Marina Coast Water District Sewer System Management Plan (SSMP)

June 2025

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Abbreviations and Definitions

Automatic Transfer Switch (ATS)	Self-acting electrical devices that automatically switches the electrical load from the primary power source to a backup source, such as a generator, when the primary power fails.
Best Management Practices (BMP)	A set of practices or methods that are considered the most effective and practical way to achieve a specific goal while minimizing negative consequences.
California Integrated Water Quality System (CIWQS)	Computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.
California Office of Emergency Services (CalOES)	State agency that coordinates and supports the response, recovery, and preparedness of major emergencies and disasters in California.
California Water Environment Association (CWEA)	An organization that connects wastewater professionals and provides industry certifications.
Capital Improvement Plan (CIP)	A plan for financing, locating, and timing of Capital Improvement Projects over several years.
Closed-Circuit Televising System (CCTV)	A method of inspection used to evaluate the structural conditions within sewer pipes.

Computer-Aided Design (CAD)	Digitally created 2D drawings and 3D models of real-world products before they're ever manufactured.
Computer Maintenance Management System (CMMS)	A computer-based system that manages the maintenance of equipment, assets, buildings, fleets, and other infrastructure.
Emergency Response Plan (ERP)	A procedure document to assist in situational disasters.
FOG (Fats, Oils, and Grease)	Unwarranted substances in sewer pipes that are the leading cause of blockages.
Geographic Information System (GIS)	A computer-based system that analyzes, stores, manages, and visualizes geographic data.
Graphical User Interface (GUI)	System of interactive visual components for computer software.
Infiltration/ Inflow (I&I)	The process of groundwater, or water from sources other than domestic wastewater, entering sanitary sewers.
Key Performance Indicators (KPI)	Quantifiable measures that organizations use to evaluate their success in achieving specific objectives.
Legally Responsible Official (LRO)	A person who is responsible for ensuring compliance with the laws, policies, and regulations of the Statewide General Discharge Requirements.

Marina Coast Water District (MCWD/ District)	A Special County Water District that currently provides water, wastewater, and recycled water services to the Marina and the former Fort Ord areas.
Monterey County Environmental Health Department (MCEH)	The regulating agency that enforces laws for the discharge of hazardous substances.
Monterey County Emergency Operations Center (EOC)	Physical or virtual location designed to support emergency response, business continuity, and crisis communications activities.
Monterey One Water (M1 Water)	The regional wastewater treatment facility for the Monterey Peninsula.
National Association of Sewer Service Companies (NASSCO)	A non-profit organization that provides training and certification on the inspection and assessment of sanitary sewers.
Overflow Emergency Response Plan (OERP)	Procedure document for responding to sanitary sewer overflows.
Pacific Gas & Electric (PG&E)	Electrical energy provider for the District.
Pipeline Assessment Certification Program (PACP)	A certification method used to evaluate the condition of sewer mains.
Pipeline Observation System Management (POSM)	Software used in sanitary sewer inspections.
Public Relations (PR)	The practice of providing information from organizations such as the District to the public to provide a positive influence.

Procedures, Guidelines, and Design Requirements (PGDR)	A document that provides guidelines and requirements for the proper design and construction of the District's water, wastewater, and recycled water systems.
Public Safety Power Shutoffs (PSPS)	Temporary power outage implemented by utilities in high-risk wildfire areas to reduce the risk of wildfires caused by electric infrastructure during severe weather conditions.
Sanitary Sewer Overflows (SSO)	Backup and spillage from sewer lines.
Sewer Spills (Spills)	Sanitary sewer overflows that result in the unplanned release of sewage outside of the sewer collection system.
Sewer System Management Plan (SSMP)	A document that describes the activities used to effectively manage a wastewater collection system.
Spill Emergency Response Plan (SERP)	A document that outlines procedures for preventing, stopping, containing, and cleaning up spills, as well as disposing of contaminated materials.
State Water Resources Control Board (SWRCB)	The regulatory agency in California that oversees water quality, regulations, laws, funding, watershed management, and enforcement.
Supervisory Control and Data Acquisition (SCADA)	Control system for high-level supervision of machines and processes, which the District utilizes for its water and wastewater facilities.
Waste Discharge Requirements (WDR)	Regulations that govern the discharge of wastewater to land and water bodies.

Element 1.0: Sewer System Management Plan Goals and Introduction

The Sewer System Management Plan (SSMP) is a planning document for the operations and maintenance of the Marina Coast Water District's (MCWD or District) wastewater collection systems and related facilities. The goal of the SSMP is to effectively manage the wastewater systems in compliance with the updated Waste Discharge Order from the State Water Resources Control Board (SWRCB). As the enrollee, the District shall implement measures to reduce and prevent sanitary sewer spills (spills) and contain and mitigate any spills that occur from the enrollee's system. The effective management of the District's wastewater collection system shall include, but is not limited to, the following:

- Minimizing the number and impact of sewer spills
- Managing, maintaining, and/ or improving the collection system infrastructure in such a manner as to provide reliable service to the community well into the future
- Provide adequate sewer capacity to convey peak flows
- Cost-effectively minimize infiltration/ inflow (I&I) and to provide adequate sewer capacity to accommodate design and or potential storm flows

1.1: Regulatory Context

On May 2, 2006, the SWRCB established Order No.2006-0003-DWQ of the statewide general Waste Discharge Requirements (WDR) for sanitary sewer collection systems. The WDR requires any public agency that owns or operates a sanitary sewer system more than one mile in length to comply with the requirements of the WDR to reduce the number of Sanitary Sewer Spills and develop a Sewer System Management Plan (SSMP). On December 6, 2022, the SWRCB updated the statewide general WDR under Order WQ 2022-0103-DWQ, which took effect on June 3, 2023. The updated order supersedes all previous orders and builds upon the requirements to prevent, reduce, and mitigate all sewage spills. Spills are overflows from systems of various types of wastewater that may result in polluted surface and groundwater, adversely impacting aquatic life and public health. The WDR applies to systems that convey treated or partially treated domestic, municipal, commercial, and/ or industrial waste (including sewage sludge) and any mixture of these wastes within inflow or infiltration of stormwater or groundwater conveyed in a sanitary sewer system. Under this WDR, agencies must implement an SSMP that maintains a resilient sanitary sewer system to prevent spills through effective planning, operations, and maintenance.

1.2: Sewer System Management Plan Update Schedule

Under the new order, the District must adopt an updated SSMP to comply with the 2022 WDR, which requires the District to incorporate additional elements into its SSMP and have it approved at a regularly held board meeting by August 2, 2025. Following the adoption of the District's new SSMP, the District shall update and adopt its SSMP every six years at a public meeting. Minor updates shall be made regularly, but do not require governing approval. All regular changes shall be documented in a change log attached to the SSMP.

In addition to the required update of the SSMP, all enrollees must compile and submit an SSMP audit every three years, which examines the effectiveness of the SSMP. Furthermore, the District will continue to perform a lower-level audit annually, which is voluntary but helps ensure that the District is meeting its targets and goals through preventive maintenance. Key performance indicators (KPIs) shall be used to determine the efficiency and effectiveness of the SSMP. KPIs should include, at a minimum, the footage of sewer pipe cleaned and inspected each year, the number of spills, the category of spills, and the quantity of spills each year.

1.3: Sewer System Asset Overview

Marina Coast Water District is a Special County Water District governed by an elected five-member Board of Directors. The District's service area encompasses approximately 47.2 square miles, as shown in Figure 1 below. The District was formed in 1960 and currently serves approximately 38,377 customers through approximately 10,832 service connections as of January 1, 2025. See Table 1 for a breakdown of sewer connections by category.

