide updates to the California Office of Emergency Services regarding substantial changes to:

- Estimated spill volume (increase or decrease in gallons initially estimated);
- Estimated discharge volume discharged directly into waters of the State or indirectly into a drainage conveyance system (increase or decrease in gallons initially estimated); and
- Additional impact(s) to the receiving water(s) and beneficial uses.

2. SPILL-SPECIFIC MONITORING REQUIREMENTS

2.1 Spill Location and Spread

The Enrollee shall visually assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools. The Enrollee shall document the critical spill locations, including:

- Photography and GPS coordinates for:
 - The system location where spill originated.
For multiple appearance points of a single spill event, the points closest to the spill origin.
- Photography for:
 - Drainage conveyance system entry locations,
 - The location(s) of discharge into surface waters, as applicable,
 - Extent of spill spread, and
 - The location(s) of clean up.

2.2 Spill Volume Estimation

To assess the approximate spill magnitude and spread, the Enrollee shall estimate the total spill volume using updated volume estimation techniques, calculations, and documentation for electronic reporting. The Enrollee shall update its notification and reporting of estimated spill volume (which includes spill volume recovered) as further information is gathered during and after a spill event.

2.3. Receiving Water Monitoring

2.3.1. Receiving Water Visual Observations

Through visual observations and use of best available spill volume-estimating techniques and field calculation techniques, the Enrollee shall gather and document the following information for spills discharging to surface waters:

- Estimated spill travel time to the receiving water;
- For spills entering a drainage conveyance system, estimated spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water;
- Estimated spill volume entering the receiving water; and
- Photography of:
 - Waterbody bank erosion,
 - Floating matter,
 - Water surface sheen (potentially from oil and grease),

- Discoloration of receiving water, and
- Impact to the receiving water.

2.3.2. Receiving Water – Water Quality Sampling and Analysis

For sewage spills in which an estimated 50,000 gallons or greater are discharged into a surface water, the Enrollee shall conduct the following water quality sampling no later than **18 hours** after the Enrollee's knowledge of a potential discharge to a surface water:

- Collect one water sample, each day of the duration of the spill, at:
 - The DCS-001 location as described in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment, if sewage discharges to a surface water via a drainage conveyance system; and/or
 - Each of the three receiving water sampling locations in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment;

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

The Enrollee shall analyze the collected receiving water samples for the following constituents per section 2.3.3 (Water Quality Analysis Specifications) of this Attachment:

- Ammonia, and
- Appropriate bacterial indicator(s) per the applicable Basin Plan water quality objectives, including one or more of the following, unless directed otherwise by the Regional Water Board:
 - Total Coliform Bacteria
 - Fecal Coliform Bacteria
 - *E-coli*
 - Enterococcus

Dependent on the receiving water(s), sampling of bacterial indicators shall be sufficient to determine post-spill (after the spill) compliance with the water quality objectives and bacterial standards of the California Ocean Plan or the California Inland Surface Water Enclosed Bays, and Estuaries Plan, including the frequency and/or number of post-spill receiving water samples as may be specified in the applicable plans.

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

2.3.3. Water Quality Analysis Specifications

Spill monitoring must be representative of the monitored activity (40 Code of Federal Regulations section 122.41(j)(1)).

Sufficiently Sensitive Methods

Sample analysis must be conducted according to sufficiently sensitive test methods approved under 40 Code of Federal Regulations Part 136 for the sample analysis of pollutants. For the purposes of this General Order, a method is sufficiently sensitive when the minimum level of the analytical method approved under 40 Code of Federal Regulations Part 136 is at or below the receiving water pollutant criteria.

Environmental Laboratory Accreditation Program-Accredited Laboratories

The analysis of water quality samples required per this General Order must be performed by a laboratory that has accreditation pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code. (Water Code section 13176(a).) The State Water Board accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

2.3.4. Receiving Water Sampling Locations

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

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

Sampling Location	Sampling Location Description
DCS-001	A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.

Receiving Surface Water Sampling (RSW)¹

Sampling Location	Sampling Location Description
RSW-001 Point of Discharge	A point in the receiving water where sewage initially enters the receiving water.
RSW-001U: Upstream of Point of Discharge	A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.

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

¹ The Enrollee must use its best professional judgment to determine the upstream and downstream distances based on receiving water flow, accessibility to upstream/downstream waterbody banks, and size of visible sewage plume.

2.4. Safety and Access Exceptions

If the Enrollee encounters access restrictions or unsafe conditions that prevents its compliance with spill response requirements or monitoring requirements in this General Order, the Enrollee shall provide documentation of access restrictions and/or safety hazards in the corresponding required report.

3. REPORTING REQUIREMENTS

All reporting required in this General Order must be submitted electronically to the online [CIWQS Sanitary Sewer System Database](https://ciwqs.waterboards.ca.gov) (<https://ciwqs.waterboards.ca.gov>), unless specified otherwise in this General Order. Electronic reporting may solely be conducted by a Legally Responsible Official or Data Submitter(s) previously designated by the Legally Responsible Official, as required in section 5.8 (Designation of Data Submitters) of this General Order.

The Enrollee shall report any information that is protected by the Homeland Security Act, by email to SanitarySewer@waterboards.ca.gov, with a brief explanation of the protection provided by the Homeland Security Act for the subject report to be protected from unauthorized disclosure and/or public access, and for official Water Board regulatory purposes only.

3.1. Reporting Requirements for Individual Category 1 Spill Reporting

3.1.1. Draft Spill Report for Category 1 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 1 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;

5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;
 - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
 - Description of the drainage conveyance system transporting the spill;
 - Photographs of the drainage conveyance system entry location(s);
 - Estimated spill volume fully recovered from the drainage conveyance system;
 - Estimated spill volume remaining within the drainage conveyance system;
11. Description and photographs of all discharge point(s) into the surface water;
12. Estimated spill volume that discharged to surface waters; and
13. Estimated total spill volume recovered.

3.1.2. Certified Spill Report for Category 1 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for Category 1 spills, to the online CIWQS Sanitary Sewer System Database. Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.1.1 (Draft Spill Report for Category 1 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;

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4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, lateral, pump station, etc.);
6. Description of the pipe material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion;
14. Name and type of receiving water body(s);
15. Description of the water body(s), including but not limited to:
 - Observed impacts on aquatic life,
 - Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill,
 - Responsible entity for closing/restricting use of water body, and
 - Number of days closed/restricted as a result of the spill.
16. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and
17. If water quality samples were collected, identify sample locations and the parameters the water quality samples were analyzed for. If no samples were taken, Not Applicable shall be selected.

3.1.3. Spill Technical Report for Individual Category 1 Spill in which 50,000 Gallons or Greater Discharged into a Surface Water

For any spill in which 50,000 gallons or greater discharged into a surface water, **within 45 calendar days** of the spill end date, the Enrollee shall submit a Spill Technical Report to the online CIWQS Sanitary Sewer System Database. The Spill Technical Report, at minimum, must include the following information:

1. Spill causes and circumstances, including at minimum:
 - Complete and detailed explanation of how and when the spill was discovered;

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- Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
 - Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
 - Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
 - Detailed description of the spill cause(s);
 - Description of the pipe material, and estimated age of the pipe material, at the failure location;
 - Description of the impact of the spill;
 - Copy of original field crew records used to document the spill; and
 - Historical maintenance records for the failure location.
2. Enrollee's response to the spill:
- Chronological narrative description of all actions taken by the Enrollee to terminate the spill;
 - Explanation of how the Sewer System Management Plan Spill Emergency Response Plan was implemented to respond to and mitigate the spill; and
 - Final corrective action(s) completed and a schedule for planned corrective actions, including:
 - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable,
 - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences, and
 - Necessary modifications to the Emergency Spill Response Plan to incorporate lessons learned in responding to and mitigating the spill.
3. Water Quality Monitoring, including at minimum:
- Description of all water quality sampling activities conducted;
 - List of pollutant and parameters monitored, sampled and analyzed; as required in section 2.3 (Receiving Water Monitoring) of this Attachment;
 - Laboratory results, including laboratory reports;
 - Detailed location map illustrating all water quality sampling points; and
 - Other regulatory agencies receiving sample results (if applicable).
4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

3.1.4. Amended Certified Spill Reports for Individual Category 1 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.2. Reporting Requirements for Individual Category 2 Spill Reporting

3.2.1. Draft Spill Report for Category 2 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 2 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;

If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;

8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
 - Description of the drainage conveyance system transporting the spill;
 - Photographs of the drainage conveyance system entry location(s);
 - Estimated spill volume fully recovered from the drainage conveyance system;
 - Estimated spill volume remaining within the drainage conveyance system;

- Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable; and

11. Estimated total spill volume recovered.

3.2.2. Certified Spill Report for Category 2 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for the Category 2 spill, to the online [CIWQS Sanitary Sewer System Database](https://ciwqs.waterboards.ca.gov) (<https://ciwqs.waterboards.ca.gov>). Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.2.1 (Draft Spill Report for Category 2 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, pump station, etc.);
6. Description of the pipe/infrastructure material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion; and

14. Whether or not the spill was located within 1,000 feet of a municipal surface water intake.

3.2.3. Amended Certified Spill Reports for Individual Category 2 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.3. Monthly Certified Spill Reporting for Category 3 Spills

The Enrollee shall report and certify all Category 3 spills to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occurred. (For example, all Category 3 spills occurring in the month of February shall be reported and certified by March 30th). After the Legally Responsible Official certifies the spills, the online CIWQS Sanitary Sewer System Database will issue a spill event identification number for each spill.

The monthly reporting of all Category 3 spills must include the following items for each spill:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Description, photographs, and GPS coordinates where the spill originated:
 - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
7. Estimated total spill volume exiting the system;
8. Description and photographs of the extent of the spill and spill boundaries;
9. Did the spill reach a drainage conveyance system? If Yes:
 - Description of the drainage conveyance system transporting the spill;
 - Photographs of the drainage conveyance system entry locations(s);
 - Estimated spill volume fully recovered from the drainage conveyance system; and

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- Estimated spill volume discharged to a groundwater infiltration basis or facility, if applicable.
- 10. Estimated total spill volume recovered;
- 11. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reaches of the spill;
- 12. Spill end date and time;
- 13. Description of how the spill volume estimations were calculated, including, at minimum:
 - The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
- 14. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
- 15. System failure location (for example, main, pump station, etc.);
- 16. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location;
- 17. Description of the impact of the spill;
- 18. Whether or not the spill was associated with a storm event;
- 19. Description of spill response activities including description of immediate spill containment and cleanup efforts;
- 20. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum:
 - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
 - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including:
 - Adjusted schedule/method of preventive maintenance,
 - Planned rehabilitation or replacement of sanitary sewer asset,
 - Inspected, repaired asset(s), or replaced defective asset(s),
 - Capital improvements,
 - Documentation verifying immediately implemented system modifications and operating/maintenance modifications,
 - Description of spill response activities,

- Spill response completion date, and
- Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill;

21. Detailed narrative of investigation and investigation findings of cause of spill.

3.4. Monthly Certified Spill Reporting for Category 4 Spills

The Enrollee shall report and certify the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, within 30 calendar days after the end of the month in which the spills occurred.

3.5. Amended Certified Spill Reports for Category 3 Spills

Within 90 calendar days of the certified Spill Report due date, the Enrollee may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After 90 calendar days, the Legally Responsible Official shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a certified Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the 90-day timeframe for amending the certified Spill Report, as provided above.

3.6. Annual Certified Spill Reporting of Category 4 and/or Lateral Spills

For all Category 4 spills and spills from its owned and/or operated laterals that are caused by a failure or blockage in the lateral and that do not discharge to a surface water, the Enrollee shall:

- Maintain records per section 4.4. of this Attachment;
The Enrollee shall provide records upon request by State Water Board or Regional Water Board staff.
- Annually upload and certify a report, in an appropriate digital format, of all recordkeeping of spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occurred.

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

3.7. Monthly Certification of “No-Spills” or “Category 4 Spills” and/or “Non-Category 1 Lateral Spills”

If either (1) no spills occur during a calendar month or (2) only Category 4, and/or Enrollee-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the Enrollee shall certify, within 30 calendar days after

the end of each calendar month, either a “No-Spill” certification statement, or a “Category 4 Spills” and/or “Non-Category 1 Lateral Spills” certification statement, in the online CIWQS Sanitary Sewer System Database, certifying that there were either no spills, or Category 4 and/or Non-Category 1 Lateral Spills that will be reported annually (per section 3.6 of this Attachment) for the designated month.

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

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

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

3.8. Electronic Sanitary Sewer System Service Area Boundary Map

The Legally Responsible Official shall submit, to the State Water Board, an up-to-date electronic spatial map of its sewer system service area boundaries. The map must be in accordance with section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order and the specification provided on the statewide Sanitary Sewer Systems program website. The map must include the location of wastewater treatment facility(ies) that treats the sewer system waste, if in the same sewer service boundary.

By the Effective Date of this General Order, specifications for the electronic sanitary sewer service area boundary map format will be provided on the statewide Sanitary Sewer Systems Order program website.

3.9. Annual Report (Previously termed as Collection System Questionnaire in General Order 2006-0003-DWQ)

A new Enrollee shall complete and submit its first certified Annual Report into the online CIWQS Sanitary Sewer System Database, **within 30 days of obtaining a CIWQS account**; Subsequent Annual Reports are due by April 1 of each year.

All enrollees shall update their previous year’s Annual Report, **by April 1 of each year after the Effective Date of this General Order**, for each calendar year (January 1 through December 31).

The Annual Report must be entered directly into the online CIWQS Sanitary Sewer System Database. The Enrollee’s Legally Responsible Official shall certify the Annual Report as instructed in CIWQS;

The Annual Report must address, and update as applicable, the following items:

- Population served;

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- Updated sewer system service area boundary map, if service area boundary has changed from original map submitted per section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order;
- Number of system operation and maintenance staff:
 - Entry level (less than two years of experience),
 - Journey level (greater than two years of experience),
 - Supervisory level, and
 - Managerial level;
- Number of operation and maintenance staff certified as a certified collection system operator by the California Water Environmental Association (CWEA), with:
 - Corresponding number of certified collection system operator grade levels (Grade I, II, III, IV, and V);
- System information:
 - Miles of system gravity and force mains,
 - Number of upper and lower service laterals connected to system,
 - Estimated number of upper and lower laterals owned and/or operated by the Enrollee,
 - Portion of laterals that is Enrollee's responsibility,
 - Average age the major components of system infrastructure,
 - Number and age of pump stations, and
 - Estimated total miles of the system pipeline not accessible for maintenance;
- Name and location of the treatment plant(s) receiving sanitary sewer system's waste;
- Name of satellite sewer system tributaries;
- Number of system's gravity sewer above or underground crossings of water bodies throughout system;
- Number of force main (pressurized pipe) above or underground crossings of water bodies throughout system;
- Number of siphons used to convey waste throughout the sewer system;
- Miles of sewer system cleaned;
- Miles of sewer system video inspected, or comparable (i.e., video closed-circuit television or alternative inspection methods);
- System Performance Evaluation as specified in section 5.11 (System Performance Analysis) of this General Order;
- Major spill causes (for example, root intrusion, grease deposition);

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- System infrastructure failure points (for example, main, pump station, lateral, etc.);
- Ongoing spill investigations; and
- Actions taken to address system deficiencies.

3.10. Sewer System Management Plan Audit Reporting Requirements

The Enrollee shall submit its Sewer System Management Plan Audit and other pertinent audit information, in accordance with section 5.4 (Sewer System Management Plan Audits) of this General Order, to the online CIWQS Sanitary Sewer System Database **by six (6) months after the end of the 3-year audit period.**

If a Sewer System Management Plan Audit is not conducted as required: the Enrollee shall:

- Update the online CIWQS Sanitary Sewer System Database and select the justification for not conducting the Audit; and
- Notify its corresponding Regional Water Board (see Attachment F (Regional Water Quality Control Board Contact Information)) of the justification for the lapsed requirements.

The Enrollee's reporting of a justification for not conducting a timely Audit does not justify non-compliance with this General Order. The Enrollee shall:

- Submit the late Audit as required in this General Order; and
- Comply with subsequent Audit requirements and due dates corresponding with the original audit cycle.

3.11. Sewer System Management Plan Reporting Requirements

For an Existing Enrollee previously regulated by Order 2006-0003-DWQ: **Within every six (6) years after the required due date of its last Plan Update**, the Legally Responsible Official shall upload and certify a local governing entity-approved Sewer System Management Plan Update to the online CIWQS Sanitary Sewer System Database. If the electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its updated Sewer System Management Plan posted on its own website.

Order 2006-0003-DWQ required each enrollee to develop its initial Sewer System Management Plan per the following schedule, with required Plan updates at a frequency of 5-years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2009

Between 100,000 and 10,000: August 2, 2009

Between 10,000 and 2,500: May 2, 2010

Less than 2,500: August 2, 2010

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This Order carries forth the previously-required Plan Update schedule per Order 2006-0003-DWQ. Per the six-year Plan Update frequency required in this Order, the Enrollee shall upload and certify its first Plan Update, to the online CIWQS Sanitary Sewer System Database by the following due dates, with subsequent Plan Updates at the frequency of six years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2025

Between 100,000 and 10,000: August 2, 2025

Between 10,000 and 2,500: May 2, 2026

Less than 2,500: August 2, 2026

For a New Enrollee: **Within twelve (12) months of its Application for Enrollment Approval date**, the Legally Responsible Official of a new Enrollee shall upload and certify a local governing entity-approved Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database. If electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its Sewer System Management Plan posted on its own website. The due date for subsequent 6-year Plan updates, is six (6) years from the submittal due date of the new Enrollee's first Sewer System Management Plan.

4. RECORDKEEPING REQUIREMENTS

The Enrollee shall maintain records to document compliance with the provisions of this General Order, and previous General Order 2006-0003-DWQ as applicable, for each sanitary sewer system owned, including any required records generated by an Enrollee's contractor(s).

4.1. Recordkeeping Time Period

The Enrollee shall maintain records of documents required in this Attachment, including records collected for compliance with this General Order, and records collected in accordance with previous General Order 2006-0003-DWQ, for five (5) years.

4.2. Availability of Documents

The Enrollee shall make the records required in this General Order readily available, either electronic or hard copies, for review by Water Board staff during onsite inspections or through an information request.

4.3. Spill Reports

The Enrollee shall maintain records for each of the following spill-related events and activities:

- Spill event complaint, including but not limited to records documenting how the Enrollee responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
 - Date, time, and method of notification,

- Date and time the complainant first noticed the spill, if available,
- Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available,
- Complainant's contact information, if available, and
- Final resolution of the complaint;
- Records documenting the steps and/or remedial action(s) undertaken by the Enrollee, using all available information, to comply with this General Order, and previous General Order 2006-0003-DWQ as applicable;
- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated;
- All California Office of Emergency Services notification records, as applicable; and
- Records, in accordance with the Monitoring Requirements in this Attachment.

4.4. Recordkeeping of Category 4 Spills and Non-Category 1 Lateral Spills

An Enrollee must maintain the following records for each individual Category 4 spill and for each individual non-Category 1 Enrollee-owned and/or operated lateral spill, and report in accordance to section 3.6 (Annual Certified Spill Reporting of Category 4 and/or Lateral Spills) of this Attachment.

Recordkeeping of Individual Category 4 Spill Information:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Description and GPS coordinates for the system location where the spill originated;
4. Did the spill reach a drainage conveyance system? If Yes:
 - Description of drainage conveyance system location,
 - Estimated spill volume fully recovered within the drainage conveyance system, and
 - Estimated spill volume remaining within the drainage conveyance system;
5. Estimated total spill volume exiting the sanitary sewer system;
6. Spill date and start time;
7. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
8. System failure location (for example, main, pump station, etc.);
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of how the volume estimation was calculated, including, at minimum:

- The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
- The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;

11. Description of implemented system modifications and operating/maintenance modifications.

Recordkeeping of Individual Lateral Spill Information:

1. Date and time the Enrollee was notified of, or self-discovered, the spill;
2. Location of individual spill;
3. Estimated individual spill volume;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.); and
5. Description of how the volume estimations were calculated.

Total Annual Spill Information:

1. Estimated total annual spill volume;
2. Description of spill corrective actions, including at minimum:
 - Local regulatory enforcement action taken against the sewer lateral owner in response to a spill, as applicable, and
 - System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

4.5. Sewer System Telemetry Records

The Enrollee shall maintain the following sewer system telemetry records if used to document compliance with this General Order, and previous General Order 2006-0003-DWQ as applicable, including spill volume estimates:

- Supervisory control and data acquisition (SCADA) system(s);
- Alarm system(s);
- Flow monitoring device(s) or other instrument(s) used to estimate sewage flow rates, and/or volumes;
- Computerized maintenance management system records; and
- Asset management-related records.

4.6. Sewer System Management Plan Implementation Records

The Enrollee shall maintain records documenting the Enrollee's implementation of its Sewer System Management Plan, including documents supporting its Sewer System Management Plan audits, corrections, modifications, and updates to the Sewer System Management Plan.

4.7. Audit Records

The Enrollee shall maintain, at minimum, the following records pertaining to its Sewer System Management Plan audits, and other internal audits:

- Completed audit documents and findings;
- Name and contact information of staff and/or consultants that conducted or involved in the audit; and
- Follow-up actions based on audit findings.

4.8. Equipment Records

The Enrollee shall maintain a log of all owned and leased sewer system cleaning, operational, maintenance, construction, and rehabilitation equipment.

