

**City of Escondido
Utilities Department**

**SEWER SYSTEM
MANAGEMENT PLAN**

**Prepared in Accordance with Requirements
Established in State Water Resources Control Board
Order No. WQ 2022-0103-DWQ**



Revised July 2025

CITY OF ESCONDIDO

**SEWER SYSTEM MANAGEMENT PLAN
2025 Update**

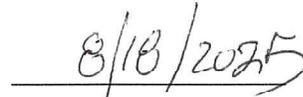
*City of Escondido
Utilities Department*

Management Approval

Approved:

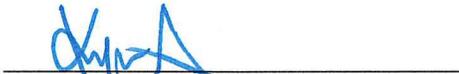


Sean McGlynn
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Date

Approved:



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Date

Revised July 2025

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List of Abbreviations

BMP	best management practice
CIP	Capital Improvements Program
CIU	categorical industrial user
CIWQS	California Integrated Water Quality System
ELO	Escondido Land Outfall
FOG	fats, oils, and grease
GIS	geographic information system
gpcd	gallons per capita per day
gpm	gallons per minute
HARRF	Hale Avenue Resource Recovery Facility
I&I	inflow and infiltration
LS	wastewater lift (pump) station
MFRO	membrane filtration/reverse osmosis
O&M	operation and maintenance
OES	State of California Office of Emergency Services
RWQCB	California Regional Water Quality Control Board, San Diego Region
SCADA	Supervisory Control and Data Acquisition
SEJPA	San Elijo Joint Powers Authority
SEOO	San Elijo Ocean Outfall
SEWC	San Elijo Water Campus (formerly San Elijo Water Reclamation Facility)
SIU	significant industrial user
SSMP	Sewer System Management Plan
SWRCB	State Water Resources Control Board

SSMP ORGANIZATION AND PREPARATION

Overview - The City of Escondido Sewer System Management Plan (SSMP) is developed in accordance with requirements established in State Water Resources Control Board (SWRCB) Order No. WQ 2022-0103-DWQ. This 2025 update of the City's SSMP describes the City's programs to minimize the potential for sanitary sewer overflows (spills). This SSMP addresses each of the eleven SSMP elements required under SWRCB Order No. WQ 2022-0103-DWQ. Each SSMP section herein addresses one of the eleven SSMP elements mandated by SWRCB Order No. WQ 2022-0103-DWQ. This SSMP was prepared by the Wastewater Division of the City of Escondido Utilities Department under the direction of the Assistant Director of Utilities/Wastewater and the Director of Utilities.

Sewer System Management Plan (SSMP) Requirements. Statewide requirements that regulate spills or overflows of sanitary sewer systems (spills) are established by the State Water Resources Control Board (SWRCB) within Order No. WQ 2022-0103-DWQ. Order No. WQ 2022-0103-DWQ requires sewer collection agencies to:

- Implement measures to prevent sewer spills.
- Develop and implement a Spill Emergency Response Plan to respond to, mitigate, terminate, and clean up spills.
- Report spills through a statewide electronic reporting system.
- Maintain and update Sewer System Management Plans (SSMPs) which set forth agency plans for effectively managing, operating and maintaining sewer collection systems to prevent, reduce and mitigate spills.

Order No. WQ 2022-0103-DWQ requires SSMPs to be updated every six years. SSMPs are required to address the following eleven elements:

Element 1 – Goal and Introduction. The SSMP must implement the statewide goals to (1) properly manage, operate and maintain sewer collection systems, (2) reduce and prevent spills, and (3) contain and mitigate spills that do occur. The introduction is required to describe the collection system and collection system assets, and present a schedule for auditing and updating the SSMP.

Element 2 - Organization. The SSMP must include (1) the Legally Responsible Official (as defined within Order No. WQ 2022-0103-DWQ, the (2) the organization structure (including names and contact information) for implementing the SSMP, and (3) the chain of command for reporting spills.

Element 3 - Legal Authority. The SSMP must cite the agency's legal authority to (1) prevent illicit discharges to the sewer system, (2) require proper design and maintenance of sewers, (3) ensure access for maintenance and repairs, (4) limit discharges of substances that may cause sewer line blockages, and (5) establish and enforce sewer ordinances.

Element 4 - Operation and Maintenance (O&M) Program. The SSMP must (1) develop and maintain up-to-date maps of the sewer system, (2) describe preventative operational and maintenance activities, (3) describe the agency's training program, and (4) present an inventory of sewer system replacement and spare parts.

Element 5 - Design and Performance Provisions. The SSMP must address the agency's construction standards and procedures for testing and inspecting the installation of sewers, pump stations, and other appurtenances.

Element 6 - Spill Emergency Response Plan. The SSMP must address (1) notification of responders, affected entities and regulators, (2) staff training, (3) emergency operations (including traffic control), and (4) containment and mitigation, (5) cleanup, (6) monitoring, and (7) post spill assessment and reporting.

Element 7 - Sewer Pipe Blockage Control Program. The SSMP must include an evaluation whether a program is required to control fats, oils or grease (FOG) or debris that may block sewer pipes. If FOG is found to be a problem, the SSMP must develop a FOG control program that (if appropriate) includes (1) an implementation and public outreach program, (2) a FOG disposal plan, (3) FOG prohibitions, (4) a grease trap control plan, (5) an inspection and enforcement program, (6) FOG blockages assessments, and (7) a source control program.

Element 8 - System Evaluation and Capacity Assurance Plan. The SSMP must include (1) a plan for routine assessment of system operations, (2) evaluation of capacities and design criteria, (3) prioritization of corrective actions and (4) a Capital Improvements Program (CIP).

Element 9 - Monitoring, Measurement, and Program Modifications. The SSMP must include a monitoring plan to (1) measure the effectiveness of the SSMP and preventative maintenance measures, (2) update program elements on the basis of collected information, and (3) assess spill trends.

Element 10 - SSMP Program Audits. Periodic internal audits of the SSMP must occur at least once each three years, and an audit report must be submitted to the State's electronic spill reporting system within CIWQS (California Integrated Water Quality System).

Element 11 - Communications Program. The agency must have a program to allow for public input and communication related to the SSMP and sewer spills. The agency must also have a plan of communication with any agencies that contribute tributary flow to the sewer collection system.

Organization of SSMP. This 2025 SSMP update is organized around the eleven required elements mandated by SWRCB Order No. WQ 2022-0103-DWQ. Within each SSMP element, specific requirements of Order No. WQ 2022-0103-DWQ are cited, and the City's compliance with these requirements are documented. As documented herein, the City of Escondido's long-standing efforts to minimize the potential for sewer spills complies with each of the eleven SSMP elements mandated by SWRCB Order No. WQ 2022-0103-DWQ.

SSMP Preparation. This updated SSMP was prepared by the Wastewater Division of the City of Escondido Department of Utilities under the direction of Kyle Morgan, Interim Director of Utilities.

Questions or comments concerning this SSMP should be directed to the Interim Director of Utilities at:

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1. SSMP GOAL AND INTRODUCTION

***Overview** - This SSMP element identifies the overall statewide goal established for SSMPs by the SWRCB and specific goals the City of Escondido has established in support of attaining this overarching state-wide goal. As required by SWRCB Order No. WQ 2022-0103-DWQ, the introduction element also (1) presents a historical overview of the City's SSMP implementation and updates, (2) presents a schedule for implementing SSMP audits and updating the SSMP, and (3) summarizes the City's sewer collection system assets and operations.*

State Water Resources Control Board (SWRCB) Order No. WQ 2022-0103-DWQ. SWRCB Order No. WQ 2022-0103-DWQ establishes statewide standards and requirements for sewer system operations and the prevention and reporting of spills from sanitary sewer systems. SWRCB Order No. WQ 2022-0103-DWQ defines a sewer spill as:

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.

Order No. WQ 2022-0103-DWQ requires the reporting of spills through a statewide electronic reporting system, and require sewer agencies to maintain and update SSMPs that address the following eleven elements, including:

1. Establishing the SSMP goal and, SSMP update schedule and summarizing sewer system assets.
2. Describing the SSMP organization structure.
3. Demonstrating legal authority to regulate the sewer system and sewer dischargers.
4. Describing the preventative operations and maintenance program.
5. Implementing and enforcing sewer design and performance provisions.
6. Implementing a Spill Emergency Response Plan.
7. Implementing a sewer pipe blockage control program.
8. Providing for adequate sewer system capacity and capital improvements.
9. Implementing an adaptive management program that assesses SSMP performance.
10. Performing periodic internal audits of SSMP effectiveness in preventing spills.
11. Implementing a communication program.

SSMP Goal. Order No. WQ 2022-0103-DWQ establishes the following overarching goal for SSMPs:

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

To support attainment of this state-wide goal, the City of Escondido has established specific goals to minimize the potential for sewer spills and to reduce impacts from spills that do occur. These goals include:

- Properly manage, operate and maintain all portions of the City's wastewater collection system.
- Provide adequate capacity to convey peak flows.
- Reduce inflow and infiltration (I&I) into the sewer system through active inspection, dye testing and smoke testing.
- Reduce the potential for spills by maintaining the City's program for sewer line video monitoring, root and debris removal, control of fats oils and grease (FOG), pipe replacement and maintenance/upgrades at wastewater pump stations.

1.1 Regulatory Context

Order No. WQ 2022-0103-DWQ requires that the SSMP introductory section include a description of the SSMP implementation history and SSMP updates.

Historical Overview. Order No. WQ 2022-0103-DWQ updated sewer system requirements originally established by SWRCB Order No. WQ 2006-0103-DWQ. The City's original SSMP, approved by the City Council in 2009 after a public review period and public hearing, addressed requirements in Order No. WQ 2006-0103-DWQ. The original 2009 SSMP brought together in a unified document a number of long-standing City of Escondido operations or programs directed toward preventing spills, including the City's:

- Program of scheduled preventative inspection and maintenance of sewer mains and pump stations.
- Ongoing program for identifying sewer mains deemed to have an elevated risk for blockage from roots or grease, and providing increased frequency of inspection and cleaning of such mains.
- Program for maintaining and enforcing sewer design standards.
- Spill emergency response program.
- Capital Improvements Program (CIP) and ongoing assessment of sewer system capacity and rehabilitation needs.

The SWRCB in 2013 adopted Order No. WQ-2013-0058-EXEC which established revised statewide monitoring, reporting, and record keeping requirements for sewer spills. The SWRCB in September 2015 issued updated SSMP development guidance in *A Guide for Developing and Updating Sewer System Management Plans* (SSMPs).

Since that time, the City of Escondido Utilities Department has conducted regular reviews and audits of spill prevention performance and has periodically updated the SSMP to address needs. Updates to the City's SSMP were adopted in 2014, 2017, 2018, 2020, 2021 and 2022. Each of these updates were conducted under requirements established in SWRCB Order No. 2006-0003-DWQ.

This 2025 SSMP update addresses requirements established in Order No. WQ 2022-0103-DWQ. As part of this update, each of the 11 elements of the City’s existing SSMP were evaluated for consistency with requirements of SWRCB Order No. WQ 2022-0103-DWQ. This updated SSMP incorporates changes to the City’s existing SSMP to address:

- Revised SSMP terminology and organizational requirements established within SWRCB Order No. WQ 2022-0103-DWQ.
- Upgrades to City of Escondido treatment and collection facilities along with updates to the City’s Capital Improvements Program.
- Changes and updates to the City’s *Spill Emergency Response Plan*.
- Changes in City staffing and organizational structure.

While the appearance, terminology and organization of this updated SSMP has changed compared to the existing SSMP, each of the core elements of the City’s existing SSMP remain intact, and this 2025 SSMP update is deemed to not represent a significant program change compared to the 2022 SSMP.

1.2 SSMP Update Schedule

Order No. WQ 2022-0103-DWQ requires that the SSMP introductory section include a schedule for updating the SSMP and for conducting internal audits. Table 1-1 presents the City’s schedule for SSMP updates and for conducting internal audits.

SSMP Audits. The prior SWRCB Order No. 2006-0003-DWQ required that internal audits of the SSMP be conducted every two years and that the results of the audit be kept on file. SWRCB Order No. WQ 2022-0103-DWQ requires that internal audits be conducted at a minimum frequency of three years, and that the audits be submitted to CIWQS within six months of the end of the 3-year audit period. The most recent SSMP audit (conducted pursuant to Order No. WQ 2006-0003-DWQ) covered the period through the end of calendar year 2022. The first audit conducted under Order No. WQ 2022-0103-DWQ will cover calendar years 2023-2025 and will be submitted to CIWQS by July 1, 2026. Table 1-1 summarizes key milestones for completing and submitting the required SSMP audit.

Table 1-1 Audit and SSMP Update Schedule		
Category	Task	Completion Date
SSMP Audit	Begin internal audit of SSMP performance for the period calendar years 2023 through 2025.	January 1, 2026
	Complete internal draft audit report	April 1, 2026
	Finalize and submit audit report to CIWQS ^A	July 1, 2026
SSMP Update	Begin SSMP update	December 1, 2030
	Complete internal draft of SSMP update	March 1, 2031
	Finalize SSMP update and submit to CIWQS ^B	May 2, 2031
Table 1-1 Footnotes: A SWRCB Order No. WQ 2022-0103-DWQ requires that the final City-approved audit must be uploaded to CIWQS within six months of the end of the three-year audit period. B SWRCB Order No. WQ 2022-0103-DWQ requires that the updated SSMP must be uploaded to CIWQS within six years of the prior required SSMP submittal date.		

SSMP Updates. SWRCB Order No. WQ 2022-0103-DWQ requires that SSMPs be updated every six years of the last plan update due date. In accordance with this requirement, the City of Escondido SSMP update will be completed by May 2, 2031. Table 1-1 summarizes key milestones to ensure compliance with this submittal date.

1.3 Overview of Sewer System Assets

Order No. WQ 2022-0103-DWQ requires that the SSMP introductory section include a description of the City’s sewer collection system, population served, and sewer collection assets.

Collection System Overview. The City of Escondido is located in north-central San Diego County. The City’s sewage collection system consists of approximately 380 miles of pipeline, nearly 8,000 manholes, and 11 pump stations. The system serves an estimated population of approximately 150,000. With minor exceptions, the City’s sewage collection system serves only properties within the incorporated boundaries of the City of Escondido. Table 1-2 summarizes the approximate number of current residential, industrial and commercial connections to the City of Escondido wastewater collection system.

Table 1-2 Breakdown of City of Escondido Sewer Connections		
Category	Number of Sewer Connections	Percent of Total Connections
Residential connections	25,484	92 %
Commercial connections	2,076	8 %x
Industrial connections	28	< 1 %

The wastewater collection system delivers wastewater to the Hale Avenue Resource Recovery Facility (HARRF), which is the terminal treatment facility for the City. HARRF also receives wastewater from the Rancho Bernardo portion of the City of San Diego, but all San Diego wastewater collection and conveyance facilities are addressed within the City of San Diego SSMP. HARRF provides secondary treatment for all incoming flows. HARRF secondary effluent not directed to the onsite HARRF tertiary treatment facility is discharged to the Escondido Land Outfall for conveyance to the San Elijo Ocean Outfall.

Figure 1-1 (page 1-5) presents the overall location and layout of the City’s wastewater collection system. The City maintains an up-to-date GIS (geographical information system) map and asset management program of its sanitary sewer system, which depicts locations of gravity segments and manholes, pumping facilities, force mains, valves, and other appurtenances. In accordance with requirements of SWRCB Order No. WQ 2022-0103-DWQ, the City has uploaded a detailed map of its sanitary sewer collection system into CIWQS.

Table 1-3 (page 1-6) presents a breakdown of gravity mains and force mains that comprise the City’s wastewater collection system. Table 1-4 (page 1-7) presents information on the City’s wastewater pump stations, while Table 1-5 (page 1-7) summarizes force mains within the City’s wastewater collection system.

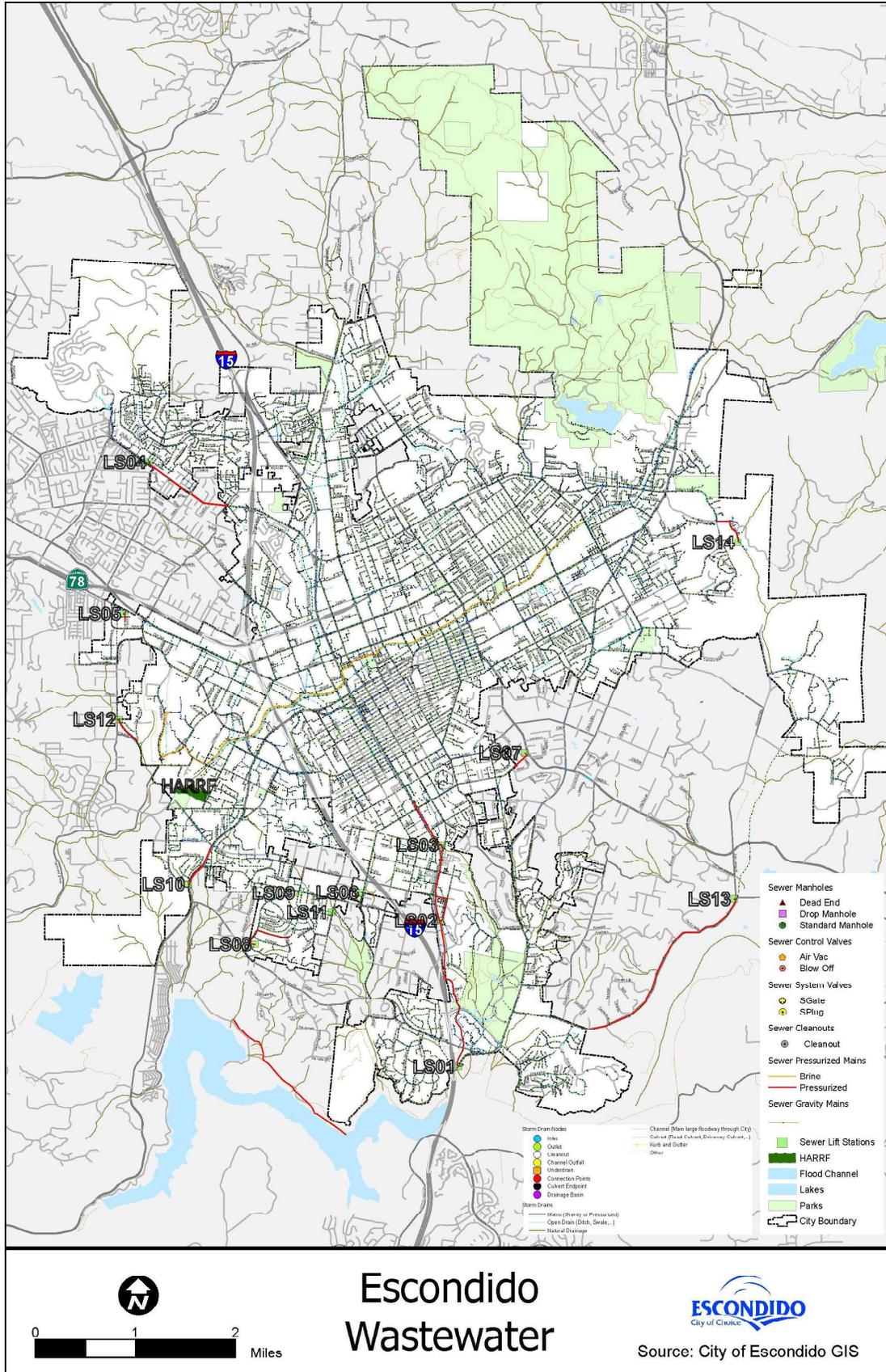


Figure 1-1 Layout of Key Conveyance Mains within the City of Escondido Sanitary Sewer Collection System

Table 1-3
Summary of City of Escondido Gravity Sewer Mains by Type and Diameter

Construction Material	Diameter (inches)	Length (miles)	Diameter (inches)	Length (miles)
Acrylonitrile butadiene styrene	8	0.24	10	0.32
Asbestos cement/ transite	10	0.22	6	0.06
	8	0.61		
Cast iron	10	0.08	6	0.02
	8	0.09		
Concrete (non-reinforced)	21	0.07	10	0.44
	18	0.06	8	8.67
	15	0.09	6	0.54
	12	0.63		
Ductile Iron	42	0.09	24	0.06
	39	< 0.01	20	0.01
	36	0.30	12	0.01
	30	0.40	8	0.17
Other	36	0.03	12	0.34
	30	0.07	10	0.07
	24	0.02	8	1.45
	18	0.02		
Polyethylene	33	0.27	14	0.25
	27	0.96	12	0.68
	24	0.45	8	0.08
Polyvinyl chloride (PVC)	36	0.85	16	0.09
	30	0.74	15	4.54
	28	0.32	12	12.16
	27	0.20	10	5.61
	24	1.04	8	151.66
	21	0.56	6	12.63
Reinforced concrete	36	7.49	24	0.71
	33	3.12	21	1.07
	30	3.48	18	0.12
	27	0.28		
Reinforced plastic (truss pipe)	8	0.44		
Unclassified	18	0.1	6	0.05
	8	0.03	Unknown	0.19
Vitrified clay	39	0.86	15	3.52
	36	0.93	12	3.57
	28	0.05	10	6.89
	24	0.17	8	95.67
	21	0.97	6	26.05
	18	1.56	4	0.04
	16	0.06		

Table 1-4 Summary of City of Escondido Wastewater Pump Stations						
Pump Station	Location	Type of Pump	Number of Pumps	Horsepower per Each Pump	Rated Capacity (gpm)	Actual Capacity (gpm)
LS-1	3680 Sunset Drive	Cornell dry pit	3	75	1100	870 ^A
		Cornell submersible	2	75	1100	870 ^A
		Vaughan chopper	1	75	1100	870 ^A
LS-2	2698 S. Escondido Blvd.	ESSCO submersible	1	15	215	150
		Vaughn chopper	1	20	220	160
LS-3	2045 S. Escondido Blvd.	ESSCO submersible	3	125	2050	1950
LS-4	Edgebrook Place	Pentair submersible	2	30	700	600
LS-5	735 Opper Street	Gorman Rupp	2	7.5	225	200
LS-7	870 E 17 th Street	Gorman Rupp	2	7.5	160	60
LS-8	2472 Eucalyptus Avenue	Smith & Loveless	2	25	200	170
LS-10	2356½ Willowbrook St.	Smith & Loveless	2	10	230	170
LS-12	1400 Country Club Drive	Gorman Rupp	2	20	150	80
LS-13	20950 San Pasqual Road	Smith & Loveless	2	30	340	210
LS-14	397 Oak Valley Lane	Hydromatic submersible	2	25	140	150
Table 1-4 Footnotes: A Dual pump capacity.						

Table 1-5 Summary of City of Escondido Wastewater Force Mains by Type and Diameter							
Construction Material	Diameter (inches)	Length (miles)		Diameter (inches)	Length (miles)		
Force mains that convey wastewater							
Concrete	12	0.49		6	0.54		
	8	0.49		12	0.55		
Ductile iron	20	1.66				6	0.85
	16	2.25		4	0.22		
	18	0.09					
Other	12	0.44		8	< 0.01		
	8	2.60				6	0.54
Polyvinyl chloride (PVC)	15	4.91					
	10	0.01					
Force mains that convey industrial brine							
Other	12	1.52					
Polyvinyl chloride (PVC)	15	4.91					

Ownership and Operational Responsibilities. The City of Escondido owns and maintains wastewater collection mains, force mains, pump stations and appurtenant facilities. Maintaining these facilities (along with the Escondido Land Outfall) is the responsibility of the Wastewater Division of the Utilities Department.

Per Section 22-165 of the City of Escondido Municipal Code, residential, commercial and industrial users of the City's sewer system are responsible for maintaining sewer laterals up to the point where the laterals connect to the City's wastewater collection mains.

The Public Works Department operates and maintains the City's stormwater collection system. No physical connections exist between the City's stormwater infrastructure and the City's sanitary sewer collection system.

2. ORGANIZATION

Overview - This SSMP element identifies the organizational and staffing responsibilities for implementing the SSMP. The City of Escondido Assistant Director of Utilities/Wastewater is the Legally Responsible Official for SSMP development, implementation and compliance as defined within SWRCB Order No. WQ 2022-0103-DWQ. The Assistant Director of Utilities, Wastewater supervises SSMP Plan development and implementation under the direction of the Director of Utilities, City Manager and City Council. The City Engineer is responsible for reviewing plans and specifications for public works projects.