Figure 1 - The District's Current and Future Service Areas

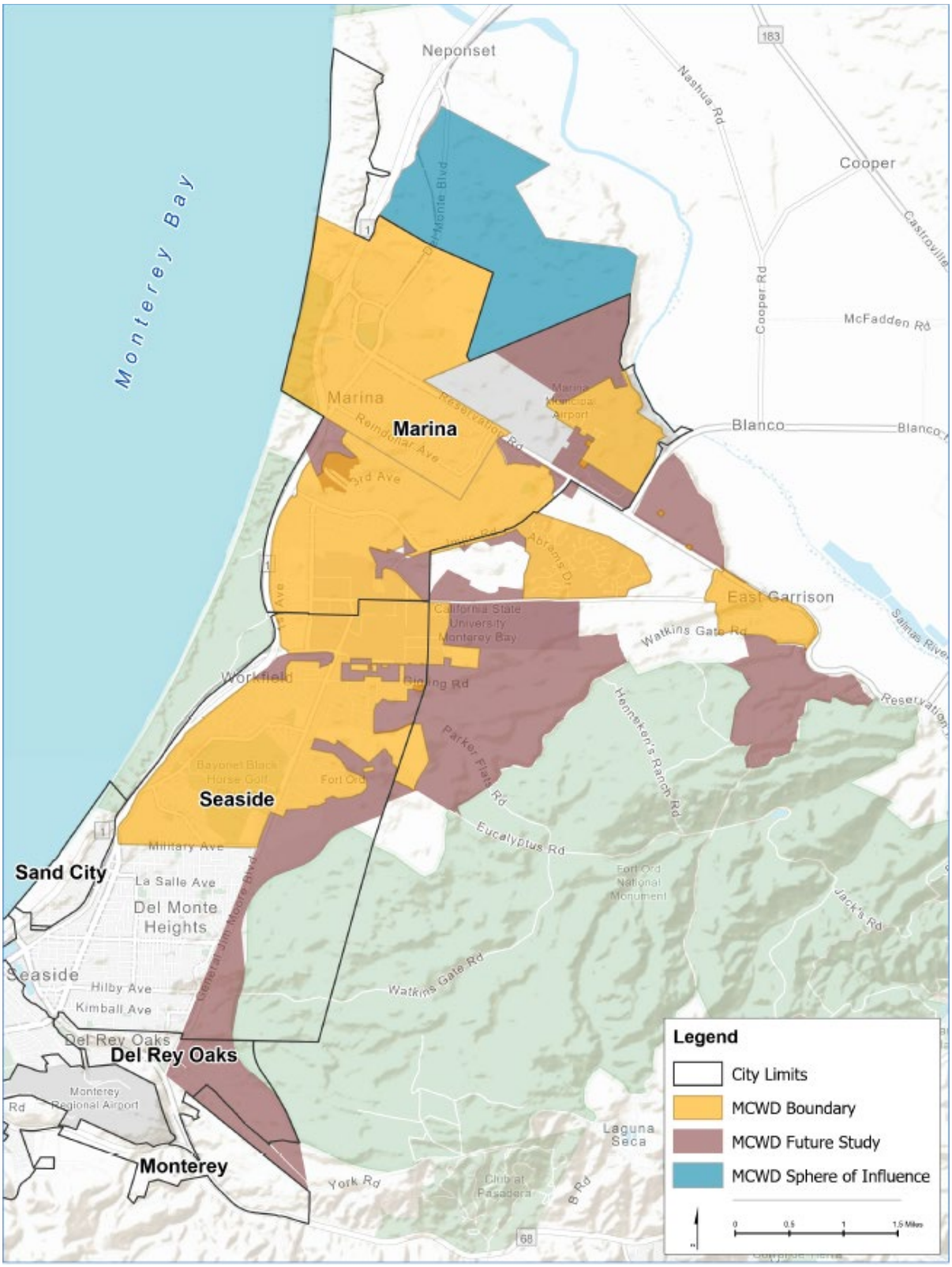


Table 1 - Sewer Connections by Category

Sewer Category Type	Count	Percentage of total Connections
Single Family	7,009	67.55
Multi-Family	2,965	28.58
Commercial	245	2.36
Institutional	153	1.47
Industrial	4	.04
Total	10,376	100

The sanitary sewer system is comprised of approximately 150 miles of gravity sewer main, ranging in size from 6" to 72", and 7 miles of sewer force main, ranging in size from 3" to 10". See tables 2 and 3 below for details of the size and length of gravity and force mains within the District's service area. The District has 20 sewer lift stations, which range in size from 190 gallons per minute (gpm) to 2,460 gpm at full capacity. See Table 4 for a comprehensive list of all the District's sewer lift stations, including pump horsepower, size, pump make, and standby power availability.

Table 2 - Sewer Gravity Main Quantity

Sewer Gravity Main Size	Linear Feet	Miles	Percentage in the System
≤ 6 inch	272,976	51.70	34.45
8 inch	387,024	73.30	48.84
9-18 inches	118,800	22.50	15.00
19-36 inches	13,200	2.5	1.66
>36	475.2	.09	.05
Total	792,475.2	150.09	100

Table 3 - Sewer Force Main Quantity

Sewer Force Size	Linear Feet	Miles	Percentage in the System
≤ 6 inch	9,662	1.83	24.43
8 inch	10,665	2.02	26.97
9-18 inches	19,202	3.64	48.60
Total	39,529	7.49	100

Table 4 - Sewer Lift Station Capacity

Sewer Lift Station	Size Pump (HP)	Total Capacity (GPM)	Pump Manufacture	Standby Power: Permanent Generator, Receptacle, or both
Booker	20	1,360	Flygt	Permanent Generator
Carmel	3	508	Flygt	Permanent Generator
Clark	11	520	Flygt	Permanent Generator
Cosky	6.5	432	Flygt	Permanent Generator
Crescent	3	340	Flygt	Permanent Generator
Dunes	20	1,400	Flygt	Both
East Garrison	25	740	Flygt	Both
Fritzsche	10	320	Flygt	Permanent Generator
Gigling	45	2,400	Flygt	Both
Hatten	2.2	224	Flygt	Receptacle

Hodges	4	190	Flygt	Both
Imjin	2x (20) 1x (45)	2,460	Flygt	Both
Landrum	10	700	Flygt	Permanent Generator
Neeson	3	240	Flygt	Permanent Generator
Promontory	3	186	Flygt	Permanent Generator
Ord Village	70	1,800	Flygt	Both
Reservation	25	1,420	Flygt	Both
San Pablo	3	400	Flygt	Permanent Generator
Schoonover	15	940	Flygt	Permanent Generator
Wittenmyer	5	280	Flygt	Both

The District provides potable water, recycled water, and wastewater services to ten land-use jurisdictions within Monterey County (see Table 5 below for a breakdown of current wastewater services provided). Wastewater is conveyed from the District's service area to Monterey One Water (M1 Water), the regional wastewater treatment facility. The District bills its customers directly for wastewater collections. Ownership and maintenance of the upper and lower lateral, as defined in the District's code as a "side sewer", is the property owner's responsibility.

Table 5 - Land Use Jurisdictions

Land Use Jurisdiction	Currently Uses Wastewater Collections
City of Marina	Yes, Central Marina and Fort Ord Lands
City of Seaside	Yes
City of Del Rey Oaks	No
City of Monterey	No
U.S. Army	Yes, Ord Military Community, DOD, Presidio of Monterey-Seaside area
State of California- State Parks	Yes, one building on Reservation Rd., and the Marina State Beach restroom.
County of Monterey	Yes, East Garrison
UC Santa Cruz	Yes, UC MBEST campus
Cal State University, Monterey Bay (CSUMB)	Yes, the main campus and east campus housing
Bureau of Land Management	No sewer, just water to the maintenance facility

The District utilizes ArcGIS™, an Esri platform, for its Geographic Information System (GIS), and Cityworks™ for its Computer Maintenance Management System (CMMS). All systems are maintained primarily by internal staff. ArcGIS is used in conjunction with Computer-Aided Design (CAD) files to enable users to view maps digitally in the field, complete with attributed data. Cityworks is a work order platform that enables users to view ArcGIS mapping, create and track work orders, and set up preventive work orders and inspection requests. A GIS boundary in the form of a shapefile will be used to upload the District's wastewater service area and related

sewer assets to the California Integrated Water Quality System (CIWQS) portal, as per Section 4.1 of the 2022 WDR.

1.4: Goal Implementation

To implement the goals of the SSMP, the District must continue to develop and review this document on a regular basis to ensure that the following objectives are met:

- Methodically clean all sewer lines on a scheduled basis
- Provide monthly, quarterly, bi-annual, and annual preventative maintenance of problematic areas (hot spots) within the collection system
- Conduct a video (CCTV) inspection/ assessment of each sewer mainline every five years and continuously thereafter, identifying areas requiring root control, repairs, or additions to the Capital Improvement Program (CIP)
- Conduct appropriate analysis/ evaluation of spills by utilizing systemic maintenance and activity data collection
- Identify collection system blockages due to fats, oils and grease (FOG), rags, and debris, and develop strategies to mitigate blockages
- Maintain records of the sanitary sewer system and respond to customer inquiries, concerns, and complaints
- Continue with the development of CIP's directed at a high level of maintenance of the current District assets by improving system reliability and providing adequate future capacity

Element 2.0: Organization

The SSMP must identify:

- The name of the Legally Responsible Official (LRO) per the WDR order; and
- Provide the names and telephone numbers for management, administrative, and maintenance positions responsible for the implementation of specific measures in the SSMP program; and
- The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and

- The chain of communication for reporting spills, from receipt of a complaint or other information, including the person responsible for reporting spills to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, and/or California Office of Emergency Services (CalOES)).