4.9. Work Orders

The Enrollee shall maintain record of work orders for operations and maintenance projects.

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Appendix B

Chain of Custody Example Sheet

SEWER SPILL RECEIVING WATER MONITORING PLAN

CHAIN OF CUSTODY RECORD

WORK ORDER#

SAMPLER NAME				SAMPLE LOCATION			ANALYSES REQUESTED												SPECIAL HANDLING		
SUPERVISOR NAME				SAMPLE TYPE Drainage Conveyance System (DCS) Prior to Discharge Receiving Water Sample (RSW) Point of Discharge Receiving Water Sample (RSW) Upstream of Point of Discharge Receiving Water Sample (RSW) Downstream of Point of Discharge			EPA 350.1 Ammonia Nitrogen SM-992-B E. Coli SM-9223-B Enterococcus														
OTHER PERSONNEL																					
ID# (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	Fac ID	Sample Point ID/Name			# OF CONT.													COMMENTS	
RELINQUISHED BY				DATE / TIME		RECEIVED BY				DATE / TIME		SAMPLE CONDITION:				SAMPLE TYPE CODE:					
RELINQUISHED BY				DATE / TIME		RECEIVED BY				DATE / TIME		Actual Temperature:		Thermometer #:		DW = Drinking Water WW = Waste Water GW = Ground Water SF = Surface Water SW = Sea Water SO = Soild/Soil SL = Sludge OL = Oil OT = Other Matrix					
												Received On Ice		Y / N							
												Samples Preserved		Y / N							
RELINQUISHED BY				DATE / TIME		RECEIVED BY				DATE / TIME		Evidence Seals Present		Y / N							
												Container Attacked		Y / N							
SPECIAL REQUIREMENTS / BILLING INFORMATION																					

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Appendix C

Sewer Spill Visual Observation Log

Sewer Spill Visual Observation Log – Receiving Water Sampling Events		
Date and Time of Sample:		
Sample ID:		
Sample Location Description:		
Sample Type (check one):	<input type="checkbox"/>	Drainage Conveyance System (DCS) Prior to Discharge
	<input type="checkbox"/>	Receiving Water Sample (RSW) Point of Discharge
	<input type="checkbox"/>	Receiving Water Sample (RSW) Upstream of Point of Discharge
	<input type="checkbox"/>	Receiving Water Sample (RSW) Downstream of Point of Discharge
Weather:		
Antecedent Conditions (last 48 hours):		
Precipitation Total Last 48 Hours:	(inches)	
Sample Event Ambient Conditions:		
Sampling Event Observations:		
Estimate spill travel time to receiving water:	(minutes)	
For spills entering a drainage conveyance system, estimated spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water:	(minutes)	
Estimated spill volume entering the receiving water:	(gallons)	
Estimated receiving water flow rate:	(Cubic feet per second)	
Odors:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Floating Material:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Suspended Material:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Sheen:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Discoloration:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Turbidity:	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Photos (check all that apply):		
Waterbody bank erosion:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Floating material:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water surface sheen (potentially from oil and grease):	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Discoloration of receiving water:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Impact to the receiving water:	Yes <input type="checkbox"/>	No <input type="checkbox"/>
General Notes:		
<div></div>		

Appendix D

Spill Emergency Response Plan Change Log



City of Pasadena
Spill Emergency Response Plan Change Log

DATE	SERP ELEMENT	DESCRIPTION OF CHANGE/REVISION MADE	CHANGE AUTHORIZED BY

Appendix D: Spill Emergency Response Plan Change Log

[illegible]

Appendix E

SSMP Revised May 2019



CITY OF PASADENA
SEWER SYSTEM MANAGEMENT PLAN

DECEMBER 2019

CITY OF PASADENA

SEWER SYSTEM MANAGEMENT PLAN (SSMP)

CITY OF PASADENA DEPARTMENT OF PUBLIC WORKS
100 N. Garfield Avenue Room N306
Pasadena, California 91101

Pursuant to the provisions of the
CALIFORNIA STATE WATER RESOURCES CONTROL BOARD
ORDER NO. 2006.0003-DWQ
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS (WDR)
FOR SANITARY SEWER SYSTEMS

December 2019

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APPENDICES

Appendix A – City Organizational Charts

Appendix B – Sanitary Sewer Overflow Response Plan

ABBREVIATIONS / ACRONYMS

APWA	American Public Works Association
BMP	Best Management Practice
CCTV	Closed-Circuit Television
CFR	Code of Federal Regulations
CIP	Capital Improvement Program
CIWQS	California Integrated Water Quality System
CM	Corrective Maintenance
CMMS	Computerized Maintenance Management System
COPHMP	City of Pasadena Hazardous Materials Personnel
CSCS	Collection System Crew Supervisor
CWEA	California Water Environment Association
City	City of Pasadena
EHD	Environmental Health Division
ERP	Emergency Response Plan
FOG	Fats, Oils, and Grease
gpm	Gallons per minute
GPS	Global Positioning System
GWDR	General Waste Discharge Requirements also referred to as the Waste Discharge Requirements (WDR)
I/I	Inflow / Infiltration
LACSD	Los Angeles County Sanitation District
LRO	Legally Responsible Official
MRP	Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System
O&M	Operation and Maintenance
OES	Office of Emergency Services
Order	SWRCB Order No. 2006-0003-DWQ adopted May 2, 2006
PM	Preventative Maintenance
PMC	Pasadena Municipal Code
PMP	Preventative Maintenance Program
PWWF	Peak wet weather flow
RWQCB	Regional Water Quality Control Board
SECAP	System Evaluation and Capacity Assurance Plan
SOP	Standard Operating Procedure <u>or</u> Standard Maintenance Procedure
SSO	Sanitary Sewer Overflow and any sewer spill or overflow of sewage
SSORP	Sanitary Sewer Overflow Response Plan
SSMP	Sewer System Management Plan
SWIWM	Street Maintenance and Integrated Waste Management
SWRCB	State Water Resources Control Board
WDR	Waste Discharge Requirements also referred to as the General Waste Discharge Requirements (GWDR)
WWTP	Wastewater Treatment Plant

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INTRODUCTION

On May 2, 2006 the SWRCB adopted Order Number 2006-0003-DWQ that requires all publicly-owned sewage collection systems having more than one mile of pipeline develop, implement and fund a Sewer System Management Plan (SSMP), which establishes the minimum requirements under which a public collection system must be operated and maintained. The purpose of the Order is to prevent sanitary sewer overflows (SSOs), to provide a plan and schedule for measures to be implemented to prevent SSOs, as well as measures to effectively clean up and report the spills.

The City of Pasadena (City) Department of Public Works (DPW) operates and maintains its own sanitary collection system. The City's sanitary collection system consists of approximately 328 miles of gravity pipelines, serving the majority of parcels within the City's 23.1 square mile City limits, and conveys an annual average flow of approximately 14 million gallons per day (MGD). The City's wastewater collection system conveys untreated wastewater to Los Angeles County Sanitation District's (LACSD) trunk sewer system via 92 separate connections.

The system has three City-owned lift stations and seven privately owned lift stations. The City-owned lift stations include:

- Rosemont Pump Station located at 1910 Rosemont Avenue
- Rockwood Pump Station located at Rockwood Road and La Loma Road
- Busch Garden Pump Station located at 1170 Busch Garden Court.

In preparation for this SSMP, the City has undertaken several major projects to ensure the sustained reliability of the sanitary collection system. A comprehensive Sewer System Master Plan Update is currently underway that includes flow studies for capacity and initial system condition assessments use to recommend projects for the CIP.

This SSMP reflects the ongoing day-to-day activities of the City of Pasadena for the management, operation, maintenance, and funding of the City's sanitary collection system. As so, this SSMP becomes a living document subject to constant review and revision as conditions and needs of the collection systems change. This SSMP relies on numerous supporting documents, also subject to change, that form the basis for how the City conducts its collection system operation. The most current version, although it may be subject to update at any time, will be found at the City of Pasadena's Department of Public Works offices.

In September, 2013, the SWRCB made substantial changes to the Monitoring and Reporting requirements for sanitary sewer overflows. These new requirements, Order Number WQ 2013-0058-EXEC to the Monitoring and Reporting Program are discussed in Chapter 3, Section 3.4.1 and details how the City is organized to respond and report sanitary sewer overflows.

DEFINITIONS

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
 - (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
 - (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
 - (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.
2. **Sanitary sewer system** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

For purposes of this Order, sanitary sewer systems include only those systems owned by public agencies that are comprised of more than one mile of pipe or sewer lines.
3. **Enrollee** - A federal or state agency, municipality, county, City, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order. The City of Pasadena is the Enrollee.
4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.
5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.
6. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.
7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:

- a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
 - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
 - c. Occurs during, or as a result of, the treatment or disposal of wastes.
- 8. **WDR** – State Water Resources Control Board (SWRCB) Order No. 2006.0003-DWQ, known as the WASTE DISCHARGE REQUIREMENTS (WDR), which was adopted May 2, 2006.
- 9. **MRP** – SWRCB Order No. WQ 2013-0058-EXEC, known as the MONITORING AND REPORTING PROGRAM (MRP), which was adopted September 9, 2013.

CHAPTER 1 – PROHIBITIONS AND PROVISIONS

This chapter describes the sewage discharge prohibitions and thirteen provisions prescribed in the Order.

1.1 Prohibitions

To meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger is required to comply with the following prohibitions:

- Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.
- Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

1.2 Provisions

The discharger must meet the following thirteen provisions:

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.
2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs shall be:
 - (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
 - (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
 - (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
 - (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.

3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.
4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.
5. All SSOs must be reported in accordance with Section G of the general WDRs.
6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:
 - (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;
 - (ii) The Enrollee can identify the cause or likely cause of the discharge event;
 - (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.
 - (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;
 - (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
 - Proper management, operation and maintenance;
 - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);

- Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
 - Installation of adequate backup equipment; and
 - Inflow and infiltration prevention and control to the extent practicable.
- (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.
- (vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.
7. When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.
- The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:
- Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - Cleanup of debris at the overflow site;
 - System modifications to prevent another SSO at the same location;
 - Adequate sampling to determine the nature and impact of the release; and
 - Adequate public notification to protect the public from exposure to the SSO.
8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.

10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.
11. The Enrollee shall develop and implement a written Sewer System Management Plan and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.
12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.
13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule in Section D.15 of the WDR.

CHAPTER 2 – GOALS

This chapter describes the goals of the Sewer System Management Plan (SSMP). The goal of the SSMP is to provide a documented plan that describes all collection system activities and programs employed by an Enrollee to ensure proper management of all collection system assets. Implementing an SSMP will ensure proper management, operation, and maintenance of all parts of the sanitary sewer system, ultimately helping to reduce and prevent SSOs, as well as mitigate any SSOs that do occur including meeting all applicable regulatory notification and reporting requirements. Commitment to continual improvement will also ensure that the SSMP is both a living and sustainable document that is continually updated, revised, and tailored towards the City's needs. The City of Pasadena is required to comply with the "State Water Resources Control Board (SWRCB), Order No. 2006-0030 DWQ" (Order) on General Waste Discharge Requirements (WDR) for publicly owned sewage collection agencies having more than one mile of collection pipelines.

The Pasadena DPW is charged with the implementation and enforcement of this SSMP. Through this charge, the DPW will coordinate with other City and non-City agencies to meet the goals and objectives of this SSMP. In particular, the DPW's Engineering Division ensures the proper design of new and replacement City sewers and with the City's Environmental Health Division to ensure compliance with the City's proactive Fats, Oil, and Grease Program (FOG).

2.1 Purpose

This element describes the City of Pasadena's stated goals of the SSMP and is intended to clarify the City's desired level of service being provided to their customers. The purpose of the Order is to prevent sanitary sewer overflows (SSOs). The City is required to prepare and maintain an SSMP to support this purpose.

2.2 Goals

The City of Pasadena's SSMP outlines the City's plan to achieve the goal of properly managing, operating, and maintaining the sanitary sewer system to prevent and reduce SSOs, and to mitigate any SSOs that may occur. More specifically, the goals of Pasadena's SSMP are:

1. To properly manage, operate, and maintain all portions of the wastewater collection system.
2. To provide adequate capacity to convey the peak wastewater flows
3. To control Inflow and Infiltration to minimize peak wastewater flows.
4. To minimize the frequency of SSOs.
5. To mitigate the impacts associated with any SSOs that may occur.
6. To meet all applicable regulatory notification and reporting requirements.

As required by the Order, a copy of the SSMP is maintained at the City of Pasadena DPW and is available to the public, state, and RWQCB upon request (as discussed in, Section D, Provisions, Item 11) and is available to the sanitary collection system operating and maintenance personnel at all times.

The City will also comply with the Order Number WQ 2013-0058-EXEC to the Monitoring and Reporting Program and all future revisions, included by reference in the Order.

2.3 About This Document

The City has prepared this SSMP to ensure compliance with the Order. This SSMP pertains to the management, operation, and maintenance of the collection system. This SSMP document is divided into chapters with each chapter dedicated to a specific element of the WDR. Within each chapter the compliance efforts of the City are listed.

Each chapter contains the requirement taken from the WDR and the plan the City utilizes to comply with that requirement. The Compliance Summary of each chapter summarizes the program or activities the City utilizes for compliance. The Compliance Documents section lists the supporting documents, and their location, that the City has developed as part of its SSMP. Roles and Responsibilities (located only in Chapter 3 – Organization) contain the title and description of duties for the City staff positions responsible for developing and/or implementing the elements of the SSMP.

Actual contact information for the listed job titles is maintained as a separate file available at the City of Pasadena. This is done to facilitate staff changes and protect staff privacy.

CHAPTER 3 – ORGANIZATION

This chapter describes the City's organization and chain of communication. The Order requires the following:

- (a) The name of the responsible or authorized representative as described in Section J of this Order (WDR).
- (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
- (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 (as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services [OES]).

3.1 Name of Responsible or Authorized Representative

The City of Pasadena Municipal Code (PMC) details authoritative powers provided to City employees. Chapter 13.24 Article I of Title 13 Utilities and Sewers lists the personnel responsible with administering the provisions of said Chapter.

The personnel that are prescribed as responsible in charge are as follows:

1. For the sewer construction and design portion of Chapter 13.24, the City Engineer as provided by Section 13.24.130 and a deputy or other person authorized by said City Engineer as provided by Section 13.24.140.
2. For the sewer maintenance and operation portion of Chapter 13.24 and as described in Section J of SWRCB Order No. 2006-0003, the Public Works Administrator is in charge of signing and certifying all reports, memorandums, and other information related to this SSMP.

The Pasadena Assistant City Engineer is the Legally Responsible Official (LRO) listed on the Notice of Intent (NOI) and is responsible for the certification of SSO reports.

Table 3-1 lists in descending order the persons authorized to administer the provisions of this SSMP.

Table 3-1. Authorized SSMP Administrators

Title	Department	Phone	Email
Assistant City Engineer (Administrative and Management)	Public Works	(626) 744-4307	bmaue@cityofpasadena.net

Title	Department	Phone	Email
Public Works Superintendent (O&M)	Public Works	(626) 744-4148	atorres@cityofpasadena.net

3.2 Administrative and Maintenance Positions

The Order requires 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. The Roles and Responsibilities section of this chapter outlines the various positions responsible for the development and implementation of the SSMP for the City of Pasadena. The included organizational charts list the titles of the positions responsible for the development and implementation of the SSMP in a hierarchal format. Current names and contact information for all positions is available at the City of Pasadena DPW.

3.3.1 Compliance Summary

The organization charts for the City's SMIWM, Engineering and Public Health divisions include the titles of all responsible officials in hierarchal format and are included in Appendix A. The City's organization is revised as necessary to meet changing conditions. Organizational charts are periodically modified to reflect changes in the organization with updated organizational charts being available at the City of Pasadena DPW. Names and contact information for all City of Pasadena staff are available at the City of Pasadena DPW offices. A narrative description of each positions involvement in the development and implementation of the SSMP is included in the Roles and Responsibilities section of this chapter.

3.3.2 Compliance Documents

The following lists and organizational charts detail the filled positions of the City's organizational structure. Each is located at the City of Pasadena DPW office.

- Updated organizational charts
- Updated listing of staff positions
- Updated staff contact information

3.3.3 Roles and Responsibilities

- The USEPA is authorized under the Clean Water Act to enforce the Capacity Management, Operations, and Maintenance (CMOM) requirements on the states. In response, the SWRCB and R9WRCB have adopted various orders. Relevant to this SSMP Development Plan are the **SWRCB Order DWQ 2006-0003** and **R9WQCB Order 2006-0013**.

- The City Council is responsible for adopting each article of compliance with orders issued by the State Water Resources Control Board and the Region 4 Water Quality Control Board.
- The **LACSD** operates and manages the wastewater treatment services for the member cities, including the City of Pasadena. The City has no formal agreement with LACSD as the Sanitary Districts were formed under the authority provided by the Sanitary District Act of 1923. LACSD has a wastewater ordinance for which they require all members to comply.
- The **State and Regional Board** are responsible to provide direction, support, and enforcement of their respective orders which are based on the Clean Water Act, Porter-Cologne Act, and other specific regulations. They work to coordinating orders to eliminate redundancy and enforcement of their orders.
- The **City Attorney** is appointed by the City Council is responsible for legal services for the City. The City Attorney is assigned to the WDR compliance program for review of all orders, regulations, and statutes; development of local ordinances for implementation of WDR orders; handling of code compliance cases requiring legal assistance; as well as coordinating with the City Manager and staff to ensure enforcement of all local ordinances to reduce and eliminate SSOs.
- The **Finance Director** is responsible for managing the budgeting and funding processes required to support the WDR program. These include preparation of the Operating Budget, Capital Improvement Program Budget, any adjustments and modifications, as well as, managing any bond programs that may be required to fund needed improvements, all in coordination with and support of the relevant departments. The Sewer Billings are also managed under the direction of this director.
- The **City Engineer** is responsible for providing overall direction, delegating authority, and facilitating coordination between the departmental divisions of Public Works, Water and Power, Transportation, Planning, Code Compliance, and Engineering, as well as other City departments. He/she also support lateral coordination between other City Departments and other jurisdictions involved in WDR compliance activities.
- The **Assistant City Engineer**, the LRO as designated by the Public Works Administrator, is responsible for certifying CIWQS reports and supporting the City Engineer with the development of engineering projects within the City, including the development or oversight of engineering projects and studies for the sanitary sewer collection system. The Assistant City Engineer manages the Civil (streets/storm water/sewers) and Inspection groups.
- The **Principal Engineer** is responsible for all aspects of sanitation engineering (streets/storm water/sewer), including private development review, standards, planning, designing, and construction engineering for CIP projects, budgeting, interagency coordination, and maintaining flow agreements. This person will periodically collect and analyze all WDR tracking data in preparing bi-annual program audits and 5-year reauthorizations of the SSMP. Additionally, this

person is responsible for creation of and maintenance of the sewer and storm water GISs and for communicating routinely with satellite systems.

- The **Public Works Administrator** is responsible for all aspects of sewer systems operations and maintenance, divided into street cleaning and sewer maintenance/storm drains. This person is responsible for managing all maintenance and pipeline condition assessment work orders, along with all required monitoring, measurement, and program modifications that may be required to keep the program efficient. This persona is also responsible for developing and managing the FOG components of the WDR compliance program. Several **Code Enforcement Officers** will be authorized to enforce storm water and sewer/WDR codes. An **Environmental Specialist** position is anticipated to assist in storm water and WDR compliance activities.
- The **Public Information Officer** helps with the required outreach and education components, including, but not limited to, publications, press releases, and workshops. Additionally, this person will be in charge of developing the Communication Program to communicate interactively with the service population.
- The **Building Official** is responsible for reviewing any building plans for conformance to current building codes. Specifically, this position will be requiring that any grease interceptors, backflow preventers, or other onsite private sewer systems be designed and built according to the currently adopted building department requirements.
- The **ROW Agent** is responsible for researching and tracking easements, including sewer. Where easements are determined to be deficient or needed for a certain project, this person researches and negotiates the needed right of way. If negotiations fail and condemnation is required, this person works with the City Attorney's office and contract legal counsel to pursue the matter.
- All divisions will maintain relevant tracking data as required to assist with the Monitoring, Measurement, and Performance Program.