Requirements. Section 2 of Attachment D to SWRCB Order No. WQ 2022-0103-DWQ requires that sewer agencies identify organizational staffing responsible for implementing the SSMP, including identifying:

- *The name of the Legally Responsible Official (as defined within Order No. WQ 2022-0103-DWQ) responsible for compliance with provisions of Order No. WQ 2022-0103-DWQ;*
- *The position titles, telephone numbers and email addresses for management, administrative, and maintenance positions responsible for implementing SSMP elements;*
- *Organizational lines of authority; and*
- *Chain of communication for reporting spills to the State Office of Emergency Services (OES), RWQCB and the applicable County health agency.*

Legally Responsible Official. The Assistant Utilities Director/Wastewater is the Legally Responsible Official for compliance with the provisions of Order No. WQ 2022-0103-DWQ.

Staffing and Organizational Lines of Authority. The City of Escondido wastewater collection system is operated and maintained by the Wastewater Division of the Utilities Department. Figure 2-1 (page 2-2) presents organizational lines of authority for the City's utilities management team, which works under the direction of the City of Escondido City Council. As shown in Figure 2-1, key management positions within the City's organizational structure include:

- *City Manager.* The City Manager manages operations within the City of Escondido in accordance with City Council directives, and advises the City Council on budget, financing, operations and other issues related to public works and utilities department operations.

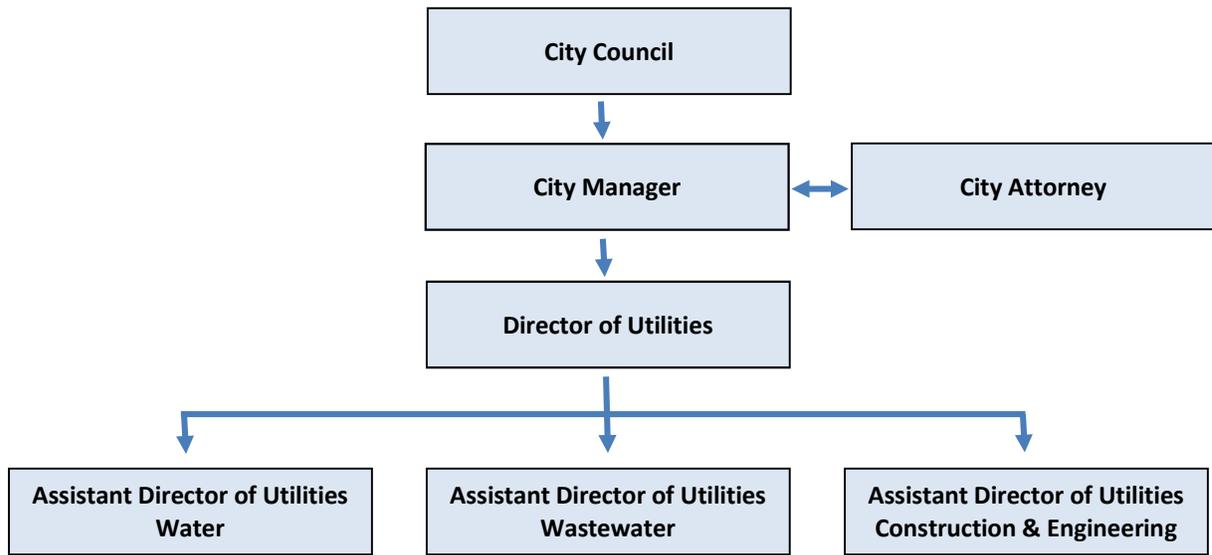


Figure 2-1 City of Escondido Utilities Department Chain of Command

- *City Attorney.* The City Attorney advises the Council and City Manager on legal issues, and as directed provides support to City staff on the legal authority, development, and enforcement of City regulations and codes.
- *Director of Utilities.* The Director of Utilities is in charge of water and wastewater utilities within the City of Escondido. The Director of Utilities advises the City Manager and City Council on water and wastewater facilities and operations, including capital improvements, operation, and maintenance of the City's wastewater system.
- *Assistant Director of Utilities/Wastewater.* The Assistant Director of Utilities/Wastewater supervises all facilities and operations within the City's wastewater division, including wastewater collection, wastewater treatment, and recycled water use. Under the direction of the Director of Utilities, the Assistant Director of Utilities/Wastewater is responsible for developing the SSMP and overseeing implementation SSMP elements related to wastewater system operations and maintenance, sewer overflow response, FOG control, system evaluation, and monitoring/measurement of SSMP effectiveness. The Assistant Director of Utilities/Wastewater is also the City official responsible for ensuring that applicable reports are uploaded and submitted to the State of California CIWQS.
- *Assistant Director of Utilities/Construction and Engineering.* The Assistant Director of Utilities/Construction and Engineering supervises the City's Capital Improvements Program (CIP) for water, wastewater and recycled water projects and manages the planning, design, bidding and construction of the City's water, wastewater and stormwater projects.

Wastewater Division Organization. The organizational chart for the City of Escondido Wastewater Division is presented within Attachment 1 to the City's *Spill Emergency Response Program* (presented within Appendix A of this SSMP). Attachment 2 to the City's *Spill Emergency Response Plan* (see Appendix A of this SSMP) presents job titles, telephone numbers and contact information for the management, administrative and maintenance positions responsible for implementing specific SSMP elements and for uploading reports to the CIWQS sewer spill data base. Key positions within the Wastewater Division include:

- *Wastewater Operations Manager.* The Wastewater Operations Manager is responsible for operating all City wastewater treatment and collection facilities, including treatment facilities at the HARRF and at the City's Membrane Filtration/Reverse Osmosis (MFRO) advanced water recycling facility.
- *Wastewater Maintenance Manager.* The Wastewater Maintenance Manager is responsible for maintaining wastewater mechanical systems, including wastewater treatment plant control systems, SCADA (Supervisory Control and Data Acquisition) systems, pump stations, mechanical equipment and electrical systems. The Wastewater Maintenance Manager is responsible for scheduling and performing preventative maintenance, and in responding to and correcting reported system or equipment failures or anomalies. In this capacity, the Wastewater Maintenance Manager coordinates with the Wastewater Operations Manager and the Wastewater Collections Supervisor to maintain electrical and mechanical equipment within the City's wastewater collection system and recycled water conveyance system.
- *Wastewater Collections Supervisor.* Under the direction of the Wastewater Operations Manager, the Wastewater Collections Supervisor is responsible for operating and maintaining the wastewater collection system and the Escondido Land Outfall. The Wastewater Collections Supervisor is also responsible for supervising the Wastewater Division staff that respond to sewer spills.

Interagency Coordination. HARRF secondary effluent is discharged to the Escondido Land Outfall for discharge to the San Elijo Ocean Outfall, which is jointly owned by the City and the San Elijo Joint Powers Authority. The Director of Utilities and Assistant Director of Utilities/Wastewater coordinate with the San Elijo Joint Powers Authority for the operation and maintenance of the Escondido Land Outfall and San Elijo Ocean Outfall.

Wastewater Division staff also coordinate with the City of San Diego, which contributes wastewater flow to HARRF via City of San Diego Pump Station No. 77.

Sewer Spill Reporting Chain of Command. The City maintains an updated *Spill Emergency Response Plan* (presented in Appendix A to this SSMP) which documents procedures for responding to sewer spills and details the City's chain of command for responding to sewer spills. As noted above, Attachment 1 to the *Spill Emergency Response Plan* presents the organizational structure within the City's Wastewater Division. Attachment 2 to the *Spill Emergency Response Plan* presents contact information for the responsible parties addressed in the spill reporting chain of command. Figure 2-1 of the City's *Spill Emergency Response Plan* presents the spill reporting and response chain of command.

3. LEGAL AUTHORITY

Overview - As a general law city formed under the California Government Code, the City of Escondido has the legal authority to construct, operate, maintain, and regulate discharges to its sewer system. The City has established sewer construction, operation, and use requirements within the City of Escondido Municipal Code. Under regulations established within the Municipal Code, the City maintains the legal authority to (a) prevent illicit discharges to the sewer system, (b) require that sewers be properly designed and constructed, (c) ensure access for maintenance or repair, (d) limit the discharge of substances that may cause blockage, and (e) enforce violations of the City's Municipal Code.

Requirements. Provision 3 of Attachment D to SWRCB Order No. WQ 2022-0103-DWQ requires that the SSMP provide a copy or an electronic link to the sewer use ordinance or other service agreements that establish binding procedures to:

- Prevent illicit discharges into the sanitary sewer system from inflow, infiltration, stormwater, chemical dumping, or unauthorized debris and roots.
- Require that sewers and connections be properly designed and constructed.
- Ensure access for maintenance, inspection, or repairs for portions of the service laterals owned or maintained by the sewer agency.
- Limit the discharge of fats, oils, and grease or other debris that may cause blockage.
- Enforce violations of applicable sewer ordinances, service agreements or other legally binding procedures.
- Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

Legal Authority Overview. The City of Escondido is a general law city formed in 1888 under the provisions of the *California Government Code*. As set forth in Title 4 of the *California Government Code* (Sections 38900-38902), general law cities have the power to acquire, construct, operate, and maintain sewer systems, and to establish and enforce regulations associated with the construction, operation, funding, and maintenance of the sewer system facilities.

City of Escondido Municipal Code. The City of Escondido's legal authority to execute these actions are established in the City's Municipal Code. City regulations regarding wastewater and stormwater are established in Chapter 22 of the Municipal Code. The Municipal Code is located online at:

<https://www.escondido.gov/847/Escondido-Municipal-Code>

Prevention of Illicit Discharges. The City's authority to prevent illicit discharges into the sewer system that may cause blockages are set forth in the following Municipal Code sections:

- Section 22-7. Removal of trees or vegetation near sewers upon notice.
- Section 22-8. Improper disposal of sewage.
- Section 22-37. Specific discharges prohibited.
- Section 22-39. Maintenance of preliminary treatment facilities and equipment.
- Section 22-40. Preliminary treatment of water and waste
- Section 22-173. Prohibited discharges into a wastewater system.
- Section 22-174. Limitations on discharges into wastewater system.
- Section 22-186. Accidental discharge and slug discharge.

The Municipal Code identifies illicit and prohibited discharges to the City's sewer system and provides the City Manager with authority to prevent such discharges. Discharges prohibited under the Municipal Code include substances that cause:

- fire or explosion,
- corrosive damage,
- obstruction of flow,
- treatment pass-through or inhibition,
- endangerment of health or safety,
- impairment of sewer facility maintenance or operation,
- sludge or treatment residue,
- petroleum or cutting oils,
- illicit discharge of transported or trucked wastes, or
- any discharge that would violate any public or regulatory agency requirement.

Collaboration with Stormwater Collection Agencies. The City of Escondido Public Works Department manages the City's stormwater system. In responding to spills, the Utilities Department and Wastewater Division management coordinate with the Assistant Director of Public Works when any spill has the potential to reach stormwater facilities. Public Works personnel are available if required to assist in the effort to contain and mitigate spill impacts.

Proper Design of Sewer System Components and Connections. The Municipal Code sets forth the legal authority for the City to regulate the design and construction of sewer collection facilities, and provides the City Engineer with responsibility to regulate such design and construction. The Municipal Code empowers the City Engineer to develop, update, and enforce design standards.

As discussed in Element 5 of this SSMP, the City has established standard design and performance standards for the design, construction, inspection, and approval of sewer facilities. City standard design plans and specifications are set forth in the City of Escondido *Design Standards and Standard Drawings*, adopted by the City of Escondido City Council via Resolution 2014-08.

Access for Maintenance and Inspection. Section 22-13 of the City of Escondido Municipal Code establishes that property owners must provide City staff with access for maintenance and inspection of sewer collection facilities. The Municipal Code also provides that the City has the right to remove any obstacle that would prevent access to a sewer easement, and that property owners must provide the City with applicable keys or key codes for gates that allow access to City facilities.

Enforce Violations. The City's authority to enforce compliance with sewer discharge regulations is established in the following Municipal Code Sections:

- 22-10. Enforcement Authority.
- 22-11. Enforcement and Remedies.
- 22-12. Remedies Not Exclusive.
- 22-58. Delinquent Payments; Penalty; remedies.
- 22-182. Revocation of Wastewater Discharge Permit.
- 22-192. Enforcement.

Through its powers as a general law city and in accordance with the City's Municipal Code, the City maintains the ability to exercise a wide range of enforcement powers, which may include:

- issuing notices of noncompliance,
- issuing notice of violation,
- issuing administrative orders (probation, show cause, or cease and desist orders),
- petitioning the courts for injunction or civil penalties,
- signing criminal complaints,
- suspending or revoking wastewater discharge permits,
- terminating services, or
- administrative complaints.

Regarding judicial remedies, as set forth in the Sections 22-10 and 22-11 of the Municipal Code, any violator upon conviction is deemed guilty of a misdemeanor and may be subject to a financial penalty (fine) in an amount as defined. The City may also pursue any of the following alternative civil remedies against any violator of the Municipal Code, including:

- financial damages associated with required repair of facilities damaged by a violator,
- injunction by petition to Superior Court,
- reimbursement of any financial penalty issued to City that was caused by a sewer use violation by a sewer user or,
- recovery of the City's costs for abating illicit discharges, and/or
- administrative fines.

Additionally, through the enforcement powers provided within the Municipal Code, the City has the ability to exercise any of the following supplemental enforcement powers as necessary:

- Sampling Authority.
- Cleanup and Abatement.
- Monitoring and Mitigation.
- Stormwater Pollution Prevention.
- Employee Training.
- Best Management Practices.

Easements for Accessing Sewer Facilities. Section 22-119 of the City of Escondido Municipal Code provides that property owners shall grant easements and rights-of-way to the City for any public sewer mains or other required public facilities.

4. OPERATIONS AND MAINTENANCE PROGRAM

***Overview** - The City of Escondido implements spill prevention policies and procedures which include (1) updating the City's sewer facilities maps, (2) scheduling and performing facilities inspections, (3) scheduling and performing preventative maintenance, (4) evaluating and implementing required facilities rehabilitation and replacement, (5) managing assets, and (6) responding to public reports or complaints. The City's spill prevention operations and procedures comply with the system mapping requirements, preventative maintenance requirements, rehabilitation and replacement requirements, training requirements, and equipment/spare parts requirements established within SWRCB Order No. WQ 2022-0103-DWQ.*

4.1 Updated Sanitary Sewer System Map

Section 4.1 of Attachment D to SWRCB Order No. WQ 2022-0103-DWQ requires sewer agencies to maintain an up-to-date map of the sanitary sewer system that shows gravity line segments, manholes, pumping facilities, force mains, valves and applicable stormwater conveyance facilities within the sewer system boundaries. In accordance with this requirement, the Utilities Department maintains an up-to-date electronic GIS version that shows all required sewer collection assets. A master electronic version of the City's sewer system map is maintained on the City's computer network, and copies are backed up regularly. As required by SWRCB Order No. WQ 2022-0103-DWQ, the City has uploaded a GIS version of this map into CIWQS.

Revisions and Updates. The City's sewer system facilities master maps are revised whenever:

- Sewer service facilities (sewer mains, manholes, and pump stations) are connected within newly developed areas of the City's sewer service area.
- Existing sewer collection facilities are modified or upgraded as part of the City's Capital Improvements Program.
- Existing sewer collection facilities are modified or upgraded as part of repairs, rehabilitation, or maintenance work.
- City staff or contractors identify discrepancies on existing maps.
- City staff or contractors identify descriptions or map designations that could be misinterpreted.
- City staff or contractors identify additional information that would be useful to include on the maps.

As this GIS map is updated, the Assistant Utilities Director/Wastewater (or his/her CIWQS-certified designee) is responsible for uploading updates to the map into CIWQS.

Availability to Spill Response Teams. In addition to maintaining an electronic GIS version of the sewer system map, printed copies of the sewer system atlas are carried by work crews and spill response crew vehicles. The sewer system maps show:

- the map version date,
- distance scales, street names, and access notes,
- names and locations of wastewater pump stations,
- diameters, directions of flow, lengths (to scale), and construction materials for gravity sewer mains,
- the locations, identification numbers, and invert depths of manholes,
- diameters, directions of flow, lengths (to scale), construction materials, and pressure ratings for force mains, and
- locations of ancillary sewer collection facilities (e.g., siphons, valves).

Stormwater Collection Facility Maps. In addition to up-to-date sewer system maps, the City also maintains up-to-date maps showing the locations of underground storm drains. Maps showing the location of storm drain facilities are available to field personnel that respond to spills in order to facilitate spill responses, mitigation and clean-up.

4.2 Preventative Operations and Maintenance

Under the direction of the Director of Utilities and Assistant Director of Utilities/Wastewater, the City of Escondido maintains a preventative program for sewer spills that includes:

- a range of inspection and preventative maintenance activities for sewer mains, manholes, pump stations, force mains, and other appurtenant facilities,
- a system for encouraging public awareness and for responding to public tips or information regarding required sewer system maintenance,
- a system to track past sewer spills or overflows, identify trends in the performance of operations and facilities, and implement higher frequency inspections on known problem areas,
- analysis of individual sewer spills or overflow events, and the identification and evaluation of additional potential preventative measures,
- routine scheduled inspection of sewer collection facilities,
- identification of reaches of sewer mains subject to an increased risk of grease-related or root-related blockages,
- an ongoing program to evaluate collection system operations and inspection needs,
- a training program,
- an ongoing program to continually evaluate collection system physical facilities, and
- a capital improvements program that (1) prioritizes needs for rehabilitation, replacement, or upgrade of sewer collection facilities, (2) sets forth long-term implementation plans and funding needs for the required facilities, and (3) is based on a rate structure and/or system of financing that financially supports the required long-term facilities upgrades or replacements.

The Director of Utilities and Assistant Director of Utilities/Wastewater are responsible for implementing and overseeing these spill-preventative measures.

Scheduled preventative measures implemented by the City include:

- a scheduled program of pump station inspections,
- scheduled maintenance of pump stations,
- a scheduled program of sewer main inspections (both visual and video inspection), and
- a scheduled program of sewer main cleaning.

Pump Stations. Table 4-1 summarizes the City’s wastewater pump station inspection schedule and pump station reliability features. As shown in the table, all pump stations can be remotely monitored using the City’s SCADA system, and the SCADA system provides instantaneous alerts to Utilities Department personnel when anomalous conditions are detected in any of the City’s wastewater pump stations. As also shown in Table 4-1, backup electrical generating power is available at each of the pump stations.

Table 4-1 Summary of Inspection Schedules and Reliability Features City of Escondido Wastewater Pump Stations			
Pump Station	Targeted Onsite Inspection Schedule	Real-Time Remote Monitoring via SCADA?	Onsite Backup Power Available?
LS-1	Weekly ^A	Yes	Yes
LS-2	Weekly ^A	Yes	Yes
LS-3	Weekly ^A	Yes	Yes
LS-4	Weekly ^A	Yes	Yes
LS-5	Weekly ^A	Yes	Yes
LS-7	Weekly ^A	Yes	Yes
LS-8	Weekly ^A	Yes	Yes
LS-10	Weekly ^A	Yes	Yes
LS-12	Weekly ^A	Yes	Yes
LS-13	Weekly ^A	Yes	Yes
LS-14	Weekly ^A	Yes	Yes
Table 4-1 Footnotes: A The weekly pump station inspections include alarm testing, pump function testing and generator testing.			

Preventative maintenance procedures and schedules for pump stations are established, in part, on the basis of manufacturer's maintenance recommendations, the type and age of pump station equipment, the type of pump and motor controls employed, pump station flows, and past maintenance and operation history.

Sewer Mains. As part of the City’s sewer main inspection program, the City designates sewer main reaches that may have an elevated risk of grease-related or root-related sewer main blockages. Areas with such elevated risk are identified on the basis of (1) known grease dischargers, (2) results of prior

visual and video inspections, (3) location of trees, (4) past spill history, and (5) sewer main sizes, slopes and velocities.

Table 4-2 presents sewer main cleaning schedules for the City’s sewer mains. As shown in Table 4-2, the City implements more frequent cleanings and inspections of sewer mains in area where blockage problems are more likely. Additionally, the City maintains a regular schedule for video inspections (closed circuit television) of all sewer mains. For sewer mains that do not have an elevated risk of blockage, a total of 35 miles of sewer mains are video inspected each year under this regular schedule. Video inspections are conducted on an as-needed (more frequent) basis when any potential blockage issue is (1) identified or suspected as part of the priority quarterly sewer main cleaning and inspection schedule or (2) indicated by data trends from SmartCover manhole monitoring systems.

Table 4-2 Targeted Sewer Inspection and Cleaning Schedule	
Sewer Line Risk Category	Targeted Sewer Cleaning Schedule ^A
Potential for Grease Blockages	Quarterly
Potential for Root Damage	Quarterly
All other sewer lines	Every 24 Months
Table 4-2 Footnotes: A Targeted schedule for visual inspections of manholes and sewer main cleanings. Actual frequency of inspections and cleanings may vary with equipment and staff availability, priorities based on prior inspections, weather, and access considerations. More frequent cleanings and inspection may occur on the basis of the results of video inspections and data trends from SmartCover manhole monitoring systems.	

4.3 Training

Training for Utilities Department personnel is the responsibility of the Director of Utilities, the Assistant Director of Utilities/Wastewater, the Wastewater Operations Manager and the Wastewater Collections Supervisor. City crews are trained to perform inspections, perform system checks, and to operate and maintain wastewater collection facilities and equipment. Section 3 of the City’s *Spill Emergency Response Plan* details targeted frequencies for common training or drills.

The City maintains an ongoing operator education program to insure up-to-date training. Additionally, the City encourages employee enrollment at local community colleges and training provided by national professional societies and/or pollution-prevention organizations. Additional training includes:

- orientation training and mentorship,
- drills and test exercises,
- technical training and certification,
- professional development training,
- safety training, and
- other specialized training.

4.4 Equipment Inventory

The City utilizes asset management software to manage the maintenance and repair of the City's wastewater treatment and collection facilities and equipment. The asset management software identifies scheduled maintenance and repair activities, and is used to track repair/maintenance histories of equipment and pipelines. Section 3 of the City's *Spill Emergency Response Plan* details equipment available to respond to spill reports.

As part of the Utilities Department maintenance management program, management personnel evaluate inventory needs for critical components and spare parts. The City maintains an inventory of critical components which include (1) spare pipes sections and fittings, (2) spare parts, components, and fittings for pump stations, and (3) spares for repair and response equipment. Section 3 of the City's *Spill Emergency Response Plan* summarizes critical components and parts typically maintained in the City's inventory. To update this inventory, Utilities Department management evaluate supplies, components, and equipment necessary to allow for simultaneous repairs in two locations. Critical components and spare parts are identified on the basis of:

- historic parts/components inventories and use patterns,
- manufacturer's recommendations,
- design engineer recommendations,
- past failure history, likelihood of failure and risk associated with failure,
- number of units in service requiring the parts/components,
- operating experience and recommendations from field crews,
- preventative maintenance schedules,
- parts/components availability from suppliers and time required to receive delivery,
- cost (including delivery cost),
- parts/components availability from adjoining agencies, and
- contingency/portable equipment needs.

Inter-Agency Communication. The Utilities Department maintains informal communications with adjoining sewer agencies. Should the need arise, through this communication the City can arrange for spill response resources that may be available from adjoining agencies. Further, Utilities Department managers maintain a list of suppliers for critical components, along with anticipated emergency delivery times.

5. DESIGN AND PERFORMANCE PROVISIONS

***Overview** - The City of Escondido establishes standards for the design and construction, installation, repair and rehabilitation of existing and proposed sewer collection facilities. The City of Escondido also establishes procedures and standards for inspecting newly constructed or newly installed, repaired and rehabilitate collection mains, pumps and other collection system appurtenances. The City's design and construction standards and specifications and testing/inspection requirements comply with requirements established in SWRCB Order No. WQ 2022-0103-DWQ.*

Requirements. Provision 5 of Attachment D to SWRCB Order No. WQ 2022-0103-DWQ requires that sewer agencies implement design and performance standards, including:

- Updated design criteria and construction standards and specifications for the construction, installation, repair and rehabilitation of existing and proposed system infrastructure components, including pipelines, pump stations, and other system appurtenances.
- 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 Design and Construction Standards

The City establishes construction materials, design and specifications for sewer collection facilities and appurtenances within its *Design Standards and Standard Drawings*, which is available online at escondido.gov/294/Field-Engineering. Standards for designing and constructing wastewater collection facilities are established for sewer mains, manholes and sewer laterals.

The *Design Standards and Standard Drawings* also establish requirements governing preparation, review, inspection of plans and procedures and methodologies, and consistency with the City's *Wastewater Master Plan* (available online at escondido.gov/771/Utilities-Plans-Reports-Notices).