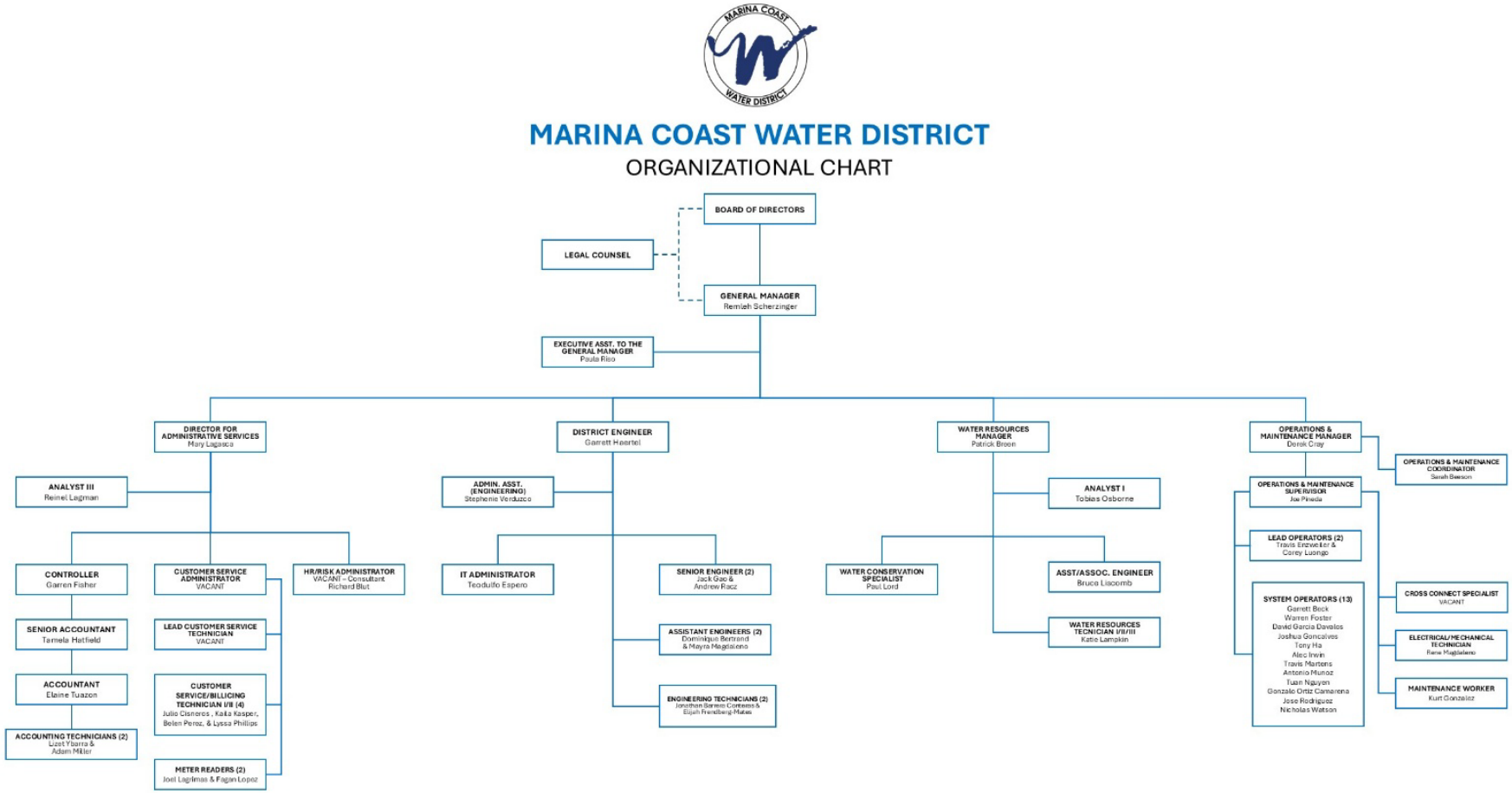
2.1: Legally Responsible Official

The Operations and Maintenance Manager is the District's LRO, who possesses the required managerial position, certification, and experience to serve as a duly authorized representative. The LRO is responsible for ensuring compliance with the WDR and for ensuring that the District effectively utilizes its SSMP.

2.2: Organizational Chart

The District departments include Administration, Water Resources, Engineering, and Operations and Maintenance (O&M) as outlined in the District Organizational Chart in Figure 2. Lines of authority and specific positions involved in the SSMP implementation are also outlined.

Figure 2 - Organizational Chart



2.3: Position Titles, Telephone Numbers, and Email Addresses

The following table outlines all positions, contact information, and respective responsibilities for implementing SSMP elements.

Table 6 - Spill Contact List

SSMP Element	Responsible Person	Phone Number	Email
1 - Introduction and Goals	Derek Cray- O&M Manager	(831) 883-5903	dcray@mcwd.org
2 - Organization	Remleh Scherzinger- General Manager	(831) 384-6131	priso@mcwd.org
3 - Legal Authority	Remleh Scherzinger, General Manager and District Legal Counsel	(831) 384-6131 (209) 667-5501	priso@mcwd.org dhobbs@cawaterlaw.com
4 - O & M Program	Derek Cray- O&M Manager	(831) 883-5903	dcray@mcwd.org
5 - Design and Performance Provisions	Garrett Haertel- District Engineer	(831) 883-5954	ghaertel@mcwd.org
6 - Spill Emergency Response Plan	Derek Cray- O&M Manager	(831) 883-5903	dcray@mcwd.org
7 - Sewer Pipe Blockage Control Program	Derek Cray- O&M Manager	(831) 883-5903	dcray@mcwd.org
8 - System Evaluation, Capacity Assurance, CIP	Garrett Haertel- District Engineer	(831) 883-5954	ghaertel@mcwd.org

9 - Monitoring, Measurement, and Program Modifications	Derek Cray- O&M Manager	(831) 883-5903	dcray@mcwd.org
10 - Internal Plan Audits	Derek Cray- O&M Manager	(831) 883-5903	dcray@mcwd.org
11 - Communications	Derek Cray- O&M Manager	(831) 883-5903	dcray@mcwd.org

2.4: Organizational Lines of Authority

The Operations and Maintenance Manager (O&M Manager) is primarily responsible for developing, implementing, auditing, and maintaining the District's SSMP; however, he may delegate certain responsibilities to other District staff. The following District personnel are involved in the SSMP implementation and are critical to spill communication and response, as well as SSMP success.

Board of Directors (Board): The Board of Directors is an elected governing board of the District responsible for establishing policy. There are five elected members of the Board of Directors who are elected by the voters to serve four-year terms.

General Manager (GM): The General Manager (GM) is responsible for managing the District. The GM leads staff, allocates resources, delegates responsibility, authorizes contracts, provides updates to the Board, implements policy, and serves as a Public Information Officer. The General Manager reports to the Board.

District Engineer: The District Engineer is responsible for the management of the Engineering Department and oversees water and sewer CIP. This individual helps coordinate the development and implementation of the District's SSMP and assists in preparing documents and reports to support the District's operations. The District Engineer also enforces policy and ensures compliance with laws, ordinances, and regulations. This person leads staff, allocates resources, delegates responsibility, and authorizes outside contractors to perform services. The District Engineer reports to the General Manager.

Operations and Maintenance (O&M) Manager: The Operations and Maintenance Manager is responsible for managing the potable water, recycled water, and wastewater collection systems. The O&M Manager is responsible for developing, implementing, auditing, maintaining, and updating the District's SSMP. This individual is also the LRO for certifying applications, reports, and other required information. The O&M Manager enforces policy, plans strategy, and prepares water, recycled water, and wastewater planning documents. This person leads, directs, mentors staff, allocates resources, delegates responsibility, and authorizes outside contractors to perform services. The O&M Manager reports to the General Manager.

Operations and Maintenance (O&M) Supervisor: The Operations and Maintenance Supervisor manages field operations and maintenance activities for potable water, recycled water, and wastewater collection systems. The O&M Supervisor prepares reports and provides relevant information to the O&M Manager. This individual also prepares and implements contingency plans, leads emergency responses, investigates customer complaints, notifies appropriate regulatory agencies, and trains field crews. The O&M Supervisor is responsible for creating draft spill reports and ensuring that the appropriate documentation is completed for each spill. The O&M supervisor reports directly to the O&M Manager.

Lead Operator: The Lead Operator operates the potable water, recycled water, and wastewater system, directs preventative maintenance activities, leads emergency response, trains field crews, and prepares and implements contingency plans. This staff member mobilizes and responds to notifications of sewer stoppages and spills. The Lead Operator reports to the O&M Supervisor.

System Operator I/II: The System Operator I/II is responsible for water, recycled water, and wastewater collection system operations, field maintenance, and responding to spills. This person is involved in preventive maintenance activities, mobilizing, and responding to notifications of stoppages and spills. System Operators are typically the first responders and mitigators of sewer stoppages and spills. System operators are available 24 hours a day to respond to emergencies. The position reports to the Lead Operator and the Operations and Maintenance Supervisor.

2.5: Chain of Communication and Spill Reporting

The spill chain of communication begins with the discovery of a spill by District staff or through a call to the District's main line (831-384-6131). If a spill call is received during normal business hours, the District operator or the staff member who discovered the spill will contact the individuals listed in Table 7 in the specified order. If a spill call is made to the District's main line outside of business hours, the call will be forwarded to an answering service center where an operator will contact on-call staff members. On-call personnel are staffed 24 hours a day, 7 days a week, and are subject to disciplinary action if they fail to respond.

Once a spill call has been received and the appropriate staff members have been notified, O&M staff are dispatched to the corresponding area for confirmation and to initiate containment, cleanup, and relief of the blockage. If necessary, the O&M Supervisor and the Lead Operator will guide the System Operators through the spill event, including determining the cause of the spill, removing the blockage, containing and cleaning the spill, and any additional mitigation measures. These individuals are also responsible for communicating all details to the O&M Manager and completing all necessary paperwork and field reports. The primary responder or the on-call staff member is responsible for external notification to the appropriate regulatory agencies within the timeframes specified by each agency.

The O&M Supervisor is responsible for putting together the draft spill report and supporting documentation. The O&M Manager is the LRO who will verify and certify all spill events to the applicable regulatory agencies. Depending on the size and nature of the spill, the following agencies may be notified and, or given spill reports:

- Monterey County Environmental Health Department (MCEH)
- State Water Resources Control Board (SWRCB)
- California Office of Emergency Services (CAL OES)
- California Department of Fish and Wildlife

See the Spill Emergency Response Plan (Appendix A) for further details on spill response procedures and reporting processes. These plans are intended to be refined and periodically updated to ensure that all corrective measures and procedures are implemented to further reduce the frequency and impact of spills in the District's service area. Contact information and descriptions of specific personnel responsible for SSMP implementation are provided in Table 6, and spill communication is further detailed in Table 7 below.