3.4 Chain of Communication

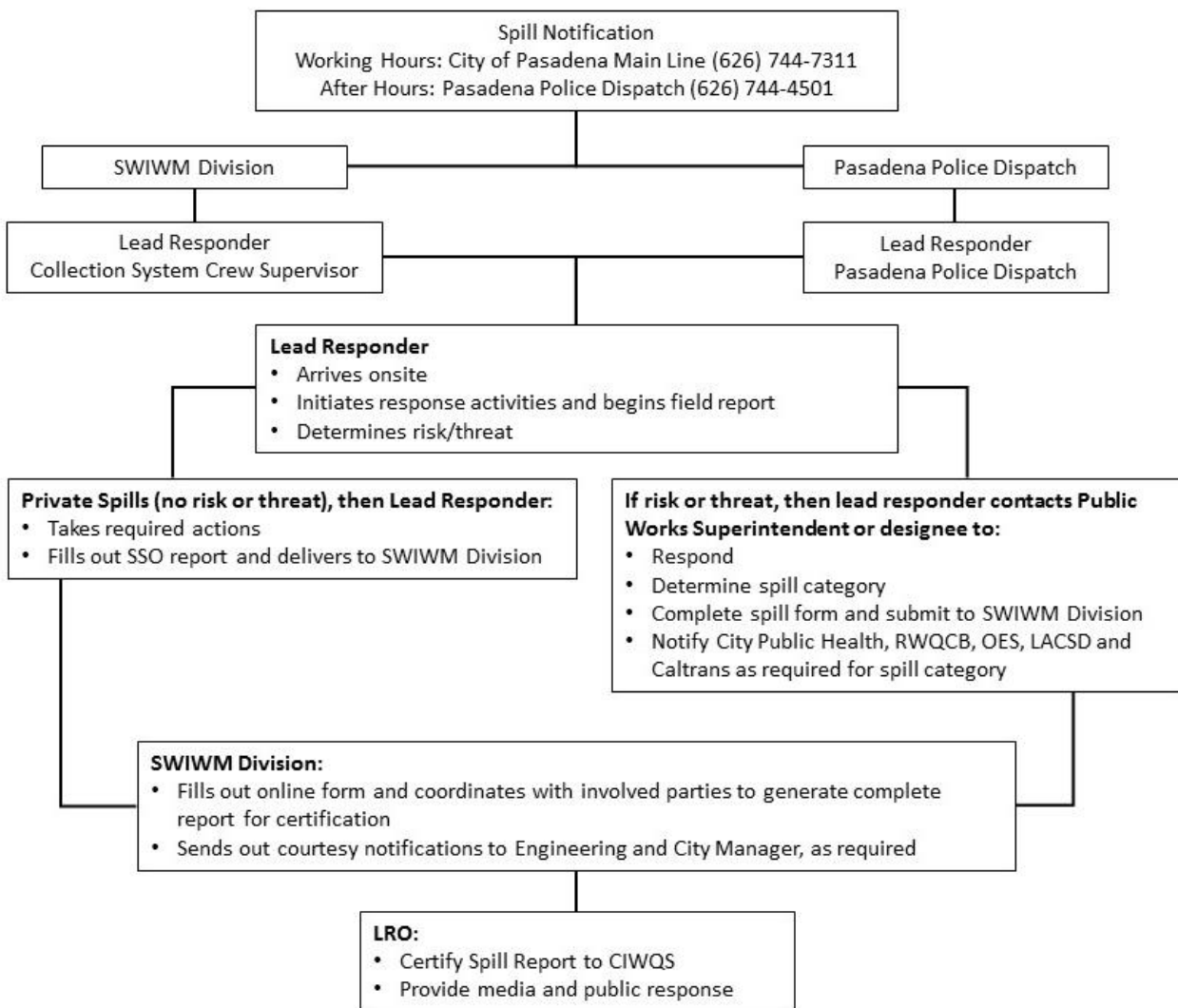
The Order requires the chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable.

3.4.1 Compliance Summary

The SSO Chain of Communications flow chart shows the chain of communication for reporting SSOs. This flowchart, along with the reporting guidelines, was developed to manage the reporting process. The Reporting Guidelines explains the thresholds for SSO reporting, the agencies that must be notified, and the reporting timeframes. The detailed procedures utilized by the City for SSO reporting is in the City of Pasadena Sewer Overflow Response Plan, included in Appendix B of this SSMP. This plan is kept updated by the Wastewater Division under the direction of the Wastewater Supervisor,

Public Services Director, and Director of Engineering and is executed and signed by the LRO.

In September 2013 the SWRCB changed the reporting of SSOs from appearance based to event based. Under the event based system one SSO report is required for each SSO that occurs regardless of the number of appearance points although each appearance point must be noted in the report. Previously, a separate SSO report had to be filed for each appearance point sometimes requiring numerous SSO reports for the same SSO event.



3.4.2 Compliance Documents

The following documents and charts describe the City of Pasadena's SSO reporting.

- SSO Chain of Communications flowchart – included in this SSMP and in the SSORP.

- SSO Reporting Guidelines – included in the SSORP.
- City of Pasadena Sanitary Sewer Overflow Response Plan – located at the SWIWM Division and in Appendix B of this SSMP.

3.4.3 Roles and Responsibilities

The City's SSO response is conducted in accordance with the City of Pasadena's Sewer Overflow Response Plan. The roles and responsibilities of each position in the chain of communications flowchart are described below:

SWIWM Division

During normal working hours receives call of SSO and dispatches the Collection System Crew Supervisor (lead responder) to respond to the reported SSO. After the SSO remediation, the SWIWM completes necessary spill reporting to the CIWQS online database compliant with the MRP.

Police Dispatch

Receives SSO calls after normal working hours and dispatches the Lead Responder (standby person) to the scene.

Collection System Crew
Supervisor

Evaluates the reported SSO and requests additional resources if needed to remediate the condition.

Public Works Superintendent
(or designee)

Oversees the remediation efforts, gathers field data for spill reporting, and notifies necessary authorities compliant with the MRP.

LRO

Certifies spill reports to CIWQS online SSO database.

CHAPTER 4 – LEGAL AUTHORITY

This chapter describes the legal authority to implement the SSMP plans and procedures.

The SSMP must include the legal authority, through sewer use ordinances, service agreements, or other legally binding procedures, to:

- (a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);
- (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;
- (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.

4.1 Compliance Summary

The primary statute governing the authority of the City of Pasadena to operate and maintain a sewer system is in California Government Code Section 38900. The City has adopted local ordinances governing all aspects of the use and operation of its sewer systems.

In addition to the ordinances adopted by the City, use of the sewerage system is also regulated by LACSD. Wastewater generated by users within the jurisdiction of the City ultimately flows to the LACSD treatment plants for treatment prior to discharge. LACSD has adopted pre-treatment ordinances which apply to all industrial users and LACSD has assumed the lead in enforcing its ordinance through the issuance of Industrial Waste Discharge Permits. The City cooperates with LACSD in the enforcement process. Additionally, the City may prosecute violations of its Municipal Code by criminal complaint, and such violations constitute a misdemeanor under Chapters 8.14.100, 13.24.170 and 13.24.180 of the Pasadena Municipal Code.

The City and LACSD have a number of legal tools to prevent illegal discharges; to ensure that sewers and connections meet required construction standards; ensure access to sewer lines; limit FOG discharge; and to enforce violations of their respective sewer ordinances.

Codified ordinances include:

Legal Authority Order Requirements	Applicable Sections of City Municipal Code
a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.)	13.24.370, .380, 390, .420, & .430
b) Require that sewers and connections be properly designed and constructed	8.14.060 & .070 and 13.24.190 through .360
c) Ensure access for maintenance, inspection, or repairs for collection system owned or maintained by the Public Agency	8.14.080 and 13.24.560
c) Limit the discharge of fats, oils, and grease and other debris that may cause blockages	8.14 et all, and 13.24.370, .460, .540, & .620
e) Enforce any violation of its sewer ordinances	8.14.080, .090, .100 and 13.24.030, .170, & .180

4.2 Compliance Documents

City ordinances have been codified into Title 4, Title 8 and Title 13 of the Municipal Code to provide the City with the legal authority to manage, operate, maintain, and fund its sanitary sewer system. These Titles and other Ordinances adopted to amend existing ordinances may be reviewed at the City of Pasadena located at 100 N. Garfield Avenue, Pasadena, California 91101 or on the internet at the City's website <https://ww5.cityofpasadena.net/main/city-services/municipal-code/>.

Title 4 – Revenue and Finance

Chapter 4.52 – Sewer Use Fee and Storm Drain Charge

Chapter 4.53 – Sewer Facility Charge

Title 8 – Health and Safety

Chapter 8.14 – Grease and Oil Disposal Ordinance

Title 13 – Utilities and Sewers

Chapter 13.24 – Sewer Construction and Maintenance

CHAPTER 5 – OPERATIONS AND MAINTENANCE

The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.

The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

- (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 stormwater conveyance facilities;
- (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;
- (C) Develop a 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;
- (D) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
- (E) Provide equipment and replacement part inventories, including identification of critical replacement parts.

5.1 Mapping

The requirement for this section is to maintain an up-to-date map of the collection system showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and stormwater conveyance facilities.

5.1.1 Compliance Summary

Updated mapping of the City's sewer system was performed as part of the 2018 Master Sewer Plan. This update was completed and integrated in the City's Geographic Information System (GIS) as included with the hydraulic model.

The City will establish procedures to maintain its sewer system information and GIS. It is recommended proper databases containing information on pump stations technical specifications, wet well dimensions, and pipe and manhole attributes also be regularly maintained.

Hard copies of these materials will be updated quarterly and posted at Wastewater Operations and in the Engineering Departments. Updated GIS maps should be included in all of the City's sewer response vehicles. A procedure will be developed and implemented to update the GIS continuously with system modifications.

5.1.2 Compliance Documents

The documents supporting compliance with the requirements for mapping are as follows:

- Engineering Division Sewer GIS.
- Sewer system atlas maps.

5.2 Preventive Maintenance Program

The Order requires the City to 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.

5.2.1 Compliance Summary

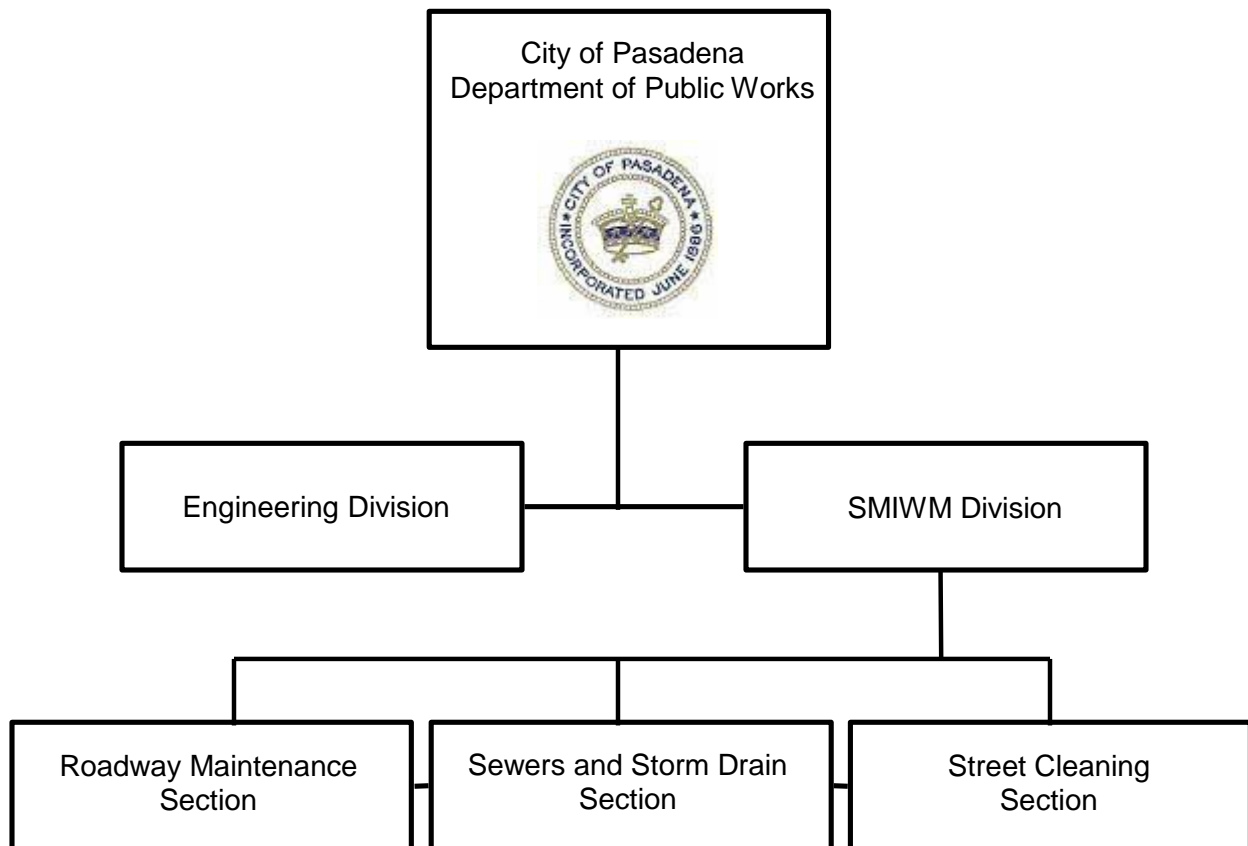
The City of Pasadena Public Works Street Maintenance & Integrated Waste Management (SMIWM) Division is responsible for the operation and maintenance of all City-owned sewer and storm drainage collection and pumping facilities, including responding to and reporting all SSOs. In general, the costs associated with the Sewer and Storm Drain Section of SMIWM is borne by the City of Pasadena's Sewer Fund.

The Sewer and Storm Drain Section currently comprise one supervisor overseeing 9 staff. Staff members are rotated among teams performing the following activities:

- Three (3) two-person teams provide crews for routine sewer line maintenance
- One (1) person performs trash removal in catch basins and storm drains
- One (1) two-person team performs CCTV for sewer line inspection.

The Sewer and Storm Drain Section of the SMIWM utilize jet cleaning trucks and vector units in the performance of their day-to-day duties. The organizational structure of this section and its place within the Department of Public Works is shown in **Figure 5-1**.

Figure 5-1. SMIWM Organization Chart



To provide cleaning and maintenance for this system, the City utilizes three jet trucks and one combination truck, each with its own crew. To facilitate the cleaning effort, the City collection systems have been divided into 17 maintenance areas that the crews maintain sequentially. Under this system, City line cleaning crews clean all of the collection lines at least once annually. Enhanced Maintenance Areas are cleaned quarterly or more frequently if required. It currently takes City line cleaning approximately 12 months to complete a cleaning cycle.

To properly manage the maintenance of the collection system, the Public Works Superintendent will develop an Annual Work Plan. The Annual Work Plan sets the maintenance and operational goals and objectives for the fiscal year and serves as a planning document to ensure the maintenance needs of the collection system are met. The plan pinpoints which maintenance activity, district, basin, and month that the

maintenance activity will occur. For each maintenance activity, a description page describes the work to be completed. From the yearly work plans, monthly work plans are developed that reflect the personnel required to accomplish the goals and objectives. The monthly work plan also outlines the equipment assigned to the maintenance activity, and the tasks to be completed. The monthly work plan reflects any specialized training requirements and administrative objectives. Data from past maintenance logs and current needs assessments are used to develop the Annual Work Plan and a 10% contingency is incorporated for unforeseen emergencies or repairs.

The City has an Enhanced Maintenance Area Program in place for more frequent maintenance of sewers prone to blockage due to FOG or root intrusion. Currently the Enhanced Maintenance Area Program is maintained in the City's asset management system, Lucity™, for tracking and generation of work orders.

Reporting of all unauthorized discharges from the City's sanitary sewer collection system is required by the Order (Order No. WQ 2013-0058-EXEC).

5.2.1.1 Description of Routine Procedures

Existing Pipe Line Operation and Maintenance Procedures

Routine sewer line maintenance within the City of Pasadena is performed by three (3) two- person crews operating two jet trucks and one combination truck. The City is divided into 17 maintenance areas that the crews maintain sequentially. It is the goal of the Sewer and Storm Drain section to clean each maintenance area once annually, but the diversion of manpower for emergency and auxiliary activities generally prevents this from occurring. Under ideal conditions, one crew is programmed to clean approximately 4,000 linear feet per day (lf/day) of line over flat terrain and 3,000 lf/day in hilly areas. These cleaning rates reflect an operationally efficient staff as the production rates are slightly higher than the typical 2,000 to 3,000 lf/day values generally used by many other wastewater utilities.

Deviations from ideal conditions include non-standard manhole geometries, difficult easement access to manholes and service points, and the resolution of other field problems. Because the City does not own equipment suitable for cleaning locations that are inaccessible to vehicular equipment, sewer operation crews must manually drag and carry jet flushing hose equipment through private property and hand feed the cleaning hose to the sewer manhole access point. This manual operation requires a full sewer crew, is an unsanitary activity, increases the risk of field staff injuries and property damage, is an inefficient use of staff and prevents them from performing their routine duties in an efficient manner, and results in an unpleasant experience for both City staff and the City's property owners.

In addition to the performance of annual maintenance of the City's maintenance service areas, specific cleaning routes are performed to alleviate known operational and maintenance problems within the City's sewer lines. These specific cleaning routes cover areas that are impacted from known root intrusion and FOG discharges.

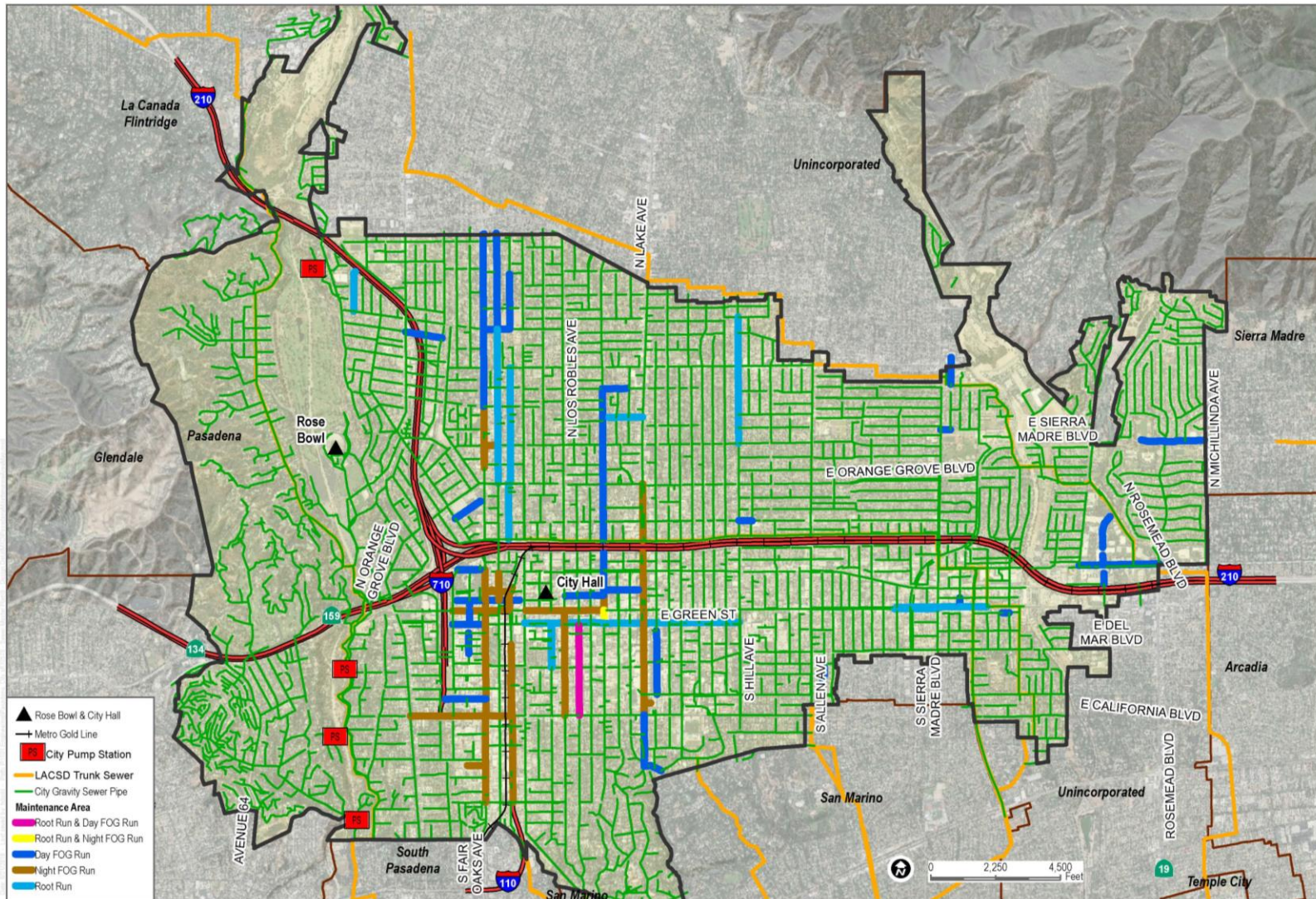
Currently, the FOG cleaning route is performed every two to three months and totals approximately 145,000 linear feet. Similarly, the root cleaning route is performed every three months and totals approximately 17,000 feet. Figure 5-2 shows the City's maintenance areas, existing FOG routes, and existing root routes.

Prevention of insect (cockroach) infestation within the City's sewer lines is performed by a chemical dosing program. The program is handled by an outside firm (Golden Bell Products) under contract to the City. Approximately 1,100 manholes are dosed per year with the understanding of a two-year chemical residual following each treatment.

In addition to these ongoing cleaning and maintenance activities, the City's SMIWM Division supports the assessment of sewer pipeline condition through video inspection services. Currently, the City owns its own CCTV equipment and the Division was recently approved to purchase one new video unit (camera and vehicle) and software. The City's CCTVs crews predominately for quality control after pipeline cleaning. The City also contracts CCTV inspection out to a local CCTV subcontractor for diagnostic assessment.

Based on discussions with City staff, the goal of the video inspection program is primarily to perform quality control behind line cleaning crews and for SSO/stoppage investigation. The City has a goal to televise the entire wastewater collection system approximately every five to seven years, with an increased frequency of up to once per year for very old facilities or areas of specific concern.