The City requires that lift stations and force mains be designed by professional engineers per Utilities Department requirements and specifications.

The City's *Design Standards and Standard Drawings* establish design standards that govern sizing and design of sewer mains, including criteria that specify:

- sewer main construction materials and specifications,
- minimum sewer main sizes,
- maximum depth of flow,
- sewer main minimum velocities,
- minimum pipeline slopes (per size of pipe),
- depth of cover,
- easements,
- construction specifications for laterals,
- minimum sewer lateral sizes,
- minimum lateral connection slopes,
- check valves,
- utility clearances, and
- manhole construction materials and specifications.

City of Escondido standards that govern the design and construction of manholes (both conventional and shallow manholes) include:

- manhole construction methods/materials,
- slope-dependent maximum distances between manholes,
- manhole diameters,
- access openings, and
- manhole covers.

The City's design criteria also require site-specific special design of manholes for sewer mains larger than 18 inches in diameter.

5.2 Testing and Inspection Procedures and Standards

The City of Escondido Utilities Department establishes procedures and standards for inspecting and testing the installation of new sewers, pumps and other appurtenances and for rehabilitation and repair projects. All repair or rehabilitation work on City sewers is either conducted by the Utilities Department personnel and equipment, or by contractors who work under the supervision of City engineering or Utilities Department staff.

All repairs or rehabilitation work is inspected by the Utilities Department staff, and the City's Field Engineering Division provides construction inspection of all CIPs. Standards checked by inspectors include conformance with design plans and specifications, conformance with applicable City requirements, and conformance with the City's *Design Standards and Standard Drawings*.

Inspection activities conducted by Utilities Department personnel on sewer main repairs or replacement may include (but not be limited to) the following:

- traffic plan and control,
- surveying,
- earthwork,
- clearing and grubbing or pavement removal,
- trenching and shoring,
- pipe bedding,
- pipe laying and joints,
- construction of structures,
- videotaping of all constructed sewers,
- placing and compacting of backfill,
- sewer cleaning,
- deflection testing of sewers,
- air testing of sewers,
- paving or grading over trenches,
- water tightness of manholes,
- adjusting manhole covers to grade, and
- final inspection.

In accordance with the City's *Design Standards and Standard Drawings*, all newly installed or repaired sewer mains must be inspected via closed circuit television.

City inspectors receive training in City standards, construction inspection requirements, construction techniques, and safety. Contractors are not allowed to proceed with any phase of work until the previous phase has been inspected and approved by the City. The contractor is required to repair, reconstruct, replace or otherwise make acceptable any work found by the City to be not in accordance with the City's standards. City inspection and testing requirements include:

- reviewing and approving the source of supply for materials,
- reviewing/approving materials tests furnished by contractors and manufacturers, and
- obtaining samples of materials from the contractor or manufacturer for independent testing.

6. SPILL EMERGENCY RESPONSE PLAN

Overview - *The City of Escondido maintains and updates a Spill Emergency Response Plan that documents policies, procedures and guidelines for sewer spill detection, notification, response, monitoring, cleanup and restoration, and record-keeping. The City's Spill Emergency Response Plan complies with emergency response requirements established within SWRCB Order No. WQ 2022-0103-DWQ for responder notification, spill response, agency notifications, training, crowd and traffic control, and spill control.*

Requirements. Provision 6 of Attachment D to SWRCB Order No. WQ 2022-0103-DWQ requires sewer agencies to develop and implement an up-to-date Spill Emergency Response Plan to ensure prompt detection and response to spills, to reduce spill volumes, and to collect information to prevent future spills. The Spill Emergency Response Plan is required to address:

- Notification of primary responders, affected entities and regulatory agencies.
- Implementation of the Spill Emergency Response Plan and staff training.
- Spill response, containment and mitigation.
- Emergency system operations including traffic control.
- Interagency coordination and coordination with stormwater units.
- Mitigation, remediation, spill recovery and cleanup.
- Post-spill assessments.
- Spill documentation and reports.
- Annual review of the Spill Emergency Response Plan.

SWRCB Order No. WQ 2022-0103-DWQ defines spill categories and establishes monitoring and reporting procedures for each category. Table 6-1 (page 6-2) summarizes spill monitoring and reporting requirements established under Order No. WQ 2022-0103-DWQ.

Spill Emergency Response Plan. The City of Escondido maintains and periodically updates a *Spill Emergency Response Plan* that documents procedures, policies, and guidelines for spill detection, notification, response, monitoring, cleanup and restoration, and record-keeping. The most recent version of the City's *Spill Emergency Response Plan* was updated in May 2025 (see Appendix A).

Responsibility for Plan Updates. The Assistant Director of Utilities/Wastewater is responsible for ensuring that the *Spill Emergency Response Plan* is annually reviewed and (if necessary) revised to (1) incorporate up-to-date spill policies, procedures and technologies, and (2) incorporate experience gained by Wastewater Division personnel in preventing and responding to past spill events.

Table 6-1 Summary of Spill Reporting Requirements SWRCB Order No. WQ 2022-0103-DWQ		
Element	Requirement of SWRCB Order No. WQ 2022-0103-DWQ ^A	Method
Notification ^B	<ul style="list-style-type: none"> Within two hours of becoming aware of Category 1^C spill, notify the California Office of Emergency Services (OES) and obtain a notification control number. 	Telephone OES at: (800) 852-7550
Reporting ^B	<ul style="list-style-type: none"> Category 1^C Spill: Submit draft report within three business days of becoming aware of the spill, and certify the spill report within 15 calendar days of the spill end date. Category 2^D Spill: Submit draft report within 3 business days of becoming aware of the spill and certify within 15 calendar days of the spill end date. Category 3^E Spill: Submit certified report within 30 calendar days of the end of month in which the spill the occurred. Spill Technical Report: Submit within 45 calendar days after the end date of any Category 1 Spill in which 50,000 gallons or greater are spilled to surface waters. “No Spill” Certification: Certify that no spills occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no spills occurred. Collection System Questionnaire - update and certify every 12 months 	Enrollee's legally responsible officials must enter spill data into the CIWQS Online sewer spill database at http://ciwqs.waterboards.ca.gov/
Water Quality Monitoring ^B	<ul style="list-style-type: none"> Conduct water quality sampling within 48 hours after initial spill notification for Category 1 Spills in which 50,000 gallons or greater are spilled to surface waters. 	Water quality results are required to be uploaded into CIWQS for Category 1 spills in which 50,000 gallons or greater are spilled to surface waters.
Record Keeping ^B	<ul style="list-style-type: none"> Spill event records. Records documenting SSMP implementation and changes/updates to the SSMP. Records to document Water Quality Monitoring for spills of 50,000 gallons or greater spilled to surface waters. 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.

Table 6-1 Footnotes:

- A SWRCB Order No. WQ 2022-0103-DWQ was adopted by the SWRCB on December 6, 2022 and became effective on June 5, 2023.
- B Notification, reporting, water quality monitoring and record-keeping procedures are established in Attachment E to Order No. WQ 2022-0103-DWQ.
- C A Category 1 spill is defined as a discharge of untreated or partially treated wastewater of any volume resulting from an enrollee's sanitary sewer system failure or flow condition that (1) reaches surface water and/or reaches a drainage channel tributary to a surface water; or (2) reaches a Municipal Separate Storm Sewer System (MS4) and is not fully captured and returned to the sanitary sewer system or not otherwise captured and properly disposed. 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.
- D A category 2 spill is defined as a discharge of untreated or partially treated wastewater of 1,000 gallons or greater resulting from an enrollee's sanitary sewer system failure or flow condition that does not reach surface water, a drainage channel, or a MS4 unless the entire spill discharged to the storm drain system is fully recovered and properly disposed.
- E A category 3 spill is defined as all other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.

Plan Supervision. As set forth in the City's *Spill Emergency Response Plan*, all spill response actions are directed by an Onsite Supervisor. A duty Onsite Supervisor will be designated at all times, and will either be the Wastewater Collections Supervisor or another experienced competent person designated by the Wastewater Operations Manager or Wastewater Collections Supervisor.

When Utilities Department staff arrive at the spill scene in advance of the designated Onsite Supervisor, the senior onsite Wastewater Division staff member assumes the duties of the Onsite Supervisor until the designated Onsite Supervisor arrives.

Compliance with Agency Requirements. The City's *Spill Emergency Response Plan* (see Appendix A) complies with each of the requirements set forth within SWRCB Order No. WQ 2022-0103-DWQ.

Primary Responder Notification. The City's *Spill Emergency Response Plan* documents procedures for ensuring the availability of response teams and ensuring notification of primary responders. Section 2 of the *Spill Emergency Response Plan* documents means for identifying and responding to spills from sewer main breaks, blockages or surcharging, or from pump station failure or surcharging. Section 2 also documents the City's reporting system to ensure that spill reports/calls from the public are routed to Utilities Department and Wastewater Division management.

All Utilities Department workers are available via cell phone/radio communications during all business hours. During business hours, Wastewater Division supervisors can quickly mobilize spill response crews by either (1) routing crews already in the field to the response site or (2) directing crews at Utilities Department offices/yards to the response site.

A Wastewater Division senior-level supervisor and an emergency response crew will be scheduled on call and available during all non-business hours. If initial assessment indicates the need for more crews than are on call, Wastewater Division senior-level supervisors are empowered to authorize overtime and mobilize any required off-duty Utilities Department personnel to respond to the spill.

Appropriate Responses to Spills. Section 3 of the City's *Spill Emergency Response Plan* documents personnel and equipment available for spill response. Section 4 of the City's *Spill Emergency Response Plan* sets forth procedures for ensuring appropriate responses to spill reports. The City's spill procedures:

- require initial responders to make the appropriate notifications to Utilities Department management,
- require initial responders to classify the spill,
- require that telephone notification be provided to the Office of Emergency Services within two hours of the detection of any Category 1 spill, and that a notification control number is obtained from the Office of Emergency Services (OES),
- address means of securing control of the spill site perimeter,
- address means of ensuring traffic control and safety,
- address means of spill containment, diversion, and recovery for a variety of possible spill causes,
- require proper posting and signage to warn the public of contaminated areas,
- address available means for correcting the problem that caused the spill,
- address means for terminating the spill,

- ensure appropriate monitoring and testing,
- address required site clean-up and restoration, and
- document required follow-up actions, notifications and record keeping.

Agency Notification Procedures. Section 4.3 of the City's *Spill Emergency Response Plan* (Appendix A) details notification procedures utilized by the Utilities Department. In accordance with requirements of Order No. WQ 2022-0103-DWQ, the City's *Spill Emergency Response Plan* addresses procedures for telephone notification of any Category 1 spills to the OES within two hours of discovery of the discharge. Such telephone notification shall include providing OES with any requested information and obtaining from OES a notification control number. OES, in turn, will notify local public health agencies and response agencies. The *Spill Emergency Response Plan* procedures include required reporting of all Category 1, 2, 3 and 4 spills (along with private lateral sewer spills) in the CIWQS database.

Emergency Training. The Assistant Director of Utilities/Wastewater and the Wastewater Operations Manager are responsible for ensuring that Wastewater Division response crews are properly informed and trained for implementation of the spill response policies and procedures documented in the *Spill Emergency Response Plan*.

Under the Assistant Director of Utilities/Wastewater and Wastewater Operations Manager, the Wastewater Division maintains ongoing mentoring and training programs for spill response crews. As detailed in Section 3.2 of the City's *Spill Emergency Response Plan* (Appendix A), this ongoing program includes:

- orientation training and mentorship,
- specialized training,
- drills and test exercises,
- professional training and certification, and
- encouragement of cross-training and professional development training.

Scheduled tests and training include notification drills, communication drills, equipment testing and exercising, and operator training.

Crowd and Traffic Control. Section 4.4 of the *Spill Emergency Response Plan* assigns the Onsite Supervisor with responsibility to secure the site and maintain crowd control. City response crews are required to provide equipment for securing the site, ensuring that the public is kept from the site, and ensuring that the public does not interfere with response crew actions. The Onsite Supervisor is responsible for contacting Wastewater Division and/or Utilities Department management to secure additional staffing if required.

If the potential exists for traffic to be impacted by spill response actions or parked vehicles, the Onsite Supervisor is responsible for supervising traffic diversion so as to ensure the safety of the public and response crews. City response crews are required to carry equipment and signage for diverting traffic.

The Onsite Supervisor is responsible for contacting the City of Escondido Police Department if additional crowd control is required, if the public is interfering with response effort, or if law enforcement assistance is required for ensuring the safety of the public or the response team.

Spill Containment Procedures. Spill containment and termination is a priority for crews responding to spills. The City's *Spill Emergency Response Plan* (see Appendix A) documents procedures for ensuring containment of spills, diversion and/or recovery of spills, and terminating spills.

The Onsite Supervisor is responsible for determining appropriate measures for spill containment, based on spill volume, location of downstream manholes or other collection facilities, location of storm drains, and natural terrain. Section 4.5 of the City's *Spill Emergency Response Plan* identifies potential containment strategies to be implemented by the City's response crews, which include:

- using combination trucks to vacuum the spill,
- using sandbags rubber dams, or other portable flow barriers to prevent the flow from entering storm drains or drainage channels,
- diverting the spill by pumping around the overflow point or sewer break point back into the sewer system,
- diverting the spill by berms or sandbags back into the sewer system,
- diverting or retaining the spill in a hollow, swale, or low area for subsequent recovery, and/or
- constructing a temporary dam or dike to contain the spill for subsequent recovery.

Once spill containment is assured, City response crews focus on eliminating the source or cause of the spill and terminating the spillage. Section 4.7 of the City's *Spill Emergency Response Plan* documents strategies for terminating spills due to sewer main failures, blockages, surcharges or terminating spills related to pump station failure or surcharge.

7. SEWER PIPE BLOCKAGE CONTROL PROGRAM

Overview - The City maintains a public outreach program that promotes proper disposal of fats, oils, and grease (FOG) by industry, commercial establishments, and residential users. The City maintains the legal authority to establish, monitor, and enforce FOG- and debris-related prohibitions, discharge limits, and treatment requirements. The City requires installation and use of grease and oil interceptors or other applicable pretreatment for FOG generators and requires dischargers to properly dispose of or recycle FOG. The City has identified sewer main reaches that have an elevated risk of FOG- or debris-related blockage and has implemented accelerated inspection and maintenance schedules within these reaches to minimize the potential for sewer spills.

Requirements. Provision 7 of SWRCB Order No. WQ 2013-0103-DWQ requires sewer agencies to determine if a sewer blockage program is required to control fats, oils and grease (FOG), rags and debris, If a program is needed procedures must include:

- An implementation plan and schedule for a public education 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.
- 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 (BMP) requirements, record keeping and reporting requirements.
- Authority to inspect grease-producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance.
- Identification of sanitary sewer sections subject to FOG blockages, and establishment of a cleaning and maintenance schedule for sewers with an elevated blockage risk.
- Implementation of source control measures for all sources of FOG reaching the sanitary sewer system.

Overview of Sewer Blockage Control. The City's Municipal Code establishes prohibitions against sewer line blockages, and establishes requirements governing the discharge of FOG or pipe-blocking debris. The Municipal Code also provides the City with authority to:

- evaluate and regulate the discharge of substances (including FOG) which may lead to sewer line blockage,
- develop and implement required pretreatment facilities and design standards, and enforce discharger compliance with the standards,
- inspect FOG generating facilities and enforce compliance with FOG limits established within or pursuant to the Municipal Code,
- remove or prevent planting of vegetation that block or adversely impact the ability of sewer mains to convey wastewater, and/or
- take other actions necessary to prevent the potential for sewer main blockage.

As part of the City's FOG program, the Wastewater Division conducts video inspections of all sewer mains and maintains a database of FOG-related blockages, grease buildups, and required sewer cleanings. On the basis of this information, the City designates sewer main reaches that are considered to have an increased risk of FOG-related blockage. For such at-risk sections, the City conducts an increased frequency of sewer main cleaning and video monitoring.

Public Education Program. The City has developed and implemented a public education outreach program to promote proper disposal of FOG, enhance public awareness of FOG issues, promote proper recycling of oil and grease, and identify other key household or commercial causes of sewer pipe blockages. Key elements of the City's public outreach program include (1) a program to educate commercial and residential users, and (2) an outreach program directed toward proper handling of waste automotive oil.

The City's outreach to commercial and residential users includes web-based and printed education literature on FOG issues, proper FOG disposal, and FOG best management practices (BMPs). The literature is posted on the City's website (escondido.gov/482/Commercial) and highlights the fact that grease is the most common cause of pipe blockages. The education literature stresses such household BMPs such as:

- not flushing wet wipes or feminine products into the sewer,
- solidifying household cooking oils and grease and placing the solidified grease into sealed containers for disposal with solid waste,
- scraping leftover food and grease into the trash,
- wiping grease from cooking pans with paper towels prior to washing, and disposing of the paper towels with solid waste,
- the need for periodic inspection/maintenance of private sewer laterals, and
- the need to call the City before cleaning private laterals so the City can remove any debris that is pushed into the public sewer line from cleaning the lateral.

The City also maintains a public outreach program (online at: Escondido.gov/693/Used-Oil-Recycling) that is directed toward educating the public on proper disposal and recycling of automotive oil. This outreach program addresses proper procedures for waste oil recycling and facilities where automotive oil can be returned for recycling. Additionally, waste oil recycling signs and information are posted at participating oil recycling facilities.

Disposal of Pipe-Blocking Substances. Rags and debris removed from City of Escondido sewer mains are disposed of in a landfill. BMPs established by the City for household and commercial disposal of collected grease include disposal via grease recycling facilities or disposal in solid waste collection facilities.

Legal Authority. As discussed within Element 3 of this SSMP, Section 22-37 of the Municipal Code prohibits the discharge of FOG or other substances which may cause stoppage or blockage of sewer lines. Sections 22-38 and 22-39 of the Municipal Code establishes requirements governing the installation and maintenance of FOG removal devices, and establishes the authority of the Director of Utilities to promulgate rules, regulations and requirements regarding FOG discharges and required FOG treatment. Section 22-203 of the Municipal Code provides the Director of Utilities with powers to establish and enforce best management practices and pollution prevention practices.

Grease Removal Requirements. Pursuant to authority established in the Municipal Code, the City requires pretreatment for the removal of FOG. Grease control devices (grease interceptors or grease traps) are required for food establishments or facilities with kitchen equipment that have the potential to produce grease. The City also requires grease/oil interceptors or separators for automotive or other maintenance facilities designated by the City as representing a threat for the discharge of grease or oils.

Additionally, the City has implemented a series of BMPs for handling grease at food establishments. The BMPs address:

- grease interceptor maintenance,
- grease storage facilities,
- cleaning, and
- kitchen management BMPs.

Authority to Inspect and Enforce FOG Compliance. The Municipal Code establishes the City's authority to inspect FOG dischargers and enforce FOG limits. Sections 22-20 and 22-189 of the Municipal Code provide the City with right to entry and the authority to inspect and monitor sewer users to ensure compliance with applicable discharge standards, discharge permit standards, local limits, and sewer discharge regulations. Sections 22-10, 22-11 and 22-192 of the Municipal Code provide the City with authority to enforce compliance with:

- discharge prohibitions, standards, and requirements established within the Municipal Code, and
- discharge policies, design standards, and other requirements established by the City pursuant to authorities established within the Municipal Code.

FOG Source Control Measures. The City's approved pretreatment program regulates industrial discharges through the issuance of sewer use permits. Regulated industries or establishments include: dischargers subject to pretreatment requirements governing:

- Categorical Industrial Users (CIUs) subject to federal category-specific pretreatment requirements,
- industries under federal regulations that are subject to regulation as Significant Industrial Users (SIUs), and

- dischargers (such as food service and automotive dischargers) who are not subject to federal regulation as CIUs or SIUs but are regulated by the City in accordance with provisions established in the City's Municipal Code.

Food establishments and automotive or repair facilities that may generate grease and oil are routinely inspected by City pretreatment staff for conformance with applicable pretreatment and FOG control regulations. The City's Environmental Compliance Supervisor (under the direction of the Director of Utilities and Assistant Director of Utilities/Wastewater) is responsible for coordinating and implementing pretreatment and FOG-related inspections and enforcement actions.

Sewer System Segments Susceptible to FOG Blockage. Measures implemented by the City of Escondido to prevent sewer system blockages includes:

- a program of regularly scheduled visual inspections of manholes,
- a program of regularly scheduled television video inspections of sewer mains,
- maintaining a database of observed instances of root damage and observed instances of FOG-related problems identified through the inspections,
- maintaining a database of past spill events,
- collecting and analyzing data from the City's SCADA system and from SmartCover monitoring systems,
- evaluating each reach of the City's sewer collection system and identifying sewer main reaches that are determined to represent an increased risk for FOG-related blockages or blockages related to vegetation or tree roots,
- periodically updating of the evaluation of sewer line reaches to assess the risk of FOG-related or root-related sewer main blockages,
- reviewing and evaluating building and license applications from food services establishments who are applying for new discharge permits or changes of use for existing businesses, and
- conducting regular inspections of food establishment records for FOG pumping frequency.

For areas deemed to have an elevated risk of FOG-related or root-related blockages, the City implements quarterly sewer cleaning operations and conducts video inspections whenever blockage risk issues are identified or suspected. Based on results from video inspections and/or trending data from SmartCover manhole monitors, the City may also schedule more frequent cleaning of sewer reaches that have an elevated potential for blockage. For sewer mains that do not have an elevated risk of blockages, the City implements a program that targets completing video inspections on 35 miles of sewer mains per year.

Where warranted the City may also implement special studies to identify FOG sources, identify and evaluate potential means of FOG controls, or identify facilities improvements required to minimize the potential for FOG-related blockages.

8. SYSTEM EVALUATION, CAPACITY ASSURANCE AND CAPITAL IMPROVEMENTS

***Overview** - Ultimate peak wastewater flows have been estimated for each of the drainage areas within the City's wastewater collection service area. Wastewater collection and pump station facilities have been designed and constructed within each of the drainage areas to accommodate the ultimate peak flows. The City maintains adequate wastewater flow/capacity design criteria, and no modification of the City's design criteria are required to comply with SSMP requirements of SWRCB Order No. WQ 2022-0103-DWQ. Because existing wastewater collection facilities provide adequate capacity for handling anticipated ultimate peak wastewater flows, no additional capacity enhancement measures are required in order for the City to comply with capacity assurance requirements of Order No. WQ 2022-0103-DWQ.*

Requirements. Provision 8 of Attachment D to SWRCB Order No. WQ 2022-0103-DWQ requires that sewer agencies implement procedures and activities for:

- Routine evaluation and assessment of system conditions.
- Capacity assessment and design criteria.
- Prioritization of corrective actions.
- A Capital Improvements Program (CIP).

8.1 Assessment of System Conditions

SSMP Requirements for Condition Assessment. SWRCB Order No. WQ 2022-0103-DWQ requires SSMPs to include the following procedures to assess the condition of sewer collection system assets:

1. Evaluate the sanitary sewer system assets utilizing the best practices and technologies available;
2. Identify and justify the amount (percentage) of its system for its condition to be assessed each year;
3. 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;
4. Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection methods;
5. 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;
6. Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and

7. *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.*

Overview of City of Escondido Condition Assessment Procedures. The City of Escondido employs a multi-level series of procedures to assess and monitor conditions of sewer collection assets. This series of assessment procedures implements best practices and technologies available, and includes;

- A system of regularly scheduled field inspections, assessments and sewer cleanings.
- A system of regularly scheduled video inspections.
- Annual assessment of environmental risk factors to determine if any sewer segments warrant more frequent cleanings or inspections due to environmental risks.
- Scheduled (annual or more frequent) re-evaluation of sewer segment risk categories that is based on prior visual and video inspection records, spill history, the potential for grease blockage, the potential for root-damage, the age and life expectancy of sewer collection assets and environmental risk factors.
- Updating inspection, maintenance or CIP schedules to reflect assessment findings.

Scheduled Field Assessment and Sewer Cleaning. Throughout the year, the City maintains a scheduled series of (1) visual inspections of manholes and sewers mains, and (2) physical cleanings of sewer collection mains. Cleaning is conducted either using mechanical (e.g., rodding or bucketing) or hydraulic processes (e.g., jetting, flushing, balling or pigging). Inspections include visual inspections which may be supplemented by video inspections.

To support this ongoing inspection and sewer cleaning effort, the City maintains a list of “at risk” sewer collection assets that may be prone to grease blockages, root damage or failure. This “at risk” list is developed on the basis of (1) potential sources of damage/blockage, such as presence of upstream restaurants or presence of trees near the sewer mains, (2) past history of inspections, maintenance activities and input from field staff, and (3) environmental factors.