Table 7 - Spill Communication List

ORDER NUMBER	STAFF ASSIGNED by ORDER NUMBER	TITLE DESCRIPTION	CONTACT INFORMATION
1	Sewer On Call Staff	On call - Sewer	Cell (primary): (831) 242-0587 Cell (secondary): (831) 747-9509
2	Water On Call Staff	On call – Water	Cell (primary): (831) 277-2128 Cell (secondary): (831) 747-9513
3	Joe Pineda	O&M Supervisor	Cell (primary): (831) 324-5091 Cell (secondary): (831) 747-9512
4	Derek Cray	O&M Manager	Cell (primary): (831) 682-3908 Cell (secondary): (831) 747-9510

Element 3.0: Legal Authority

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

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

3.1: District existing ordinance and legal authority

The District possesses the necessary legal authority to prevent illicit discharges, requires design standards, ensures access to maintenance/ inspection and FOG discharges, and enforces violations as required by the WDR. Documents adopted by the District demonstrating this legal authority include the District Water Code*, Standard Plans and Specifications for Construction of Domestic Water, Sewer, and Recycled Water Facilities* (Standard Plans and Specifications) and *Procedures, Guidelines, and Design Requirements* (PGDR*)*. Sections of the District's Standard Plans and Specifications were updated in November 2007, while the PGDR was revised in September 2024 to reflect current engineering practices and new standards. Sanitary sewer requirements and regulations are addressed in Title 5 - Sewer System Service of the District Water Code and sections of Design Requirements and Standards and Specifications that apply to sewer facilities. The main purpose of the latter documents are to ensure the proper design and construction of sewer facilities. Applicable sections establishing the required legal authority are listed in Table 8, while excerpts from the listed sections are available in Appendices C, D, and E.

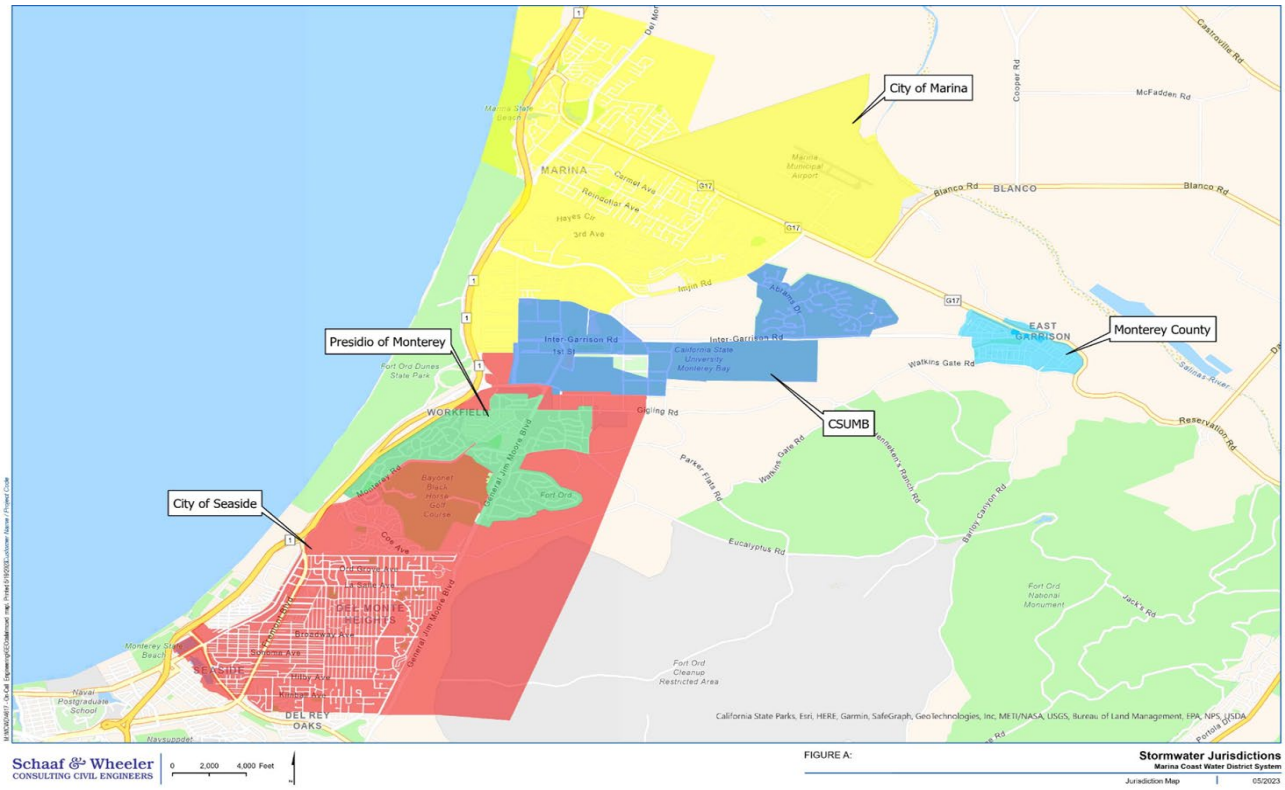
Table 8 - Summary of District's Legal Authority

LEGAL AUTHORITY TO:	DISTRICT WATER CODE	*STANDARD PLANS AND SPECIFICATIONS*	*PGDR*
Prevent illicit discharges into its wastewater collection system	5.12.020 Treatment of wastes required 5.20.020 Drainage into sanitary sewers prohibited 5.20.030 Use of storm sewers required 5.20.040 Types of waste prohibited		500.10 Sanitary Sewer Pretreatment
Require that sewers and connections be properly designed and constructed	5.08.010 Violation unlawful 5.16.010 Permit to connect 5.16.020 Construction requirements 5.16.170 Plans, profiles and specifications required 5.16.240 Design and construction standards	Various sections (i.e. Section 02701 Installation of gravity sewer pipelines)	Section 300.10 Project Construction Section 500.1 Design Criteria for Sewer Facilities
Ensure access for maintenance, inspection or repairs for portions of the mains or laterals owned or maintained by the District	5.08.100 Powers and authorities of inspectors 5.24.110 All work to be inspected	Section 02701 Installation of gravity sewer pipelines: (N) CCTV Inspection (O) Final Inspection	300.10.1 District authority300.10.8 Inspection of work
Limit the discharge of fats, oils and grease and other materials, substances or debris that may cause blockages	5.20.050 Grease trap, grease interceptor or other device required 5.20.060 - Maintenance	Section 03463 Grease Interceptors	500.11 Grease Interceptors
Enforce any violation of its sewer ordinance	5.08.030 Violation 5.08.060 Public nuisance 5.08.070 Disconnection 5.08.090 Means of Enforcement Only 5.08.110 Violation - Misdemeanor 5.08.120 Liability for Violation		
Obtain easement accessibility agreements for locations requiring sewer access	5.16.190 Easements or rights-of-way		300.7.2 Easements

3.2: Stormwater Conveyance

The District shall coordinate with stormwater agencies regarding locations of facilities and response requirements. The District currently has five agencies within its service area, where wastewater has the potential to reach storm systems (see Figure 3 below). During the creation of the Spill Emergency Response Plan (SERP), the District contacted each stormwater agency to gather maps (if available) as well as emergency contact information. When a spill reaches a storm drain, District O&M staff will notify the appropriate agency, allowing them to respond. The District will always try to capture and remove any sewage that reaches a stormwater system. Most of the storm systems within the District's service area do not reach the Waters of the US and go to dedicated percolation basins.

Figure 3 - Stormwater Agency Area of Responsibility



Element 4.0: Operation and Maintenance Program

The enrollee must include the following items for an Operations and Maintenance program within its SSMP:

- Updated mapping of its sanitary sewer system
- Preventive operations and maintenance activities
- Training program and documentation on the SSMP and SERP
- An up-to-date inventory of critical equipment for sewer repairs

4.1: Collection System Maps

The District maintains both AutoCAD and GIS data set maps of the collection system. In 2021, the District's GIS system went through a significant update, which included the addition of new infrastructure that the District took ownership of, adjusting the pipe segments to allow a faster response, more accurate modeling, and the inclusion of flow indication arrows on the sanitary sewer line to show the direction of flow.

Stormwater conveyance facilities are not included on collection system maps as the District does not own, operate, or maintain these facilities. However, O&M staff have been educated about the local storm drainage network due to the possibility of spills entering storm drains. The District works closely with the local jurisdictional agencies that own these systems, allowing the District to access available stormwater maps and, if necessary, mitigate spills that enter the stormwater network. District collection system maps are updated electronically by a GIS technician as new facilities are constructed, while hard copies are kept on file at the District's office.

4.2: Preventive Maintenance

The District has developed several maintenance approaches to achieve the primary goal of reducing spill frequency by identifying and removing blockages within the system. These approaches include preventative, reactive, and routine maintenance in addition to trouble spot cleaning, inspections, FOG, and root control. The District utilizes its CMMS to schedule preventative work orders for hydro-cleaning of sewer trouble spots and sewer lift station maintenance. Inspections are tracked throughout the week at the District's sewer lift station via an inspection template in CMMS. Ongoing routine preventative maintenance in the form of CCTV and hydro-cleaning is also tracked within the CMMS and displayed via a graphical user interface

(GUI) on a map. In 2024, the District incorporated its CCTV inspection condition assessment data into the GIS and CMMS. This data is then represented in ArcGIS and Cityworks via heatmaps. Users can click on the segment of the pipe to view the condition score and see the video footage from the CCTV camera for that segment of the main.

The District incorporates collection system maps, service requests, work orders, and historical data to schedule, track, and report maintenance and cleaning activities geographically. The CMMS allows for custom work order templates and inspection templates (Figure 4), which are used at all of the District's sewer facilities. The District also displays all pertinent vertical assets within a desired base map, allowing for work orders and history to be associated with them.