Figure 5-2. City Maintenance Areas



Existing Pump Station Procedures

As described in Section 2 of the 2018 Master Sewer Plan, the City of Pasadena operates three sewer pump stations. Routine maintenance and repair of these pump stations is contracted by the City of Pasadena to Multi-Tec, Inc. Multi-Tec keeps a regular maintenance and replacement schedule for the pump station equipment, pumps, and motors. Sewer and storm drain section staff monitor the pump stations to assure that they are operating properly on a day-to-day basis. In addition, City staff uses the combination truck to regularly clean the wet wells of the pump stations.

Section 4 of the 2018 Master Sewer Plan lists several existing conditions at the City's pump stations that will require repair or retrofitting. Budgets for such repairs are presented in Section 5 of the 2018 Master Sewer Plan. When put into effect, these improvements will reduce the amount of City staff time required at the pump stations.

Recommended Maintenance Procedures

As previously discussed, the SMIWM Division provides ongoing O&M of the City's sewer and storm drainage systems. The staffing requirements derived the Sewer Master Plan are provided in the following sections.

5.2.1.2 Routine Sewer Pipeline Cleaning

Sewer pipeline cleaning is an important element of a utility. To assess the staffing requirements of these important O&M elements, estimated production standards are correlated with the City's 1.7 million linear feet of pipelines, 17,000 feet of tree root infested areas, and 145,000 feet of pipelines with excessive grease. Using the City's cleaning production criteria of 4,400 LF feet per day for routine maintenance and 1,300 LF per day for FOG and root areas, it would take approximately 855 crew days to clean the system annually and to clean the root infested and FOG areas quarterly.

While the estimated time requirements represent average production rates and efficiencies, these values do not include the excess time associated with resolving field problems, field staff assignment adjustments for special events, and allowances for employee benefits (e.g., holidays, vacation, sick leave). Accordingly, program schedules for these activities are developed by factoring in a 15 percent allowance for the resolution of field problems, a 5% allowance for support of special events, and a 15 percent allowance for employee benefits. The resulting implications for sewer staffing requirements are shown in Table 5-1.

Table 5-1: Recommended Sewer Cleaning Crew Staffing

Description	Linear Feet
Base Cleaning Program (Annually)	1,570,000
Root Program (Quarterly)	17,000
Fog Program (Quarterly)	145,000
Total Annual FOG/Root Cleaning	648,000
Routine Cleaning Rate (LF/day)	4,400
FOG/Root Cleaning Rate (LF/day)	1,300
Crew Days Required to Meet Goal	855
<u>Staffing Assessment</u>	
Days Available/Year/Crew	260
Allowance for Benefits (15%)	39
Allowance for Field Resolution (15%)	39
Allowance for Special Events (5%)	13
Net Annual Available Days/Crew	169
Number of Crews to Meet Goal	5.1

As shown, to accomplish the pipeline cleaning activities in conformance with the City's annual cleaning goal would require four to five two-man crews to annually clean the full sewer system and clean the high maintenance areas quarterly. The City currently has three two-man crews. Accordingly, the 2018 Sewer Master Plan recommends that two additional full-time crews be assigned to routine sewer line maintenance.

5.2.1.3 Existing O&M Staffing and Equipment

As previously discussed, the City's Sewer and Storm Drain Section is staffed with 11 field personnel, one supervisor, and supporting vehicles and equipment. The sewer lift stations are maintained through an ongoing contract with Multi-Tec, Inc., and supporting management and engineering services and activities are provided from other in-house City personnel.

5.2.1.4 Recommended O&M Staffing and Equipment

In accordance with the assessment and recommendations derived in the Sewer Master Plan, it was recommended that the City budget for additional personnel and related equipment. The staffing and equipment elements required to implement the sewer system O&M program goals are summarized as follows:

- Two new Sewer Maintenance Field Crew (4 – SMWs) – \$524,000

- Two CNG Vactor/Hydro combination units – \$1,000,000

In addition to these staffing and equipment recommendations, it is important to note that the City has embraced the need to provide dedicated staffing to these important City services to preserve and evaluate the useful life of these underground assets. Dedicated and committed staff should be assigned and trained to meet the demands of these services so that the life expectancy of these facilities can be attained. Should the City's proactive operation and maintenance program continue to fall short of the program goals, unidentified failure of sewer pipelines may occur. The cost of this activity will manifest itself in the early retirement of the City's assets and the increased potential for sanitary sewer overflows.

It is further recommended that the City evaluate the performance of the Sewer and Storm Drain Section related to the performance of the cleaning goals. While two new crews are proposed to be added, overall performance of section activities should be contrasted with prescribed goals on an annual basis to ascertain if additional staffing and equipment is required.

5.2.2 Compliance Documents

Documents which support compliance of this section include the following:

- Enhanced Maintenance Area Log - located at the Engineering Division.
- GIS - located at the Engineering Division.

5.3 Rehabilitation and Replacement Plan

In accordance with the Order, the City must develop and maintain a 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. The video inspection information that follows reflects the City's program and its ability to meet this section of the Order.

The recommended goal of the video inspection program is to video inspect the entire wastewater collection system approximately every five to seven years, with an increased frequency of up to once per year for very old facilities or areas of specific concern. In accordance with this recommendation, an assessment of the video inspection program was performed.

5.3.1 Compliance Summary

The City utilizes its CCTV inspection program to identify and prioritize system deficiencies. Deficiencies are scored using the PACP system. Review of CCTV videos as well as the capacity evaluation as performed for the 2018 Sewer Master Plan was the basis of the development of the City's 50-year Capital Improvement Program, which serves as the basis of its rehabilitation and replacement program. Refer to Section 5 of

the 2018 Sewer Master Plan for the proposed projects, phasing and estimated costs for the City's 50-year CIP.

The City has been using its one CCTV inspection crew and truck primarily as a tool to provide quality control to sewer maintenance. The City will commence performing a full CCTV inspection of the entire collection system every five to seven years. Based on a production rate of 2,000 LF per day with same staffing allowances for benefits, field resolution and special events used for the sewer maintenance program, it is estimated that two field crews are required. A breakdown of this analysis is provided in Table 5-2.

Table 5-2: Recommended CCTV Crew Staffing

Base Cleaning Program (5-7 Years)	1,570,000
Description	Linear Feet
Areas of Concern (Quarterly)	200,000 (est.)
Root Program (Quarterly)	17,000
FOG Program (Quarterly)	145,000
Total Annual CCTV Inspection	590,000
Routine CCTV Rate (LF/day)	2,000
Crew Days Required to Meet Goal	295
<u>Staffing Assessment</u>	
Days Available/Year/Crew	260
Allowance for Benefits (15%)	39
Allowance for Field Resolution (15%)	39
Allowance for Special Events (5%)	13
Net Annual Available Days/Crew	169
Number of Crews to Meet Goal	1.75

Recommended Staffing and Equipment

In accordance with the assessment and recommendations derived in the Sewer Master Plan, it was recommended that the City budget for additional personnel and related equipment. The staffing and equipment elements required to implement the sewer system O&M program goals are summarized as follows:

- One new CCTV Video Inspection Field Crew (2 – SMWs) – \$262,000
- One new CCTV Truck – \$500,000

In addition to these staffing and equipment recommendations, it is important to note that the City has embraced the need to provide dedicated staffing to these important City

services to preserve and evaluate the useful life of these underground assets. Dedicated and committed staff should be assigned and trained to meet the demands of these services so that the life expectancy of these facilities can be attained. Should the City's proactive rehabilitation and replacement program continue to fall short of the program goals, unidentified failure of sewer pipelines may occur. The cost of this activity will manifest itself in the early retirement of the City's assets and the increased potential for sanitary sewer overflows.

It is further recommended that the City evaluate the performance of the Sewer and Storm Drain Section related to the performance of the video inspection goals. While one new crew is proposed to be added, overall performance of section activities should be contrasted with prescribed goals on an annual basis to ascertain if additional staffing and equipment is required.

5.3.2 Compliance Documents

The documents supporting compliance with the rehabilitation and replacement plan requirements are as follows:

- CCTV Videos and assessments – located at the City of Pasadena.
- GIS – located at the Wastewater Division.
- City of Pasadena Capital Improvement Plan – located at the City of Pasadena and on the City's website.
- 2018 Sewer Master Plan Update – to be located at the City of Pasadena and on the City's website.
- City of Pasadena Standard Drawings- located at the City of Pasadena.

5.4 Training Program

The City is required to provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and to require contractors to be appropriately trained.

5.4.1 Compliance Summary

The City does have a training program in place however training records have not been reliably kept. Based on review of the City's training program, the following recommendations are made:

Provide additional training, as listed below, staff and contractors on a regular basis, including initial and periodic training to ensure continued competency. Training should include review of the agency SSMP and SSORP, including both classroom and field training efforts to simulate an SSO, to assure understanding of existing standard operating procedures. Staff should be told where the SSMP and SSORP are kept so that they can be accessed at any time. All training activities should be documented. Consider discussing emergency response at regular contractor meetings. Include

requirements for emergency response and training in City's standard specifications for all public works projects and service contracts working on or new sewer facilities.

Recommended Additional Training to Implement:

- Simulated SSOs
- Bypass Training

5.4.2 Compliance Documents

The City currently not kept reliable documentation that demonstrate the type of training provided to staff and what training requirements are required of contractors. The following are documents recommended that the City maintain to document their training activities:

- Employee Training Records
- Employee Training Matrix
- Training Information Spreadsheet
- Operations and Maintenance Training Program

5.5 Equipment and Parts Inventories

Each Enrollee is required to provide equipment and replacement part inventories, including identification of critical replacement parts for the operation and maintenance of its sewer collection system.

5.5.1 Compliance Summary

The City of Pasadena is comprised of various standard sized gravity pipelines and two pump facilities that that the City is responsible for. The Pasadena DPW maintains an inventory of tools for day-to-day operations and emergency response. Inventory is maintained by visual inspection only (no list is kept). The City monitors their lift stations only; maintenance is performed by a contractor (Multi-Tek), therefore the City does not keep pump station replacement parts in inventory. It is recommended the City develop a electronic list of inventory that is kept up to date to ensure necessary tools are maintained in stock.

5.5.2 Compliance Documents

The City has not been maintaining thorough documentation supporting compliance with the requirement to maintain an inventory of equipment and parts including identification of critical parts. The City will commence maintaining the following document:

- Equipment Inventories

CHAPTER 6 – DESIGN AND PERFORMANCE PROVISIONS

This chapter references the design and construction standards and specifications for new sewer systems, pump stations, and other appurtenances, and for the rehabilitation and repair of existing sewer systems. Also included are the procedures and standards for the inspection and testing of these facilities. The Order requires the following:

- (a) 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
- (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

6.1 Compliance Summary

To ensure consistency in the design and construction of collection system facilities within the City of Pasadena, the City has developed Standard Plans and utilizes the "Greenbook" Standard Specifications for Public Works Construction for standard specifications, standards for installation, rehabilitation and repair and standards for cleaning, inspection, and rehabilitation of existing facilities, with supplements to these with the Pasadena Supplements and Modifications to the "Greenbook" (Pasadena Supplements), as noted herein.

Standard Plans

The City of Pasadena uses standard plans for the design of its sewer system. The relevant plans, listed in Table 5-1, come from the City's Public Works Department, the Los Angeles County Department of Public Works, and the "Greenbook" Committee of Public Works Standards, Inc. (in conjunction with the American Public Works Association). The latter is a southern California committee of public works agencies and associations that collaborate to develop a set of *Standard Plans for Public Works Construction*.

Table 6-1: Standard Plans

Plan Number	Plan Title/Description
City of Pasadena – Public Works and Transportation Department	
S-002	Substructure Legend
S-299	Supporting Water Pipes Encountered During Excavation Operations

Plan Number	Plan Title/Description
S-301	Saddle for House Laterals (see LACoDPW 2024-1)
S-382	Pre-cast Sanitary Sewer Manhole (see PWS 200-3)
S-384	Manhole Reconstruction (see PWS 205-2)
S-407	Trench Compaction Requirements
S-416	Restoration of Asphalt Street Excavations
S-417	Restoration of Concrete Street Excavations
Standard Plans for Public Works Construction (Public Works Standards, 2012)	
200-3	Precast Concrete Sewer Manhole (see CoP S-382)
201-2	Precast Concrete Shallow Manhole
202-2	Drop Manhole
203-2	Brick Sewer Manhole
205-2	Sewer Manhole Adjustment (see CoP S-384)
208-2	Breaking into Existing Manholes
223-2	House Connection Remodeling
224-2	Supports for Conduits across Trenches
630-4	600 mm (24") Manhole Frame and Cover
Los Angeles County Department of Public Works (LACoDPW)	
2024-1	Wye or Tee Support
2027-1	Allowable Trench Widths
3080-3	Pipe Bedding in Trenches
3090-1	Criteria for the Design of Shoring for Excavations

Standard Specifications

The City of Pasadena uses the "Greenbook" Standard Specifications for Public Works Construction (Standard Specifications). The City supplements these Standard Specifications with the Pasadena Supplements.

Standards for Installation, Rehabilitation and Repair

Refer to the latest edition of the "Greenbook" Standard Specifications for installation, rehabilitation, and repair standards. The Pasadena Supplements add to and in some cases, supersede the Standard Specifications.

Standards for Cleaning, Inspection, and Rehabilitation of Existing Facilities

Refer to the latest edition of the "Greenbook" Standard Specifications for cleaning, inspection, rehabilitation and standards. The Pasadena Supplements add to and in some cases, supersede the Standard Specifications.

6.2 Compliance Documents

The documents used for design and performance evaluations include the following:

- Standard Plans – located on the City's website.
- "Greenbook" Standard Specifications for Public Works Construction
- Pasadena Supplements and Modifications to the "Greenbook"

CHAPTER 7 – OVERFLOW EMERGENCY RESPONSE PLAN

Under the Order, 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:

- (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- (b) A program to ensure an 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 WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
- (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- (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.

7.1 Compliance Summary

The City of Pasadena responds to and reports all public SSOs from the City's sanitary sewer system and all private property spills that the City becomes aware of.

The City's Sanitary Sewer Overflow Response Plan (SSORP) provides detailed procedures for City employees responding to SSOs during or after normal working hours. The SSORP covers the overall procedure, the overflow correction, containment and cleanup and the regulatory agency notification plan. Contact information is included for all agencies and personnel that require notification in the event of a sewage spill. Compliant with the State Water Resources Control Board's Order No. WQ 2008-0002-Exec., the City notifies the Office of Emergency Services and the Los Angeles Regional Water Quality Control Board of any spills that discharge to a drainage channel or surface waters within two hours of becoming aware of the spill. The City certifies within twenty four hours to the Los Angeles Regional Water Quality Control Board that

the appropriate notifications have been completed. The City of Pasadena reports all SSOs, public and private, to the CIWQS online SSO database. All spills are reported to the Los Angeles County Department of Environmental Health.

City staff will periodically review the SSORP to ensure procedures are adequate to quickly and efficiently respond to public and private SSOs.

As listed in Section 5.4, the City will develop a training that simulates and SSO that is conducted semi-annually. A sample outline for the training includes the following: Utilizing potable water, a controlled rate of flow can be used to overflow a mock manhole that will overflow into a mock storm drain. Train City employees in flow estimation, spill recovery, and clean up. Provide training on spill response twice per year, consisting of classroom and field activities.

A copy of the SSORP is maintained by the crew supervisor. A copy of the SSORP will be kept in each response vehicle. A CIWQS Incident Report Log is used to document initial spill data and is provided in each response vehicle.

A copy of the City's SSORP is included in Appendix B.

The City will implement a more formal SSO training program and maintain a detailed log of staff trainings, including at a minimum training type, date and attendees.

7.2 Compliance Documents

The compliance documents that detail the City of Pasadena's Sewer Overflow Response Plan are as follows:

- Sanitary Sewer Overflow Response Plan – located at the City of Pasadena DPW.
- CIWQS Incident Report Log – located at the Engineering Division.

CHAPTER 8 – FATS, OILS, AND GREASE CONTROL PROGRAM

Under the Order, each Enrollee is required to evaluate its service area to determine whether a FOG control program is needed. If the 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:

- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- (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;
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- (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;
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
- (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- (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.

8.1 Compliance Summary

The City of Pasadena addresses Fats, Oils, and Grease (FOG) control through the resources of multiple City departments. The City has historically been proactive in the control of FOG from commercial sources into its sewer system. Provisions for a FOG control program have existed in Chapter 13.24 of the City of Pasadena Municipal Code since 1950. These provisions were augmented by the adoption of Chapter 8.14 in 2002.

As described in Section 5 of this SSMP, the Department of Public Works provides prioritized cleaning and maintenance of the City's sanitary sewer system. In addition, the City Engineer approves the location of grease interceptors. The Department of Planning and Development (DPD) in conjunction with the Pasadena Public Works Department assists in the requirement and approval of the design of grease interceptors or traps through plan checking procedure.

The Department of Public Works (DPW) will hire a dedicated staff member, or alternatively outsource FOG inspection services, to perform annual inspection of food service establishments (FSEs) and to identify and monitor likely sources of FOG into the sewer system. This is accomplished by requiring and verifying the installation and use of grease interceptors or traps.

The following sections are provided to document the City's FOG program and identify additional activities or authorities as appropriate to meet the goals of the Order.

Public Outreach and Education

The City is committed to informing its residents about the consequences of disposing of FOG into the sink. The most notable form of public outreach and education has been through the community newsletter, *Pasadena in Focus*. The City is in the process of further developing their FOG outreach and education program, which will include at a minimum annual FSE inspections which will include printed material dissemination and information posted on the City's website.

Facility inspections are often the best opportunity for education as they allow one-on-one interactions and deal directly with specific requirements and practices for the business. The City will ensure that its inspectors are proficiently trained to educate its business and residential communities and distribute the appropriate materials.

Target audiences will include applicable City staff, FOG generating businesses and facilities, and residents. Educational materials may contain information on the State regulations, revised City ordinance and compliance requirements, sanitary sewer system overview, FOG impacts to the system, business and residential BMPs, disposal options, and source control measures. Materials will be developed in English and Spanish as needed. Many of the City's existing educational materials contain BMP information and include specific FOG control BMPs. Additionally, the City will compile a list of potential FOG hauling and disposal companies to assist businesses and residents in contracting these services.

FOG Disposal

FOG can be separated from other liquid waste using a grease interceptor or trap. Storage of FOG is dependent on the device used. An interceptor is designed to store FOG in its tank. Grease interceptors are to be emptied as needed of stored FOG in order to maintain minimum design capacity. Facilities using grease traps are directed to remove FOG from the trap as frequently as necessary to maintain proper working condition. FOG removed from a grease trap should be stored in a leak-proof container until it is recycled. Removal of stored FOG from grease interceptors and traps for recycling should occur as often as needed to maintain a condition free of nuisance.

The City does not provide FOG disposal services for private businesses and property owners. It is the responsibility of the private business and property owner to hire a licensed grease hauler as needed. However, the City will keep a list of licensed grease

haulers and will provide this information to FSEs and residents as needed during inspections and site visits.

All companies doing business in California that transport inedible kitchen grease must obtain a registration sticker for each of their trucks from the Department of Food and Agricultural pursuant to provisions of the Food and Agriculture Code as well as the vehicle code. Those companies doing business within Pasadena must also obtain a business license from the City.

Legal Authority

Original authority to control FOG in the sewer was established by Section 13.24.370 of the PMC which states that no oils shall be discharged into the wastewater system and no fats or grease except in quantities from domestic household waste shall be disposed of in the sewer system. This has been supplemented by Chapter 8.14 to further manage and control FOG disposal to minimize FOG-related O&M costs and potential SSOs.

Food service establishments (FSEs) are required to control their FOG discharge through the use of grease removal devices and best management practices. Section 8.14.060 Grease Interceptor Requirements establishes the design requirements for gravity grease interceptors with Section 14.12.100 as well as establishing grease interceptor maintenance requirements. Section 8.14.070 Grease Trap Requirements establishes the design and maintenance requirements for grease traps. Compliance is enforced through Sections 8.14.080, 8.14.090 and 8.14.100 via inspections, hearings, violations and penalties.

Design and BMP Standards

In accordance with 8.14.050-C of the PMC, all new restaurants have to submit to the DPH plans to install a grease interceptor for approval by the DPD and Pasadena Public Health Department. Such establishments may request a variance to allow for the installation of only a grease trap or an alternative pre-treatment technology. However, any installation must conform to the 1998 California Plumbing Code. The Plan Check Construction Guide for Commercial Food Facilities provides a prospective restaurateur with the appropriate city code and design guidelines for grease interceptors and traps (available at the City of Pasadena Public Health Department).

Interceptors are to be installed in a location that allows easy access for inspection, cleaning, and FOG removal. Underground tanks must have a minimum capacity of 750 gallons.

Manholes, a minimum of 24-inch in diameter, are to be provided over each chamber and sanitary tee. These provisions and others are listed in Section 8.14.060 as well as the the Plan Check Construction Guide, located at the City Public Health Department Environmental Health Division offices.

Traps must have a minimum flow rate of 20 gallons per minute (gpm) and a maximum flow of 55 gpm. The temperature of the wastewater entering the trap shall be equal to or

below 140 degrees Fahrenheit (60 degrees Celsius). These provisions and others are listed in Section 8.14.070.

Facilities open prior to strict enforcement of the FOG control program are required to install a grease interceptor or trap when that facility remodels, causes a FOG problem in the sewer into which the facility discharges, or when a public nuisance complaint is received.

As detailed in Section 8.14.110, some food service facilities are exempt from the FOG control program. These facilities sell or serve food, but either do not produce FOG waste or serve food prepared off-site. If in the future it is determined by the EHD that there is a FOG problem at such a facility, then the facility in violation will have to install a grease interceptor or trap.