For sewer segments deemed to have an elevated risk of blockages, damage, pipe failure or environmental consequences, the City implements a quarterly cleaning and inspection schedule. This schedule results in 100 percent of the “at risk” sections being inspected and cleaned each year. Historical City inspection records and spill assessments have determined that this quarterly cleaning and inspection schedule for “at risk” segments is appropriate for addressing blockage concerns. More frequent cleanings of “at risk” segments are inefficient (e.g., cleaning an already clean pipe) as grease, debris and roots have not had time to amass to the point where cleaning is worthwhile. Less frequent cleanings may make it more difficult for crews to clean pipes and may elevate the potential for spills.

For sewer segments not deemed to represent an elevated risk of grease blockage, root damage, failure, or environmental consequence, the City maintains a once-every-two-years cleaning and maintenance schedule. In areas deemed to not present an elevated risk for blockage or failure, this results in 50 percent of the City’s collection system being cleaned each year. Historical City inspection records and spill assessments show that this biannual cleaning and inspection schedule for sewer segments not deemed to represent an elevated risk is appropriate for addressing blockage concerns. More frequent cleanings in sewer segments with no elevated risk are inefficient, and less frequent cleanings may make it more difficult for crews to clean pipes and may elevate the potential for spills.

Immediate or Emergency Assessments. As part of these scheduled sewer main cleanings and inspections, the City immediately schedules repair activities or emergency sewer assessments if the need is evident. Field inspection reports and notes filed by field personnel are reviewed by City supervisors (under the direction of the Wastewater Operations Manager and the Wastewater Collections Supervisor) on a monthly or more frequent basis to determine if any individual sewer segment:

- should be elevated to a higher risk category and a more frequent inspection/cleaning schedule due to (1) findings of field crews during inspections/cleanings, (2) past history of blockage or capacity issues, or (3) past history of other system deficiencies,
- warrants further immediate assessment to determine if the segment needs further repairs, rehabilitation or replacement,
- warrants priority elevation within the City's CIP schedule for sewer main rehabilitation or replacement, or
- represents a higher level of human or environmental consequences due to collapse, failure, blockage, capacity or other vulnerabilities.

In addition to the above monthly reviews of field inspection reports and records, City staff meet on an annual basis to assess if changes are required to the City's list of "at risk" sewer segments that warrant more frequent inspections and cleanings. This annual assessment of "at risk" segments is to consider prior visual and video inspection records, spill history, the potential for grease blockage, the potential for root-damage, the age and life expectancy of sewer collection assets and environmental risk factors.

Recordkeeping. The City maintains daily records of sewer main inspections and cleaning activities. The Wastewater Collections Supervisor is responsible for maintaining records of sewer inspection and cleaning activities. The Wastewater Collections Supervisor is also responsible for reporting findings and recommendations to the Assistant Director of Utilities/Wastewater for consideration and action. Results of annual City staff reviews of "at risk" sewer segments and environmental risk factors are to be memorialized in a memorandum that is to be kept on file and made available for regulator review upon request.

Regularly Scheduled Video Inspection. In addition to the scheduled series of inspection and cleanings, the City maintains a scheduled series of video inspections of sewer mains. For areas not deemed to present an elevated risk for blockage or failure, the City follows a schedule of video monitoring each non-risk sewer segment at a frequency ranging from 5 to 10 years. This 5 to 10 year frequency is common within Southern California sewer agencies of similar size to the City of Escondido. To support this frequency, the City schedules a minimum of 35 miles of video monitoring per year for sewer segments deemed to not represent an elevated risk of blockage or failure. This translates into a minimum of ten percent of the City's sewer collection system being video inspected each year.

Significantly more frequent video monitoring is conducted on sewer segments deemed to represent an elevated risk of sewer blockage or environmental consequence. As noted, regular sewer cleanings of such segments are conducted on a quarterly basis. Video monitoring may be utilized to supplement the quarterly inspection/cleaning operations. Scheduling of video monitoring for at-risk segments within the City's collection system varies depending on the results of the quarterly inspection/cleaning operations. In general, the City follows schedule for video monitoring (to supplement cleaning) for "at

risk” sewer mains at a frequency of 1-2 years (annual for highest risk segments and biannual for segments deemed to represent an elevated risk). The City of Escondido annual or biannual video frequency for “at risk” segments is consistent with video frequencies employed for “at risk” segments within other Southern California sewer agencies.

Sewer video monitoring is conducted by City personnel, but the City reserves the right to utilize outside monitoring assistance if required. When combined with the above-described biannual visual inspection and cleaning schedule, this video monitoring schedule provides the City with a robust system for warning of any irregularities in sewer collection system assets.

Recordkeeping and Responsibilities. The City maintains daily records of sewer main video inspections. The Wastewater Collections Supervisor is responsible for maintaining records of these video inspections and for reporting findings and recommendations to the Assistant Director of Utilities/Wastewater for consideration and action.

Annual Assessment of Environmental Risk Factors. A significant majority of the City’s sewer collection system exists within the Escondido basin which is bisected by Escondido Creek. Gravity sewers within this basin convey flows from the northern and southern portion of the Escondido Creek basin toward a major trunk sewer that parallels the creek and discharges to HARRF.

Escondido Creek is channelized throughout almost all of the City and the potential for erosion-related damage is minimal. Additionally, City crews have ready access to the channel, and the channelization (in times of lower creek flows) enhances the ability of City crews to respond to, contain and recover spilled flows. While these conditions may mitigate against spill impacts, the City designates facilities immediately adjacent to (or under) Escondido Creek as a higher priority facility because:

- Escondido Creek flows are virtually year-round, and the potential exists for spills that reach the creek channel to be carried downstream for greater distances before containment can be achieved.
- The lower 26-miles of Escondido Creek are listed as being Clean Water Act Section 303(d) impaired for indicator bacteria.
- The potential for sewer spills may be higher during extreme wet weather conditions when Escondido Creek flows would be highest and containment/recovery would be most difficult.

The Escondido basin is relatively flat, and the City does not have any sewer collection facilities that represent additional failure risk due to steep terrain. Additionally, past inspection results do not indicate any facilities that involve an increased risk due to high groundwater.

Outside the Escondido basin, the City of Escondido maintains a number of collection facilities that are tributary to Lake Hodges. Most collection facilities in this area are newer, have a history of excellent performance, and have a history of no problems being reported as part of scheduled inspection, cleaning and video evaluations. Additionally, since no City of Escondido sewer collection facilities are located immediately adjacent to the reservoir and the sewer collection facilities are readily accessible to City staff, distance provides an added element of safety in responding to facilities failures, containing spills and recovering spills. For this reason, City sewer collection facilities in areas tributary to Lake Hodges do not at present receive higher environmental priority than other portions of the City’s collection system.

The Assistant Director of Utilities/Wastewater (with support of the Wastewater Collections Supervisor) is responsible for annually assessing, re-evaluating and updating environmental risk factors and assigned risk categories. Factors to be considered as part of this annual assessment include:

- Information from prior sewer spill reports and “*postmortem*” assessments of past spill response actions.
- Information from scheduled or emergency maintenance/cleaning/inspection reports or video monitoring.
- Input received from field staff, regulators or the public.
- Results from annual SSMP audits.
- Updated information on site conditions that may increase the potential for sewer failure, such as the potential for soil erosion, earth movement or landslides, soil that presents an increased risk for corrosion, or a high groundwater table.
- Updated information on conditions that may represent the potential for increase environmental risk, such as updated 303(d) listings, updated environmental information, or changes in actual or designated beneficial uses.
- Updated information on how spill response actions may be adversely influenced by terrain, high groundwater, site access or public access.

As part of this assessment, City supervisors may modify the City’s list of “elevated risk” segments to incorporate additional sewer segments deemed to represent elevated risk on the basis of the above environmental criteria.

Recordkeeping and Responsibilities. The Assistant Director of Utilities/Wastewater is responsible for maintaining records related to the City’s assessment of environmental factors in prioritizing spill risks.

Condition Assessment Prioritization. City staff (under the direction of the Director of Utilities) are to annually review the inspection and cleaning assessments, video assessments, sewer main risk category assessments, environmental risk factors and other available information to determine if revision is required in:

- Designation of “at risk” sewer system segments (including designations based on environmental risk factors).
- Sewer inspection, maintenance or video monitoring priorities.
- Schedules for inspection, cleaning and maintenance of City sewer collection facilities.
- Schedules for video monitoring of sewer main integrity.
- CIP schedules for sewer system facilities replacement or rehabilitation.

Recordkeeping and Responsibilities. The Wastewater Collections Supervisor is responsible for maintaining and updating records regarding designated “at risk” sewer segments. The Wastewater Collections Supervisor is also responsible for updating schedules for inspecting and cleaning sewer segments, and schedules for video monitoring of sewer segments. The Assistant Director of Utilities/Wastewater is responsible for coordinating with the Director of Utilities to address recommended CIP revisions.

Climate Change Considerations. Initial assessment of the City's sewer collection system to climate change vulnerabilities show no near-term climate-change concerns. No City sewer collection facilities are at risk due to rising sea levels. Additionally, existing sewer pump stations and above-ground sewer collection facilities are adequately protected from flood and runoff challenges associated with current and near-term weather patterns. (See current Federal Emergency Management Agency flood maps at FEMA.gov/portal.) Further, existing sewer collection facilities are adequately protected from wildfires and power outages.

While the near-term climate-change risk to City of Escondido sewer collection infrastructure is presently minor, overall risks to City sewer collection facilities could change in future years. The City of Escondido *Climate Action Plan* (2021) notes that, while no significant changes in long-term annual average precipitation may occur, the number and intensity of extreme wet-weather events are likely to change. Such a change in extreme wet weather events can:

- Create direct risks due to expansion of flood zones.
- Create indirect risks as a result of increased interruptions of electrical power.
- Create direct risks associated with wildfires.
- Create indirect risks as a result of increased I&I and related impacts on sewer system capacity.

Section 8.2 presents procedures the City implements to address potential sewer system capacity issues that may be affected by climate change.

Recordkeeping and Responsibilities. The Director of Utilities is responsible for annually assessing State of California climate change projections and determining whether or when City-specific climate-change related studies are required to reassess direct or indirect vulnerabilities of existing or planned City of Escondido sewer collection facilities to changes in climate.

Annual Assessment of Adequacy of Existing Plans. The Utilities Director (with input from City staff) will annually determine if any of the above-described conditions warrant update or revision of:

- the City's sewer master plan,
- sewer flow monitoring or modeling studies,
- the City's SSMP, or
- the City's SERP.

Recordkeeping and Responsibilities. The Director of Utilities (with input from Utilities Department staff) is responsible for determining whether updates are required in the *City's Wastewater Master Plan*, sewer flow monitoring/modeling studies, SSMP or SERP. This determination shall be made on the basis of a review of:

- data from sewer inspection, cleaning and video monitoring,
- sewer spill reports, causes, response actions and environmental consequences,
- environmental risk factors,
- climate change considerations, and
- input from field staff, supervisory staff and regulators, environmental

Summary of Condition Assessment Procedures and Responsibilities. Table 8-1 (page 8-7) summarizes key procedures implemented by the City to comply with condition assessment provisions of SWRCB

Order No. WQ 2022-0103-DWQ. Table 8-1 also lists responsible parties and supporting documents that are generated in implementing the SSMP condition assessment procedures.

Table 8-1 Summary of Procedures, Responsible Parties and Required Documentation City of Escondido Sewer Collection System Condition Assessments		
Task/Procedure and Frequency	Responsible Party	Supporting Document
Maintain records of which sewer segments represent elevated risk	Wastewater Collections Supervisor	Updated list of "at risk" collection system segments
Monthly review of field inspection reports to assess changes in "at risk" sewer segments	Wastewater Collections Supervisor & Wastewater Operations Manager	Monthly log documenting that field reports have been reviewed and assessed
Quarterly inspecting/cleaning of "at risk" segments	Wastewater Collections Supervisor	Field reports of inspection/cleaning actions
Biannual inspection/cleaning of other segments		
Biannual video inspection of "at risk" segments	Wastewater Collections Supervisor	Reports of field video monitoring activities
5-10 year frequency video inspection of other segments		
Annual assessment of environmental risk factors	Assistant Director of Utilities/Wastewater	Annual memo that documents that environmental risk factors have been assessed
Annual assessment of adequacy of inspection, cleaning, video schedules	Assistant Director of Utilities/Wastewater	Annual memo that documents that this task has been completed
Annual assessment to determine if CIP revisions are required to address conditions, age or reliability of sewer collection assets	Director of Utilities	Annual memo that documents that this task has been completed

8.2 Capacity Assessment and Design Criteria

Capacity Assessment Requirements. SWRCB Order No. WQ 2022-0103-DWQ requires the following capacity assessment requirements for SSMPs:

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.*

In accordance with these requirements, the City of Escondido's sewer system is designed and constructed to provide adequate capacity to handle anticipated average and peak wastewater flows.

Master Plan Evaluation of Flows. The sewer service area tributary to HARRF consists of multiple topographic drainage areas. Projections for peak ultimate wastewater flows within each of the drainage areas has been developed within the City's *Wastewater Master Plan*. Peak ultimate wastewater flows are projected in the *Wastewater Master Plan* on the basis of buildout of zoned lands, observed wastewater flow generation rates, projected sewers connections (or conversions from onsite septic), and observed peak flow factors. Wastewater facilities needs, wastewater flow monitoring, and wastewater flow projections presented in the City's *Wastewater Master Plan* (last updated in 2012) remain valid and conservative, as:

- A significant majority of the sewer service area of Escondido was already built out in 2012.
- Zoning and designated land use densities have remained largely as they were in 2012.
- Unit flow generation values within the City's service area are trending lower than projected in 2012 due to increased water conservation.

Flow Estimation Criteria and Procedures. The City of Escondido maintains appropriate design criteria for estimating wastewater flows and designing and constructing wastewater collection facilities. Consistent with the procedural requirements of SWRCB Order No. WQ 2022-0103-DWQ, capacity modeling presented in the *Wastewater Master Plan* utilized input data from flow meters and manhole "smart covers" in which water level data are transferred via telemetry. Observed data from flow meters and "smart covers" were used to characterize flow within the City, as follows:

- Dry weather unit flow contribution of 55 gallons per capita per day (gpcd) for residents, apportioned by population with each sub-area of the HARRF tributary sewer system.
- Dry weather unit flow contribution of 38 gpcd for the employment population, apportioned by population within each sub-area of the sewer system tributary to HARRF.
- Diurnal flow variations based on observed data from each sub-area of the sewer system.
- I&I contributions of 4800 gallons per mile of sewer gravity main.
- Storm flow peaking factor of 2.17.

The flow projections presented in the *Wastewater Master Plan* remain valid and are consistent with the required procedures itemized in SWRCB Order NO. WQ 2022-0103-DWQ. The *Wastewater Master Plan* projected a HARRF inflow of more than 13.5 mgd for calendar year 2025. Actual 2025 HARRF flows have been trending approximately 10 percent below this value. This difference is largely attributed to water conservation measures implemented by residents and business and a slightly slower-than-projected development rate. Additionally, observed peak flows remain consistent with the peaking factors utilized in the 2012 *Wastewater Master Plan*.

With an additional margin of safety provided these factors, the City's 2012 *Wastewater Master Plan* continues to provide Utilities Department managers with a useful tool for assessing wastewater

collection facilities needs for ultimate projected wastewater flows. Consequently, no changes in the City's average and peak flow generation standards are required at this time.

Design Criteria and Procedures. The City's sewer design criteria and design procedures are in accordance with sewer slope, depth of flow, velocity and size criteria set forth in standard sewer design manuals and handbooks developed by professional organizations. The City's sewer design criteria are also in accordance with the normal standard of practice in use within Southern California. Additionally, the criteria have been vetted as part of sewer flow projections and modeling work conducted within the City's *Wastewater Master Plan*. Further, operations experience of the City's wastewater collection facilities does not indicate any deficiencies within the City's sewer sizing or design criteria.

Procedures to Identify Capacity Limitations. SWRCB Order No. WQ 2022-0103-DWQ requires that SSMPs 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 {sic} the major sources that contribute to the peak flows associated with sewer spills.*

Wastewater Master Plan Capacity Evaluations. As documented above, the City of Escondido *Wastewater Master Plan* remains valid for addressing hydraulic capacity of pump stations, force mains and sewer mains. Further, facility upgrades identified in the *Wastewater Master Plan* to address capacity deficiencies have been implemented. As a result, no existing City of Escondido collection facilities are "contributing to spills caused by hydraulic deficiency and/or limited capacity." Further, capacity analysis modeling presented in the *Wastewater Master Plan* indicate no near-term potential for such "hydraulic deficiencies" in sewer collection facilities. Consistent with the procedure requirements established in SWRCB Order No. WQ 2022-0103-DWQ, the *Wastewater Master Plan* compared existing capacities of each City of Escondido pump station, force main and gravity main with required capacities as determined on the basis of computer modeling of the City's existing collection system using input data that addressed:

- existing condition assessments,
- rated capacities of existing facilities,
- monitoring data from flow meter, and
- monitoring data from "smart cover" manhole covers.

In accordance with these assessment and capacity evaluation procedures, the *Wastewater Master Plan* identified 16 pipeline projects and three pump stations that required upgrades, replacement, or rehabilitation. The City is currently in the final phase of a three-phase plan to implement the projects recommended in the *Wastewater Master Plan*. As part of this program, the City has completed the all pump station projects recommended in the *Wastewater Master Plan*. In addition to addressing capacity issues, the pump station improvements ensure adequate facility redundancy in pumps, motors and electrical power.

The City has also completed all pipeline work addressed in the *Wastewater Master Plan* to ensure adequate hydraulic capacity of gravity mains and force mains. Additionally, the City has completed almost all pipeline upgrades recommended in the *Wastewater Master Plan* to address estimated life

cycles of pipe materials. The City has also implemented trunk sewer upgrades that have eliminated the need for several of the City's former wastewater lift stations.

During the past decade, the pipeline upgrade program presented in the *Wastewater Master Plan* has resulted in approximately 20 percent (over 70 miles) of the City's existing sewer pipe being replaced or rehabilitated. With these completed capital improvements, sewer main and pump station facilities within each of the tributary areas are capable of handling projected peak ultimate wastewater flows.

Procedures to Confirm or Update Capacity Assessments. While the capacity assessments and procedures presented in the *Wastewater Master Plan* remain valid, updated capacity assessments will be required at some point in the future. As documented in Section 8.1, one of the City's annual "condition assessment" tasks is to evaluate whether the following information presented in the *Wastewater Master Plan* remains valid:

- Flow monitoring results and flow estimating procedures.
- Computer model flow modeling and capacity assessments both under dry weather and storm conditions.
- Condition assessments of existing wastewater collection facilities.
- CIP recommendations related to facility conditions or capacity.

In assessing whether any of the above *Wastewater Master Plan* criteria require update, the Director of Utilities will consider the following:

- data from existing system condition assessments,
- data from existing system inspections,
- results of SSMP audits,
- data from prior spill reports,
- spill experience from nearby sewer agencies,
- input from field staff, regulators and the public,
- potential means of reducing I&I through locked manhole covers,
- potential means for reducing I&I by conducting additional smoke testing,
- climate-change considerations, including effects of climate change on I&I,
- potential effects of climate change on erosion and land stability in canyons and swales, and potential effects on above-ground and below-ground facilities, and
- necessary redundancy in pumping and storage capacities.

If the Director of Utilities determines that update of the City's sewer master plan is required, the updated master plan will address each of the above elements. Additionally, the capacity assessment presented in the updated master plan will include sewer system hydraulic modeling that will evaluate the capacity of each sewer collection asset. Flow data used within the model will be based on:

- updated sewer system flow monitoring data to characterize flows through each of the sub-areas that contribute to HARRF,
- assessments of infiltration into gravity mains and areas of high groundwater tables,
- assessments of storm-related infiltration into gravity mains in flood prone areas,
- assessments of storm-related inflow into gravity mains in flood prone areas, and

- capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events.

Recordkeeping and Responsibilities. The Director of Utilities (with assistance from the Assistant Director of Utilities/Wastewater) is responsible for annually determining whether the capacity assessments presented in the *Wastewater Master Plan* remain valid. If an update is required, the Director of Utilities (or his/her designee) is responsible for supervising the effort to update the master plan and capacity assessment criteria and procedures.

Procedures for I&I Assessment. As noted above, I&I can significantly affect both dry weather and wet-weather sewer flows. Inflow to the sewer system is the more significant factor that influences peak flows, as inflow volumes can be both instantaneous and high, resulting in short-term peak flows that are substantially higher than average flows. Recognizing this effect, the City has for the past two decades embarked on an I&I reduction program that involves smoke testing, site inspection and public education. Through this effort, the City has identified and eliminated numerous illegal connections to the sewer system from parking lots, patios and roofs.

The City also determined that manholes can be a significant factor in influencing inflow, particularly in poorly drained or low-lying areas where members of the public may illegally open manhole covers to drain flood waters and protect their property. To address this issue, the City has installed sealed and locking manhole covers in low-elevation areas where short-term flooding has historically occurred.

While the combination of smoke testing and sealed/locking manhole covers has reduced overall I&I within the City's collection system, the City's ongoing I&I reduction program includes:

- Conducting inspection of manholes and video monitoring of gravity sewers to identify areas of potential I&I.
- A smoke testing program to identify illegal sewer connections.
- Inspecting and (where required) replacing conventional manhole covers with sealed and/or locked covers.
- Installing epoxy lining in manholes where I&I has been observed.
- Implementing sewer main improvements, such as installing cured-in-place pipelines in sewer mains where I&I has been observed.
- Conducting inspections of the City's more than 1600 commercial or industrial sites.
- Installing rain valves at facilities with outdoor sewer drains to prevent surface runoff from entering the sanitary sewer system during precipitation events.
- Educating the public on what should not be connected to the sanitary sewer system.

Recordkeeping and Responsibilities. The Director of Utilities (or designee) is responsible for annually assessing I&I information and reports and determining whether (1) revisions in the City's I&I program are warranted and (2) additional I&I monitoring or studies are required.

Capacity Assessment Procedures for Escondido Land Outfall. As noted, the above capacity assessments demonstrate that the City has provided adequate capacity in pump stations, force mains and gravity mains that comprise the sanitary sewer collection system tributary to HARRF.

Downstream from HARRF, however, capacity limitations exist within the Escondido Land Outfall (ELO), which conveys treated HARRF effluent to the San Elijo Ocean Outfall (SEOO). The ELO is not part of the sanitary sewer collection system tributary to HARRF that is regulated under SWRCB Order No. WQ2022-0103-DWQ. As a result, releases of treated effluent from the ELO are not reported as “spills” under Order No. WQ 2022-0103-DWQ. It should be noted, however, that the City has implemented a number of improvements over the past decade to ensure that ELO capacity is not exceeded. These improvements include:

- Increasing wastewater storage capacity at HARRF.
- Expanding storage capacity within the City’s non-potable reuse system.
- Implementing a program of reducing volumes of wastewater and recycled water stored in the City’s non-potable reservoirs to provide additional storage capacity during wet weather events.
- Diverting a portion of the HARRF effluent flows to available onsite or offsite storage locations during wet weather events.
- Implementing the City of Escondido Membrane Filtration/Reverse Osmosis (MFRO) facility and associated improvements which allows the diversion of up to 2 mgd of HARRF recycled water to the MFRO facility during wet weather events.
- Maintaining the ability to direct approximately 1 mgd of HARRF recycled water to the cooling towers of the 500 megawatt Palomar Energy Center during wet weather events.
- Coordinating with the City of San Diego to regulate discharges of the City of San Diego Pump Station 77 to HARRF under wet weather events.
- Connecting the HARRF SCADA system with the San Elijo Joint Powers Authority (SEJPA) San Elijo Water Campus (SEWC) to share flow and pressure data and coordinate City and SEJPA discharges to the SEOO.
- Establishing conservative SCADA pressure monitoring set points to provide SEJPA and City staff with increased lead time in responding to ELO/SEOO flow and pressure issues.
- Coordinating with the SEJPA to remain alert to predicted weather conditions and develop and implement a coordinated “game plan” of proposed actions to monitor and deal with projected wet weather flows.
- Coordinating with SEJPA to maintain hourly telephone communications during the precipitation event to review conditions and plan for the upcoming hours.

Under the direction of the Director of Utilities, City staff continue to explore options (including increasing wet-weather storage capacities and increasing wet-weather uses for HARRF recycled water) for managing wet-weather flows and ensuring that HARRF discharge flows to the ELO remain within the ELO allowable hydraulic capacity of 21.4 mgd.