Figure 4 - Sewer Inspection Template and Rounds Check

Observations

Observation	Result	Description	Instruction	Explanation
Date:	5/16/2025			
Is the site secure?	Yes			
Pump 1 Running?	Yes			
Any unusual noise or vibrations from P1?	No			
Pump 1 Hour Meter:	1536.8			
Pump 2 Running?	Yes			
Any unusual noise or vibration from P2?	No			
Pump 2 Hour Meter:	1129			
Pump 3 Running?	N/A			
Any MCC faults or warning light on?	No			
Electrical Reading:	41014			
Wetwell Grease Amount:	Medium			
Washed Down Wetwell?	Yes			
Is the site cleaned and organized?	Yes			
Did you perform any housekeeping at the site?	Yes			
Describe what you cleaned:	De webbed			
Additional Comments:				

Preventative operations and maintenance activities typically include routine hydro-cleaning (jetting) of sewer mains, with priority given to the section of the mainline based on its last cleaning cycle. The District's goal is to routinely clean at least 80% of its sewer mains annually using two Jetter trucks owned and operated by the District. Table 9 below shows the historical number of hydro-cleaned sewer mains over the last five years. Figure 5 shows an overview of the District's CMMS jetting activities over the past year. Other preventative maintenance activities include FOG control and frequent cleaning of specific areas known as trouble spots. Trouble spots are

areas that have exhibited frequent maintenance issues and are targeted for inspections and cleaning. Jetting of trouble spots occurs routinely, depending on the severity of the problem within the main and the overflow risk. See Table 10 for a list of trouble spots. Reactive maintenance activities occur in response to citizen complaints or service requests.

Table 9 - Hydro - Cleaning Over the Last 5 Years

Year	Linear Footage	Miles	Percent of System
2020	424,990	80.50	53%
2021	544,418	103.10	69%
2022	708,231	134.10	89%
2023	785,136	148.70	99%
2024	736,764	139.50	93%

Figure 5 - Screenshot of Hydro-Cleaning from the Previous Year in CMMS

Sanitary sewer inspections include visual inspections of manholes and CCTV inspections of sewer gravity mains. CCTV inspections are often performed as a quality control measure, allowing for a more thorough inspection and identification of system deficiencies. FOG control includes the

implementation of a FOG control program that involves identifying problem areas, specifying requirements for device installation and disposal, and conducting public outreach (see Element 7.0, Pipe Blockage Control Program, for further details). Lift stations are monitored and maintained daily through a connection to the Supervisory Control and Data Acquisition (SCADA) monitoring system and regularly inspected using a lift station CMMS inspection template. Key lift stations are visited each working day, with the smaller, less critical lift stations visited one to three times per week. Budget funds continue to be allocated toward the purchase of preventative maintenance equipment and capital improvements to ensure the success of the preventative maintenance program.

Table 10 - MCWD Trouble Spot List in 2025

NO.	Spot Name	City	Frequency
1	Del Monte Blvd./ Cypress Ave.	Marina	1 Month
2	Attu Rd.	Ord	1 Month
3	3135 Seacrest Ave.	Marina	2 Months
4	Abdy Way (by percolation lot)	Marina	2 Months
5	Modern Ln.	Marina	2 Months
6	Nicklas Ln. (to El Rancho Market)	Marina	2 Months
7	San Pablo Ct./ Marina Dr.	Marina	2 Months
8	Eucalyptus St.	Marina	2 Months
9	Zanetta Dr./ Reindollar Ave.	Marina	3 Months
10	Ellen Ct.	Marina	3 Months
11	322 Reindollar Ave.	Marina	3 Months
12	Sunset Ave./ Hillcrest Ave.	Marina	3 Months
13	Ora Ct./ Cardoza Ave.	Marina	3 Months
14	Parson Cir.	Marina	3 Months
15	Carmel Ave./ Sunset Ave.	Marina	3 Months
16	Seaside Ave. (to Beach Rd.)	Marina	3 Months
17	Crescent Lift Station	Marina	3 Months
18	Cypress Ave./ Sunset Ave.	Marina	3 Months
19	Max Cir.	Marina	3 Months
20	Peninsula Dr./ Susan Ave.	Marina	3 Months

21	Peninsula Dr./ Vista Del Camino Cir.	Marina	3 Months
22	Vera Ln.	Marina	3 Months
23	Crestview Ct. (by percolation lot)	Marina	3 Months
24	Carmel Ave./ Redwood Cir.	Marina	3 Months
25	Westwood Ct.	Marina	3 Months
26	General Jim Moore Blvd./ Normandy Rd.	Ord	3 Months
27	Normandy Rd./ Malmedy Rd.	Ord	3 Months
28	354 Ardennes Cir.	Ord	3 Months
29	Jordan Ct.	Ord	3 Months
30	Normandy Rd./ Anzio Rd.	Ord	3 Months
31	Malmedy Rd./ Kalborn Rd.	Ord	3 Months
32	Scott Ct.	Ord	3 Months
33	Metz Rd./ Tunisia Rd.	Ord	3 Months
34	Carentan Rd./ Elbe Ct.	Ord	3 Months
35	Manholes by Chapel	Ord	3 Months
36	Aachen Rd.	Ord	3 Months
37	202 Metz Rd.	Ord	3 Months
38	In Field off 3 St./ 1st Ave.	Ord	3 Months
39	323 Ardennes Cir./ Metz Rd.	Ord	3 Months
40	Saipan Rd./ Rabaul Rd.	Ord	3 Months
41	158 Okinawa Rd.	Ord	3 Months
42	Normandy Rd./ Monterey Rd.	Ord	3 Months
43	140 Noumea Rd.	Ord	3 Months
44	Noumea Rd./ New Guinea Rd.	Ord	3 Months
45	Combs Ct.	Ord	3 Months
46	627 Thomas Ct.	Ord	3 Months
47	Warrelman Ct.	Ord	3 Months
48	Barbee Ct.	Ord	3 Months
49	604 Malmedy Rd.	Ord	3 Months
50	Viking Ln.	Marina	4 Months
51	Westwood Ct.	Marina	4 Months
52	Owen Ave./ Hillcrest Ave.	Marina	4 Months

53	Dog Alley by Patton Pkwy.	Marina	4 Months
54	Del Monte Blvd./ Cosky Dr.	Marina	4 Months
55	Robin Dr.	Marina	4 Months
56	Cardoza Ave./ Abdy Way	Marina	4 Months
57	Carmel Ave./ California Ave.	Marina	4 Months
58	Nicklas Ln./ Carmel Ave.	Marina	4 Months
59	Lynscott Dr./ Crivello Rd.	Marina	4 Months
60	Messinger Dr. (by percolation lot)	Marina	4 Months
61	Malmedy Rd./ Kalborn Rd.	Ord	4 Months
62	Gigling Rd./ California Ave.	Ord	4 Months
63	Radden Rd./ Nijmegen Rd.	Ord	4 Months
64	6th Ave.	Ord	4 Months
65	Wittenmyer Ct.	Ord	4 Months
66	Brown Ct..	Ord	4 Months
67	Neeson Rd.	Ord	4 Months
68	Okinawa Rd./ Bataan Rd.	Ord	4 Months
69	Bataan Rd./ Luzon Rd.	Ord	4 Months
70	Manholes on General Jim Moore Blvd. by Fitch Housing	Ord	4 Months
71	Coe Ave./ Buttercup Blvd.	Ord	4 Months
72	Rome Rd./ Naples Rd.	Ord	4 Months
73	Naples Rd./ Anzio Rd.	Ord	4 Months
74	Parker Flats (by Clinic)	Ord	4 Months
75	311 Carentan Rd.	Ord	4 Months
76	Nijmegen Rd.	Ord	4 Months
77	Salerno Rd.	Ord	4 Months
78	Normandy Rd./ Malmedy Rd.	Ord	4 Months
79	Mortimer Ln.	Marina	6 Months
80	Owen Ave./ Reindollar Ave.	Marina	6 Months
81	Palm Ave./ Lake Dr.	Marina	6 Months
82	1235 Bundage Ct.	Ord	6 Months
83	Ingman Ct.	Ord	6 Months

In 2023, the District purchased Smartcover™ transmitters, which send preemptive overflow alerts that are communicated through satellite, eliminating disruptions caused by power failures or weather. The District has installed three smart covers to date and anticipates installing three additional covers by August 2025. The Smartcovers™ have been installed in areas of high risk, such as near vernal ponds. The application will alert the Standby Operator should the level within the manhole begin to rise above a trigger setpoint. Redundant alerts are also sent simultaneously to the O&M Supervisor and the O&M Manager.

4.3: Preventive Maintenance

The District evaluates the condition of its sewer assets through visual and CCTV inspections that aim to assess, identify, and correct collection system deficiencies that may cause system failures and spills. Ongoing visual condition assessments include observing the interior condition of the pipeline to identify structural deficiencies and maintenance needs, as well as locating debris within the system, which may indicate a potential pipeline problem. The District's CCTV van is used to further assess portions of the sewer system necessitating repairs and to better estimate future costs for funding needs. The CCTV of sewer mains and manholes are given an assessment grade utilizing the District's CCTV program, POSM™, which incorporates NASSCO™ pipeline assessment scores. Information gathered during these condition assessments is maintained and prioritized in the CMMS database, and the information is used to select infrastructure for repair, rehabilitation, or replacement. Factors such as maintenance history, age, and the material of the infrastructure are also used to prioritize and select projects that require short and long-term rehabilitation actions. For example, if a specific pipeline receives three reactive maintenance actions in one year, it is brought to the Engineering department's attention for consideration as a rehabilitation or replacement project.