Domestic household FOG is also exempt from the FOG control program.

Inspection and maintenance records for a grease interceptor are to be maintained for three (3) years, be kept on site, and be made available for review by the Environmental Health Division Manager. Inspection is to be performed regularly.

Inspection and Enforcement Plan

The City Engineer and chosen deputies are authorized under PMC Sections 13.24.130 and 13.24.140 as well as Section 8.14.080 to enforce the provisions in Chapters 13.24 and 8.14 which include installation and proper maintenance of grease traps and interceptors. These provisions are also jointly enforced by the Environmental Health Division Manager as stated in Section 8.14.080 of the PMC.

The DPW now inspects the sewers for FOG problem areas. Inspection and cleaning of the sewers is discussed in Section 4 of this SSMP and FOG-specific programs are discussed in the following section.

The City will hire a dedicated FOG inspector, or alternatively outsource FOG inspection services, to inspect all FSEs annually and distribute public outreach materials.

FOG Enhanced Maintenance Areas

FOG enhanced maintenance areas are included in the SWIWM Division's Enhanced Maintenance Area Program. Enhanced maintenance areas are areas of the collection system that require maintenance above the normal scheduled maintenance. The City maintains this program through their asset management and integrated work order system, Lucity™. The reason the area or facility is part of the enhanced maintenance program (i.e. FOG, roots, etc.) is also noted. Enhanced maintenance areas are cleaned every three months or more frequently if required.

FOG Source Control Program

The City will plot on a GIS layer, the location of all FSEs and FOG generators within the city limits. The relationship between FOG related enhanced maintenance areas and FOG generators has been established. The City has the legal authority to conduct inspections of FSEs who are generating or are suspected of generating FOG. These inspections will be conducted by City staff or an outside contractor. During the inspections, inspectors instruct FSE staff on the use of grease removal devices and BMPs designed to reduce FOG generation. Inspectors will also review the FSEs FOG reduction practices including review of records, manifests or invoices for grease disposal, and maintenance on any installed grease removal devices.

All FSEs are required to implement BMPs designed to minimize the generation of FOG during the food preparation and cleanup process. FSE employees are required to receive documented training twice per year on the implementation of the BMPs from their employers. New or remodeled FSEs are required to install and properly maintain an approved grease removal device.

In the event of a FOG related SSO occurring within an enhanced maintenance area (or anywhere within the sewer collection system) and the subsequent investigation shows evidence that a discharger caused or contributed to the SSO, the City may request repayment of all associated costs, issue an administrative or misdemeanor complaint, or discontinue service.

8.2 Compliance Documents

The FOG control program activities are documented under the following ordinances, reports, and studies:

- Chapter 8.14, Grease and Oil Disposal Ordinance, City of Pasadena Municipal Code.

CHAPTER 9 – SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

The Order requires that each 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:

- (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
- (c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term 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.

9.1 Compliance Summary

To ensure that the City's sanitary collection system meets the needs of the population served, the City routinely commissions a Sewer Master Plan to review the operational needs of the collection system. To provide a current and complete assessment of the City's collection system a Sewer Master Plan Update is being completed and adopted by the City Council in 2018. The 2018 Sewer Master Plan Update will include a prioritized listing of capital improvement projects (CIP). The prioritization takes into account the age of the facilities, construction materials used, current use, capacity, and known condition.

Extensive flow monitoring was performed in conjunction with the development of the 2018 Sewer Master Plan Update. As the system utilizes permanent flow meters flow histories were also reviewed. This data was used to determine the average dry weather

flows (ADWF). Peak dry weather flows (PDWF) were calculated from the ADWF. Data from January 2018 was used to determine the average wet weather flows (AWWF) and peak wet weather flows (PWWF). By comparing the dry weather and wet weather flows the level of defect flows or inflow and infiltration (I&I) during rain events was determined.

Flow data and data from the City's sewer billing database was used to verify the equivalent dwelling units (EDU) daily flow values. Using information from the City's GIS coupled with the flow measurement data an update to the City's sewer hydraulic model was developed. This model was updated to include improvements made since the 2008 Sewer Master Plan and model. As the regulations governing the operation of sanitary and storm sewers increase, this capability will allow the City to assess the impacts of various operating strategies.

Evaluation:

The 2018 Sewer Master Plan did not identify and capacity-related defects for the system. Several condition-related defects were found, however, including 10,000 LF of CIPP lining, 3 in-situ point repairs, 13 excavation point repairs, two full pipe replacements, one pipe realignment and 10 trim intruding laterals. Refer to the Sewer Master Plan for more detailed information.

Design Criteria:

The City does not currently maintain wastewater design criteria. The design criteria recommended in the 2018 Master Plan Update are based on an evaluation of comparable criteria from neighboring sewer agencies. The City of Pasadena design standards are summarized the table below. The recommended design criteria were used for evaluating performance of the existing collection system and for the planning of new facilities to address current performance issues or address future increases in sewer flows.

Recommended Sewer Design Criteria

Gravity Main Criteria	Minimum pipe diameter	8-inches
	Minimum allowable velocity at peak design flow	2 ft per sec
	Manning's Roughness Coefficient	0.013
Depth-to-Diameter Ratio for Gravity Mains	For sewer mains ≤ 12-inch	0.50
	For sewer mains > 12-inch	0.75
Pump Station Criteria	Minimum Number of Pumps	2
	Minimum Pump Capacity	Duty pumps capable of handling the ultimate PWWF
	Standby Capacity	100% of the largest pump capacity
	Emergency Power	Required
Velocity for Force Mains	Emergency Storage Capacity	6 hours of ADWF
	Minimum allowable velocity	2.5 ft per sec
	Maximum allowable velocity	8 ft per sec

Capacity Enhancement Measures:

The Sewer Master Plan did not identify any capacity-related defect; however, several condition-related defects were identified from review of City CCTV inspection videos. By estimating the rehabilitation costs, the Sewer Master Plan identified a recommended set of CIP projects necessary to address identified condition related problems. This information allows for the development of a precise CIP program based upon the computer model and an up-to-date pipeline condition assessment.

Schedule and Funding:

The CIP developed for the 2018 Sewer Master Plan recommended improvements and improvement programs through 2035 with a detailed focus on near-term critical projects through 2025. Refer to the Sewer Master Plan for more detailed information.

9.2 Compliance Documents

The documents used for system evaluation and capacity assurance are as follows:

- Sewer System Master Plan Update 2018 – to be located at the City of Pasadena and on the City’s website.
- City of Pasadena Standard Specifications – located at the City of Pasadena DPW.
- City of Pasadena CIP Program – located at the City of Pasadena DPW.
- Collection System CCTV Inspection Videos - located at the City of Pasadena DPW.
- Lucity Asset Management System - located at the SWIWM Division.
- Engineering Division Sewer GIS - located at the City of Pasadena DPW.
- City of Pasadena annual budget – located at the City of Pasadena.
- City of Pasadena Municipal Code, Title 8 and Title 13 – located at the City of Pasadena and on the City’s website.

CHAPTER 10 – MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

The Enrollee shall monitor and measure the effectiveness of the SSMP and shall make modifications as necessary to maintain the programs effectiveness. Under the Order, the Enrollee shall:

- (a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- (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;
- (d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
- (e) Identify and illustrate SSO trends, including: frequency, location, and volume.

10.1 Compliance Summary

The City reports all public and private property spills. Spill reports are maintained at the City and on the California Integrated Water Quality System's (CIQWS) online SSO database. Spill reports are analyzed by management to determine strategies to prevent future occurrences. Spill response efforts are also analyzed by management to determine their efficiency and effectiveness. Spill data along with on-site inspection data is utilized by the FOG Control Program Manager to monitor the progress of the City's FOG Reduction Program.

The City routinely conducts an update to its Sewer Master Plan. The Sewer Master Plan Update reviews multiple aspects of the City's management, operation, maintenance, funding, and CIP progress for the collection system.

To further meet these requirements, the City will develop a select set of criteria that will monitor and measure the broad range of performance activities in managing and operating its sewer utility. Since there are a number of parameters that may be more appropriate for the City, these measures should be initially developed and evaluated during the program implementation to make sure it adequately monitors for the desired performance. The preliminary performance monitoring measures to be considered include:

- SSOs and estimated volume by cause; data to include:
 - Event date
 - Event location
 - Report date
 - Number of SSOs over the past 12 months, distinguishing between dry

- weather and wet weather overflows
 - Volume of SSO that was contained in relation to total volume spilled
 - SSO impacts to public health, environment, and waters of the U.S.
 - Cause(s) of SSO
 - Average time to respond to SSO
 - Responses and corrective measures to prevent SSOs
 - Determination of any pattern of SSOs in the collection system
- Amount of time spent by operation and maintenance staff (full time equivalent or FTE) to clean, repair and monitor performance of a pipeline, manhole, pump station, and other sewer system assets
- Average time for maintenance staff to respond to a spill.
- Scheduled repairs and improvements based on system performance history and inspections (list).
- Emergency repairs (list) by cause.
- Interview collection system maintenance staff and management on the effectiveness of SSMP elements and recommend modifications and improvements
- Evaluate maintenance record reports
- Evaluate sewer system improvements and progress made or setbacks
- Evaluate industrial pretreatment program compliance and impacts due to non- compliance or modifications in discharges by industrial users

If SSO trend information and/or performance measures indicate the need for change, the program shall be updated to reflect those changes necessary to address the identified problem.

10.2 Compliance Documents

The compliance documents are as follows:

- SSO Reports – located at the Engineering Division.
- Lucity Asset Management System - located at the SMIWM Division.
- Engineering Division Sewer GIS - located at the City of Pasadena DPW offices.

CHAPTER 11 – PROGRAM AUDITS

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.

11.1 Compliance Summary

The City of Pasadena will audit its SSMP on a two year cycle from the date of initial City Council approval of the SSMP. If conditions change that warrant increased audit frequency, the City will adjust its audit cycle accordingly. Audits will review the City's SSMP activities from the time of the last audit and will summarize the data accumulated through its monitoring, measuring, and program modification efforts. Particular attention will be paid to each program's effectiveness in meeting its goals, objectives, and priorities while ultimately being tied into the budgetary process.

The audit process will include the review of additions or improvements made to the collection system during the current audit period and describe planned additions and improvements for the upcoming audit period. Supporting documents will be reviewed to ensure they are up to date and the most recent documents are available and referenced. This process will also ensure that historical documents are kept for future reference.

Employee training will be reviewed to ensure programs and mechanisms are in place to provide necessary training, and that all staff is up to date with required training. Training includes on the job requirements, safety, required licenses and/or certificates, and professional development.

Completed audits will be retained on file by the City in the DPW offices.

11.2 Compliance Documents

The documents used for audit evaluations include the following:

- SSO Reports – located at the Engineering Division.
- Lucity Enhanced Maintenance Area Documentation - located at the SMIWM Division.
- Sewer GIS - located at the Engineering Division.

CHAPTER 12 – COMMUNICATIONS

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.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

12.1 Compliance Summary

The Pasadena City Council encourages public participation in City activities. Time is allowed at each open City Council meeting for public comment. The City maintains a website where information about the collection system, including a copy of the latest SSMP, is publically available. The City also posts collection system documents, such as the upcoming 2018 Sewer Master Plan Update, for public review. The City's Municipal Code which provides the legal authority to manage, operate, and maintain the sanitary collection system are also online.

The City has committed to communicate the development of the SSMP with the public. The City will present the 2018 Master Sewer Plan in several public meetings and provide the public an opportunity to comment on its findings level of service goals, O&M activities and staffing requirements, design criteria, capital improvement program (CIP) findings, and financial implications related to sewer use fees and capital facility charges. In addition to this prior public involvement, the City may conduct up to two additional public meetings to increase public awareness should the need arise.

The City communicates with interested local and regional parties as part of its ongoing sanitary sewer and storm water management programs. With the addition of the SSMP requirements, the City will communicate with the LACSD prior to plan finalization, at least one time per year, and prior to the submittal of any updates to the SWRCB. The City will also coordinate any changes with its local industrial waste pretreatment and/or FOG program with LACSD to enhance local source control efforts and improve local wastewater effluent as appropriate.

12.2 Compliance Documents

The documents used for the communications program include the following:

- City of Pasadena website www.cityofpasadena.net

CHAPTER 13 – GENERAL COMPLIANCE REQUIREMENTS

SSMP and Program Certification

Both the SSMP and the City's program to implement the SSMP must be certified by the City to be in compliance with the requirements set forth above and must be presented to the City's governing board for approval at a public meeting. The City shall certify that the SSMP, and subparts thereof, are in compliance with the general WDRs within the time frames identified in the time schedule provided in subsection D.15.

In order to complete this certification, the City's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
P.O. Box 100
Sacramento, CA 95812

The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the City is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the City shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

13.1 Compliance Summary

The SSMP will be presented to the Pasadena City Council for approval on December 16, 2019. Re-certification of the SSMP will occur every five (5) years from the date of the initial SSMP approval.

13.2 Compliance Documents

The following documents provide the legal basis for the City of Pasadena approval of the SSMP.

- Pasadena City Council meeting minutes from December 16, 2019 – located at the City of Pasadena and online.
- Approved SSMP – located at the City of Pasadena DPW offices.

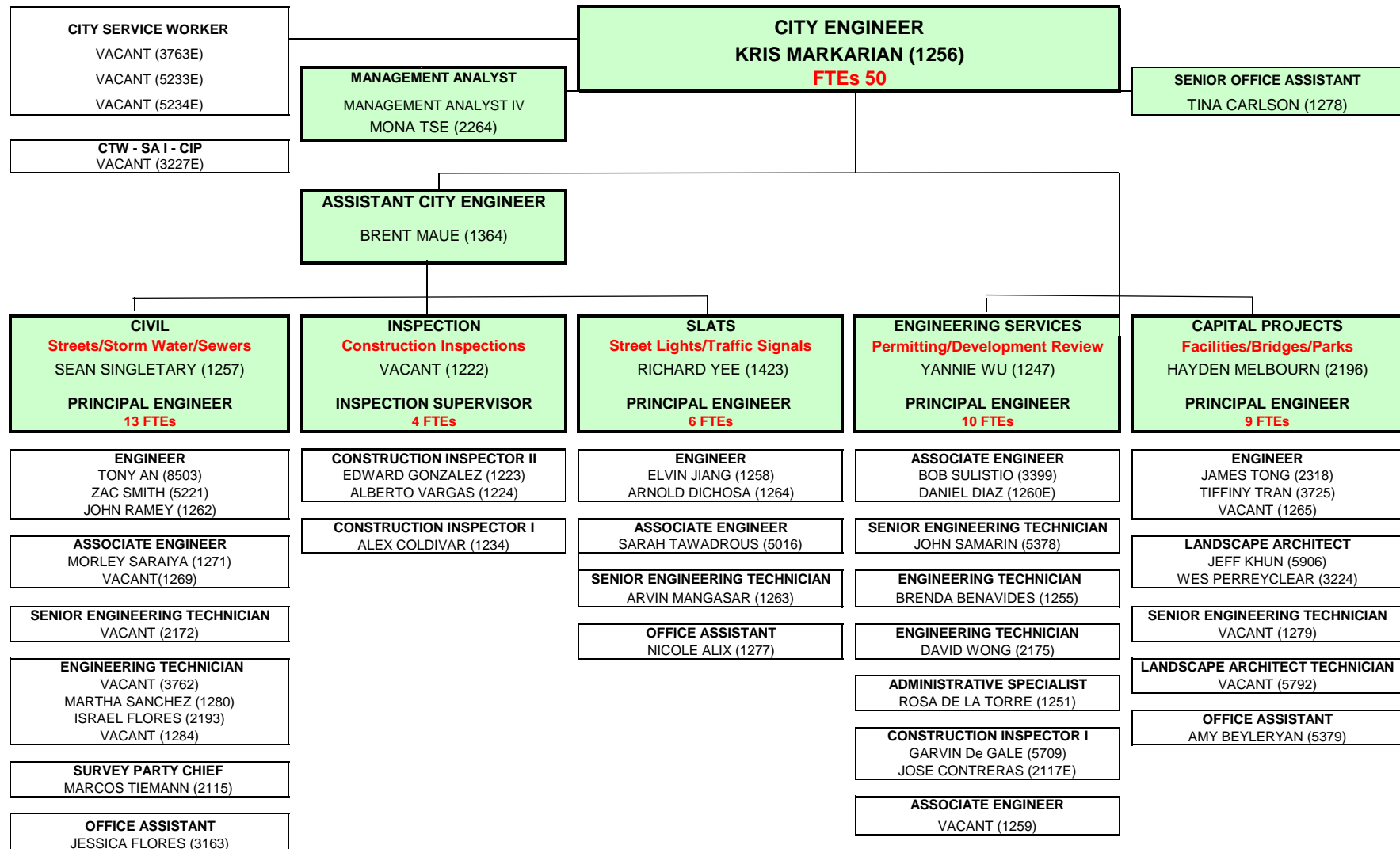
State Water Resources Control Board Order Number 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems – located at the City of Pasadena.

APPENDIX A

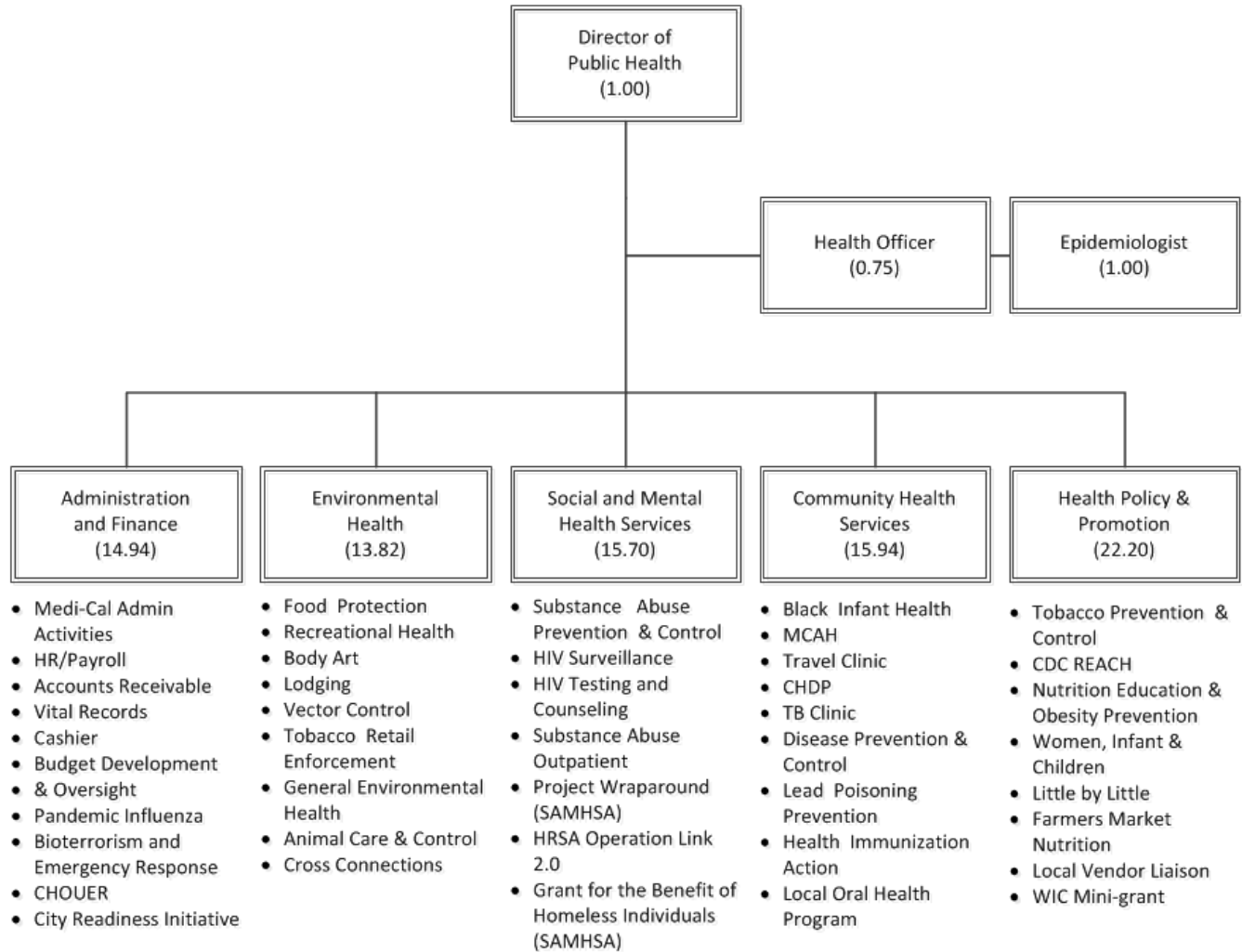
CITY ORGANIZATIONAL CHARTS



**Department of Public Works
Engineering Division
FY 2019 ORGANIZATION CHART**



CITY OF PASADENA
PUBLIC HEALTH



APPENDIX B

SANITARY SEWER OVERFLOW RESPONSE PLAN

Overflow Emergency Response Plan

Organization of Plan

The key elements of the Sanitary Sewer Overflow Response Plan (SSORP) are addressed individually as follows:

- Section I Overflow Response Procedure
- Section II Overflow Correction, Containment and Cleanup
- Section III Regulatory Agency Notification Plan

Section I: Overflow Response Procedure

The Sanitary Sewer Overflow Response Procedure presents a strategy for the City of Pasadena to mobilize labor, materials, tools and equipment to correct or repair any condition which may cause or contribute to an un-permitted discharge. The plan considers a wide range of potential system failures that could create a sanitary sewer overflow (SSO) to surface waters, land or buildings.