Summary of Capacity Assessment Procedures and Responsibilities. Table 8-2 (page 8-13) summarizes key procedures implemented by the City to comply with capacity assessment provisions of SWRCB Order No. WQ 2022-0103-DWQ. Table 8-2 also lists responsible parties and supporting documents to be generated in implementing the SSMP capacity assessment procedures.

8.3 Prioritization of Corrective Action

As noted, current City of Escondido wastewater flows are tracking close to or slightly below flows projected in the *Wastewater Master Plan*. In conjunction with collection system upgrades (including equipment upgrades at lift stations and replacement of several key sewer mains), all capacity-related enhancement recommendations presented in the *Wastewater Master Plan* have been implemented. Trunk sewers and sewer mains within the HARRF service area have adequate capacity to handle projected ultimate peak flows, and all pump stations are capable of handling projected peak flows with one pump out of service. No additional capacity enhancement measures are required in order to meet projected ultimate peak flow demands

Table 8-2 Summary of Procedures, Responsible Parties and Required Documentation City of Escondido Sewer Collection System Capacity Assessments		
Task/Procedure and Frequency	Responsible Party	Supporting Document
Monthly review of field inspection reports to assess changes in hydraulic load conditions and adequacy of existing capacities	Wastewater Collections Supervisor & Wastewater Operations Manager	Monthly log documenting that field reports have been reviewed and assessed
Annual assessment of adequacy of <i>Wastewater Master Plan</i> flow projections and modeling	Director of Utilities (or designee)	Annual memo documenting that flow projections and <i>Wastewater Master Plan</i> flow modeling remain representative
Annual assessment to determine if climate change effects warrant reanalysis of flows and capacity	Director of Utilities (or designee)	Annual memo documenting that climate change effects have been considered in addressing system capacity
Annual assessment of adequacy of SSMP and <i>Wastewater Master Plan</i> to properly address flows and capacity issues ^A	Director of Utilities (or designee)	Annual memo documenting that existing plans have been reviewed and approved for continued use
Annual review of I&I prevention activities and progress	Director of Utilities (or designee)	Annual memo documenting I&I activities and I&I recommendations for the upcoming year
Annual determination if I&I program revisions or additional I&I monitoring/studies are required		
Annual determination if CIP revisions are required to address capacity issues	Director of Utilities	Annual memo that documents that this task has been completed
Table 8-2 Footnotes: A While the ELO is not part of the City of Escondido sanitary sewer system regulated under SWRCB Order No. WQ 2022-0103-DWQ, the Director of Utilities (or designee) annually reviews ELO flows and performance and determines if additional studies or actions are required to address ELO capacity issues.		

As noted above, the City has implemented condition assessments and capacity evaluation procedures consistent with requirements of Order No. WQ 2022-0103-DWQ. As part of the condition and capacity assessments, Utilities Department staff (under the direction of the Director of Utilities) annually assesses capacity and rehabilitation/replacement and maintenance needs and priorities. Utilities Department managers also continually assess the potential for changed conditions (e.g. changes in wastewater flows, new development or sewer users, peak flow timing, infiltration and inflow trends) that may require re-evaluation of system flows and facilities capacity needs.

If these ongoing evaluations indicate the potential for peak wastewater flows in excess of those addressed in the existing master plan, Utilities Department management will take actions to update the master plan and update facilities needs to reflect the changes in wastewater flow trends.

Rehabilitation and Replacement Plan. Utilities Department supervisors identify and prioritize long-term facilities improvements to lessen the potential for spills. As part of this prioritization process, Utilities Department management review existing facilities capacities and performance, existing wastewater flows and flow projections, master planning documents, and input from field personnel. In assessing replacement and rehabilitation needs and priorities, the Utilities Department management considers:

- prior master planning analyses and recommendations,
- the age of existing structures and facilities,
- the rated capacity of existing facilities,
- the age, condition, and anticipated life-span of equipment and controls,
- observed peak flows and projected peak flows,
- anticipated future capacity needs,
- construction materials used in the existing facilities and the anticipated longevity of the materials,
- the observed internal and external condition of sewer collection facilities,
- soil conditions (including corrosion potential or soil movement potential),
- the potential for erosion,
- access considerations, materials availability, and the potential difficulty of repair in the event of failure of the facility,
- previous operations and maintenance problems, past operating history, or past failures or breaks,
- reserve capacity and equipment and existing reliability provisions, and
- the location of facilities, watercourses that could be affected by failure and potential for spill-related impacts.

8.4 Capital Improvement Program (CIP)

CIP Evaluations. The City develops and annually updates a Capital Improvements Program (CIP) to plan and budget for capital improvement projects in the upcoming five years. As part of the annual CIP review, Utilities Department managers identify and prioritize long-term facilities improvements, including sewer main and lift station improvements. These improvements include upgrades to address condition issues (e.g., condition, age and reliability) and upgrades to address capacity issues (e.g., changes in flows or changes in capacity ratings). On the basis of these evaluations, Utilities Department management each year:

- identifies and evaluates new facilities needs, rehabilitation needs, and facility replacement needs,
- reevaluates CIP needs identified or planned during prior years, and
- develops an updated prioritization list and recommended schedule of CIP projects for the upcoming year and the subsequent five-year planning window.

CIP recommendations developed by the Utilities Department are submitted by the Utilities Director to the City Manager for review and approval prior to presentation to the City Council. The approved CIP

is used by the City in establishing budget and funding needs for the City's wastewater operations. CIP costs include costs for planning, design, construction, and construction inspection.

Because existing wastewater collection facilities are sized to handle peak ultimate wastewater flows, no long-term or short-term capacity-related capital improvements within the City's sewer collection system are required. Instead, the City's CIP in recent years has focused on facilities rehabilitation and maintenance and equipment replacement or repair.

Project Schedules and Funding for Wastewater-Related CIP Projects. The current CIP develops budgets for projects to be initiated during the planning period 2025-2029. The City's 2025/29 CIP is available online at Escondido.gov/187/Capital-Improvement-Program.

Within the 2025/29 CIP, wastewater and stormwater-related projects include:

- Stormwater infrastructure cleaning and trash screens (\$10.66 million).
- HARRF digester maintenance, including inspection, grit and sediment removal (\$3.51 million).
- Wastewater lift station maintenance, including repair/replacement of pumps, motors, control systems at each of the City's sewer collection wastewater stations (\$1.12 million).
- Manhole rehabilitation, including lining, shelf repair/replacement and ring assembly raising (\$1.61 million).

Funding for each of these projects for 2025-2029 is provided through the City's Wastewater Utilities Capital Project Fund.

Facilities Adequacy. While ongoing maintenance of City wastewater collection facilities will be required (as described in the 2025/29 CIP), all major trunk lines, all tributary trunk lines, and all pump stations within each of the City's tributary drainage areas maintain adequate capacity to handle peak ultimate wastewater flows. With the completed facilities improvements, no capacity-related shortcomings currently exist within the City's collection system. As noted, the City maintains a margin of safety in assuring adequate capacity, as observed wastewater flows continue to trend at or slightly lower than flows projected within the City's *Wastewater Master Plan*.

9. MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

***Overview** - The City of Escondido's SSMP complies with the monitoring and measurement provisions of SWRCB Order No. WQ 2022-0103-DWQ. The City monitors a number of performance parameters in order to assess the effectiveness of the SSMP. From this monitoring, Utilities Department staff identify causes of sewer spills, and evaluate the effectiveness of spill detection and response procedures. Results from the performance monitoring are also used to determine how the SSMP elements may be modified to limit the potential for future spills.*

Requirements. Provision 9 of Attachment D to SWRCB Order No. WQ 2022-0103-DWQ requires that the SSMP include an adaptive management section that addresses the effectiveness of the SSMP and identifies means for SSMP improvement, including:

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

SSMP Monitoring Program. The City of Escondido's SSMP complies with monitoring and measurement provisions of SWRCB Order No. WQ 2022-0103-DWQ, and utilizes the collected monitoring information to, in part:

- measure the effectiveness of sewer spill prevention actions,
- assess SSMP prioritization needs,
- identify the sources/causes of sewer spills,
- evaluate preventative maintenance needs,
- evaluate CIP and rehabilitation/replacement needs,
- evaluate spill detection and response needs, and
- determine how SSMP elements may be modified to further limit the potential for the occurrence of sewer spills.

The Wastewater Division of the Utilities Department maintains records and reports of all sewer spills that occur within the City's service area, including information documenting:

- the spill location,
- the cause or causes of the spill,
- the amount of sewage spilled and amount contained/recovered,
- means of spill detection,
- duration of the spill,
- response actions and cleanup and restoration actions,
- reports made to regulatory authorities, and
- measures implemented to prevent recurrence.

The Utilities Department maintains records of all spill reports filed with the SWRCB and Regional Water Quality Control Board (RWQCB), along with original monitoring instrument recordings, service call records, work orders, and spill response actions. The Utilities Department also maintains activity records that document performance and implementation measures, including preventative inspections and maintenance of pump stations, inspections and cleaning of sewer mains, and inspections and maintenance of sewer collection facilities. As part of these activity records, the City maintains records on:

- inspection findings,
- preventative maintenance or repair actions taken,
- field crew notes and recommendations,
- pump station logs,
- future inspection needs and preventative maintenance actions required,
- customer complaints/notifications and City responses, and
- needs for additional information, testing, analysis or data management.

Record Keeping Responsibilities. Under the direction of the Assistant Director of Utilities/Wastewater, the Wastewater Operations Manager is responsible for maintaining records of sewer spills and sewer main inspection, repair, and maintenance. The Wastewater Maintenance Manager is responsible for maintaining records on pump station operations, inspections, repair, and maintenance.

Monitoring Performance Parameters. Table 9-1 (page 9-3) summarizes monitoring performance parameters used to assess SSMP effectiveness. In assessing SSMP effectiveness, Utilities Department managers evaluate trends in the number, location, cause, and the volume of spills. Other monitoring performance parameters assess the effectiveness of spill detection and response actions. In total, the monitoring parameters allow the City to evaluate performance and improvement needs relative to:

- regulation of sewer discharges, including control of fats, oils and grease,
- operation and maintenance,
- design and performance provisions,
- emergency response actions,
- system capacity,
- infiltration/inflow prevention, and/or
- rehabilitation/replacement needs for facilities and equipment.

**Table 9-1
 Monitoring Performance Parameters and Objectives**

Category	Monitoring Parameter	Objective of Monitoring		
		Assess Effectiveness of SSMP Elements	Assess Causes of Sewer Spills	Assess Effectiveness of Spill Responses
Number of Events	Total number of spills	●		
	Number of wet weather spills	●	●	
	Number of dry weather spills	●	●	
	Number of spills by cause	●	●	
	Number of spills in designated FOG-risk areas	●	●	
	Number of spills in designated root-risk areas	●	●	
	Number of spills from pump stations	●	●	
Spill Volumes	Volume spilled by spills per year	●		
	Volume spilled during wet weather	●	●	
	Volume spilled during dry weather	●	●	
Computed Parameters	Average volume spilled per spill	●		
	Percent of spill volume contained and recovered	●		●
	Wet weather spills vs. precipitation ^A	●	●	
	Number of spills vs. time of year ^A	●	●	
	Number of spills vs. frequency of inspection ^A	●	●	
	Number of spills vs. frequency of cleaning ^A	●	●	
	Number of spills vs. diameter of sewer main ^A	●	●	
	Number of spills vs. sewer main slope ^A	●	●	
Detection and Response	Contained and recovered volumes of spill flows	●		●
	Average time from spill to detection	●		●
	Average time from detection to response team arrival	●		●
	Average time from arrival to spill termination	●		●
System Improvements	Miles of sewer mains cleaned annually	●		
	Miles of sewer mains video inspected annually	●		
	Percent of sewer mains (by length) cleaned annually	●		
	Miles of sewer lines rehabbed/replaced annually	●		

Table 9-1 Footnotes:

A Provided that a sufficient quantity of meaningful data are available to plot the number of spills vs. listed parameters.

Evaluation Schedule. As set forth in Element 10 of this SSMP, triannual audits will be conducted to evaluate SSMP effectiveness. Because a relatively low number of sewer spills occur within the City, a sufficiently robust database may not be available as part of the triannual audits to allow for formal statistical evaluation or correlation of spill data. In this event, Utilities Department managers will review available data to determine if any spill trends are identifiable and will determine whether modification of SSMP elements are required.

Assessing Needs for SSMP Modifications. The Assistant Director of Utilities/Wastewater, with support from Wastewater Division management staff, is responsible for evaluating spill monitoring and performance parameters to assess SSMP effectiveness, identify spill sources and trends, and identify required changes in spill preventative measures, and required SSMP modifications. The Assistant Director of Utilities/Wastewater, in consultation with the Director of Utilities, will also be responsible for determining if outside contractor assistance is required to support the evaluation of SSMP monitoring performance parameters.

Evaluation of Preventative Maintenance Needs. Spill monitoring data will be used to identify required improvements in preventative inspection, cleaning and maintenance schedules. Table 9-2 (page 9-5) summarizes available preventative responses should the City's SSMP monitoring indicate potential spill trends related to oil and grease, vandalism, pump station operation, and other causes.

Evaluation of Response/Detection Needs. Spill monitoring data may also be used to assess the effectiveness of spill detection and response. The Assistant Director of Utilities/Wastewater (or his/her designee) will assess monitoring parameters to evaluate the potential for improvement in spill detection or response, and to determine which strategies or improvements may be most effective in improving spill detection or response.

Table 9-2 Potential Responses to Observed Monitoring Trends	
Potential Monitoring Trend	Potential Responses to Observed Monitoring Trends
Spills occur during wet weather	<ul style="list-style-type: none"> • Increase Infiltration and inflow testing and enforcement • Accelerate manhole seal replacement program • Revise video inspection frequencies • Reassess at-risk areas for inflow and infiltration • Revise sewer design flow or peaking factor criteria • Revise CIP and rehabilitation/replacement schedules • Update SSMP and/or spill prevention procedures or actions
Spills caused by FOG	<ul style="list-style-type: none"> • Increase inspection/regulation of FOG dischargers • Revise FOG control procedures or regulations • Revise FOG-risk designations of sewer mains • Revise sewer main cleaning frequencies • Revise sewer main inspection frequencies • Update SSMP and spill preventative procedures
Spills caused by roots	<ul style="list-style-type: none"> • Revise root-risk designations of sewer mains • Revise sewer main cleaning frequencies • Revise sewer main inspection frequencies • Update SSMP and/or spill prevention procedures or actions
Spills caused by vandalism	<ul style="list-style-type: none"> • Upgrade manhole security • Upgrade pump station security
Spills at pump stations	<ul style="list-style-type: none"> • Revise pump station inspection frequencies or procedures • Upgrade SCADA/alarm/warning equipment and systems • Improve operator training • Upgrade pump station security • Increase parts inventory and/or parts accessibility • Upgrade emergency generation equipment • Update SSMP and/or spill prevention procedures or actions • Revise CIP and rehabilitation/replacement schedule
Spills caused by debris	<ul style="list-style-type: none"> • Revise sewer main cleaning frequencies • Revise sewer main inspection frequencies • Update SSMP and/or spill prevention procedures or actions
Spills caused by pipe failure	<ul style="list-style-type: none"> • Revise sewer main inspection frequencies • Revise CIP and rehabilitation/replacement schedule
Inadequate Detection or Response of spills	<ul style="list-style-type: none"> • Modify <i>Spill Emergency Response Plan</i> provisions • Upgrade detection equipment or procedures • Modify staffing or staff on-call requirements • Upgrade response equipment • Improve response training • Increase interagency coordination and/or resource sharing

10. SSMP PROGRAM AUDITS

Overview - The City of Escondido Utilities Department will conduct audits of the SSMP a minimum of every three years. The audit will assess the effectiveness of the SSMP and assess compliance with SWRCB Order No. WQ 2022-0103-DWQ. The audit will also identify any SSMP deficiencies or recommended revisions, and will present a plan and schedule for correcting the deficiencies.

Audit Requirements and Schedule. SWRCB Order No. WQ 2022-0103-DWQ requires periodic audits of the SSMP to assess program effectiveness. Audits are to be conducted every three years, and must be submitted to the CIWQS database within six months of the end of each three-year audit period.

Audit Implementation. The Assistant Director of Utilities/Wastewater is responsible for ensuring that the SSMP audit is conducted at a minimum three-year interval in accordance with the requirements of SWRCB Order No. WQ 2022-0103-DWQ. In conducting the audit, the Assistant Director of Utilities/Wastewater will be responsible for:

- Assigning responsibilities for conducting the internal audit.
- Determining if outside expertise or contractor support is required for leading or supporting the audit effort.
- Maintaining required records of the audit, including names and contact information on those conducting the audit, complete audit documents and findings, and required follow-up actions.
- Ensuring the audit incorporates comments and contributions from both Utilities Department management and non-management staff.
- Coordinating with other City departments.
- Developing and approving a schedule for implementing corrective measures identified within the audit.
- Submitting the required audit report into CIWQS.
- Implementing the noted corrective measures.
- Incorporating the audit results in staff training.

The Assistant Director of Utilities/Wastewater and his/her designated staff will be responsible for coordinating and cooperating with the selected auditor to:

- implement the audit process described in Table 10-1 (page 10-3), and
- ensure that the auditor is provided with all relevant sewer spill information.

Audit Report. Table 10-1 (paged 10-3) summarizes SSMP checklist items to be addressed as part of preparing audit report that will evaluate the effectiveness of the SSMP. To address the scope presented in Table 10-1, each audit will include:

- Collecting and reviewing documents and data related to sewer spills, spill prevention and spill responses.
- Collecting and reviewing documents on SSMP implementation and operations.
- Conducting interviews with all levels of staff within the Utilities Department.

On the basis of these reviews and interviews, the audit report will be prepared in accordance with requirements of SWRCB Order No. WQ 2022-0103-DWQ and will include:

- An evaluation of the implementation and effectiveness of the SSMP in preventing spills.
- An evaluation of compliance with requirements of SWRCB Order No. WQ 2022-0103-DWQ.
- Identification of SSMP deficiencies in addressing ongoing or recurring spills.
- Identification of SSMP modifications required to address the deficiencies.

The audit report will identify any required changes in City of Escondido regulations, policies, procedures, facilities, or operations required to correct any noted deficiencies. The audit report will also develop a schedule for implementing the corrective strategies or measures. As part of this schedule, the audit report will identify the process for formal City review and approval of any such corrective strategies.

Audit Review and Submittal. Once completed, a draft audit report will be distributed to the Director of Utilities, Assistant Director of Utilities/Wastewater, and pertinent Utilities Department and Wastewater Division staff for review. After receipt of comments, a final version of the audit report will be prepared for uploading into CIWQS.

Where applicable, findings of the audit will be considered by the Director of Utilities and incorporated into the City's budgetary process evaluations and CIP assessments.

**Table 10-1
 SSMP Audit Checklist**

SSMP Element	Audit Checklist Item
Legal Authority	<ul style="list-style-type: none"> • Identify any changes in legal authority that has occurred since adoption of the SSMP • Review any past legal challenges to the SSMP or to the City's SSMP enforcement actions • Assess need for additional FOG-related legal authority • Identify legal authority deficiencies and recommended corrective actions
Operations and Maintenance	<ul style="list-style-type: none"> • Identify any significant O&M changes that have occurred since adoption of the SSMP • Evaluate the City's program for identifying FOG- and root-related spill threats • Evaluate adequacy of cleaning/inspection program • Evaluate adequacy of pump station maintenance program • Evaluate need for update of spill preventative measures • Identify O&M deficiencies and recommended corrective actions
Design and Performance Standards	<ul style="list-style-type: none"> • Identify changes in design/performance standards that have occurred since adoption of the SSMP • Evaluate need for update of design specifications and standards • Evaluate need for update of means for estimating dry weather flows and peak flows • Identify design/performance deficiencies and recommended corrective actions
Emergency Response	<ul style="list-style-type: none"> • Evaluate adequacy of the City's spill database, spill reporting, and spill response actions • Review spill records, spill reports, and spill response times and procedures • Evaluate the need for update of the City's <i>Spill Emergency Response Plan</i> • Identify emergency response deficiencies and recommended corrective actions
FOG and Spill Prevention	<ul style="list-style-type: none"> • Review spill records and FOG-related spills and identify FOG control actions implemented by the City since adoption of the SSMP • Evaluate grease interceptor enforcement actions and assess consistency in application of grease interceptor requirements • Assess need for discharge permits for major FOG dischargers • Assess effectiveness of FOG communications program • Identify FOG program deficiencies and recommended corrective actions • Confirm that the City maintains up-to-date records of sewer segments with elevated risk • Confirm that environmental risk factors have been considered in determining "at risk" sewer segments • Confirm that the City reviews field reports to assess needs for changes in "at risk" sewer segments • Assess adequacy City's schedule for sewer inspection, cleaning and video inspection • Confirm that the CIP process has addressed conditions, age and reliability of sewer collection system assets
System Evaluation and Capacity Assurance	<ul style="list-style-type: none"> • Identify any changes in wastewater planning/flows that that occurred since adoption of the SSMP • Identify capacity-related CIP projects that have been implemented since adoption of the SSMP • Confirm that the City has assessed the adequacy of the exiting <i>Wastewater Master Plan</i> flow analysis and modeling for addressing capacity needs • Confirm that the City has evaluated whether climate change projections have been assessed to relative to sewer system flows and capacity • Review I&I preventative activities and progress and confirm that the City has evaluated whether I&I program revisions or additional I&I monitoring studies are required • Confirm that the City has evaluated whether additional study is required to address ELO capacity issues • Identify capacity evaluation and CIP deficiencies and recommended corrective actions.
Monitoring and Data Measurement	<ul style="list-style-type: none"> • Identify changes in document control procedures implemented since adoption of the SSMP • Evaluate adequacy and accessibility of spill records, cleaning records, and inspection records • Evaluate the City's process for identifying FOG- and root-related sewer line blockage threats • Evaluate the City's process for monitoring and assessing life cycles, repair needs and rehabilitation needs for equipment and facilities • Statistically evaluate and analyze spill monitoring performance parameters • Identify monitoring, measurement, and data management deficiencies and recommended corrective actions
Communications	<ul style="list-style-type: none"> • Identify any significant changes in the communications program that have occurred since the SSMP was adopted • Review public input received • Assess public information accessibility and public review opportunities public • Identify communications program deficiencies and recommended corrective actions
Training	<ul style="list-style-type: none"> • Evaluate adequacy of training records • Evaluate adequacy of SSMP-related staff training program

11. COMMUNICATION PROGRAM

Overview - *The City of Escondido complies with SSMP communication requirements of SWRCB Order No. WQ 2022-0103-DWQ. The Utilities Department coordinates with the City's Communication Department to inform the public of any spill that (1) closes public areas or (2) may reach a source of drinking water. This communication may include postings on the City's website, social media postings, and coordination with local news media outlets. The City's SSMP is posted on the City's website and public input is solicited. Additionally, public input on SSMP compliance or spill issues can be received by the City Council at any time at the public forum session at City Council meetings.*

Requirements. Provision 11 of Attachment D to SWRCB Order No. WQ 2022-0103-DWQ requires sewer agencies to implement a communication program that includes public notification of spills that result in the closure of public areas or spills that enter a source of drinking water.

Communications Program. The City of Escondido maintains a Communications Department which reports to the City Manager. In addition to maintaining the City's website and a social media communications, the Communications Department maintains relations with local news media. In the event a spill closes public areas or reaches sensitive water bodies (including sources of drinking water), the Director of Utilities shall coordinate with the City Manager and Communications Department to make the public notifications required under SWRCB Order No. WQ 2022-0103-DWQ. These notifications will include postings on the City's website, social media postings, and reports to the news media.

Public Education Programs. As discussed in Element 7 of this SSMP, the City maintains a number of communication efforts directed toward spill prevention and reporting, oil and grease control, sewer use requirements, and the handling of hazardous materials.

Communications with Adjoining Agencies. The City routinely communicates with adjoining agencies including the City of San Diego and San Elijo Joint Powers Authority regarding spill prevention, pretreatment compliance, and other aspects of NPDES-regulated activities associated with elements of this SSMP.

SSMP Availability. The City maintains a current copy of its SSMP at the City's website for public review and comment.

Public Forum Opportunities. The public and interested stakeholders have the opportunity to address the City Council and comment on any sewer spill, wastewater system issue, or SSMP issue at any City Council meeting through the Council's public forum, which is held during each agendaized and publicly noticed City Council meeting.