Master plan studies of the Ord Community and Central Marina collection systems were adopted in 2020. The 2020 master plans assessed pipeline condition, identified areas of concern, made rehabilitation recommendations, and identified candidates for repair or upsizing. The results of these studies were used in conjunction with inspection data to formulate and prioritize CIPs to correct deficiencies and provide future capacity. Short-term rehabilitation and replacement plans are represented by the annual CIP budget for the Central Marina and the Ord Community sewer systems, which is updated annually. Long-term rehabilitation and replacement projects are represented by the ten-year CIP budget, which is also updated annually. These budgets are approved by the Board of Directors, while funds are developed and provided

through monthly charges to ratepayers, sanitary sewer capacity fees, municipal bond issues, Federal/ State loans or grants, and other related fees.

4.4: Training

MCWD staff undergo regular training on the requirements of the WDR and the District's SSMP and SERP. Training on the SERP is done at least annually or upon any update. The training provides a comprehensive overview of the requirements, including how to respond to a spill, who to notify, spill volume estimation, spill category levels, and sampling requirements. System Operators also undergo in-depth training on estimating spill volume using the District's in-house spill calculator; an overview of the spill calculator is provided in Appendix B. Spill response drills are conducted in the District's Corporation Yard at least annually. During the drill, Operators are given a scenario that includes a realistic spill simulation utilizing a metered manhole with potable water. Operators will then attempt to determine the start and end times, as well as the volume, using the District's in-house spill calculator. The results will be compared to the actual metered volume from the manhole. Lastly, operators are required to complete a District spill sheet, and training will be provided on CIWQS reporting procedures and requirements. In addition to WDR and spill training, the Operations and Maintenance staff have regular training on the following items:

Table 11 - Training Catalog

Confined Space	Defensive Driver	CPR & First Aid	Asbestos Pipe
Fall Protection	SCADA Operations	Traffic Control	Harassment Training
Lock Out/ Tag Out	Trenching and Shoring	Bloodborne Pathogens/PPE	Fall Protection
Forklift Training	Line Locating	Emergency Response Plan	Silica/ Valley Fever

Training is adjusted as needed, with new training topics related to the industry provided as needed or required. Operations staff also participate in a weekly safety/ tailgate meeting.

System Operators are also required to attend formalized wastewater collection training and obtain a California Water Environment Association (CWEA) Collection System Operator certification at a level corresponding to their job responsibilities. The field crew also receives training in the repair and maintenance of pumps from Flygt Corporation, the manufacturer of all sewage pumps

located at the District's lift stations. CCTV staff are also NASSCO™ certified in the Pipeline Assessment Certification Program (PACP). The District trains contractors through either written or verbal communication prior to collection system construction activities and requires that contractors be experienced in sanitary sewer work in addition to fully complying with all relevant regulations, policies, and standards.

4.5: Equipment and Replacement Parts Inventory

The District keeps an inventory of major sewer equipment and replacement parts to ensure the continued operation of the sewer collection system and timely repair of system malfunctions. The District continuously maintains necessary equipment to repair sewer lines and pumping stations, such as small tools, sewer cleaning trucks, emergency diesel generators, bypass sewage pumps, trucks with hoist capabilities, and critical replacement parts, such as spare pumps for key lift stations. The District ensures that these pieces of equipment and replacement parts are readily available, operable, and reliable. In addition, the District has standardized all sewer pump stations to Flygt brand pumps to simplify maintenance/replacement and reduce the impact of failure. The following tables are an inventory list of all major equipment, fittings, and parts:

Table 12 - Large Vehicle and Heavy Equipment List

Vehicle #	Year	Make	Model	Description
#1201	2012	John Deere	329DT	Skidsteer
#2102	2021	John Deere	410L	Backhoe
#2202	2022	John Deere	35G	Compact Mini Excavator
#2308	2023	Caterpillar	2EP6000	Electric 6,000 LBS. Pneumatic Forklift
#2402	2024	John Deere	210P	Industrial Wheel Loader
#0601	2006	Multiquip	DCA-70USI	56 KW Whisperwatt Generator

#2004	2020	Atlas Copco	185	175-195 CFM Air Compressor
#2104	2021	Godwin		Sewage Bypass Pump
#2105	2021	Multiquip	GBX12SK	Mobile Light Tower
#2309	2023	Caterpillar	XQ125	100 KW Prime Generator
#2310	2023	Wanco	WTSP55-LSAC	Tow Behind Arrowboard
#2003	2020	Valor	12TU	Utility Trailer- Mini EX
#2307	2023	International	Load Runner	Enclosed Utility Trailer
#2501	2025	Diamond	C DET	Utility Trailer- Skid Steer
#0503	2005	Ford	F-250	Crane Truck
#1501	2015	Ford	Transit Van	CCTV
#2001	2020	Freightliner/Vactor	2100I	Combination Cleaner
#2002	2020	Ford	F-550	Dump Truck 3-4 Cubic Yards
#2101	2021	Freightliner/Vactor	108SD Ramjet	Hydro-Cleaner
#S02	2023	Ford	F-650	Sewer Service Crane Truck
#2502	2024	Ford	F-250	Electrical/Mechanical Service Truck

Table 13 - Critical Replacement Parts Inventory

Description	Manufacturer	Use	Quantity
Variable Sewage Pump	Flygt	Spare VFD Pump for 0-10 HP Pump Stations	2
Sewage Pump	Flygt	San Pablo	2
Sewage Pump	Flygt	Cosky	2
Sewage Pump	Flygt	Crescent	2

Sewage Pump	Flygt	Carmel	2
Sewage Pump	Flygt	Airport	2
Sewage Pump	Flygt	Hatten	2
Sewage Pump	Flygt	Hodges	2
Sewage Pump	Flygt	Landrum	2
Sewage Pump	Flygt	Neeson	2
Sewage Pump	Flygt	Promontory	2
Sewage Pump	Flygt	Wittemyer	2
Mobile MCC	Confidential	0-20 HP Mobile MCC	1
Mobile MCC	Confidential	0-5 Hp Mobile MCC	1
Level Transducer	Confidential	Pump Station Level Control	2
PLC	Confidential	Pump Station Controls	3
Floats	Confidential	Pump Station Level Controls	16
Radios	Confidential	Communication	3
Sewer Couplings 4”/ 6”	Miscellaneous	Collections System Repairs	8/ 24
Sewer Couplings 8”/ 10”	Miscellaneous	Collections System Repairs	7/ 6
Sewer Couplings 12”/ 15”	Miscellaneous	Collections System Repairs	3/ 2

4” Sewer Pipe	Miscellaneous	Collections System Repairs	2 sticks (40’)
6” Sewer Pipe	Miscellaneous	Collections System Repairs	.5 stick (10’)
8” Sewer Pipe	Miscellaneous	Collections System Repairs	1.5 stick (30’)
10” Sewer Pipe	Miscellaneous	Collections System Repairs	3 sticks (60’)
12” Sewer Pipe	Miscellaneous	Collections System Repairs	7 sticks (140’)
18” Sewer Pipe	Miscellaneous	Collections System Repairs	1 stick (20’)
Manhole Cone	Miscellaneous	Collections System Repairs	1
Manhole Barrel 18”, 24”, 36”	Miscellaneous	Collections System Repairs	1 of each size
Manhole Ring	Miscellaneous	Collections System Repairs	6
Manhole Cover	Miscellaneous	Collections System Repairs	10
Grade ring steel 2”/ 3”	Miscellaneous	Collection System Repairs	5/ 1
Grade ring concrete 2”/ 3”	Miscellaneous	Collection System Repairs	5/ 1
Tripod	Sala	Confined space entry	1
2-person gantry	REID	Confined space entry	1
Safety harness	MSA	Confined space entry	4

Blower 115/230v **5500 cfm**	Allegro	Confined space entry	1
Blower 120v **1275 cfm**	Allegro	Confined space entry	1
Blower 12v **1150 cfm**	Allegro	Confined space entry	1
10' x 6" rigid hose	Miscellaneous	Bypass pump suction	3
10' x 4" rigid hose	Miscellaneous	Bypass pump discharge	10
10' x 4" lay flat hose	Miscellaneous	Bypass pump discharge	5

Element 5.0: Design and Performance Standards

The SSMP must identify:

- Updated design criteria, construction standards, and specifications for the construction, installation, repair, and rehabilitation of existing and proposed system infrastructure components, including but not limited to pipelines, pump stations, and other system appurtenances; and
- Procedures and standards for inspecting and testing the installation of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances.

5.1: Updated Design Criteria, Construction Standards, and Specifications

The District Water Code (Section 5.16.240, Design and Construction Standards) states that the minimum standards for the design and construction of sewers shall be in accordance with current design standards and standard specifications. This information is contained in the District's *Standard Specifications and the PGDR*.

The purpose of the District's Standards Specifications is to provide requirements and minimum standards for the installation of new sewer facilities and the rehabilitation of existing structures. The Standard Specifications are typically tailored to each individual project. Project-specific specifications are built into the Standard Specifications to ensure the appropriate applicability for the specific use type. The PGDR governs the construction of all new sewer improvements and rehabilitations, providing guidance to planners, engineers, and construction personnel. This document outlines the District's plan check, review, and approval process, which ensures the proper design and construction. This PGDR was updated in September 2024, whereas the standard specifications' last major revision occurred in 2007; however, they undergo periodic updates as necessary. Both documents are available on the District's website. Excerpts from Standard Specifications are listed in Appendix D, while sections from PGDR can be found in Appendix E.