Receipt of Information Regarding an SSO

An overflow may be detected by system employees or by others. During regular working hours the Public Works/Street Maintenance and Integrated Waste Management is primarily responsible for receiving phone calls from the public of possible SSO from the wastewater collection system. After hours, the Police Department Dispatch is the primarily responsible for contacting the necessary personnel to respond to a SSO. The Police Dispatch (PD) number is staffed 24 hours a day every day of the year.

1. The telephone operator receiving the call should obtain all relevant information available regarding the overflow including:
 - a. Time and date call was received;
 - b. Specific location;
 - c. Description of problem;
 - d. Time possible overflow was noticed by the caller;
 - e. Caller's name and phone number;
 - f. Observations of the overflow (e.g., odor, duration, back or front of property); and
 - g. Other relevant information that will enable the responding personnel to quickly locate, assess, contain and stop the overflow.

If the call is received during working hours the SMIWM division telephone operator then records the SSO information and creates a work order for assignment to Collection System Crew Supervisor (CSCS). If the call is received after hours and dispatched by the PD, the responding stand-by personnel will document their actions to be recorded at the first available opportunity.

2. Pump station failures are monitored and received by the CSCS. Should there be a failure; the CSCS will immediately initiate the investigation and response action.

3. Sewer overflows detected by any personnel in the course of their normal duties shall be reported immediately to the SMIWM division. Dispatch personnel should record all relevant SSO information and dispatch the CSCS or appropriate crew.
4. The CSCS shall confirm the SSO. Until verified, the report of a possible spill will not be referred to as a "sanitary sewer overflow or an SSO."
5. Sanitary Sewer Overflow incidents will be tracked on the City of Pasadena's daily sewer maintenance sheet and then downloaded to the Collection System Sections software tracking system

Dispatch of Appropriate Personnel to Site of Sanitary Sewer Overflow

Failure of any element within the wastewater collection system that threatens to cause or causes an SSO will trigger an immediate response from the CSCS, who is on call for duty, to isolate and correct the problem. Personnel and equipment shall be available to respond to any SSO location. Response personnel will be dispatched to any site of a reported SSO immediately.

1. Dispatching Personnel

- Dispatchers should receive notification of sewer overflows as outlined above in the section entitled "Receipt of Information Regarding an SSO" and dispatch the CSCS and/or the appropriate personnel and resources as required.
- Dispatchers shall notify the appropriate manager or supervisor by any means necessary regarding SSOs and field personnel locations.

2. Personnel Instructions and Work Orders

- Responding crews should be dispatched by 8-R radio or any means necessary. SMIWM division should receive instructions from sewer investigators or their supervisors regarding appropriate personnel, materials, supplies, and equipment needed.
- Dispatchers shall ensure that the entire message has been received and acknowledged by the personnel who are dispatched. All standard communications procedures should be followed. All personnel being dispatched shall proceed immediately to the site of the overflow. Any delays or conflicts in assignments must be immediately reported to the CSCS for resolution.
- Response personnel should in all cases report their findings, including possible damage to private and public property, to the CSCS immediately upon making their investigation. If the CSCS has not received findings from the field personnel within 30 minutes of being dispatched, the CSCS shall contact the response personnel to determine the status of the investigation.
- CSCS shall refer all pertinent information to the Public Works Supervisor, including any details of the problems described by customers.

3. Additional Resources

- CSCS should receive and shall convey to appropriate parties requests for additional personnel, material, supplies, and equipment from crews working at the site of a

SSO.

4. Preliminary Assessment of Damage to Private and Public Property

- The response personnel shall not enter private property for purposes of assessing damage. It is the primary responsibility of the response personnel to contain sewage and attempt to clear any blockage in the collection system. Given consent by the private property owners, the Public Works Superintendent is responsible for entering private property taking the appropriate still photographs and/or video footage. If possible, pictures should be taken of all indoor and outdoor areas the SSO has impacted. Thoroughly document the nature and extent of impacts. Available photographs are to be forwarded to Public Works Superintendent for documentation purposes.

5. Field Supervision and Inspection

- The Public Works Superintendent who is on call should visit the site of the SSO to ensure that provisions of this SSORP and other directives are met.
- The Public Works Superintendent is responsible for confirming that the SSO is documented correctly and that information conveyed to the SMIWM Division Administrator.

6. Coordination with Hazardous Material Response

- Upon arrival at the scene of a sewer overflow, should a suspicious substance (e.g., oil sheen, foamy residue) be found on the ground surface, or should a suspicious odor (e.g., gasoline) not common to the sewer system be detected, the CSCS or the response personnel should immediately contact their supervisor for guidance before taking further action.
- Should the supervisor determine the need to alert the hazardous material response team, the CSCS and/or personnel on the scene shall await the arrival of the City of Pasadena's Hazardous Materials Personnel (COPHMP) to take over the scene.
- Remember that any vehicle engine, portable pump or open flame (e.g., cigarette lighter) can provide the ignition for an explosion or fire should flammable fluids or vapors be present. Keep a safe distance and observe cautiously until assistance arrives.
- Upon arrival of the COPHMP, the CSCS and/or Collection System Personnel will take direction from the person with the lead authority of that team. Only when that authority determines it is safe and appropriate for the CSCS and/or Collection System Personnel to proceed under the SSORP with the containment, clean-up activities and correction.

Section II: Overflow Correction, Containment, and Clean-Up

SSOs of various volumes occur from time to time in spite of concerted prevention efforts. Spills may result from blocked sewers, pipe failures, or mechanical malfunctions among other natural or man-made causes. City of Pasadena is constantly on alert and should be ready to respond upon notification and confirmation of an SSO.

This section describes specific actions to be performed by the crews during an SSO. The

objectives of these actions are:

- To protect public health, environment and property from sewage overflows and restore surrounding area back to normal as soon as possible;
- To establish perimeters and control zones with appropriate traffic cones and barricades, vehicles or use of natural topography (e.g., hills, berms);
- To promptly notify the regulatory agency's communication center of preliminary overflow information and potential impacts;
- To contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into surface waters; and
- To minimize the City of Pasadena's exposure to any regulatory agency penalties and fines.

Under most circumstances, the City of Pasadena will handle all response actions with its own maintenance forces. They have the skills and experience to respond rapidly and in the most appropriate manner. An important issue with respect to an emergency response is to ensure that the temporary actions necessary to divert flows and mitigate or control the problem. For example, repair of a force main could require the temporary shutdown and diversion of the flow at an upstream location. If the closure is not handled properly, sewage system back-ups may create other SSO.

Responsibilities of Response Crew upon Arrival

It is the responsibility of the first personnel who arrive at the site of a sewer overflow to protect the health and safety of the public by mitigating the impact of the overflow to the extent possible. Should the overflow not be the responsibility of City of Pasadena but there is imminent danger to public health, public or private property, or to the quality of waters of the U. S., then prudent emergency action should be taken until the responsible party assumes responsibility and provides actions.

It should be noted that in case of emergency when public health, safety and welfare is jeopardized as declared by the Health Department, the following parties are empowered as Peace Officers to enter into private properties for immediate SSO response: Police Officers, Fire Fighters, City Engineer and/or Public Works Director, and Health Officials.

Upon arrival at an SSO, the response crew should do the following:

- Determine the cause of the overflow, e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc.;
- Once cause is determined, ownership of the problem needs to be identified.
- Identify and request, if necessary, assistance or additional resources to correct and/or contain overflow or to assist in the determination of its cause;
- Determine if private property is impacted. If yes, the dispatcher should be informed so that the Pasadena Health Department may be advised.
- Upon determination of private property being damaged as a result of City of Pasadena collection system generated SSO, the CSCS will contact a water damage clean-up contractor to execute emergency clean up at city expense.

- Take immediate steps to stop the overflow, e.g. relieve pipeline blockage, manually operate pump station controls, repair pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off of private property into the public right-of-way);
- If the cause is determined to be private generated SSO, and the damage is limited to the property, upon request the CSCS may provide a list of contactors to assist with clean up and/or pipe clearance.
- If necessary, request additional personnel, materials, supplies, or equipment from Departments of Police, Fire and Health that will expedite and minimize the impact of the overflow, such as traffic diversion, crowd control, and street closure.

Initial Measures for Containment

Initiate measures to contain the overflowing sewage and recover where possible sewage which has already been discharged, minimizing impact to public health or the environment.

- Determine the immediate destination of the overflow, e.g. storm drain, street curb gutter, body of water, creek bed, etc.;
- Identify and request the necessary materials and equipment to contain or isolate the overflow, if not readily available; and
- Take immediate steps to contain the overflow, e.g., block or bag storm drains, recover the sewage through vacuum truck and/or divert into downstream manhole, etc.

Additional Measures under Potentially Prolonged Overflow Conditions

In the event of a prolonged sewer line blockage or a sewer line collapse, a determination should be made to set up a portable by-pass pumping operation around the obstruction.

- Appropriate measures shall be taken to determine the proper size and number of pumps required to effectively handle the sewage flow.
- Continuous or periodic monitoring of the by-pass pumping operation shall be implemented as required.
- Regulatory agency issues shall be addressed in conjunction with emergency repairs.

Cleanup

SSO sites are to be thoroughly cleaned after an overflow. No readily identified residue (e.g., sewage solids, papers, rags, plastics, rubber products) is to remain.

- Where practical, the area is to be thoroughly flushed and cleaned of any sewage or wash-down water. Solids and debris are to be flushed, swept, raked, picked-up, and transported for proper disposal.
- If necessary, Police Officers should be dispatched to assist street closure, traffic diversion, or crowd control.
- The overflow site is to be secured to prevent contact by members of the public until the

site has been thoroughly cleaned.

- Where appropriate, the overflow site is to be disinfected and deodorized.

Sanitary Sewer Overflow Reporting and Tracking

SSO documentation shall be completed by the CSCS, and reviewed by the Public Works Superintendent. Public Works Supervisor shall promptly notify the SMIWM Division Administrator when the overflow is eliminated. Information regarding the SSO should include the following:

1. Indication that the SSO had reached surface waters, i.e., all overflows where sewage was observed running to surface waters, or there was obvious indication (e.g. sewage residue) that sewage flowed to surface waters; and
2. Indication that the sewage overflow had not reached surface waters. Guidance in characterizing these overflows to include:
 - a. Sewage overflows to covered storm drains (with no public access) where personnel verify, by inspection, that the entire volume is contained in a sump or impoundment and where complete clean-up occurs leaving no residue.
 - b. Preplanned or emergency maintenance jobs involving bypass pumping if access by the public to a bypass channel is restricted and subsequent complete clean-up occurs leaving no residue (Any preplanned bypass under these circumstances will not be considered an overflow.); and
 - c. Overflows where observation or on-site evidence clearly indicates all sewage was retained on land and did not reach a surface water and where complete cleanup occurs leaving no residue.
3. Determination of the start time of the SSO by one of the following methods:
 - a. Date and time information received and/or reported to have begun and later substantiated by the CSCS or response crew;
 - b. Visual observation.
4. Determination of the stop time of the SSO by one of the following methods:
 - a. When the blockage is cleared or flow is controlled or contained; or
 - b. The arrival time of the CSCS or response crew, if the overflow stopped between the time it was reported and the time of arrival.
5. Visual observations, such as:
 - a. An estimation of the rate of sewer overflow in gallons per minute (GPM) by one of the following criteria:
 - b. Direct observations of the overflow; or
 - c. Measurement of actual overflow from the sewer main.

6. Determination of the volume of the sewer overflow:
 - a. When the rate of overflow is known, multiply the duration of the overflow by the overflow rate; or
 - b. When the rate of overflow is not known, investigate the surrounding area for evidence of ponding or other indications of overflow volume.
7. Photographs of the event, when possible.
8. Assessment of any damage to the exterior areas of public/private property. CSCS shall enter private property for purposes of estimating damage to structures, floor and wall coverings, and personal property.

Section III: Regulatory Agency Notification Plan

The Regulatory Agency Notification Plan establishes procedures that the City of Pasadena shall follow to provide formal notice to the Office of Emergency Services and the Regional Water Quality Control Board as necessary in the event of SSO. The reporting criteria below explains to whom various forms of notification should be made, and lists agencies/individuals to be contacted.

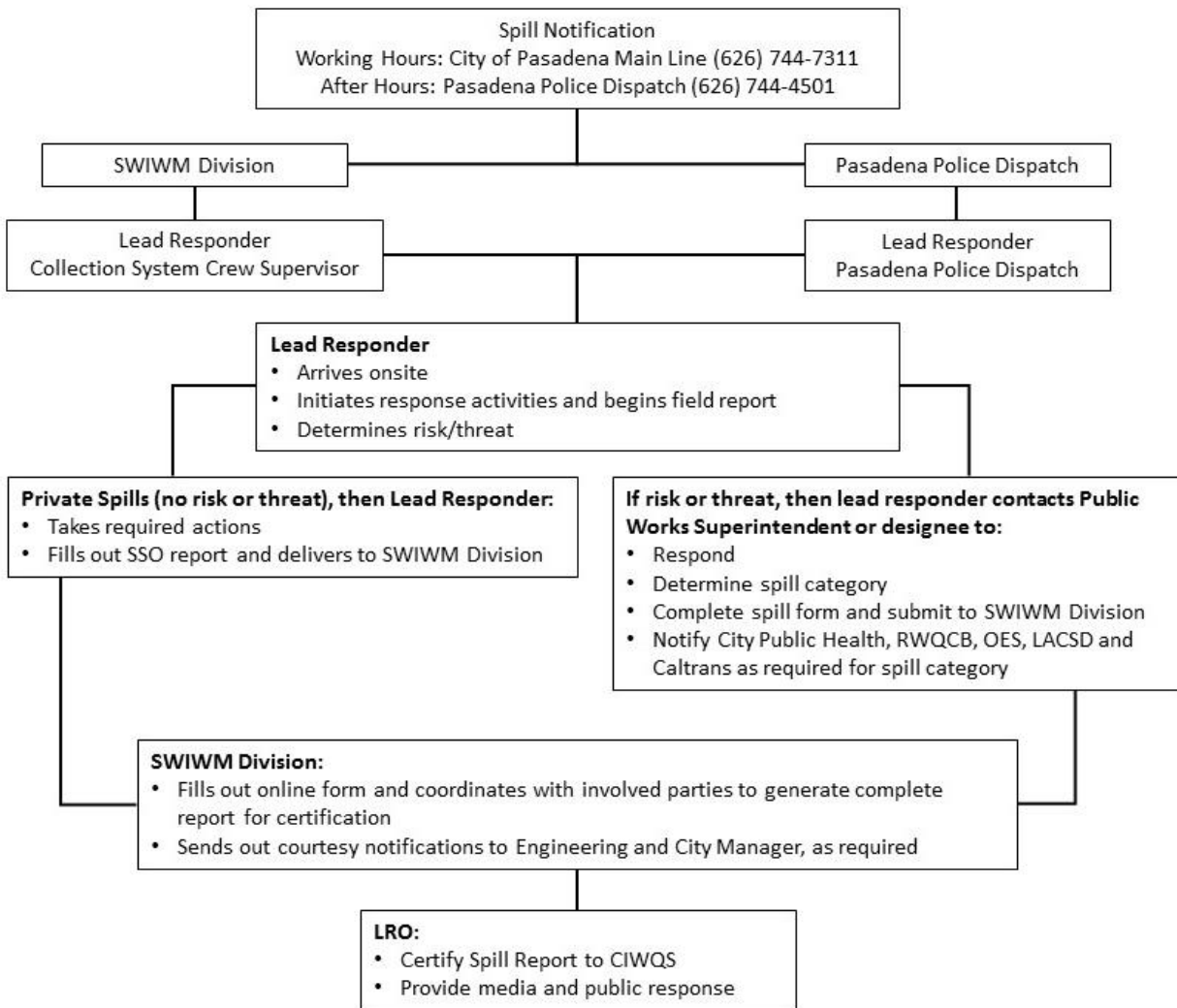
The procedures for providing notification to the media of an SSO is responsibility of the City of Pasadena's Public Information Officer. Internal notification and mobilization of personnel are detailed in Section I: Overflow Response Procedure.

Using data supplied during the verification process and updates from the CSCS or the response crew, the Public Works Superintendent shall prepare the initial and final SSO Reports which shall be reviewed, approved, and submitted by the Public Works Administrator or the Public Works Director's designee. These reports shall be made available to those desiring additional information or written confirmation.

Chain of Communication Flowchart

The SSO Chain of Communications flow chart shows the chain of communication for reporting SSOs. This flowchart, along with the reporting guidelines, was developed to manage the reporting process. The Reporting Guidelines explains the thresholds for SSO reporting, the agencies that must be notified, and the reporting timeframes. The detailed procedures utilized by the City for SSO reporting is in the City of Pasadena Sewer Overflow Response Plan. This plan is kept updated by the Wastewater Division under the direction of the Wastewater Supervisor, Public Services Director, and Director of Engineering and is executed and signed by the LRO.

In September 2013 the SWRCB changed the reporting of SSOs from appearance based to event based. Under the event based system one SSO report is required for each SSO that occurs regardless of the number of appearance points although each appearance point must be noted in the report. Previously, a separate SSO report had to be filed for each appearance point sometimes requiring numerous SSO reports for the same SSO event.



SSO Reporting Guidelines

Reporting of all unauthorized discharges from the City's sanitary sewer collection systems is required by the Order. Discharges are rated by category. A Category 1 SSO is an unauthorized SSO of any volume that reaches surface water or a storm drain or channel that is tributary to surface water. A Category 2 SSO is any unauthorized discharge of 1,000 gallons or greater that does not reach surface waters, a drainage channel or storm water system (MS4) and is not fully captured and properly disposed of. A Category 3 SSO is all other unauthorized discharges from the City's collection systems.

Private lateral discharges are sewage discharges that occur from private sewer lateral or other privately-owned sewer assets. The City is not responsible for private lateral discharges but is required to report them as the City becomes aware of them. Updated SSO Reporting Flow Charts, staff titles, and staff contact information is maintained at the Pasadena DPW offices.

Failure to comply with the monitoring and reporting requirements of the State could result in civil liabilities of up to \$5,000 a day per violation pursuant to Water Code section 13350; up to \$1,000

a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement.

Notification Requirements. The City is required to notify Cal OES and obtain a notification control number for any SSO from the City's system that is greater than or equal to 1,000 gallons that discharges to, or probably will discharge to surface water directly or by way of a drainage channel or MS4. Notification is to be immediate but not later than 2 hours after the City becomes, (A) aware of the SSO, (B) notification is possible, and (C) notification is possible without substantially impeding the cleanup or other emergency activities.

To satisfy the notification requirements for each applicable SSO the City must provide the information requested by Cal OES before receiving a control number. The requested spill information may include the following:

1. Name of person notifying Cal OES and direct return phone number.
2. Estimated SSO volume discharged (gallons).
3. If ongoing, estimated SSO discharge rate (gallons per minute).
4. SSO Incident Description:
 - a. Brief narrative.
 - b. On-scene point of contact for additional information (name and cell phone number).
 - c. Date and time enrollee became aware of the SSO.
 - d. Name of sanitary sewer system agency causing the SSO.
 - e. SSO cause (if known).
5. Indication of whether the SSO has been contained.
6. Indication of whether surface water is impacted.
7. Name of surface water impacted by the SSO, if applicable.
8. Indication of whether a drinking water supply is or may be impacted by the SSO.
9. Any other known SSO impacts.
10. SSO incident location (address, city, state, and zip code).

After the initial notification to Cal OES and until the City has certified the SSO report in the CIWQS Online Database, the City is required to provide updates to Cal OES regarding substantial changes to the SSO's estimated volume or known impacts.

Reporting Requirements. All SSOs occurring within the City's sanitary sewer collection system must be reported to the CIWQS Online SSO Database. SSOs from the City's collection system are classified as Category 1, Category 2 or Category 3 depending upon their size and whether they spilled to surface waters.

- A Category 1 SSO is any unauthorized volume discharge that reaches surface water or a drainage channel that is tributary to surface water or an MS4 and is not fully captured and disposed of properly. Any volume of wastewater not recovered from an MS4 is considered to have reached surface waters unless the storm drain system discharges to a dedicated storm water or ground water infiltration basin.

- A Category 2 SSO is any unauthorized wastewater discharge equal to or greater than 1,000 gallons and does not reach surface waters, a drainage channel, or MS4 unless the entire volume of the SSO is recovered and disposed of properly.
- A Category 3 SSO is any other unauthorized discharge of wastewater resulting from a failure or flow condition in the City's sanitary sewer collection system.

Category 1 and category 2 SSOs must have a draft report submitted to the CIWQS Online Database within three (3) business days of the City becoming aware of the SSO. A final SSO report must be certified within 15 calendar days to the CIWQS Online Database. A Category 3 SSO must be reported to CIWQS and be certified within 30 calendar days after the month that the SSO occurred.

At a minimum, the following mandatory information shall be reported for a ***draft Category 1 SSO Report***:

1. SSO Contact Information: Name and telephone number of enrollee contact person 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 Cal OES was called.
16. For spills greater than or equal to 1,000 gallons, the Cal OES control number.

At a minimum, the following mandatory information shall be reported for a ***certified Category 1 SSO Report***, in addition to all fields required in the *draft* Category 1 SSO Report:

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 shall 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 (ID) number.