APPENDIX A

City of Escondido Spill Emergency Response Plan



City of Escondido Utilities Department

SPILL EMERGENCY RESPONSE PLAN



Updated July 2025

CITY OF ESCONDIDO

SPILL EMERGENCY RESPONSE PLAN

City of Escondido Utilities Department



Management Approval

Approved:

**Sean McGlynn
City Manager**

Date

Approved:

**Kyle Morgan
Interim Director of Utilities**

Date



July 2025

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List of Abbreviations

CIWQS	California Integrated Water Quality System (online database)
ELO	Escondido Land Outfall
GPS	global positioning system,
HARRF	Hale Avenue Resource Recovery Facility
I&I	Inflow and infiltration
MS4	Municipal Separate Storm Sewer System
NA	not applicable
NPDES	National Pollutant Discharge Elimination System (discharge permit)
OES	State of California Office of Emergency Services
PLSD	private lateral sewer discharges
RWQCB	California Regional Water Quality Control Board, San Diego Region
SCADA	supervisory control and data acquisition
San Diego County EHS	County of San Diego Environmental Health Services
SERP	Spill Emergency Response Plan
SSMP	Sewer System Management Plan
SWRCB	State Water Resources Control Board

Chapter 1

INTRODUCTION

1.1 Regulation of Sewer System Overflows and Spills

Overview City of Escondido Wastewater Operations. The City of Escondido sanitary sewer collection system covers a significant majority of the incorporated area of the City of Escondido. The collection system includes approximately 380 miles of sewer mains and 11 wastewater pumping stations. The City's Hale Avenue Resource Recovery Facility (HARRF) serves as the terminal treatment facility for the collection system. HARRF treats all incoming flows to produce secondary effluent, and a portion of the secondary effluent is directed to onsite tertiary treatment facilities where disinfected tertiary recycled water is produced for distribution to recycled water (non-potable) customers. Excess HARRF secondary effluent is discharged to the 14-mile-long Escondido Land Outfall (ELO) for conveyance to the San Elijo Ocean Outfall. In addition to operating and maintaining the City's wastewater collection system, the Wastewater Division of the Utilities Department operates and maintains the ELO.

Sewer System Management Requirements. City of Escondido wastewater collection operations are regulated under State Water Resources Control Board (SWRCB) Order No. WQ 2022-0103-DWQ.¹ Order No. WQ 2022-0103-DWQ establishes state-wide requirements governing sewer collection system operations, management, performance, reporting and notification. The requirements of Order No. WQ 2022-0103-DWQ are directed toward minimizing the potential for spills from sewer facilities. Order No. WQ 2022-0103-DWQ defines a sewer system spill (also known as a sanitary sewer overflow) as a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow, operational failure, or infrastructure failure.² Order No. WQ 2022-0103-DWQ prohibits spills, requires the reporting of spills through a statewide electronic³ reporting system, and requires sewer agencies to maintain and update Sewer System Management Plans (SSMPs).

In accordance with SWRCB requirements, the City of Escondido maintains an SSMP that details the systems, operations, and procedures the City has implemented to prevent spills from the City's sewer collection facilities. The City's current SSMP was updated in 2025.⁴

1 SWRCB Order No. WQ 2022-0103-DWQ was adopted by the SWRCB on December 6, 2022 and became effective on June 5, 2023. Order No. WQ 2022-0103-DWQ supersedes SWRCB Order WQ 2006-0003-DWQ (as amended by Order No. WQ 2013-0058-EXEC) which had previously regulated spills from sanitary sewer systems.

2 Definition of a spill is presented within Attachment A to Order No. WQ 2022-0103-DWQ. Exfiltration of sewage is not considered a spill under Order No. WQ 2022-0103-DWQ, provided that the exfiltrated sewage remains subsurface and does not reach a surface water.

3 California Integrated Water Quality System (CIWQS).

4 SWRCB Order No. WQ 2022-0103-DWQ requires SSMPs for cities larger than a population of 100,000 to be updated by May 2, 2025, and updated thereafter on a six-year basis.

Spill Emergency Response Plan (SERP) Requirements. Order No. WQ 2022-0103-DWQ requires the City to maintain and update a Spill Emergency Response Plan (SERP) that details measures to respond to spills in a timely manner, protect public health and the environment and to terminate, intercept, recover, and clean up sewage spills. Order No. WQ 2022-0103-DWQ requires that SERPs identify sewer agency measures and 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 SWRCB Order No. WQ 2022-0103-DWQ, state laws and regulations, and applicable RWQCB Orders.
- Ensure that appropriate staff and contractors implement the SERP and that responding spill staff and contractors are appropriately trained.
- Address emergency system operations, traffic control and other necessary response activities.
- Contain the 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 storm 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.

1.2 Purpose of Spill Emergency Response Plan

This SERP is implemented by the City of Escondido to ensure compliance with provisions of SWRCB Order No. WQ 2022-0103-DWQ.⁵ To this end, this updated SERP documents emergency measures, policies, procedures, and plans implemented by the City to respond to spills or threatened spills and to minimize impacts resulting from the spills. The updated *Spill Emergency Response Plan* presented herein supersedes the City's previous spill emergency response plan, and documents policies and procedures used by City of Escondido Utilities Department staff to:

- Detect sewer system spills or overflows.
- Assess the cause, source, and nature of the spills.

⁵ This 2023 version of the City's SERP is developed in accordance with requirements of SWRCB Order No. WQ 2022-0103-DWQ and supersedes the City's prior response plan which was developed in accordance with requirements of the SWRCB Order No. WQ 2006-0003-DWQ, as amended by Order No. WQ 2013-0058-EXEC.

- Identify equipment and manpower required to respond to the spills.
- Take actions to contain the spilled sewage and protect public health.
- Comply with the notification, monitoring, reporting, and recordkeeping requirements established within SWRCB Order No. WQ 2022-0103-DWQ.
- Perform any necessary posting or public notification.
- Take actions to correct the problem causing the spill.
- Clean up the spilled sewage and restore affected areas to pre-spill conditions.
- Document causes of the spill, preventative measures taken, and impacts associated with the spill.
- Assess the cause/source of the spill and modify prevention or response actions to minimize the potential for recurrence.

In addition to addressing notification, reporting, monitoring, and record-keeping requirements established in SWRCB Order No. WQ-2022-0103-DWQ, this updated plan also incorporates experience gained by Utilities Department staff in responding to previous spill events.

1.3 Preparation of Spill Emergency Response Plan

This updated *Spill Emergency Response Plan* was prepared by the Wastewater Division of the City of Escondido Utilities Department under the direction of Kyle Morgan, Interim Director of Utilities. Questions or comments concerning this plan should be directed to:

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Chapter 2

SPILL DETECTION

2.1 Overview of Wastewater Collection System

The City of Escondido wastewater collection service area covers approximately 37.5 square miles. The sewer tributary area to HARRF consists of multiple topographic drainage areas and is serviced by 11 wastewater lift stations.

The City maintains an updated atlas that details all sewer collection system facilities. The sewer system atlas shows the location of gravity mains, manholes, force mains, and other facilities. A master electronic version of the City's sewer system atlas is maintained on the City's computer network, and copies are backed up regularly. Copies of the sewer system atlas are carried on City response vehicles.

Spill Prevention. As part of its SSMP, the City has developed and implemented an action plan to minimize the potential for spills. This action plan includes procedures regarding inspection, preventative maintenance, system operations, public education, capital improvements, monitoring and reporting, forensic assessment, and system audits.

2.2 Potential Spill Sources and Methods of Detection

As part of developing its SSMP, Utilities Department staff assessed prior spills, shared information with other regional agencies, evaluated historic and potential sewer spill causes, and researched state-wide spill reports to identify potential causes of spills. Potential causes of sewer spills within the City's sewer system include:

- Sewer gravity main breaks or failures.
- Sewer gravity main blockages.
- Sewer gravity main surcharging.
- Pressure main rupture.
- Pump station pump/motor/control failure.
- Pump station electrical failure.
- Pump station surcharging.

Gravity Sewer Main Breaks. Spills may be caused by failure (breaks) in gravity sewer mains. Potential causes of gravity sewer main failure may include:

- Penetrating tree roots.
- Corrosion

- Pipe wall or pipe joint failure.
- Inadequate sewer main installation/construction.
- Construction excavation activities.
- Earth slides or earth movement.

Spills resulting from sewer main breaks would result in either wastewater overflowing from the manhole immediately upstream from the break or wastewater flowing to the surface at or downstream from the point of the break. Virtually all City of Escondido gravity mains are located in City streets. As a result, spills resulting from sewer main breaks are likely to be quickly noticed by the public or personnel within other City of Escondido Departments. Utilities Department personnel also monitor for break-related spills through (1) flow monitoring data generated by SmartCover manhole monitoring systems, (2) flows and pump station performance data monitored via the City's SCADA (Supervisory Control and Data Acquisition) system, and (3) flow data generated at the HARRF.

Gravity Sewer Main Blockages. The potential exists for spills to occur as a result of blockages or clogs within gravity sewer mains or manhole structures. Such blockages or clogs could be caused by:

- Penetrating roots through pipe joints or pipe walls.
- Penetrating roots through connections with private service laterals.
- Grease or other congealing or viscous substances.
- Rags, paper, plastic bags, or other semi-solid debris.
- Solid material or debris.
- Pipe wall failure.
- Vandalism.

Spills resulting from sewer main blockages or clogs would result in wastewater overflowing from the manhole immediately upstream from the blockage. Virtually all City of Escondido gravity mains are in City streets in highly-visible areas. As a result, visual inspection of City wastewater facilities by Utilities Department staff represents a key means of detection for blockage-related spills.

Spills resulting from sewer main blockages are likely to be quickly noticed by the public or personnel within other City of Escondido departments. As noted above, the Utilities Department also monitors for blockage-related spills through flow monitoring telemetry data generated at SmartCover manholes, wastewater pump stations and at the HARRF.

Gravity Sewer Main Surcharging. As documented in the City's SSMP, scheduled City of Escondido Utilities Department capital improvements have kept pace with development and wastewater flows within the City of Escondido. As a result, no City of Escondido sewer mains are at risk for surcharge-related spills during dry weather. Sewer mains are also sized to handle maximum anticipated wet-weather wastewater flows plus infiltration and inflow (I&I).

Spills resulting from sewer main surcharges would result in wastewater overflowing from manholes. As noted, virtually all City of Escondido gravity mains are located in City streets in highly-visible areas. Visual inspection of City wastewater facilities by Utilities Department staff and reports from the public or other City of Escondido departments thus represents a key means of detecting surcharge-related spills.

The Utilities Department also monitors for surcharge-related spills through flow monitoring telemetry generated at wastewater pump stations and HARRF. Additionally, many of the key gravity mains are equipped with telemetered manhole covers which provide City staff with real-time monitoring data on flows and water levels in manholes and provide alerts to City staff when conditions of unusual flow or water levels are detected.

Pressure Main Ruptures. The potential exists for spills to occur as a result of pressure main ruptures. Pressure main ruptures could be caused by:

- Corrosion.
- Pipe wall failure or joint failure.
- Inadequate installation/construction.
- Pressure build-up from blockages.
- Construction excavation activities.
- Earth movement.

Spills resulting from pressure main breaks would result from pressurized wastewater breaking the ground surface in the immediate vicinity of the pressure main break. Most City of Escondido pressure mains are located along roads or in areas with high foot and/or vehicle traffic, pressure main breaks would be visually recognizable. In addition to being highly visible, pressure main breaks would be detectable through flow rate and pumping pressure telemetry data from pump stations or at the HARRF. As a result, pressure main ruptures would typically be rapidly detected.

ELO spills should also be quickly detected. At the downstream end of the ELO, the City's SCADA system allows HARRF operators to monitor flow and pressure data at the structure where ELO flow joins SEJPA flow. This allows the City to detect pressure or flow discrepancies between the HARRF (upstream) and SEJPA (downstream) metering stations that may be indicative of a spill or potential spill from the ELO or appurtenant structures.

Pump Station Pump/Motor/Control Failure. To minimize the potential for spills caused by pump station pump or motor failures, each of the City's wastewater pump stations is equipped with multiple pump/motors, with at least one pump/motor combination being on standby for use in the event of failure or maintenance of any of the other pump/motor combinations. To minimize the potential for spills resulting from failure of pump station controls, all City of Escondido pump stations are connected to the City's SCADA system which allows for remote monitoring of pump station pumps, motors, pressures, flows, wet well water levels, and alarms.

For a spill to occur as a result of pump station pump, motor, or control failure, such failure would have to be comprehensive and affect multiple pumping units and control systems. Spills resulting from such a comprehensive failure would be detectable to City crews through pump station alarms and remotely accessed pump station performance data. Additionally, all City of Escondido pump stations are located in highly-visible areas, and visual reports of the spill would be quickly noted by Utilities Department staff, other City of Escondido personnel, or the public.

Pump Station Electrical Outages. Each of the City's eleven wastewater pump stations are equipped with standby power generators that automatically actuate in the event of power failure.

With the presence of emergency onsite generators at the City's wastewater pump stations, a power failure spill could not occur unless failure of an onsite emergency power generator occurred simultaneously with failure of the local electrical power grid. To minimize the potential for such an occurrence, Wastewater Division crews routinely perform scheduled checks of onsite emergency power generating equipment, and routinely exercise the emergency power generators to ensure that they are in proper working order. The City also maintains portable emergency power generators for use in the event of failure of any of the onsite pump station generators.

Simultaneous failure of the power grid and emergency generators would be rapidly detectable to City crews through pump station alarms and remotely accessed pump station performance data. As a result, it is probable that Utilities Department crews would be alerted to the power failure in advance of occurrence of any spill. Additionally, all City of Escondido pump stations are sited in highly-visible areas, and visual reports of any spill would be quickly noted by Utilities Department staff, other City of Escondido personnel, or the public.

Pump Station Surcharging. Major upgrades to several of the City's wastewater pumping stations have been completed in recent years, and scheduled City of Escondido Utilities Department capital improvements have kept pace with anticipated future development and projected wastewater flows. As a result, risks associated with surcharge-related spills are minimized. Spills caused by pump station surcharging would be expected to occur only during times of comprehensive system failure during wet weather periods (such as the rupture of a gravity main or flood-related inflow into manholes).

Spills resulting from pump station surcharges would result in wastewater overflowing from the pump station, and would be instantly detectable to City crews through pump station alarms and remotely accessed pump station performance data. Additionally, since City of Escondido pump stations are sited in highly-visible areas, visual reports of any such surcharge-related spill would be quickly noted by Utilities Department staff, other City of Escondido personnel, or the public.

2.3 Target Response Times

Figure 2-1 (page 2-5) presents the City's spill response chain of command. The public can report spills on the City's Public Works hotline, which is monitored from 6:30 am-4 pm on Monday through Thursday and 6:30 am to 3 pm on Fridays. Spill reports after hours received by Police Dispatch are routed to on-call Utilities Department response staff. Public reports of spills may also be received via the City's *ReportIt!* mobile telephone engagement platform.

Spills Reported During Business Hours. Spill reports received during business hours are instantly forwarded to the Wastewater Collections Supervisor, Wastewater Operations Manager and Assistant Director of Utilities/Wastewater. The Wastewater Collections Supervisor is responsible for organizing and mobilizing work crews. On days or times the Wastewater Collections Supervisor is for some reason unavailable, the Wastewater Operations Manager shall designate an alternate person as being on call and responsible for organizing and mobilizing response crews.

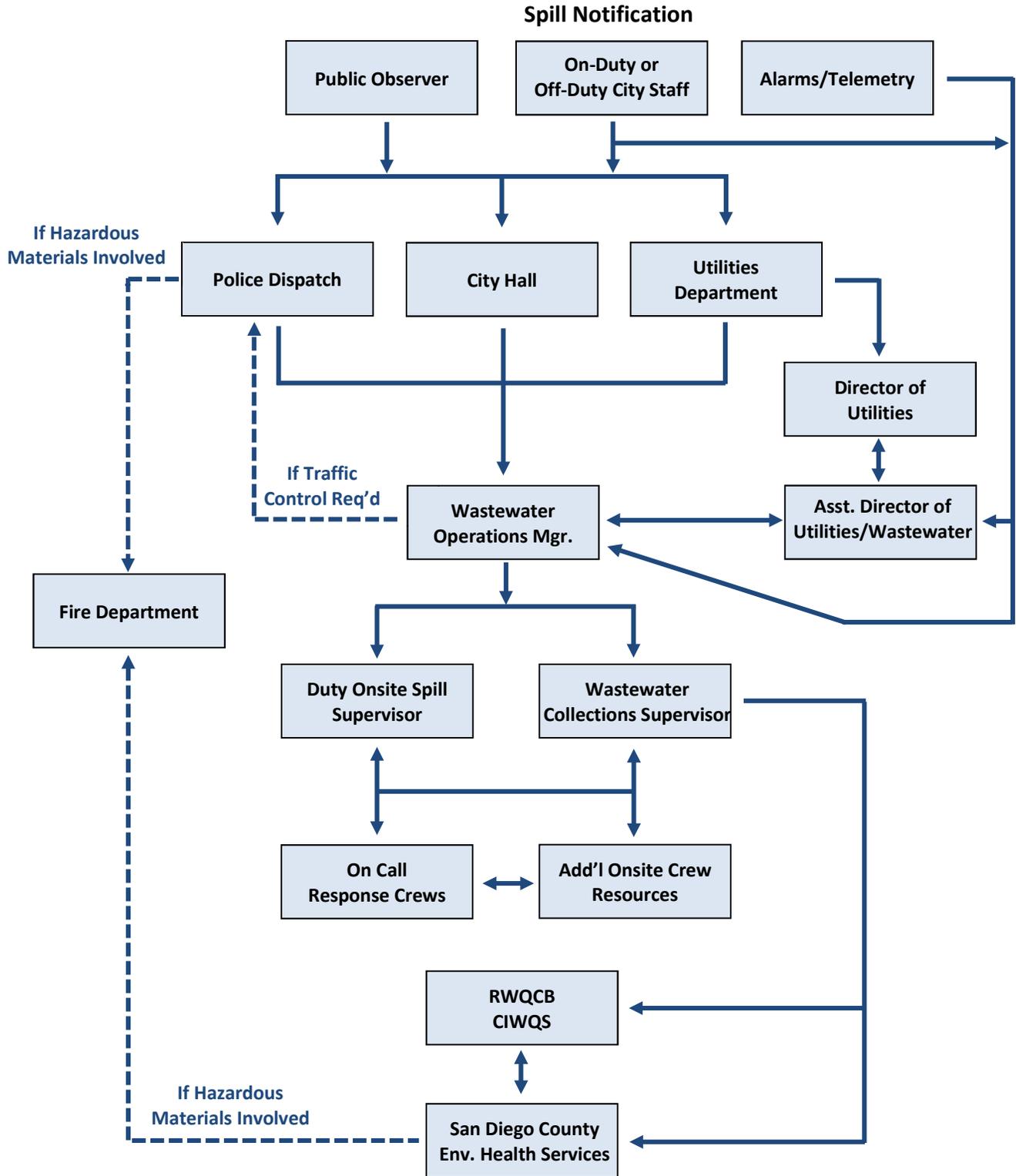


Figure 2-1
City of Escondido Sewer Spill Response Chain of Command

It is the City of Escondido's goal to respond as rapidly as possible to reports of spills or threatened spills. Response times for Utilities Department staff to reach spill sites will vary by location, day of the week, and time of day. Utilities Department work/inspection crews are routinely on patrol within the City during business hours, and cell phone or radio communications are used to identify the location of available personnel. During business hours, depending upon location, the nearest crew may be able to arrive on the scene of a reported spill site within a matter of a few minutes after the spill report is first received.

If no crew is in the immediate area of the spill, Wastewater Division management can immediately mobilize a response crew from onsite staff or staff engaged in offsite activities. Because of the central location of the wastewater collections system equipment, maximum travel time to the farthest reaches of the City is approximately 20 minutes. Typical response times to the four largest wastewater pumping stations (Lift Stations LS-1, LS-2, LS-3 and LS-4) ranges from approximately 5 to 15 minutes.

Spills Reported During Non-Business Hours. During non-business hours (night times, weekends, and holidays), the Wastewater Collections Supervisor schedules an emergency response crew as being on call and available to respond to spill reports. Spill reports during non-business hours are instantly forwarded via cell phone to the collections system stand-by staff, who immediately notify the Wastewater Collections Supervisor and the standby response team. After notifying the Wastewater Collections Supervisor, staff also notify the Wastewater Operations Manager.

Mobilization times during non-business hours vary, depending upon personnel travel times and time of day. During non-business hours, the City endeavors to achieve a goal of first response and spill site assessment within 30 minutes. The City further endeavors to achieve a goal of having a response team at the site within one hour of receipt of the spill report. If initial assessment indicates the need for more crews than are on call, Wastewater Division supervisors are empowered to authorize overtime and mobilize any required off-duty personnel to respond to the spill.

Chapter 3

EQUIPMENT AND PERSONNEL

Utilities Department resources from both the Wastewater and Public Works Divisions are available to respond to spills. This chapter summarizes resources available to the City of Escondido in responding to spills or threatened spills.

3.1 Personnel and Organization

Response Personnel. Available Utilities Department response personnel include both personnel from the Wastewater Division and Public Works Division. First response teams will be from the Wastewater Division (see Attachment 2 for the Wastewater Division organization chart), and additional City personnel will be called in as required. Personnel available to respond to spills or threatened spills include:

- Wastewater Division and Public Works Division management and field personnel.
- Sewer collection system specialists.
- Storm drain specialists.
- Mechanical and electrical specialists.
- Environmental and monitoring specialists.
- Additional response team personnel available for use in wastewater containment, cleanup, facilities repair, spill mitigation, site and traffic control, and spill notification and documentation duties.

City of Escondido Utilities Department personnel are knowledgeable of wastewater collection facilities and operations and receive ongoing training. A number of the Wastewater Division management personnel and staff are cross-trained in multiple disciplines.

Designation of Onsite Supervisor. All spill response actions detailed in Chapter 4 of this *Spill Emergency Response Plan* will be directed by an Onsite Supervisor. For all spills within the City's wastewater system, designated Onsite Supervisor will be the Wastewater Collections Supervisor or his/her designee.

When Utilities Department staff arrive at the spill scene in advance of the designated Onsite Supervisor, the senior onsite Wastewater Division staff member will assume the duties of the Onsite Supervisor until the designated Onsite Supervisor arrives.

Any received spill reports shall be immediately directed to the designated on-call Onsite Supervisor as well as the Wastewater Collections Supervisor, Wastewater Operations Manager and Assistant Director of Utilities/Wastewater.

Response Teams. All Utilities Department workers are available via cell phone/radio communications during business hours. As discussed in Section 2.3 (pages 2-5 through 2-7), Utilities Department supervisors can quickly mobilize spill response crews by (1) routing crews already in the field to the response site and/or (2) directing crews at Utilities Department offices/yards to the response site.

The Wastewater Collections Supervisor is to ensure that schedules are maintained so that a senior-level supervisor and spill response crew is scheduled as being on call and available during all non-business hours.

3.2 Training

Utilities Department personnel spill response training is the responsibility of the Director of Utilities, the Assistant Director of Utilities/Wastewater, the Wastewater Operations Manager, and the Wastewater Collections Supervisor. Ongoing Utilities Department training includes:

- **Orientation Training and Mentorship.** New employees are trained in assigned duties by experienced Utilities Department staff. Supervisors serve as mentors in order to allow newer employees to better understand City wastewater facilities, staff responsibilities, and wastewater system operations.
- **Specialized Training.** Using either Utilities Department staff or outside instructors, Utilities Department personnel receive periodic training in such areas as first aid, safety (including confined space entry and ventilation), fire prevention, traffic control, and equipment operation.
- **Coordination with Storm Drain Staff.** Since storm drains with the City of Escondido are maintained by City, City storm drain and wastewater staff routinely coordinate and cooperate in preparing for and responding to spill events.
- **Drills and Test Exercises.** Utilities Department drills and training exercises are periodically conducted by senior Utilities Department staff. Drills and test exercises directed by senior Utilities Department staff include notification tests, equipment tests, communication tests, mobility drills, and trouble-shooting training.
- **Professional Training and Certification.** Utilities Department employees are encouraged to achieve professional certifications and participate in such professional organizations as Water Environment Federation and California Water Environment Association. Employees are encouraged to attend training sessions and seminars that relate to sewer system operation, spill prevention, spill containment, and spill recovery. Additionally, Wastewater Division staff are regularly enrolled in California Water Environment Association spill prevention and response seminars.
- **Professional Development.** Professional promotions within the Utilities Department are, in part, based on employee's work performance, professional certifications, and well-rounded knowledge of all facets of the City's wastewater facilities and operations. Employees seeking advancement are thus encouraged to (1) cross-train in areas beyond their normal duties and (2) increase their breadth of knowledge outside their immediate responsibilities.