5.2: Procedures and Standards for Inspection and Testing

Section 5.24.110 of the District Water Code (all work to be inspected) states that all sewer construction work shall be inspected by a District inspector to ensure compliance with all design and construction requirements of the District. District inspection requirements, in addition to testing procedures, are described in the PGDR and Standard Specification documents. All new sewer installations, repairs, and improvements, including manholes and appurtenances, are tested and inspected in accordance with these standards. Inspections are performed during and after the construction of new sewer facilities, using the District's Construction Inspection Manual as a reference for general guidelines. The District's construction contract governs any conflicts between the contract documents and the inspection manual, ensuring that sewer infrastructure is not placed into service until substantial completion and acceptance by the District Engineer. For new development, all sewer infrastructure and related facilities must pass inspections and be accepted by the District Engineer prior to the District's Board of Directors approving the transfer of ownership of the infrastructure.

Element 6.0: Spill Emergency Response Plan

The SERP is a plan required by the State Board to ensure all enrollees have procedures that are documented, trained on, and reviewed on a regular basis to help mitigate the effects of sewer spills

and to prevent future spills. The SERP ensures prompt detection and response to spills to reduce spill volumes and collect information. The SERP must include procedures to:

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

6.1: Plan Documentation and Implementation

The District created the SERP in May 2023, and it was recently updated in May 2025 (Appendix A). The SERP document provides response, mitigation, notification, and reporting procedures for sewer spills. The plan replaces the District's Overflow Emergency Response Plan (OERP) and builds upon the existing requirements.

6.2: Training on the SERP

Upon completion of the SERP, all O&M staff underwent extensive classroom training on the SERP in May 2023, followed by field training on spill containment, cleanup, spill estimation, and reporting requirements. Training on the SERP shall be at a minimum frequency of annually, or upon any major changes to the SERP. All new O&M staff shall be trained on the SERP before performing wastewater operations, including spill response. Training on the SERP is also required for new contractors performing work on the District's sewer infrastructure.

Figure 6 - Spill Training and Simulated Manhole Spill

6.3: Notification Requirements

The District is typically alerted to a sewer spill when a concerned citizen contacts the customer service department or when the District performs routine inspections. The first responder will

follow the chain of communication described in Element 2 for internal notification of all appropriate staff members and to initiate the external notification processes. Regardless of the spill category, the primary responder is required to immediately call MCEH. The MCEH operator will notify the appropriate MCEH staff (Environmental Services Division) and summon an Environmental Health Specialist (EHS) to the site of the spill.

If a spill enters a storm drain, the O&M staff will notify the appropriate stormwater agency responsible for maintenance of the stormwater facilities. In addition, MCEH requires the District to notify CalOES of any spill, regardless of its size, that enters a stormwater drain, regardless of its destination.

Under the new WDR, the SWRCB only requires a notification to CAL OES, which will, in turn, notify all the applicable regulatory agencies of Category 1 and 2 spills; this helps eliminate redundant calls to regulators that could delay cleanup efforts. Category levels and notification requirements can be found in their entirety within the SERP in Appendix A.

In the event of a catastrophic sewer spill or when a spill poses a hazard to the public, the public notification requirements of Proposition 65 will be followed, in coordination with MCEH. The District will post a combination of web, email, and social media notifications and/ or establish a hotline/ voicemail system to notify the public and protect public health and the environment.

6.4: Sampling Requirements

Any spill that reaches surface water of 50,000 gallons or more shall be sampled. The sample collection locations shall be from the following: upstream, receiving, and downstream waters, with a minimum of four samples taken each day of the spill occurrence. Sampling shall be initiated within 18 hours of the knowledge of the spill event. See Appendix C of the SERP for a complete list of sampling requirements.

The District has proactive sample forms filled out (chain of custody) and has bottles, ice, and coolers on hand, specifically dedicated to wastewater sampling in the event of a spill to surface water.

6.5: Response to Spills

The District’s policy is to respond promptly to all spills within the District's service area to prevent them from reaching storm drains, flood control channels, or any waters of the State. District staff

occasionally provide mutual aid outside the District service area to assist adjacent organizations as needed. Depending on the size and nature of a spill, the District may also require the assistance of outside contractors and vendors to provide support to District staff and District-owned equipment. The District has also executed Mutual Aid Agreements with the City of Seaside, the Castroville Community Services District, and the Carmel Area Wastewater District, in case additional assistance is needed. The O&M Manager or his designee will make the required decisions regarding additional staffing, materials, and resources in the event of a wastewater emergency or spill.

Specific procedures have been developed by the District to ensure a timely and efficient response, as well as the health and safety of District ratepayers and the environment. The District requires a thirty-minute response time for all standby personnel. These O&M personnel will respond to the spills by completing the following tasks in the most timely and efficient manner possible:

- Removal of blockage causing the spill, clean-up, and containment
- Documentation of the spill with photographs
- Filing of necessary paperwork, including a written report to the O&M Supervisor
- Communicate with the O&M Supervisor throughout the process, who will, in turn, communicate with the O&M Manager.
- Minimize impacts on human health and the environment

Staff at the District office are also prepared to assist with the spill response by arranging services, answering phone calls, accessing engineering plans, and filing reports.

The District follows a variety of procedures and precautions to contain and prevent discharge to Waters of the State and to minimize the impacts of spills. To contain wastewater, field crews are required to use mats, sandbags, spill dikes, straw waddles, or dirt to create a berm that blocks catch basin entrances to storm drains and to vacuum up spills and wash down water. The O&M Supervisor and O&M Manager will work to provide recommendations for refining existing plans and increasing preventative maintenance activities to prevent future spill events.

The District has drafted many Standard Operating Procedures (SOPs) that define step-by-step procedures for responding to emergency situations, such as spills or pump station failures. The District also has an ERP with incident report forms, vendor and contractor numbers, and action plans for various emergencies. The District's field crews are trained to respond to emergencies at

all times, and if needed, the District utilizes its list of pre-approved qualified contractors. The District can engage independent contractor services through purchase order processes, ensuring no delays in responding to a spill. Both the District and the emergency contractors have traffic control equipment that complies with Caltrans standards and that can be used for situations such as crowd control. The local fire department or police department will be contacted if additional assistance, such as traffic control, is required.

Element 7.0: Pipe Blockage Control Program

Each Enrollee shall evaluate its service area to determine whether a sewer pipe blockage control program is needed to control FOG, rags, and debris. If the Enrollee determines that a program is not needed, the Enrollee must provide justification for why it is not needed. The procedures must include at a minimum:

- An implementation plan and schedule for a public education outreach program that promotes the proper disposal of FOG;
- A plan and schedule for the disposal of FOG generated within the sanitary sewer service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within the sanitary sewer system service area;
- The legal authority to prohibit discharges to the system and identify measures that are required to prevent Spills and blockages caused by FOG;
- Requirements to install grease removal devices (such as traps or interceptors), design standards for the grease removal devices, maintenance requirements, best management practices (BMPs) 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;
- An identification of sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system, for each section that may be identified.

7.1: Public Outreach Program

The District is a member of the Southern Monterey Bay Dischargers Group, a partnership of local wastewater collection systems and treatment agencies dedicated to promoting public education on FOG, rags, and debris. The District joined the consortium in 2004 and participated in the regional development and implementation of a public outreach and education program aimed at local businesses and residents to encourage and promote the appropriate disposal of FOG. Since then, the program has expanded to include rags and debris to ensure compliance with the WDR. The outreach program consists of a multimedia campaign, including TV commercials, social media, community presentations, and advertisements in newspapers, on radio, and online. A website for Clog Busters is also available for additional FOG information and resources at www.clogbusters.org. The Clog Buster's approach provides a consistent message on how to properly dispose of FOG and has proven to increase overall public awareness and reduce the number of beach closures in the Monterey Bay area. The cost of the regional education program is divided between members of the discharge group based on population. The District continues to support the program each year by funding approximately 12% of the total costs. For specific information on public outreach efforts for Fiscal Year 2024/ 2025, see Appendix F, WDR Grease Public Outreach Plan, and the Southern Monterey Bay Dischargers Group Proposed Public Outreach Campaign.

In addition to being a partner in the Southern Monterey Bay Discharges Group, the District's Public Relations (PR) team regularly posts on social media and sends emails to educate the District's customers about potential items that may cause a sewer pipe blockage. The O&M Manager works closely with the District's PR team to ensure that the proper message is conveyed to the relevant areas. Lastly, the District coordinates with California State University, Monterey (CSUMB) to send email message blasts as needed within the university housing areas.