At a minimum, the following mandatory information shall be reported for a *draft* **Category 2 SSO Report**:

1. SSO Contact Information: Name and telephone number of enrollee contact person 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.

At a minimum, the following mandatory information shall be reported for a *certified* **Category 2 SSO Report**, in addition to all fields required in the *draft* Category 2 SSO Report :

1. SSO Contact Information: Name and telephone number of enrollee contact person 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. Description of SSO destination(s).
16. SSO end date and time.

17. SSO causes (mainline blockage, roots, etc.).
18. SSO failure point (main, lateral, etc.).
19. Whether or not the spill was associated with a storm event.
20. 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.
21. Description of spill response activities.
22. Spill response completion date.
23. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion
24. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.

At a minimum, the following mandatory information shall be reported for a *certified* **Category 3 SSO Report**, in addition to all fields required in the *draft* Category 2 SSO Report :

1. SSO Contact Information: Name and telephone number of enrollee contact person 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. Description of SSO destination(s).
16. SSO end date and time.

17. SSO causes (mainline blockage, roots, etc.).
18. SSO failure point (main, lateral, etc.).
19. Whether or not the spill was associated with a storm event.
20. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.

SSO Technical Report. The City must submit an SSO Technical Report to the CIWQS Online SSO Database within 45 calendar days of the end date for any SSO of 50,000 gallons or greater was spilled to surface waters. The Technical Report shall include:

Causes and Circumstances of the SSO:

- a. Complete and detailed explanation of how and when the SSO was discovered.
- b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
- c. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
- d. Detailed description of the cause(s) of the SSO.
- e. Copies of original field crew records used to document the SSO.
- f. Historical maintenance records for the failure location.

Enrollee's Response to SSO:

- a. Chronological narrative description of all actions taken by enrollee to terminate the spill.
- b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.
- c. Final corrective action(s) completed and/or planned to be completed, including a schedule for action not yet completed.

Water Quality Monitoring:

- a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
- b. Detailed location map illustrating all water quality sampling points.

No spill certification. If no spills occurred during a calendar month the City must:

- 1) certify, within 30 calendar days after the end of the month that no spills occurred that there were no spills during that designated month or
- 2) certify quarterly, within 30 calendar days of the end of the quarter, that there were no spills during that quarter.

Quarters are Q1-January/February/March, Q2-April/May/June, Q3-July/August/September, Q4-October/November/December. If the City reports a private property sewage discharge during a month (or quarter) that no spills occurred from the City's system, the City is still required to file a no spill certification.

Amended SSO Reports. The City may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or adding an attachment to the SSO report in the CIWQS Online SSO Database.

Updated SSO Reporting Flow Charts, staff titles, and staff contact information are maintained at the Pasadena City Hall. SDCDEH has requested to be notified of any discharge from the City's collection system or from any private lateral or other private sewer asset that the City become aware of. Pasadena Public Works has requested to be notified of any sewage spills that impact their storm water system.

CIWQS Online Database Unavailability. Should the CIWQS Online Database be unavailable, the City is to fax or e-mail the required spill information to the Region 9 Water Quality Control Board. The City must also enter all required spill information into the CIWQS Online Database once it becomes available.

Collection System Questionnaire. Every twelve months the City must complete and certify their Collection System Questionnaire.

The following table summarizes the required reporting and reporting time frames the City utilizes to comply with the Order.

Type of Spill	Agency(s) to notify	Notification Timeframe	Report Timeframe
<p>Category 1 – any volume discharge of sewage resulting from a failure or flow condition in the City's sanitary sewer collection system that:</p> <p>A. Reach surface waters and/or reach a drainage channel tributary to a surface water; or</p> <p>B. Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and disposed of properly. (Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g. infiltration pit, percolation pond).)</p>	Cal OES RWQCB per staff request.	Within 2 hours of City staff becoming aware of any Category 1 SSO greater than or equal to 1,000 gallons, notify the Cal OES and obtain a notification control number. Additionally, certify to RWQCB that OES was notified within 24 hours.	<p>Submit draft report on CIWQS within 3 business days of becoming aware of the SSO.</p> <p>Certify within 15 calendar days of the SSO end date.</p> <p>SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater is spilled to surface waters.</p>
Category 2 – Discharges of untreated or partially treated wastewater of 1,000 gallons or greater that do not reach surface water, a drainage channel, or MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.	RWQCB per staff request.	Immediate	<p>Submit draft report on CIWQS within 3 business days of becoming aware of the SSO.</p> <p>Certify within 15 calendar days of the SSO end date.</p>
Category 3 – All other discharges of untreated or partially treated wastewater resulting from a flow condition or failure in the sanitary collection system.	RWQCB per staff request.	Immediate	Must report and certify on CIWQS within 30 days after the end of the calendar month in which the SSO occurred.

Type of Spill	Agency(s) to notify	Notification Timeframe	Report Timeframe
Private lateral sewage discharges that are caused by blockages or other problems within a privately owned lateral or other private sewer assets.	RWQCB per staff request.	Immediate as the City becomes aware.	Private lateral sewage discharges must be reported to the Online SSO Database based upon the SDRWQCB order. The Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party should be identified, if known.
No Spill Report	CIWQS		"No Spill" Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred.

The following table lists the contact information for the various agencies requiring notification of an SSO.

Normal Hours	After Hours
<u>RWQCB</u> – Los Angeles Region 4 (213) 576-6600	RWQCB: (213) 434-3773 (voice mail)
<u>Cal OES</u> (Office of Emergency Services) (800) 852-7550	24 hours
Caltrans District 7 (213) 897-3656	24 hours
Pasadena Public Health Department (626) 744-6062	N/A
Pasadena Police Department (626) 744-4501	24 hours
Pasadena Fire Department (626) 744-4655	24 hours

Appendix G

Notification Requirements

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G Notification Requirements

G-1 Notification of Spills of 1,000 Gallons or Greater to the California Office of Emergency Services

Per Water Code section 13271, for a spill that discharges in or on any waters of the State, or discharges or is deposited where it is, or probably will be, discharged in or on any waters of the State, the City shall notify the California Office of Emergency Services and obtain a California Office of Emergency Services Control Number as soon as possible but no later than two (2) hours after:

- The City has knowledge of the spill; and
- Notification can be provided without substantially impeding cleanup or other emergency measures.

The notification requirements in this section apply to individual spills of 1,000 gallons or greater, from a City-owned and/or operated laterals, to a water of the State.

The control number must be referred to in all communication, oral and written.

G-2 Spill Notification Information

The City shall provide the following spill information to the California Office of Emergency Services before receiving a Control Number, as applicable:

- Name and phone number of the person notifying the California Office of Emergency Services;
 - Estimated spill volume (gallons);
 - Estimated spill rate from the system (gallons per minute);
 - Estimated discharge rate (gallons per minute) directly into waters of the State or indirectly into a drainage conveyance system;
 - Spill incident description:
 - Brief narrative of the spill event, and
 - Spill incident location (address, city, and zip code) and closest cross streets and/or landmarks;
 - Name and phone number of contact person on-scene;
 - Date and time the City was informed of the spill event;
 - Name of sanitary sewer system causing the spill;
 - Spill cause or suspected cause (if known);
 - Amount of spill contained;
 - Name of receiving water body receiving or potentially receiving discharge; and
 - Description of water body impact and/ or potential impact to beneficial uses.
-

G-3 Notification of Spill Report Updates

Following the initial notification to the California Office of Emergency Services and until such time that the City certifies the spill report in the online CIWQS Sanitary Sewer System Database, the City shall provide updates to the California Office of Emergency Services regarding substantial changes to:

- Estimated spill volume (increase or decrease in gallons initially estimated);
 - Estimated discharge volume discharged directly into waters of the State or indirectly into a drainage conveyance system (increase or decrease in gallons initially estimated); and
 - Additional impact(s) to the receiving water(s) and beneficial uses.
-

Appendix H

Reporting Requirements

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H Reporting Requirements

All reporting required in the General Order must be submitted electronically to the online CIWQS Sanitary Sewer System Database (<https://ciwqs.waterboards.ca.gov>), unless specified otherwise in the General Order. Electronic reporting may solely be conducted by a Legally Responsible Official or Data Submitter(s) previously designated by the Legally Responsible Official, as required in section 5.8 (Designation of Data Submitters) of the General Order.

The City shall report any information that is protected by the Homeland Security Act, by email to SanitarySewer@waterboards.ca.gov, with a brief explanation of the protection provided by the Homeland Security Act for the subject report to be protected from unauthorized disclosure and/or public access, and for official Water Board regulatory purposes only.

H-1 Reporting Requirements for Individual Category 1 Spill Reporting

H-1-1 Draft Spill Report for Category 1 Spills

Within three (3) business days of the City's knowledge of a Category 1 spill, the City shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of City contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the City was notified of, or self-discovered, the spill;
4. Operator's arrival time;
5. Estimated spill start date and time;
6. Date and time the City notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;
 - a. If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
 - a. Description of the drainage conveyance system transporting the spill;
 - b. Photographs of the drainage conveyance system entry location(s);
 - c. Estimated spill volume fully recovered from the drainage conveyance system;
 - d. Estimated spill volume remaining within the drainage conveyance system;
11. Description and photographs of all discharge point(s) into the surface water;
12. Estimated spill volume that discharged to surface waters; and

13. Estimated total spill volume recovered.

H-1-2 Certified Spill Report for Category 1 Spills

Within 15 calendar days of the spill end date, the City shall submit a Certified Spill Report for Category 1 spills, to the online CIWQS Sanitary Sewer System Database.

Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section F-1-1 (Draft Spill Report for Category 1 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - a. The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - b. The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, lateral, pump station, etc.);
6. Description of the pipe material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent recurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion;
14. Name and type of receiving water body(s);
15. Description of the water body(s), including but not limited to:
 - a. Observed impacts on aquatic life,
 - b. Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill,
 - c. Responsible entity for closing/restricting use of water body, and
 - d. Number of days closed/restricted as a result of the spill.
16. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and
17. If water quality samples were collected, identify sample locations and the parameters the water quality samples were analyzed for. If no samples were taken, Not Applicable shall be selected.

H-1-3 Spill Technical Report for Individual Category 1 Spill in which 50,000 Gallons or Greater Discharged into a Surface Water

For any spill in which 50,000 gallons or greater discharged into a surface water, **within 45 calendar days** of the spill end date, the City shall submit a Spill Technical Report to the online CIWQS Sanitary Sewer System Database. The Spill Technical Report, at minimum, must include the following information:

1. Spill causes and circumstances, including at minimum:
 - a. Complete and detailed explanation of how and when the spill was discovered;
 - b. Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
 - c. Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
 - d. Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
 - e. Detailed description of the spill cause(s);
 - f. Description of the pipe material, and estimated age of the pipe material, at the failure location;
 - g. Description of the impact of the spill;
 - h. Copy of original field crew records used to document the spill; and
 - i. Historical maintenance records for the failure location.
2. City's response to the spill:
 - a. Chronological narrative description of all actions taken by the City to terminate the spill;
 - b. Explanation of how the Sewer System Management Plan Spill Emergency Response Plan was implemented to respond to and mitigate the spill; and
 - c. Final corrective action(s) completed and a schedule for planned corrective actions, including:
 - i. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable,
 - ii. Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences, and
 - iii. Necessary modifications to the Emergency Spill Response Plan to incorporate lessons learned in responding to and mitigating the spill.
3. Water Quality Monitoring, including at minimum:
 - a. Description of all water quality sampling activities conducted;
 - b. List of pollutant and parameters monitored, sampled and analyzed; as required in Water Quality Monitoring Plan, once developed;
 - c. Laboratory results, including laboratory reports;
 - d. Detailed location map illustrating all water quality sampling points; and
 - e. Other regulatory agencies receiving sample results (if applicable).
4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

H-1-4 Amended Certified Spill Reports for Individual Category 1 Spills

The City shall update or add additional information to a Certified Spill Report **within 90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The City shall certify the amended report.

After 90 calendar days, the City shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

H-2 Reporting Requirements for Individual Category 2 Spill Reporting

H-2-1 Draft Spill Report for Category 2 Spills

Within three (3) business days of the City's knowledge of a Category 2 spill, the City shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of City contact person to respond to spill-specific questions;
 2. Spill location name;
 3. Date and time the City was notified of, or self-discovered, the spill;
 4. Operator's arrival time;
 5. Estimated spill start date and time;
 6. Date and time the City notified the California Office of Emergency Services, and the assigned control number;
 7. Description, photographs, and GPS coordinates of the system location where the spill originated;
 8. If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
 9. Estimated total spill volume exiting the system;
 10. Description and photographs of the extent of the spill and spill boundaries;
 11. Did the spill reach a drainage conveyance system? If Yes:
 - a. Description of the drainage conveyance system transporting the spill;
 - b. Photographs of the drainage conveyance system entry location(s);
 - c. Estimated spill volume fully recovered from the drainage conveyance system;
 - d. Estimated spill volume remaining within the drainage conveyance system;
 - e. Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable; and
 12. Estimated total spill volume recovered.
-

H-2-2 Certified Spill Report for Category 2 Spills

Within 15 calendar days of the spill end date, the City shall submit a Certified Spill Report for the Category 2 spill, to the online CIWQS Sanitary Sewer System Database (<https://ciwqs.waterboards.ca.gov>). Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section F-2-1 (Draft Spill Report for Category 2 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
 - a. The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - b. The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, pump station, etc.);
6. Description of the pipe/infrastructure material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent recurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion; and
14. Whether or not the spill was located within 1,000 feet of a municipal surface water intake.

H-2-3 Amended Certified Spill Reports for Individual Category 2 Spills

The City shall update or add additional information to a Certified Spill Report **within 90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The City shall certify the amended report.

After 90 calendar days, the City shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

H-3 Monthly Certified Spill Reporting for Category 3 Spills

The City shall report and certify all Category 3 spills to the online CIWQS Sanitary Sewer System Database **within 30 calendar days** after the end of the month in which the spills occurred. (For example, all Category 3 spills occurring in the month of February shall be reported and certified by March 30th). After the Legally Responsible Official certifies the spills, the online CIWQS Sanitary Sewer System Database will issue a spill event identification number for each spill.

The monthly reporting of all Category 3 spills must include the following items for each spill:

1. Contact information: Name and telephone number of City contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the City was notified of, or self-discovered, the spill;
4. Operator's arrival time;
5. Estimated spill start date and time;
6. Description, photographs, and GPS coordinates where the spill originated:
 - a. If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
7. Estimated total spill volume exiting the system;
8. Description and photographs of the extent of the spill and spill boundaries;
9. Did the spill reach a drainage conveyance system? If Yes:
 - a. Description of the drainage conveyance system transporting the spill;
 - b. Photographs of the drainage conveyance system entry locations(s);
 - c. Estimated spill volume fully recovered from the drainage conveyance system; and
 - d. Estimated spill volume discharged to a groundwater infiltration basis or facility, if applicable.
10. Estimated total spill volume recovered;
11. Description of the spill destination(s), including GPS coordinates, if available, that represent the full spread and reaches of the spill;
12. Spill end date and time;
13. Description of how the spill volume estimations were calculated, including, at minimum:
 - a. The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
 - b. The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
14. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
15. System failure location (for example, main, pump station, etc.);
16. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location;
17. Description of the impact of the spill;
18. Whether or not the spill was associated with a storm event;
19. Description of spill response activities including description of immediate spill containment and cleanup efforts;

20. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum:
 - a. Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
 - b. Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including:
 - i. Adjusted schedule/method of preventive maintenance,
 - ii. Planned rehabilitation or replacement of sanitary sewer assets,
 - iii. Inspected, repaired asset(s), or replaced defective asset(s),
 - iv. Capital improvements,
 - v. Documentation verifying immediately implemented system modifications and operating/maintenance modifications,
 - vi. Description of spill response activities,
 - vii. Spill response completion date, and
 - viii. Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill;
21. Detailed narrative of investigation and investigation findings of cause of spill.

H-4 Monthly Certified Spill Reporting for Category 4 Spills

The City shall report and certify the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, **within 30 calendar days** after the end of the month in which the spills occurred.

H-5 Amended Certified Spill Reports for Category 3 Spills

Within 90 calendar days of the certified Spill Report due date, the City may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The City shall certify the amended report.

After 90 calendar days, the Legally Responsible Official shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a certified Spill Report. The Legally Responsible Official shall submit justification on why the additional information was not reported within the 90-day timeframe for amending the certified Spill Report, as provided above.

H-6 Annual Certified Spill Reporting of Category 4 and/or Lateral Spills

For all Category 4 spills and spills from its owned and/or operated laterals that are caused by a failure or blockage in the lateral and that do not discharge to a surface water, the City shall:

- Maintain records per section 4 of Attachment E1 of the General Order; The City shall provide records upon request by the State Water Board or Regional Water Board staff.
- Annually upload and certify a report, in an appropriate digital format, of all recordkeeping of spills to the online CIWQS Sanitary Sewer System Database, **by February 1st** after the end of the calendar year in which the spills occurred.

A spill from a City-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the City shall report all Category 1 spills per Water Quality Monitoring Plan, once developed.

H-7 Monthly Certification of “No-Spills” or “Category 4 Spills” and/or “Non-Category 1 Lateral Spills”

If either (1) no spills occur during a calendar month or (2) only Category 4, and/or City-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the City shall certify, **within 30 calendar days** after the end of each calendar month, either a “No-Spill” certification statement, or a “Category 4 Spills” and/or “Non-Category 1 Lateral Spills” certification statement, in the online CIWQS Sanitary Sewer System Database, certifying that there were either no spills, or Category 4 and/or Non-Category 1 Lateral Spills that will be reported annually (per Water Quality Monitoring Plan, once developed) for the designated month.

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

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

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

H-8 Annual Report (Previously termed as Collection System Questionnaire in General Order 2006-0003-DWQ)

The City shall update their previous year’s Annual Report, **by April 1 of each year after the Effective Date of the General Order**, for each calendar year (January 1 through December 31).

The Annual Report must be entered directly into the online CIWQS Sanitary Sewer System Database. The City’s Legally Responsible Official shall certify the Annual Report as instructed in CIWQS;

The Annual Report must address, and update as applicable, the following items:

- Population served;
 - Updated sewer system service area boundary map, if service area boundary has changed from original map submitted per section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of the General Order;
 - Number of system operation and maintenance staff:
 - Entry level (less than two years of experience),
 - Journey level (greater than two years of experience),
 - Supervisory level, and
 - Managerial level;
-

- Number of operation and maintenance staff certified as a certified collection system operator by the California Water Environmental Association (CWEA), with:
 - Corresponding number of certified collection system operator grade levels (Grade I, II, III, IV, and V);
 - System information:
 - Miles of system gravity and force mains,
 - Number of upper and lower service laterals connected to system,
 - Estimated number of upper and lower laterals owned and/or operated by the City,
 - Portion of laterals that is City's responsibility,
 - Average age the major components of system infrastructure,
 - Number and age of pump stations, and
 - Estimated total miles of the system pipeline not accessible for maintenance;
 - Name and location of the treatment plant(s) receiving sanitary sewer system's waste;
 - Name of satellite sewer system tributaries;
 - Number of system's gravity sewer above or underground crossings of water bodies throughout system;
 - Number of force main (pressurized pipe) above or underground crossings of water bodies throughout system;
 - Number of siphons used to convey waste throughout the sewer system;
 - Miles of sewer system cleaned;
 - Miles of sewer system video inspected, or comparable (i.e., video closed-circuit television or alternative inspection methods);
 - System Performance Evaluation as specified in section 5.11 (System Performance Analysis) of the General Order;
 - Major spill causes (for example, root intrusion, grease deposition);
 - System infrastructure failure points (for example, main, pump station, lateral, etc.);
 - Ongoing spill investigations; and
 - Actions taken to address system deficiencies.
-