Table 3-1 summarizes targeted frequencies for training or drills. The Assistant Director of Utilities/Wastewater (in consultation with Wastewater Division managers and the Director of Utilities) is responsible for developing and implementing procedures to ensure that Wastewater Division personnel are familiar with:

- Reporting and notification requirements established by the SWRCB within SWRCB Order No. WQ 2022-0103-DWQ.
- Reporting and notification requirements established by the RWQCB within RWQCB Order No. R9-2007-0005.
- Reporting guidelines and notification requirements established by the San Diego County Environmental Health Services (San Diego County EHS).
- Sewer overflow response guidelines and provisions established within this SERP.

Table 3-1 Targeted Frequency of Training or Drills	
Test or Drill	Test or Drill Frequency^A
Notification drills to test mobilization of staff	Annually
Spill estimating exercises	Annually
Interdepartmental and intradepartmental communications exercises	Quarterly
Exercise standby pumps	Weekly
Test and exercise emergency power generators	Weekly
Pump station controls and pump stations operations training	As-needed
Test pump station alarms	Weekly
Safety training or drills	Monthly
Trouble-shooting exercises on pump controls	Weekly
Drills for mobilizing emergency equipment and materials	Annually
Drills to test spill response actions	Annually
Table 3-1 Footnotes: A Approximate frequency of test or drill in the absence of spill events. Actual frequencies may vary depending on spill history, staff experience, and training needs identified by Utilities supervisors.	

3.3 Available Response Equipment

As detailed in Chapter 4, spill response actions to be led by the Onsite Supervisor may include spill assessment, spill containment, wastewater facilities repairs, site control, sampling and monitoring, spill cleanup, and notification/documentation.

Table 3-2 (page 3-4) summarizes key equipment and facilities that are available to the Onsite Supervisor to handle spill events. Table 3-3 (page 3-4) summarizes the inventory of spare parts typically maintained by the Utilities Department.

Table 3-2 City of Escondido Spill Response Equipment	
Equipment	Number Available ^A
Combination Trucks	3
Tool-equipped maintenance vehicles	2
Portable welders (truck-mounted or portable)	2
Backhoe excavators	2
Traffic control light trailers	1
Portable wastewater pumps	8 ^B
Mobile emergency generators	7
Sewer pipe replacement sections, pipe sleeves, couplings and other fittings	See note ^C
<p>Table 3-2 Footnotes:</p> <p>A City-owned available response equipment. Additional response equipment may be available from other City departments or adjoining sewer agencies through informal inter-departmental or inter-agency communication.</p> <p>B Portable wastewater pumps of various sizes are maintained in inventory.</p> <p>C Miscellaneous pipe sections for gravity and force mains, along with miscellaneous pipe sleeves and other fittings are stored in the City's maintenance yard and are available for use in the event that sewer main breaks requires replacement of pipe sections.</p>	

Table 3-3 Summary of Critical Components and Spare Parts in Inventory	
Category	Critical Components and Parts ^A
Sewer Mains & Appurtenances	<ul style="list-style-type: none"> • spare pipe sections for all common sewer pipe diameters • seals and fittings for common pipe diameters • manhole fittings, covers, and manhole repair supplies • emergency repair components and equipment, including flexible connectors, sleeves, and other fittings
Pump Stations	<ul style="list-style-type: none"> • spare pump seals, gaskets, fittings, and hardware • spare pumps • spare pump motors • spare pump impellers and bearings • spare controls, connections, circuit-breakers, switches, and electrical components
Tools and Emergency Equipment	<ul style="list-style-type: none"> • spare repair equipment and tools • spare communication devices • back-up utility and repair/response vehicles • back-up generating power • facilities and portable equipment to effect emergency by-pass pumping at pump stations • other equipment and supplies required for responding to sewer spills
<p>Table 3-3 Footnotes:</p> <p>A List of typical components, parts, fittings and equipment available at City maintenance facilities.</p>	

Chapter 4

SPILL RESPONSE ACTIONS

4.1 Spill Response Overview

This chapter summarizes City of Escondido Utilities Department actions for responding to sewer system spills. All spill response actions will be under the direction of the designated Onsite Supervisor. Response actions shall include:

- Initial assessment and spill classification.
- Office of Emergency Services (OES) and RWQCB notification.⁶
- Securing the site perimeter.
- Spill containment.
- Posting.
- Spill control.
- Monitoring and spill documentation.
- Site cleanup and restoration.
- Follow-up activities.

Response actions taken by the City will be in accordance with provisions established within SWRCB Order No. WQ 2022-0103-DWQ.

4.2 Initial Assessment and Spill Classification

Initial Assessment. When arriving onsite, the Onsite Supervisor shall assume direction and management of all response personnel and resources. The Onsite Supervisor shall take command of onsite Utilities Department staff, assess the spill site, and collect information from Utilities Department staff to:

- Identify what is causing the spill (or threatening to cause the spill).
- Determine where the spilled sewage will flow and identify potentially affected areas.
- Identify strategies for gaining site control and keeping people and spectators away.
- Assess strategies for containing the spill, and identify personnel and resources required for spill containment.

⁶ OES notification is required for spills from public sewer systems that exceed 1000 gallons and will (or are projected to) discharge to surface waters. OES notification is voluntary if the spill exceeds 1000 gallons and originates from a privately-owned sewer lateral or collection system. RWQCB notification (per RWQCB Order No. R9-2007-0005) is required for any spill of 1000 gallons or more. Notification to the RWQCB is to occur within 24 hours of becoming aware of the spill.

- Assess strategies for terminating or redirecting the source of the spill, and identify personnel and equipment required to terminate the spill source.
- Determine if the spill has the potential to threaten public health, cause property damage, or impact the environment.
- Communicate the nature of the problem to the Assistant Director of Utilities/Wastewater and the Wastewater Operations Manager. Depending on the nature of the spill, the Assistant Director of Utilities/Wastewater may consult the Director of Utilities.
- In consultation with the Assistant Director of Utilities/Wastewater and Wastewater Operations Manager, call in required additional personnel and equipment resources.
- If the spill discharges to surface waters (Category 1 Spill) or exceeds 1000 gallons in volume (Category 2 Spill), call OES at (800) 852-7550 within two hours of becoming aware of the spill, provide the OES with requested information, and obtain a notification control number from the OES. Also notify the RWQCB within 24 hours of becoming aware of any spill to surface waters that exceeds 1000 gallons in volume.
- Consult with other primary responders contacted by OES (e.g., health officials or other responding agencies) and determine if any downstream parties need to be notified to protect public health.
- Estimate the duration and volume of spilled sewage.
- Determine if any upstream dischargers need to be contacted to reduce wastewater quantities discharged to the sewer system.

Spill Classification. Table 4-1 (page 4-3) presents SRWQCB classifications for spills, as defined within SWRCB Order No. WQ 2022-0103-DWQ.

Per Order No. WQ 2022-0103-DWQ, Category 1 spills are defined as a discharge of untreated or treated wastewater of any volume that reach surface water or a drainage channel tributary to surface water. Category 1 spills also include any discharge untreated or partially treated wastewater that reaches a Municipal Separate Storm Sewer System (MS4) and is not fully captured and properly disposed (unless the MS4 is tributary to a dedicated groundwater infiltration or percolation basin).

4.3 Notifications

Office of Emergency Services (OES) Notification. In accordance with the requirements of Order No. WQ 2022-0103-DWQ, the Onsite Supervisor is responsible for notifying the OES within two hours of becoming aware of any Category 1 or Category 2 spill. The Onsite Supervisor shall provide the OES with requested information and obtain an OES notification control number. Spill information requested by OES may include the following:

- Name, agency, and contact information of person notifying OES of the spill.
- Estimated spill volume discharged in gallons.
- If ongoing, the estimated spill discharge rate in gallons per minute.
- Spill Incident Description, including:
 - a. Brief narrative of the spill.
 - b. On-scene point of contact for additional information (name and cell phone number).

- c. Date and time enrollee became aware of the spill.
- d. Name of sanitary sewer system agency causing the spill.
- e. Spill cause (if known).
- Indication of whether the spill has been contained.
- Indication of whether surface water is impacted.
- Name of surface water impacted by the spill, if applicable.
- Indication of whether a drinking water supply is or may be impacted by the spill.
- Any other known spill impacts.
- Spill incident location (address, city, state, and zip code).

Upon receipt of the spill information, OES forwards notification information to local government agencies and applicable first responders, including the San Diego County EHS, hazardous waste officials, and the RWQCB.

Table 4-1 Spill Categories	
Category^A	Description
Category 1	A discharge of untreated or partially treated wastewater from sanitary sewer system facilities in any volume that: <ul style="list-style-type: none"> • Reaches surface water^B and or reaches a drainage channel tributary to a surface water. • Discharges to a Municipal Separate Storm Sewer System (MS4) and is not fully captured and returned to the sanitary sewer system (unless discharged to a dedicated infiltration basin or percolation pond).
Category 2	A discharge of untreated or partially treated wastewater from sanitary sewer system facilities of 1000 gallons or more resulting from a sanitary sewer system failure or flow condition that does not reach surface water, a drainage channel, or a MS4 unless the entire spill discharged to a storm drain system if fully recovered and properly disposed. ^B A spill of 1000 gallons or more 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	A discharge of untreated or partially treated wastewater from sanitary sewer system facilities of less than 1000 gallons but more than 50 gallons that does not discharge to surface water. ^C
Category 4	A discharge of untreated or partially treated wastewater from sanitary sewer system facilities of less than 50 gallons that does not discharge to surface water. ^D
<p><i>Table 4-1 Notes:</i></p> <p><i>A Spill categories are defined within SWRCB Order No. WQ 2022-0103-DWQ</i></p> <p><i>B 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.</i></p> <p><i>C A spill of more than 50 but less than 1000 gallons that is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.</i></p> <p><i>D A spill of less than 50 gallons that is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.</i></p>	

Following the initial notification to OES, the Utilities Department shall provide updates to OES on any substantial changes in the estimated volume of untreated or partially treated wastewater or any substantial changes to known impacts. This notification shall be made by the Onsite Supervisor if such substantial changes are in evidence while City crews are still on the scene responding to the spill. The Collections System Supervisor shall make the report to OES if such substantial changes are determined to have occurred after City response crews have left the site but prior to the time the spill report is logged into the CIWQS (California Integrated Water Quality System) sanitary sewer system database.

Order No. WQ 2022-0103-DWQ encourages (but does not require) sewer system operators to notify OES of discharges to surface waters exceeding 1000 gallons from private lateral sewer discharges (PLSDs).⁷ In accordance with this directive, the City shall endeavor to notify OES whenever City staff become aware of PLSDs to surface waters that exceed 1000 gallons.

RWQCB Notification. RWQCB Order No. R9-2007-005 establishes spill reporting requirements in addition to state-wide spill reporting requirements established in SWRCB Order No. WQ 2002-0103-DWQ. RWQCB Order No. R9-2007-0005 requires agencies to notify the RWQCB via telephone or email within 24 hours⁸ of becoming aware of a spill of 1000 gallons or more from a public sewer system or private lateral that reaches surface waters. The RWQCB notification is to include:

- The name of the sewer agency.
- The name and telephone number of the agency person reporting the spill.
- The estimated spill volume.
- The location of the spill and the affected receiving water.
- The start time of the spill and (if applicable) the end time of the spill.
- Confirmation that the local health agency has been notified.

4.4 Site Perimeter and Traffic Control

Site Perimeter Control. Concurrent with the initial assessment, the Onsite Supervisor shall take immediate actions to isolate the public from the spill. Site control shall be achieved using portable barriers, signs or postings, stakes and tape, existing fencing, parked vehicles, or natural terrain.

The Onsite Supervisor shall contact the City of Escondido Police Department if additional assistance is required for (1) isolating the public from the spill, (2) controlling crowds or onlookers, or (3) controlling members of the public are interfering with efforts of the spill response team.

Traffic Control. If the potential exists for spill response actions (or parked response vehicles) to impact traffic, the Onsite Supervisor shall also take actions to divert traffic around the response site and ensure the safety of traffic, the public, and response crews. Traffic shall be diverted where necessary using traffic cones, portable signs, emergency lights, flag personnel, vehicles, and/or portable traffic-direction light trailers.

⁷ Per Section 5.15 of Order No. WQ 2022-0103-DWQ, reporting of spills from privately-owned laterals or systems is voluntary.

⁸ Provided that such 24-hour notification can be provided without substantially impeding cleanup or other emergency measures.

City response vehicles routinely carry traffic cones, barriers, and traffic control flags, and signs. Additional materials required to secure the site perimeter (which include portable traffic-direction light trailers) are stored at City maintenance yards and will be secured by the Onsite Supervisor if required.

The Onsite Supervisor shall determine if onsite traffic control is adequate, or if law enforcement assistance is required. The City of Escondido Police Department should be notified if required to assist in traffic control. Fire Department officials should be contacted if traffic controls could result in fire response delays. Response vehicles and crews are required to maintain current telephone numbers for the Police Department and Fire Department.

4.5 Spill Containment or Diversion

Upon achieving control of the site perimeter, response crews under the direction of the Onsite Supervisor shall endeavor to contain or divert the spill. To determine the best strategy (or strategies) for spill containment or diversion, the Onsite Supervisor shall evaluate the:

- Spill volume and flowrate of the spill.
- Terrain and natural barriers.
- Locations of downstream manholes or other sewer collection sewer facilities.
- Locations of storm drains or streams.

Spill and recovery containment strategies to be evaluated, and (if appropriate) implemented by the response crews include:

- Using combination trucks to vacuum the spill.
- Using sandbags rubber dams, or other portable flow barriers to prevent the flow from entering storm drains or drainage channels.
- Diverting the spill by pumping around the overflow point or sewer break point back into the sewer system.
- Diverting the spill by berms or sandbags back into the sewer system.
- Diverting or retaining the spill in a hollow, swale, or low area for subsequent recovery.
- Constructing a temporary dam or dike to contain the spill for subsequent recovery.

Recovery from Storm Drains. City response vehicles are equipped with maps of municipal storm drain facilities. If the spill enters a storm drain, the Onsite Supervisor shall make all reasonable efforts identify a downstream location(s) where the storm drain can be dammed up to prevent the spill from reaching surface waters. The Onsite Supervisor will also contact the Public Works Department storm drain supervisor to coordinate any response actions involving City storm drain facilities. Any spilled flow contained within the storm drain facilities shall be subsequently removed by portable pumps or combination trucks and discharged to the sanitary sewer system.

4.6 Posting

The City maintains an inventory (stored at HARRF) of signage for use in warning the public of contact with areas contaminated by spills. In consultation with San Diego County EHS and in accordance with EHS regulations, affected areas shall be identified and posted as being contaminated with sewage.

Signage shall be posted in locations so as to maximize public visibility and minimize the potential for public contact with contaminated areas. Signs shall be posted along all routes the public may be reasonably expected use to enter the contaminated area.

Signs shall remain posted for a minimum of five days, unless the Utilities Department is otherwise directed by San Diego County EHS.

4.7 Spill Termination

Once spill containment is assured, response crews shall focus on eliminating the source or cause of the spill and terminating the spillage.

Gravity Sewer Main Breaks. For spills caused by breaks or failures of gravity sewer mains, the Onsite Supervisor shall determine the location and nature of the sewer main break, and identify equipment and resources required to repair the break. After sewage diversion actions are implemented, excavation equipment shall be called in to expose the break and allow the Onsite Supervisor to determine the appropriate measures for repairing the break. Minor breaks may be resolved with sleeves, patches, or fittings, while major breaks may require replacement of pipe sections.

The Onsite Supervisor shall assess whether the spill or potential repair actions associated with the spill may affect nearby water or stormwater conveyance facilities. The Onsite Supervisor shall coordinate with applicable water or stormwater conveyance operators in making this determination and assessing whether (and how many) water system or stormwater staff are required as part of the spill response effort.

Gravity Sewer Main Blockages. For spills caused by sewer main blockage, the Onsite Supervisor shall determine the location and nature of the sewer main blockage, and identify equipment and resources required to clear the blockage. Once the nature of the blockage is identified, blockages may be removed by a variety of strategies including:

- Sewer main water jetting.
- Application of degreasers.
- Combination truck pumping.
- Sewer main rodding.
- Manual removal.

Gravity Sewer Main Surcharging. For spills caused by gravity main surcharging, the Onsite Supervisor shall determine the nature and cause of the temporary surcharging, and direct actions to (1) temporarily

divert wastewater flows, and (2) eliminate the cause of the surcharging. Activities required to eliminate the surcharging may include:

- Restoring manhole covers removed by citizens or by force of flow.
- Installing temporary dikes or dams to protect facilities from runoff or standing water.

If the sewer system surcharging is caused by inflows of stormwater from flooded streets due to improperly operating storm drains, it may be necessary to eliminate the street flooding by unblocking or cleaning the storm drains to allow storm runoff to flow into the storm drains instead of flowing into the sanitary sewer system.

Pressure Main Ruptures. For spills caused by breaks or failures in pressure mains, the Onsite Supervisor shall determine the location and nature of the break/failure, and identify equipment and resources required to (1) divert flows around the rupture and (2) repair the break. After sewage diversion actions are implemented, excavation equipment shall be called in to expose the rupture and allow the Onsite Supervisor to determine the appropriate measures for repairing the break. Minor ruptures may be resolved with sleeves, patches, or fittings, while major breaks may require replacement of pipe sections.

The Onsite Supervisor shall assess whether the spill, potential repair actions, or erosion effects associated with the pressure main spill may affect nearby water or stormwater conveyance facilities. The Onsite Supervisor shall coordinate with applicable water or stormwater conveyance operators in making this determination and assessing whether (and how many) water system or stormwater staff are required as part of the spill response effort.

Pump Station Pump/Motor/Control Failure. For spills caused by pump station failure, the Onsite Supervisor shall determine the nature of the pump, motor, or control failure, and identify equipment and resources necessary to restore pump station operations. For use in the pump or motor repairs, an inventory of spare pumps, pump parts, motor bearings, and electrical controls are available at the Utilities Department maintenance yards.

If automatic controls fail, Wastewater Division staff are to revert to manual operation of pumps until the automatic controls are repaired or restored. If required, the Utilities Department maintains portable pumps and diversion equipment for use until full pump station operations are resumed.

Pump Station Electrical Failure. For spills related to electrical failures, the Onsite Supervisor shall determine the nature and cause of the failure of onsite emergency generators to actuate upon power grid failure, and take actions to restore pump station power. Power restoration response actions shall include:

- Restarting onsite emergency generators using manual controls.
- Order mobile generators to the site.
- If onsite emergency generators cannot be manually started, hook up the mobile generators and restore power.
- Determine if onsite repair of the emergency generators or generator controls is possible.
- Maintain mobile generators at the site (even after grid power is restored) until the source of problems for the onsite emergency generators is diagnosed and corrected.

Pump Station Surcharging. For spills caused by pump station surcharging, the Onsite Supervisor shall determine the nature and cause of the temporary surcharging, and direct actions to eliminate the cause of the surcharging. Activities required to eliminate the surcharging may include:

- Restoring manhole covers removed by citizens or by force of flow.
- Installing temporary dikes or dams to protect facilities from runoff or standing water.

If the pump station surcharging is caused by inflows of stormwater into the sanitary sewer system from flooded streets due to improperly operating storm drains, it may be necessary to eliminate the street flooding by unblocking or cleaning the storm drains to allow storm runoff to flow into the storm drains instead of flowing into the sanitary sewer system.

4.8 Assessment, Cleanup and Restoration

Monitoring. For spills in excess of 50,000 gallons that reach surface water, SWRCB Order No. WQ 2022-0103-DWQ requires daily receiving water monitoring during each day of the spill for ammonia, total coliform, fecal coliform, *E. Coli* and enterococcus. Daily receiving water quality monitoring is required at the following locations:

- DSC-001, the point in a drainage conveyance system before the drainage conveyance system discharges into a surface receiving water (representative of the spill quality itself).
- RSW-001, the point in the receiving water where the spill initially enters the receiving water.
- RSW-001U, a point in the receiving water upstream from the point where the spill enters surface waters (e.g., characterizing unimpacted upstream receiving water conditions).
- RSW-001D, a point in the receiving water downstream from the point of discharge where the spill is fully mixed with the receiving water.

Daily sampling is to commence no later than 18 hours after the City's knowledge of a potential discharge to surface water. Additionally, if warranted after consultation with San Diego County EHS and onsite Utilities Department environmental specialists, the Onsite Supervisor shall direct staff to collect bacteriological water quality samples at additional sites to assess possible impacts to public health and the environment. Samples shall be labeled to show the collection date, time, and site.

The Onsite Supervisor (in consultation with Wastewater Division management) is responsible for (1) developing and implementing protocols for water quality monitoring, (2) determining where monitoring may not be possible as a result of safety concerns or access restrictions, (3) ensuring that monitoring instruments and devices are properly maintained and calibrated, and (4) maintaining records that document instrument maintenance and calibration.

Collection of Photographic/Video Evidence. Where possible and appropriate during and after spill response activities, the Onsite Supervisor shall direct that photographic or video evidence be collected to document (1) City response actions, (2) spill causes, (3) impacts to public health or the environment, and (4) cleanup and restoration measures. Photographic or video evidence shall be labeled to show the date, location, time, and person recording the event.

Site Cleanup and Restoration. After spill control is achieved, City response crews shall endeavor to return all spilled sewage to the sewer system (or as much as possible) and return the spill site to pre-spill conditions. Site cleanup operations shall be directed by the Onsite Supervisor, in consultation with San Diego County EHS. If necessary, the City maintains on-call contracts for safely removing and cleaning chemical and biologically hazardous material such as chemicals spills, or blood and tissue clean-up from accidents. Additionally, the City will contact the Fire Department if any chemical or biologically hazardous materials appear involved in the spill.

Where appropriate, combination trucks or portable pumps shall be used to recapture spilled sewage and return it to the sewer system. Affected pavements, hardscapes shall be flushed with water, with flush water being recaptured and returned to the sewer system. Affected areas are to be assessed for impact to public health, biological resources, and other beneficial uses. Spill containment measures (barriers, dike, or dams) are not to be removed until the entire site clean-up is complete.

As part of this cleanup effort, City staff will (if storm drains are involved) coordinate with Public Works Department storm drain staff to ensure protection and integrity of storm water collection facilities. Additionally, if potable water conveyance facilities are near the spill site, City wastewater staff will coordinate with Water Division system staff to ensure that repair or cleanup efforts do not endanger or adversely impact potable water conveyance facilities.

4.9 Reporting and Follow-Up Actions

Corrective Actions and Mitigation. After site cleanup, the Onsite Supervisor shall determine if any short-term corrective or mitigating measures are required to prevent spill recurrence. Short-term corrective measures may include:

- Temporarily stationing Utilities Department personnel at the site to monitor conditions and/or equipment after the spill is terminated.
- Stationing response equipment at the site until it can be confirmed that the spill threat is no longer present.
- Ordering additional immediate repair activities to strengthen the integrity of the wastewater collection system.
- Implementing special short-term video inspection of collection mains.

The Onsite Supervisor, in consultation with the Assistant Director of Utilities/Wastewater or the Director or Utilities, shall also recommend any required long-term corrective measures. Long-term measures may include:

- Increased frequency of video inspection of suspect pipe sections.
- Replacing suspect pipe sections.
- Replacing or repairing suspect equipment.
- Acquiring additional spill response equipment.
- Bolting manhole covers susceptible to vandalism.
- Installing seals on manhole covers subject to inflow or surcharging.

- Revising Utilities Department personnel assignments and duties.
- Reviewing/ modifying the City's SSMP or *Spill Emergency Response Plan* procedures.
- Conducting additional training or testing sessions.
- Authorizing redesign of wastewater facilities or equipment.
- Revising or reprioritizing Capital Improvement Program projects.

CIWQS Sanitary Sewer System Database Notifications and Reporting. The Assistant Director of Utilities/Wastewater (or his/her CIWQC-certified designee) is authorized to oversee preparation and certification of spill compliance reports submitted to the State via the CIWQS Sanitary Sewer System Database pursuant to requirements established in SWRCB Order No. WQ 2022-0103-DWQ.⁹

Table 4-2 (page 4-11) presents notification, monitoring and reporting requirements for Category 1 and Category 2 spills. Draft reports for Category 1 and Category 2 spills shall be submitted to the CIWQS Sanitary Sewer System Database within 3 business days of the time the City is aware of the spill. Final reports for Category 1 or Category 2 spills shall be certified through the CIWQS Sanitary Sewer System Database within 15 calendar days of the termination date of the spill.