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Appendix I

Sewer Pipe Blockage Control Program Supporting Documentation

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CITY OF PASADENA
MAINTENANCE AREAS AND
FOG CLEANING RUNS

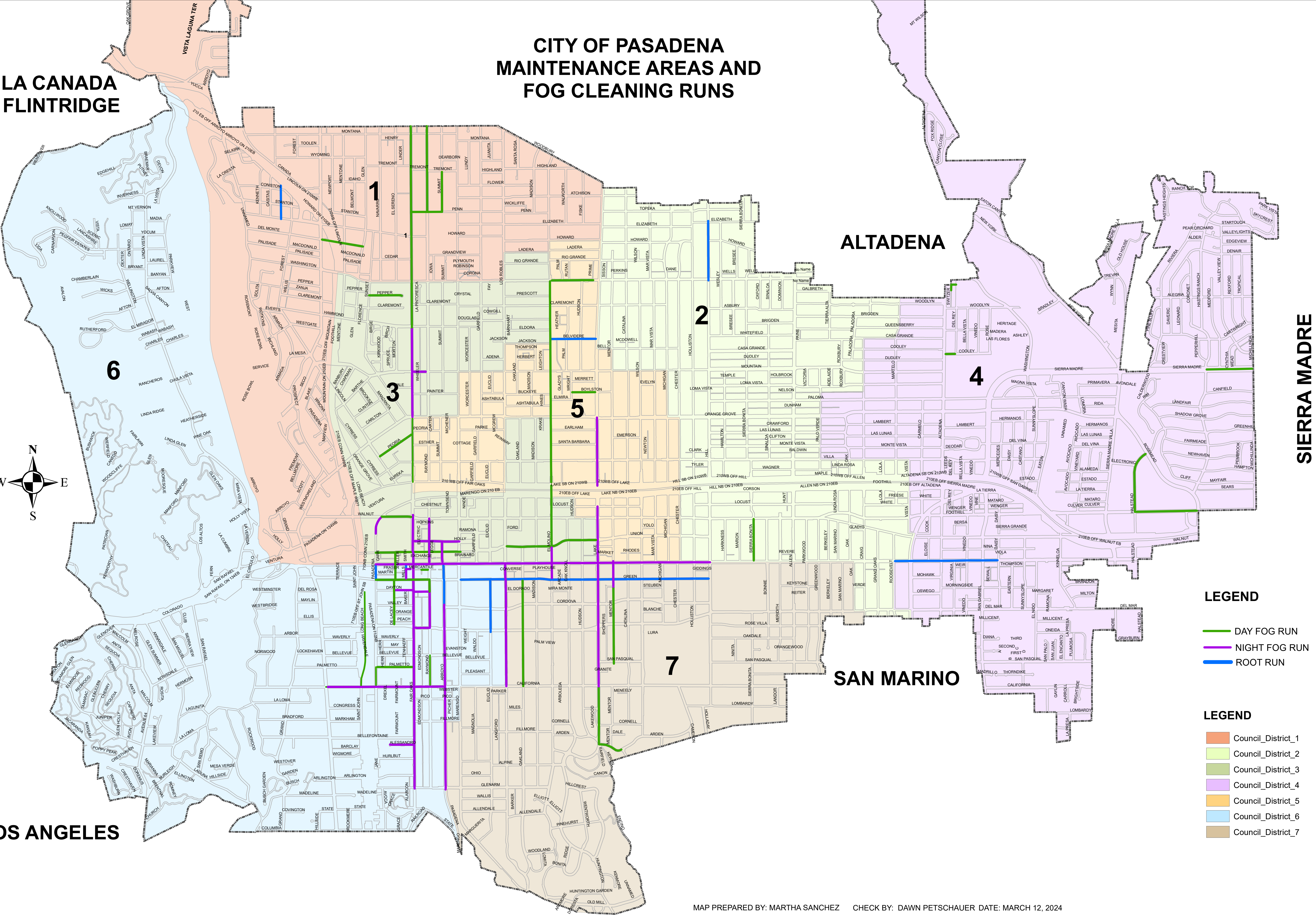
LA CANADA
FLINTRIDGE

ALTADENA

SIERRA MADRE

SAN MARINO

LOS ANGELES

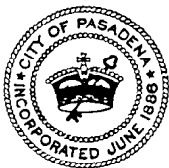


LEGEND

- DAY FOG RUN
- NIGHT FOG RUN
- ROOT RUN

LEGEND

- Council_District_1
- Council_District_2
- Council_District_3
- Council_District_4
- Council_District_5
- Council_District_6
- Council_District_7



Ordinance Fact Sheet

TO: CITY COUNCIL

DATE: April 15, 2002

FROM: CITY ATTORNEY

SUBJECT: ORDINANCE AMENDING TITLE 8 TO PROHIBIT DISPOSAL OF GREASE
IN CITY'S SEWER SYSTEM BY FOOD SERVICE ESTABLISHMENTS

TITLE OF PROPOSED ORDINANCE:

AN ORDINANCE OF THE CITY OF PASADENA ADDING A NEW CHAPTER 8.14 TO
THE PASADENA MUNICIPAL CODE TO PROHIBIT FOOD SERVICE ESTABLISHMENT
DISPOSAL OF FATS, OILS AND GREASE IN THE CITY'S SEWER SYSTEM

PURPOSE OF ORDINANCE:

The purpose of this ordinance is to reduce incidents of sewage overflow due to grease blockage
in the city's sewer system, caused by improper disposal of grease by food service establishments.

REASON WHY THIS LEGISLATION IS NEEDED:

On February 4, 2002, the City Council directed the City Attorney's Office to draft this ordinance.
Section 410 of the Pasadena City Charter requires that the municipal code be amended by
ordinance.

PROGRAMS, DEPARTMENTS OR GROUPS AFFECTED:

The Public Health Department and the Public Works and Transportation Department will share
administrative and enforcement responsibility under this ordinance. Food service establishments
such as restaurants, commercial kitchens, caterers, hotels, schools, hospitals, prisons, correctional
facilities or care institutions will be affected by this ordinance. Retail food markets such as
supermarkets, convenience stores, liquor stores, juice and beverage bars, candy stores and snack
shops; sandwich shops; and movie theaters are specifically exempted from this ordinance.

POLICY CHANGE:

This amendment of the code is a policy change in the sense that formerly there was no explicit municipal prohibition against restaurants disposing of fats, oils and grease in the city's sewer system.

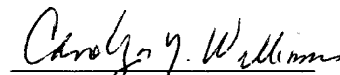
FISCAL IMPACT:


Staff anticipates that enactment of this ordinance will have no fiscal impact on the City's general fund. In general, compliance costs will be minimal, with the exception of new and renovated restaurants that may have to pay for equipment, which ranges in cost from \$800 to \$30,000. Fee adjustments for fiscal year 2003 will take into consideration additional staff efforts to enforce this new ordinance.

Respectfully submitted,


Michele Beal Bagneris
City Attorney

Prepared by:


Carolyn Y. Williams
Assistant City Attorney

Concurred:

Cynthia J. Kurtz
City Manager

Introduced by _____

ORDINANCE NO. _____

**AN ORDINANCE OF THE CITY OF PASADENA ADDING A
NEW CHAPTER 8.14 TO THE PASADENA MUNICIPAL CODE
TO PROHIBIT FOOD SERVICE ESTABLISHMENT DISPOSAL
OF FATS, OILS AND GREASE IN THE CITY'S SEWER SYSTEM**

The People of the City of Pasadena ordain as follows:

SECTION 1. This ordinance, due to its length and the corresponding costs of publication, will be published by title and summary as permitted by Section 508 of the City Charter. The approved summary of this ordinance reads as follows:

"SUMMARY

The subject ordinance, Ordinance No. _____, adds a new chapter to Title 8 ("Health and Safety") of the Pasadena Municipal Code, prohibiting food service establishments from disposing of fats, oils and grease in the city's sewer system. Specifically, this ordinance requires food service establishments to adopt "best management practices" in the disposal of fats, oils and grease. These are simple, cost-effective methods which reduce the amount of unnecessary fats, oils and grease entering the city's sewer collection and treatment system. The ordinance prohibits disposal in drains, garbage disposals and toilets by owners, managers or their employees. Owners must store grease in approved containers with tight-fitting lids and keep containers in a secured area to prevent spillage due to accidents or vandalism. New restaurants and restaurants undergoing major renovations would be required to install grease interceptors or traps as directed by the Public Health Department or the Public Works and Transportation Department. Retail markets, sandwich shops, and theaters are exempt from this ordinance.

Ordinance No. _____ shall take effect thirty (30) days after its publication."

SECTION 2. The Pasadena Municipal Code is amended to add a new Chapter 8.14 to read:

“Chapter 8.14

GREASE AND OIL DISPOSAL ORDINANCE

Sections:

- 8.14.010 Short title.**
- 8.14.020 Purpose.**
- 8.14.030 Definitions.**
- 8.14.040 Public nuisance.**
- 8.14.050 Food service establishment requirements.**
- 8.14.060 Grease interceptor requirements.**
- 8.14.070 Grease trap requirements.**
- 8.14.080 Enforcement officials.**
- 8.14.090 Administrative hearing procedure.**
- 8.14.100 Violation and penalty.**
- 8.14.110 Exemptions.**

8.14.010 Short title.

This chapter shall be known as the “grease and oil disposal” ordinance.

8.14.020 Finding and purpose.

The city council finds that sewage overflow released at inappropriate exit points releases contamination, creating public health risks and property damage. Cooking grease and oil from a heavy concentration of restaurants in a small area can enter the city’s sewer system. The purpose of this ordinance is to regulate the disposal of food service establishment cooking greases so as

to prevent blockages in the city's sewer system caused by the collection of grease, thereby forcing raw sewage to escape through manhole covers, surface drainage systems or other inappropriate exit points.

8.14.030 Definitions.

As used in this chapter, the following terms have the meanings set forth below:

A. "Best management practices" means activities, prohibitions of practices, maintenance procedures, and other management practices as determined by the Public Health Department and the Public Works and Transportation Department to prevent or reduce the discharge of fats, oils and greases into the public sewer and storm drain systems.

B. "Fats, oils and greases" means organic polar compounds derived from animal and/or plant sources, containing multiple carbon chain triglyceride molecules, detectable and measurable using analytical test procedures established in Section 136 of Title 40 of the Code of Federal Regulations, as amended, hereafter sometimes referred to as "grease" or "greases."

C. "Grease trap" means a device hooked directly to the outgoing drains of sinks and dishwashers, inside the restaurant near the food preparation areas, intended for separating the grease from the wastewater before it enters the sewer collection and treatment system.

D. "Grease interceptor" means a large underground tank installed outside the restaurant and connected to the restaurant's outgoing sewer drainage system, designed for removing and preventing fats, oils, and grease from entering the sewer collection system.

E. "Food service establishment" means a facility engaged in preparing food for consumption by the public such as a restaurant, commercial kitchen, caterer, hotel, school, hospital, prison, correctional facility, or care institution, which prepares food by frying, baking, grilling, sauteing, broiling, rotisserie cooking, boiling, blanching, roasting, toasting, poaching,

infrared heating, barbecuing, or any other method of food preparation that produces a hot, non-drinkable food product in or on a receptacle that requires washing.

F. “Minimum design capability” means the design features of a grease interceptor and the capacity or volume required effectively to intercept and retain grease from grease-laden wastewater discharged into the sewer collection and treatment system.

G. “Solid waste disposal” means disposing of small amounts of grease by wrapping the grease in paper or storing it in a container for disposal with the restaurants’s daily trash and garbage.

H. “Wastewater” means used or spent water from homes, communities, farms and businesses that contains enough harmful material to damage the water’s quality. Wastewater includes both the domestic sewage and industrial waste from manufacturing sources.

8.14.040 Public nuisance.

Any condition caused or permitted to exist in violation of the requirements of this chapter shall be deemed and is declared to be a public nuisance.

8.14.050 Food service establishment requirements.

All food service establishments which discharge wastewater into the city’s sewer collection and treatment system shall implement the following requirements:

A. Owners and employees of a food service establishment shall implement and be able to demonstrate compliance with the best management practices for handling fats, oils and grease.

B. Containers used for storage of fats, oils and grease shall be kept in leak-proof containers and shall be secured with close-fitting lids so as to minimize the creation of a nuisance condition. The storage container shall be kept in a location on the premises so that there is no

possibility of an accidental or deliberate spillage of the waste onto the public right-of-way. All stored fats, oils, and grease shall be removed for recycling as frequently as may be necessary to prevent the creation of a nuisance. Spillage of any fats, oils and grease shall be removed and cleaned immediately.

C. All new food service establishments shall be required to submit to the Public Health Department plans outlining the manner in which they will comply with the grease interceptor requirements. All existing food service establishments which plan modifications in plumbing improvements, with a building permit evaluation of \$20,000 or more, shall be required to include in the plan the manner in which they will comply with the grease interceptor requirements.

D. Food service establishments subject to the grease interceptor requirements (as outlined in subsection C above) may be granted a variance if the enforcement official determines that installation of a grease interceptor would be infeasible due to space constraints or other factors. The enforcement official may authorize the installation of a grease trap or other alternative pre-treatment technology where the installation of a grease interceptor is infeasible. The food service establishment shall bear the burden of demonstrating that the installation of a grease interceptor is infeasible.

E. All alternative pre-treatment technology shall be appropriately sized and approved by the enforcement official prior to installation. Alternate pre-treatment technology includes, but is not limited to, devices used to trap, separate and store grease from wastewater, preventing it from being discharged into the city's sewer collection and treatment system.

8.14.060 Grease interceptor requirements.

Grease interceptors shall conform with the following standards:

A. Grease interceptor sizing and installation shall conform to the requirements in the

1998 California Plumbing Code.

B. Grease interceptors shall be constructed in accordance with a design approved by the City Engineer and shall have a minimum of two compartments with fittings designed for grease retention.

C. Grease interceptors shall be installed at a location easily accessible for inspection, cleaning, and removal of intercepted grease. The grease interceptor shall not be installed in any part of the building where food is handled. The location of the grease interceptor must be approved by the City Engineer.

D. All such grease interceptors shall be serviced and emptied of accumulated waste contents as required in order to maintain minimum design capacity or effective volume. These devices must be inspected at least monthly.

E. Users who are required to main a grease interceptor shall provide for a minimum hydraulic retention time in accordance with the 1998 California Plumbing Code, and remove any accumulated grease cap and sludge pocket as required.

F. Grease interceptors shall be kept free of inorganic solid materials such as grit, rocks, gravel, sand, eating utensils, cigarettes, shells, towels, rags, etc., which could settle into the sludge pocket and thereby reduce the effective volume of the device.

G. The grease interceptor user shall maintain a written record of inspection and maintenance for three (3) years. All such records shall be made available for on-site inspection by enforcement officials during all business operating hours.

H. Sanitary wastes shall not be allowed to be connected to sewer lines intended for grease interceptor service.

I. Users shall provide access manholes, with a minimum diameter of 24 inches, over each

grease interceptor chamber and sanitary tee. The access manholes shall extend at least to finished grade and be designed and maintained to prevent water inflow or infiltration. The manholes shall also have readily removable covers to facilitate inspection, grease removal, and wastewater sampling activities.

8.14.070 Grease trap requirements.

Grease traps shall conform with the following standards:

A. Upon approval by the enforcement officials, a grease trap complying with the provisions in this section, shall be installed in the waste line leading from sinks, drains, and other fixtures or equipment in food service establishments where grease may be introduced into the drainage or sewage system in quantities that could effect line stoppage or hinder sewage treatment or private sewage disposal.

B. Grease trap sizing and installation shall conform to the requirements in the 1998 California Plumbing Code.

C. No grease trap shall be installed which has a stated rate flow of more than 55 gallons per minute, nor less than 20 gallons per minute, except when specifically authorized by the enforcement officials.

D. Grease traps shall be maintained in efficient operating condition by periodic removal of the accumulated grease. No such collected grease shall be introduced into any drainage piping, or public or private sewer.

E. No food waste disposal unit or dishwasher shall be connected to or discharge into any grease trap.

F. Wastewater in excess of 140 degrees Fahrenheit, or 60 degrees Celsius shall not be discharged into a grease trap.

8.14.080 Enforcement officials.

The provisions of this chapter shall be jointly enforced by the Environmental Health Division Manager and the City Engineer. They or their authorized representatives are hereby authorized to make such inspections and take such actions, including lawful entry upon such premises, as may be required to enforce the provisions of this chapter.

8.14.090 Administrative hearing procedure.

When the enforcement officials determine that a food service establishment may be in violation of the provisions of this chapter, an administrative hearing may be scheduled to resolve the matter.

A. The owner of the food service establishment shall be issued a notice of administrative hearing at least ten (10) days before the scheduled hearing. The notice shall state the name and address of the property, the name of the owner of record, the nature of the alleged violation, the date, time and place of the hearing, and the enforcement official who shall hear the case.

B. Before the hearing commences, the enforcement official shall provide the food service establishment owner a copy of the staff report outlining the city's inspection activities related to the alleged violation and a proposed abatement plan if the official determines that a public nuisance exists on the property.

C. The owner shall be permitted to submit evidence to rebut the existence of a violation caused by the food service establishment.

D. At the conclusion of the hearing, the enforcement official shall make a finding concerning the allegation of public nuisance. This shall be the final administrative decision in the matter and a written determination letter shall be mailed to the owner.

8.14.100 Violation and penalty.

It is declared unlawful and a misdemeanor for the owner, manager or other employee of a commercial or nonprofit food service establishment to violate any of the provisions of this chapter. Alternatively, the city may address violations of this chapter through the administrative citation process outlined in Chapter 1.26 of the code. The city manager shall appointment an administrative hearing officer regarding any disputed administrative citations issued pursuant to Chapter 1.26.

8.14.110 Exemptions.

The following entities shall be exempt from this ordinance: retail food markets such as supermarkets, convenience stores, liquor stores, juice and beverage bars, candy stores and snack shops; sandwich shops; and movie theaters.”

SECTION 3. The City Clerk shall certify the adoption of this ordinance and shall cause this ordinance to be published by number, title and summary, and the City Clerk’s certification.

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Signed and approved this _____ day of _____ 2002.

Bill Bogaard
Mayor of the City of Pasadena

I HEREBY CERTIFY that the foregoing ordinance was adopted by the City Council of
the City of Pasadena at its meeting of _____, 2002, by the following vote:

AYES:

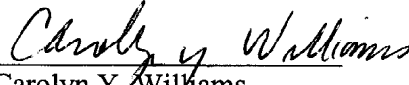
NOES:

ABSENT:

ABSTAIN:

Published:

APPROVED AS TO FORM:



Carolyn Y. Williams
Assistant City Attorney

Jane Rodriguez, CMC
City Clerk

Oil Filter Exchange Event

Bring us your
used oil filter
& receive a
NEW ONE
for **FREE!**

Saturday
September 21, 2024
9 a.m. - 1 p.m.

AutoZone
550 N. Lake Ave.



Visit our booth and receive a free oil recycling kit.

Free filter offer only valid during the specified date, time & place printed on this flyer. Exchange up to **TWO** used oil filters per household with a maximum cost of \$15 each, not including sales tax. Drop off oil & oil filters to be recycled only during business hours. While supplies last.



Funded By
CalRecycle 

 **PASADENA**
DEPARTMENT OF PUBLIC WORKS

This program is sponsored by City of Pasadena Department of Public Works
For more information: (626) 744-7311

Appendix J

Sewer System Management Plan Change Log

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Appendix K

SSMP Monitoring Parameters

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City of Pasadena SSMP Monitoring Parameters

SSMP Element	Parameters for Tracking Effectiveness (Annual)	Date	Evaluation of plan element implementation and effectiveness	Reviewed by
SSMP Goal and Introduction	<ul style="list-style-type: none"> City is following SSMP Update Schedule Periodically review section 			
Organization	<ul style="list-style-type: none"> Periodically review section 			
Legal Authority	<ul style="list-style-type: none"> Periodically review section 			
Operations and Maintenance Program	<ul style="list-style-type: none"> Percentage of gravity sewer lines cleaned Percentage of sewer lines inspected by televising Number of lift station failures Number of pipe failures Regular training related to SSMP requirements Equipment inventory tracked Periodically review section 			
Design and Performance Provisions	<ul style="list-style-type: none"> Periodically review section 			
Spill Emergency Response Plan	<ul style="list-style-type: none"> Average and maximum response time Percent of total overflow volume contained or returned to sewer Compliance with notification, monitoring, and reporting requirements Staff and contractors are implementing the Spill Emergency Response Plan Perform regular training on the Spill Emergency Response Plan. Contain any spills and prevent/minimize discharge to waters of the State or any drainage conveyance system Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters Spill events are documented and reported as required in the General Order 			

SSMP Element	Parameters for Tracking Effectiveness (Annual)	Date	Evaluation of plan element implementation and effectiveness	Reviewed by
	<ul style="list-style-type: none"> • Spill responses and assessed • Conduct annual review of Spill Emergency Response Plan • Periodically review section 			
Sewer Pipe Blockage Control Plan	<ul style="list-style-type: none"> • Number of blockages due to FOG, rags, debris, etc. • Number of overflows due to FOG, rags, debris, etc. • Number of FOG producing facilities inspected • Number of enforcement measures at FOG producing facilities • An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning schedule • Implementation of source control measures • Plan and schedule for a public education and outreach program • Periodically review section 			
System Evaluation, Capacity Assurance, and Capital Improvements	<ul style="list-style-type: none"> • Number of spills due to capacity limitations or wet weather • Date of completion of most recent sewer master plan, including flow metering and/or hydraulic modeling • 3-year backlog for capacity improvement projects • Utilize CCTV inspection and assessment and tracking system deficiencies • Prioritize projects based on their need for repair and replacement • Evaluate system deficiencies with recurrent issues and how these can be turned into rehabilitation or replacement projects. • Creation of a schedule to complete these projects • Document system evaluation and condition assessment inspections and activities • Determine solutions to address infiltration & inflow (I/I), aging infrastructure, corrosion due to sulfuric acid, and sags in the system due to unstable soil • Determine solutions to protect from heavy rains, earthquakes, 			

SSMP Element	Parameters for Tracking Effectiveness (Annual)	Date	Evaluation of plan element implementation and effectiveness	Reviewed by
	and other impacts of climate change <ul style="list-style-type: none"> • Determine funding sources • Periodically review section 			
Monitoring, Measurement and Program Modifications	<ul style="list-style-type: none"> • Document SSMP information • Follow schedule for reviewing SSMP information • Determine effectiveness of each Plan Element • Assess the success of preventive operation and maintenance activities; • Update Plan procedures and activities based on evaluation • Identify and illustrate spill trends • Periodically review section 			
Internal Audits	<ul style="list-style-type: none"> • Date of completion of last annual audit • Audits are occurring during original audit cycle • Audit is uploaded to CIWQS within 6 months of due date • Deficiencies found during the audit are addressed and corrected • Periodically review section 			
Communication Program	<ul style="list-style-type: none"> • SSMP is uploaded/updated on City's website & CIWQS • Plan and schedule for a public education and outreach program • Notification program to the public for sewer system management and information on spills and discharges • Periodically review section 			

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