Table 4-3 (page 4-12) presents information that is to be included in the draft and certified spill reports logged into CIWQS. If CIWQS is temporarily not accessible, the Assistant Director of Utilities/Wastewater (or his/her CIWQS-certified designee) shall:

- Fax or email the required information to the RWQCB (contact numbers are in Attachment 1) in accordance with the time schedules identified in Table 4-2, and
- Ensure that the required information is entered into the CIWQS Sanitary Sewer System Database when the online database becomes available.

The Assistant Director of Utilities/Wastewater (or his/her designee) is also responsible for providing the telephone or email notification (see page 4-4) to the RWQCB as required under RWQCB Order No. R9-2007-0005.

⁹ Attachment 1 presents a list of City of Escondido Wastewater Division supervisors who are certified to enter information into the CIWQS database.

Table 4-2 Notification, Monitoring and Reporting Requirements for Category 1 and Category 2 Spills SWRCB Order No. WQ 2022-0103-DWQ^A		
Element	Category 1 Spill Requirements^A	Category 2 Spill Requirements^B
Notification ^C	<ul style="list-style-type: none"> • Within two hours of becoming aware of any Category 1 Spill^D greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water, notify OES at (800) 852-7550 and obtain a notification control number. • Within 24 hours of becoming aware of the spill, notify the RWQCB via email at: RB9Spill_Report@waterboards.ca.gov or leave a telephone message at (619) 516-1990. 	<ul style="list-style-type: none"> • Within two hours of becoming aware of any Category 2 Spill^E greater than or equal to 1,000 gallons that does not discharge to surface water or MS4 structures or spilled in a location where a discharge to surface waters is threatened, notify OES at (800) 852-7550 and obtain a notification control number.
Reporting ^F	<ul style="list-style-type: none"> • Submit draft report within 3 business days of becoming aware of the spill.^G • Submit a certified spill report within 15 calendar days of the spill end date.^G • Submit a Technical Report within 45 calendar days after the end date of any spill in which 50,000 gallons or greater are spilled to surface waters.^G • Submit an amended spill report within 90 calendar days after the spill end date.^G 	<ul style="list-style-type: none"> • Submit draft report within 3 business days of becoming aware of the spill.^G • Submit a certified spill report within 15 calendar days of the spill end date.^G • Submit an amended spill report within 90 calendar days after the spill end date.^G
Water Quality Monitoring ^H	<ul style="list-style-type: none"> • Conduct spill-specific monitoring.^{H,I} • For each day of the spill, conduct daily water quality sampling within 18 hours after initial spill notification for spills in which 50,000 gallons or greater are spilled to surface waters, including one daily sample at the point prior to the spill reaching a receiving water, one sample at the point where the spill reaches receiving water, one sample downstream from the point of discharge, and one sample upstream from the point of discharge.^{G,J} 	<ul style="list-style-type: none"> • Conduct spill-specific monitoring.^{H,I}

Table 4-2 Notes:

- A Notification, monitoring and reporting requirements for Category 1 spills, as established within Order No. WQ 2022-0103-DWQ.
- B Notification, monitoring and reporting requirements for Category 2 spills, as established within Order No. WQ 2022-0103-DWQ.
- C Notification procedures, as established within Order No. WQ 2022-0103-DWQ.
- D Category 1 spill is defined as a discharge of untreated or partially treated wastewater of any volume resulting from an enrollee's sanitary sewer system failure or flow condition that (1) reaches surface water and/or reaches a drainage channel tributary to a surface water; or (2) reaches a Municipal Separate Storm Sewer System (MS4) and is not fully captured and returned to the sanitary sewer system or not otherwise captured and properly disposed. 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 Category 2 spill is defined as a spill of 1000 gallons or greater that does not discharge to surface water or a MS4 structure.
- F Reporting procedures are established in Section 3.1 of Attachment E1 of Order No. WQ 2022-0103-DWQ.
- G The Assistant Director of Utilities/Wastewater (or his/her CIWQS-certified designee) is responsible for entering spill data and spill reports into the CIWQS Sanitary Sewer System Database at: <http://ciwqs.waterboards.ca.gov/>.
- H Water quality monitoring requirements, as established within SWRCB Order WQ 2022-0103-DWQ. Monitoring is to be conducted for ammonia, total coliform, fecal coliform, E. Coli and enterococcus.
- I Spill-specific monitoring (per SWRCB Order No. WQ 2022-0103-DWQ) is to include a visual assessment of the spill location and spread, photography, global positioning system (GPS) descriptions, and an estimation of the spill volume.
- J Water quality sampling of the spill is to be conducted for ammonia, total coliform, fecal coliform, E-coli and enterococcus.

Table 4-3 Required Information for CIWQS Sanitary Sewer System Database Draft and Certified Reports for Category 1 and Category 2 Spills	
Spill Report	Information Requirement ^A
Draft Spill Reports	<ol style="list-style-type: none"> 1. Spill Contact Information: Name and telephone number of enrollee contact person who can answer specific questions about the spill being reported. 2. Spill Location Name. 3. Location of the spill 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 spill appearance point explanation field. 4. Whether or not the spill reached surface water, a drainage channel, or entered and was discharged from a drainage structure. 5. Whether or not the spill reached a municipal separate storm drain system. 6. Whether or not the total spill volume that reached a municipal separate storm drain system was fully recovered. 7. Estimate of the spill volume, inclusive of all discharge point(s). 8. Estimate of the spill volume that reached surface water, a drainage channel, or was not recovered from a storm drain. 9. Estimate of the spill volume recovered (if applicable). 10. Number of spill appearance point(s). 11. Description and location of spill appearance point(s). If a single sanitary sewer system failure results in multiple spill appearance points, each appearance point must be described. 12. Spill start date and time. 13. Date and time the enrollee was notified of, or self-discovered, the spill. 14. Estimated operator arrival time. 15. For spills greater than or equal to 1,000 gallons, the date and time OES was notified. 16. For spills greater than or equal to 1,000 gallons, the OES control number.
Certified Spill Reports	<p>In addition to the information provided for the Draft Category 1 spill reports, Certified Spill Reports shall include:</p> <ol style="list-style-type: none"> 1. Description of spill destination(s). 2. Spill end date and time. 3. Spill causes (mainline blockage, roots, etc.). 4. Spill 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 spill. 11. Whether or not health warnings were posted as a result of the spill. 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 spill volume discharged and recovered. 17. Spill Certification.^B
<p><i>Table 4-3 Notes:</i></p> <p><i>A Requirements for initial reports for Category 1 spills that are to be filed in the CIWQS Sanitary Sewer System Database, as established by SWRCB Order No. WQ 2022-0103-DWQ. Draft Category 1 spill reports are to be filed as soon as possible, but no later than 3 business days after the discovery of the spill. Certified Category 1 Spill Reports are to be filed no later than 15 calendar days from the termination of the spill. The Assistant Director of Utilities/Wastewater (or his/her CIWQS-certified designee) is responsible for entering spill data and spill reports into the CIWQS Sanitary Sewer System Database.</i></p> <p><i>B Upon spill certification, the CIWQS Sanitary Sewer System Database will issue a Final Spill Identification Number.</i></p>	

Table 4-4 presents notification, monitoring and reporting requirements for Category 3 and Category 4 spills. As summarized in Table 4-4, reporting for Category 3 and Category 4 spills are addressed within monthly and annual reports that are to be submitted to the CIWQS Sanitary Sewer System Database. Monthly reports are due within 30 calendar days of the end of the month, and annual reports are due by February 1st of the following year. The Assistant Director of Utilities/Wastewater (or his/her CIWQS-certified designee) is responsible for entering the monthly and annual reports into CIWQS.

Table 4-4 Notification, Monitoring and Reporting Requirements for Category 3 and Category 4 Spills SWRCB Order No. WQ 2022-0103-DWQ^A		
Element	Category 3 Spill Requirements^A	Category 4 Spill Requirements^B
Notification ^C	<ul style="list-style-type: none"> Not required. 	<ul style="list-style-type: none"> Not required.
Reporting ^D	<ul style="list-style-type: none"> Submit a certified spill report within 30 calendar days after the end of the month in which the Category 3 spill occurs.^{E,F} Submit an amended spill report within 90 calendar days after the certified spill report due date.^{E,F} 	<ul style="list-style-type: none"> For months in which Category 4 spills occur, upload and certify a monthly report within 30 days after the end of the calendar month that details the total number of Category 4 spills and the estimated spill volume.^{E,G} Upload and certify by February 1st of each year, an annual report that identifies Category 4 spills and spill volumes that occurred in the prior calendar year.^{E,G}
Water Quality Monitoring ^H	<ul style="list-style-type: none"> Conduct spill-specific monitoring.^I 	<ul style="list-style-type: none"> Conduct spill-specific monitoring.^I
<p><i>Table 4-4 Notes:</i></p> <p><i>A Notification, monitoring and reporting requirements for Category 3 spills, as established within Order No. WQ 2022-0103-DWQ.</i></p> <p><i>B Notification, monitoring and reporting requirements for Category 4 spills, as established within Order No. WQ 2022-0103-DWQ.</i></p> <p><i>C Notification procedures, as established within SWRCB Order No. WQ 2022-0103-DWQ.</i></p> <p><i>D Reporting procedures, as established within SWRCB Order No. WQ 2022-0103-DWQ.</i></p> <p><i>E Enrollee's legally responsible officials (Assistant Director of Utilities/Wastewater or his/her CIWQS-certified designee) must enter spill data and spill reports into the CIWQS Sanitary Sewer System Database at: http://ciwqs.waterboards.ca.gov/.</i></p> <p><i>F A Category 3 spill is defined as a spill of less than 1000 gallons but more than 50 gallons that originates from a public sanitary sewer system and does not discharge to a surface water.</i></p> <p><i>G A Category 4 spill is defined as a spill of less than 50 gallons that does not discharge to a surface water. A spill of less than 50 gallons that originates from a sewer lateral is a Category 4 spill.</i></p> <p><i>H Water quality monitoring requirements, as established within SWRCB Order WQ 2022-0103-DWQ.</i></p> <p><i>I Spill-specific monitoring (per SWRCB Order No. WQ 2022-0103-DWQ) is to include a visual assessment of the spill location and spread, photography, global positioning system (GPS) descriptions, and an estimation of the spill volume.</i></p>		

Spill Impacts Assessment. For spills in excess of 50,000 gallons or other significant spills which are determined to have occurred for a period in excess of 24 hours, the Assistant Director of Utilities/Wastewater, in consultation with the Director of Utilities, shall determine if an impacts assessment study is required to evaluate short-term or long-term impacts of the spills on beneficial uses or habitat.

The impacts study would document the nature and degree of spill impacts to beneficial uses and habitat and would evaluate recovery times and recommended mitigation actions. Results of the impacts study can be incorporated into City responses to any subsequent Administrative Civil Liability complaints filed against the City by the RWQCB.

Spill Technical Reports. SWRCB Order No. WQ 2022-0103-DWQ requires the City to develop and implement a Spill Technical Report for spills to surface waters of 50,000 gallons or more.

Table 4-5 (page 4-15) identifies information that, at a minimum, must be addressed within the Technical Report. Under the authority of the Director of Utilities, the Assistant Director of Utilities/Wastewater is responsible for developing Spill Technical Reports with the technical assistance from the Wastewater Collections Supervisor and Wastewater Division staff. The Assistant Director of Utilities/Wastewater (or his/her CIWQS-certified designee) must submit the Technical Report in the CIWQS Sanitary Sewer System Database within 45 days of the termination date of the spill.

4.10 Recordkeeping Requirements

City-Owned Sewer Collection Facilities. SWRCB Order No. WQ 2022-0103-DWQ requires the City to maintain spill records for a minimum of five years.¹⁰ Table 4-6 (page 4-16) itemizes spill information that must be maintained on record for spills from City-owned collection facilities. The Assistant Director of Utilities/Wastewater or his/her designee is responsible for ensuring that applicable spill records are maintained and made available for review by regulators upon request.

Spills from Sewer Laterals. Additionally, the City is required under Order No. WQ 2022-0103-DWQ to maintain records for each individual Category 4 spill and each non-Category 1 spill from City-owned laterals. Table 4-7 (page 4-17) presents recordkeeping requirements for spills from private laterals and Non-Category 1 spills from City-owned laterals.

¹⁰ Records are required to be maintained for five years both for recordkeeping requirements established under SWRCB Order No. WQ 2022-0103-DWQ and recordkeeping requirements established under the prior SWRCB Order No. WQ 2006-0003-DWQ, as amended by Order No. 2013-0058-EXEC.

**Table 4-5
 Required Information for Category 1 Spill Technical Reports**

Category	Required Technical Report Information ^A
Causes and Circumstances of the Spill	<ul style="list-style-type: none"> • Complete and detailed explanation of how and when the spill was discovered. • Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions. • Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destination. • Detailed description of the methodology employed and available data used to calculate the volume of the spill and, if applicable, the spill volume recovered. • Detailed description of the spill cause(s). • Description of the pipe material and estimate age of the pipe material at the failure location. • Description of the impact of the spill. • Copies of original field crew records used to document the spill. • Historical maintenance records for the failure location.
Spill Response Actions	<ul style="list-style-type: none"> • Chronological narrative description of all actions taken by City to terminate the spill. • Explanation of how the Spill Emergency Response Plan was implemented to respond to and mitigate the spill. • Final corrective action(s) completed and a schedule for planned corrective actions, including: <ul style="list-style-type: none"> ○ Local regulatory agency 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 recurrences. ○ Necessary modifications to the Emergency Spill Response Plan to incorporate lessons learned in responding to and mitigating the spill.
Water Quality Monitoring	<ul style="list-style-type: none"> • Description of all water quality sampling activities conducted. • List of pollutant and parameters monitored, sampled and analyzed, as required within SWRCB Order No. WQ 2022-0103-DWQ. • Laboratory results, including laboratory reports. • Detailed location map illustrating all water quality sampling points. • Other regulatory agencies receiving sampling results (if applicable).
Impacts Evaluation	<ul style="list-style-type: none"> • Evaluation of spill impacts, including a description of short-term and long-term impact(s) to beneficial uses of receiving waters.
<p><i>Table 4-5 Notes:</i></p> <p><i>A Technical Report requirement established within SWRCB Order No. WQ 2022-0103-DWQ.</i></p>	

**Table 4-6
 Required Recordkeeping
 Spills from City-Owned Sewer Collection Facilities**

Category	Required Spill Report Records to Be Maintained for Five Years ^A
General Records	Maintain records to document compliance with all provisions of SWRCB Order No. WQ 2022-0103-DWQ (as well as the prior Order No. WQ 2006-0003-DWQ, as amended by Order No. WQ 2013-0058-EXEC), including any required records generated by sewer system contractors.
Spill Complaints	Records documenting how the City responded to all notifications of possible or actual spills, both during and after business hours, including complaints that do not result in spills. Each complaint record shall, at a minimum, include the following information: <ul style="list-style-type: none"> a. Date, time, and method of notification. b. Date and time the complainant or informant first noticed the spill. c. Narrative description of the complaint, including any information the caller can provide regarding whether the complainant or informant reporting the potential spill knows if the spill has reached surface waters, drainage channels or storm drains. d. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously. e. Final resolution of the complaint.
Spill Remediation	Records documenting steps and/or remedial actions undertaken by City, using all available information, to comply with requirements of Order No. WQ 2022-0103-DWQ.
Spill Flow Estimates	Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
OES Notification	All OES notification records.
Telemetry Records	All records (both printed and electronic records) required under Attachment E of SWRCB Order No. WQ 2022-0103-DWQ, including but not limited to records from SCADA systems, alarm systems, flow monitoring devices, computerized maintenance management systems, asset management documents or software, or telemetry from other instruments used to estimate wastewater levels, flow rates, or flow volumes.
Audit Records	All records pertaining to SSMP audits, including (1) complete audit documents and findings, (2) name and contact information of staff or consultants who conducted the audits, and (3) follow-up actions based on audit findings.
Equipment Records	Records and a log of all owned and leased sewer system cleaning, operational, maintenance, construction and rehabilitation equipment.
Work Orders	All records of all work orders for operations and maintenance projects.

Table 4-6 Notes:

A Record keeping requirement established within Attachment E of SWRCB Order No. WQ 2022-0103-DWQ.

Table 4-7
Required Recordkeeping
Spills from Private Laterals and Non-Category 1 Spills from City-Owned Laterals

Spill Category	Required Spill Report Records to Be Maintained for Five Years ^A
Category 4 Spills	<ul style="list-style-type: none"> • Name and telephone number of City contact person to respond to the spill. • Spill location, including GPS coordinates of the spill origination point. • Description of drainage conveyance system location. • Total spill volume, spill volume recovered and spill volume not recovered from the drainage conveyance system. • Spill date and start time. • Spill cause. • Description of spill response activities, including spill containment and cleanup. • Description of the methodology of how the spill volume was estimated, including SCADA records or other telemetry used to estimate spill volume and volume of recovered flow.
Spills from Individual Laterals	<ul style="list-style-type: none"> • Date and time the City was notified of the spill. • Location of the spill. • Estimated spill volume. • Cause of the spill. • Description of how the spill volume was estimated or calculated.
Annual Spill Information	<ul style="list-style-type: none"> • Total annual spill volume from laterals • Description of corrective actions, including regulatory enforcement actions against lateral owners or system operation and maintenance modifications to prevent recurrence of the spill.

Table 4-7 Notes:

B Record keeping requirement established within Attachment E of SWRCB Order No. WQ 2022-0103-DWQ.

ATTACHMENT 1 EMERGENCY CONTACT INFORMATION

Regulatory and Resource Agencies Contact Numbers	
Agency	Telephone Number
San Diego Environmental Health Services (SDEHS)	(858) 565-5255 (work hours) (858) 565-5255 (after hours)
Office of Emergency Services (OES)	(800) 852-7550 (916) 262-1677 (fax)
Escondido Police Department	(760) 839-4722
Escondido Fire Department	(760) 839-5400
Regional Water Quality Control Board (RWQCB) RB9Spill_Report@waterboards.ca.gov	(619) 516-1990 (858) 822-8344 (after hours) (619) 516-1994 (fax)

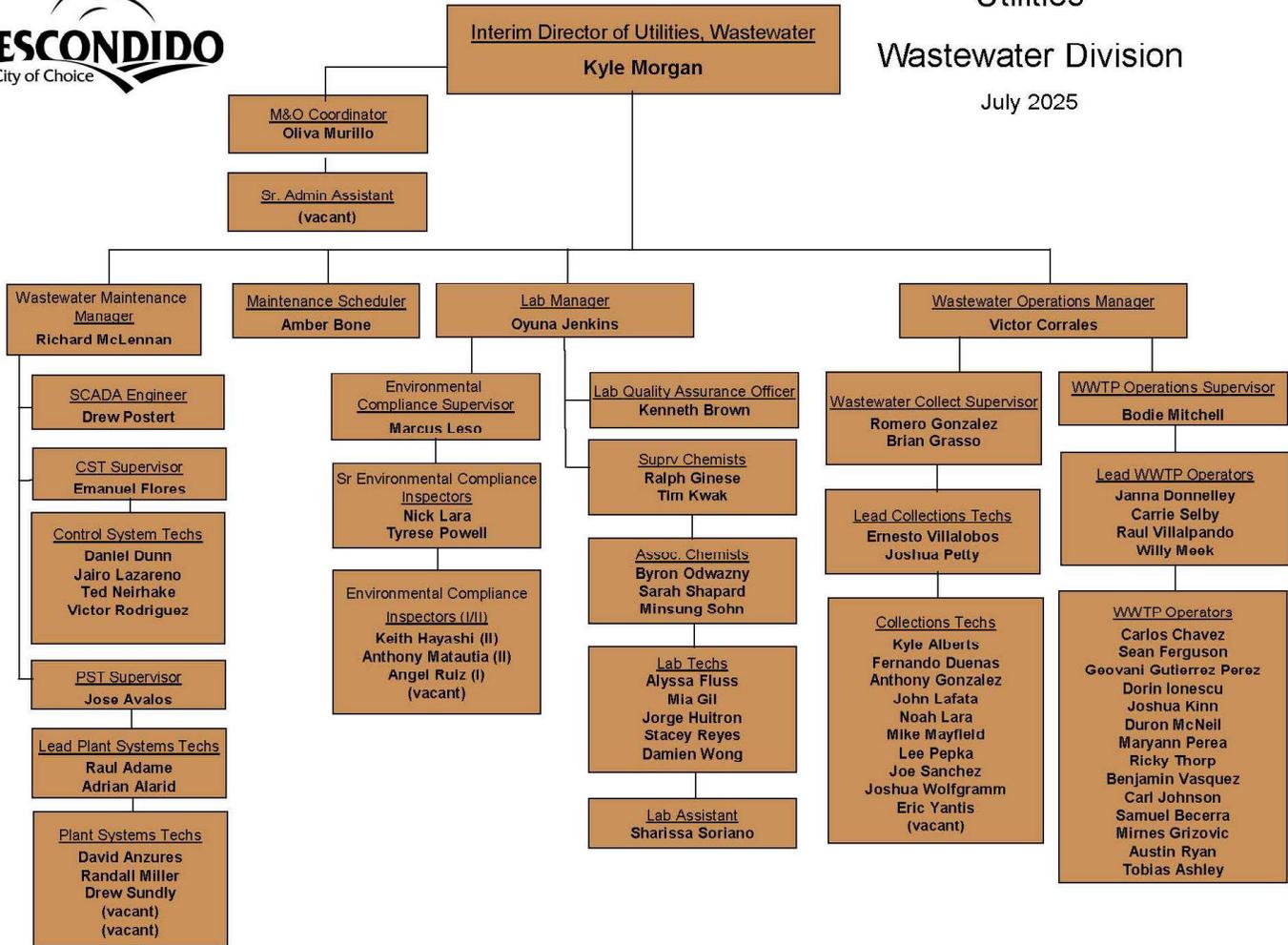
City of Escondido Spill Response Team Contact Information (Supervisors Certified to Submit Information into CIWQS)			
Position or Responsible Party	Office Telephone	Mobile Telephone	Email address
Interim Director of Utilities Kyle Morgan	(760) 839-6290 Ext. 7017	(760) 715-2378	Kyle.Morgan@escondido.gov
Wastewater Operations Manager Victor Corrales	(760) 839-6290 Ext. 7101	(760) 703-1862	Victor.Corrales@escondido.gov
Wastewater Collections Supervisor Brian Grasso	(760) 839-6290 Ext. 7019	(760) 715-2234	Brian.Grasso@escondido.gov
Wastewater Collections Supervisor Romero Gonzalez	(760) 839-6290 Ext. 7010	(760) 715-1694	Romero.Gonzalez@escondido.gov

ATTACHMENT 2

CITY OF ESCONDIDO WASTEWATER DIVISION ORGANIZATIONAL CHART



Utilities
 Wastewater Division
 July 2025



RESOLUTION NO. 2025-103

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
ESCONDIDO, CALIFORNIA, APPROVING THE 2025
SANITARY SEWER MANAGEMENT PLAN

WHEREAS, the City of Escondido owns and operates a sanitary sewer system that conveys raw sewage to the Hale Avenue Resource Recovery Facility; and

WHEREAS, sewage spilled from the City's sanitary sewer system poses a threat to public health, waters of the State, and the environment; and

WHEREAS, the State Water Board adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems to establish statewide standards and requirements for sewer system operations, the prevention of and reporting of spills from sanitary sewer systems; and

WHEREAS, the State Water Resource Control Board's ("SWRCB") Statewide Sanitary Sewer Systems General Order No. 2022-0103-DWQ requires the City to maintain a Sanitary Sewer Management Plan ("SSMP"), providing SSMP updates to the SWRCB every six years; and

WHEREAS, the City Council must approve the SSMP updates.

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

1. That the above recitations are true.
2. That the City Council approves the 2025 Sewer Management Plan, which is attached hereto as Exhibit "A" and is incorporated by this reference.

PASSED, ADOPTED AND APPROVED by the City Council of the City of Escondido at a regular meeting thereof the 27th day of AUGUST, 2025 by the following vote to wit:

AYE : Councilmembers: FITZGERALD, GARCIA, GARCIA, MARTINEZ, WHITE

NOES : Councilmembers: NONE

ABSENT : Councilmembers: NONE

APPROVED:

DocuSigned by:
Dane White
19FFE5DB8C3B409...
DANE WHITE, Mayor of the
City of Escondido, California

ATTEST:

DocuSigned by:
Zack Beck
A58535D0BDC1430...
ZACK BECK, City Clerk of the
City of Escondido, California

RESOLUTION NO. 2025-103