7.2: Disposal of Pipe-Blocking Substances

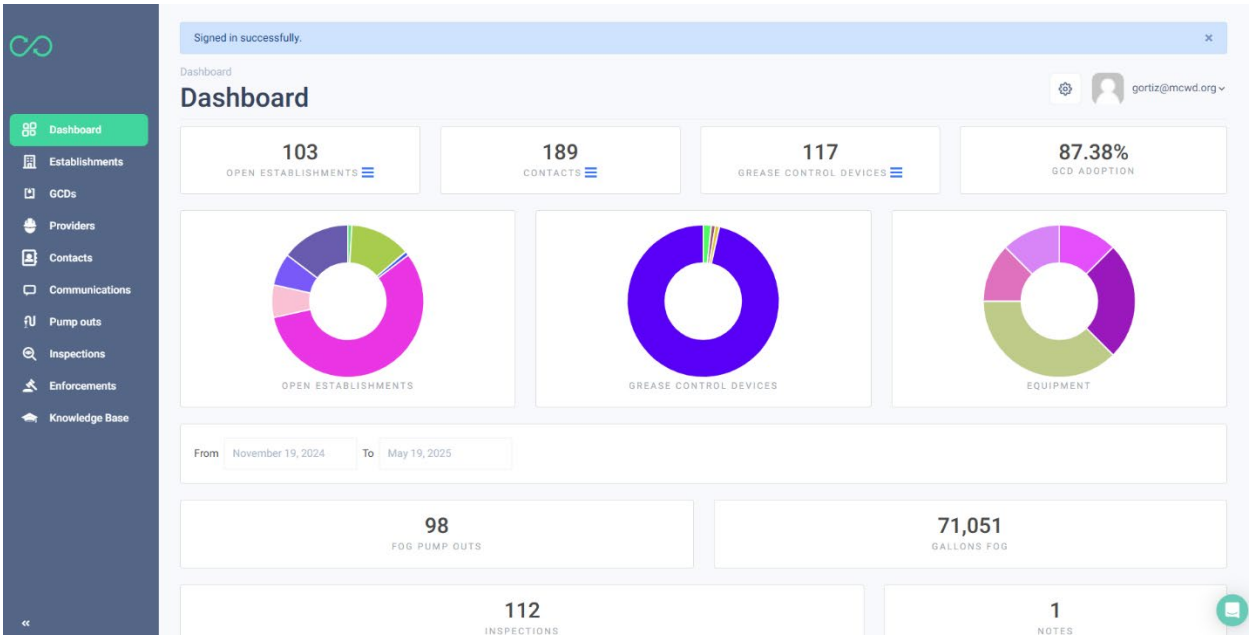
The District will administer its Pipe Blocking Disposal Plan on an ongoing, as-needed basis. This plan includes proper handling and disposal of grease material removed from the sanitary sewer system for disposal at the M1 Water facility. M1 Water is a regional disposal site that collects and recycles FOG from grease interceptors, utilizing it as an energy source for one of their power plants. Alternative disposal options and facilities in the Monterey area have been explored and are listed in Table 14 for reference. All records of FOG removal and disposal for control devices,

carriers, and specific locations are maintained in a FOG database using the District's Swiftcomply™ software. Figure 7 shows an overview screenshot of the District's FOG software. The District currently has 103 Commercial properties in the database. The public is informed of disposal options through the public outreach efforts described previously.

Table 14 - Grease Hauling Facilities in the Monterey Area

Business/ Organization	Phone Number
All Valley Environmental, Inc.	(559) 498-8378
Alonso's Pumping Service	(831)776-1352
KB Grease Trap Service	(408) 661-5804
Greenline/ Tom's Septic Tank Service	(831) 422-2298
Liquid Environmental Solutions	(415) 730-7038
P.S.T.S (Peninsula Septic Tank Service)	(831) 659-2465
Pioneer Liquid Transport	(408) 287-5800
SRC Pumping Company	(916) 363-5840
Sequential	(800) 447-3794
Monterey One Water	(831) 424-1108
Ameriguard Maintenance Services, LLC	(800) 347-7876
BayPower Wash & Pumping	(408)771-5558
Darling International Inc.	(415)647-4890
Golden Valley Pumping Co.	(559)846-9607
GTS Grease Trap Services	(831)324-9687
Mahoney Environmental Solutions LLC	(800)892-9392
Onsite	(866)456-3499
Tom's Septic	(831)731-5900

Figure 7 - FOG Inspection Software Screenshot



7.3: Legal Authority

The District has the legal authority to control and limit discharges to the sewer system and require the installation of grease interceptors, traps, or other comparable devices to minimize grease-related problems in the collection system. This authority is stated in the District's PGDR, Standard Specifications, and the District Water Code. FOG requirements apply to all food service establishments or businesses discharging FOG or related materials. Specifically, District Water Code (Section 5.20.040) provides the required legal authority to prohibit FOG discharges exceeding 100 parts per million (ppm), and any other substance or material that can cause sewer pipe blockages into the sewer system.

7.4: Requirements for Grease Removal Devices

Various sections of the District Water Code, PGDR, and Standard Specifications detail installation requirements and design standards for grease removal devices. The District Water Code provides the legal authority to require grease traps or interceptors for FOG dischargers and details accessibility, inspection, and reporting requirements (Section 5.20.050). The District's Standard Specifications document (Section 03463 Grease Interceptors) specifies device installation materials and location requirements, while the PGDR (Section 500.11 Grease Interceptors) contains standards for design and maintenance. The District requires that grease traps or

interceptors be maintained and periodically cleaned at the owner's expense, and that these devices be readily accessible for inspection by the District.

7.5: Inspection Authority

Marina Coast Water District has the authority to inspect grease-producing facilities and businesses and to enforce provisions of applicable District sewer use ordinances. Section 5.24.110 of the District Water Code outlines the procedures for inspecting all work, while Section 5.08.100 describes the powers and authorities of inspectors. Specifically, Section 5.20.060 of the District Code states that the general manager or his/her designee will perform grease trap/ interceptor inspections on a bi-annual basis. If a grease trap or interceptor fails to operate properly or if maintenance reports are not provided by the establishment, inspections may be conducted more frequently at the discretion of the District. Enforcement is conducted as needed in response to reports provided by field crews that respond to spill events or areas that are identified during maintenance of the sanitary sewer system. Additional O&M staff have recently been trained in Source Control and FOG inspections and enforcement to ensure adequate staffing levels. Source Control and identification of problem areas shall be included in future training to be conducted as part of the overall SSMP program.

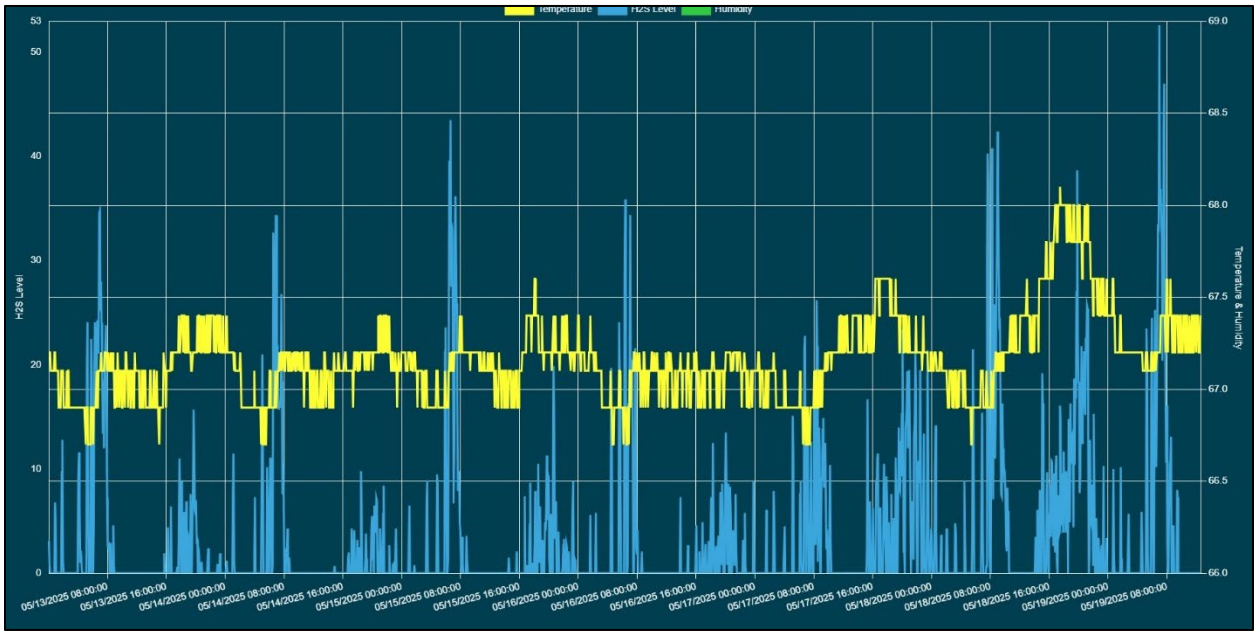
7.6: Areas Subject to Blockages and Cleaning

The District becomes aware of areas in the collection system subject to blockages through comprehensive inspection and maintenance initiatives. The District performs routine visual and CCTV inspections, which identify potential pipe blockages and provide information on system function and efficiency. Routine maintenance of the District's collection system on a scheduled and ongoing basis also allows District staff members to assess the condition of the collection system and identify areas requiring more frequent maintenance due to FOG. All inspections and maintenance activities are recorded in CMMS, which schedules, tracks, and reports these activities for the organization and management of the collection system geographically. The CMMS maintains information on areas within the collection system that are subject to blockages, allowing these areas to be inspected, cleaned, and maintained appropriately. Specific "hot spots" receive monthly, quarterly, bi-annual, and annual preventative cleaning and maintenance activities based on the specific issues of the area and overflow history.

The District currently injects Bioxide™, a calcium nitrate proprietary formula for odor and FOG control, at one of its sewer lift stations. Recently, the District completed designing another facility at a centrally located lift station, which is expected to create sufficient chemical residuals to help reduce FOG and odor at the receiving District interceptor manhole. The District also monitors for hydrogen sulfide at the receiving manholes downstream of the injection point to ensure that an adequate amount of Bioxide™ is being used. Figures 8 and 9 are screenshots of the Bioxide™ dosing and hydrogen sulfide trends.

Figure 8 - Bioxide Dosing Trend

Figure 9 - Hydrogen Sulfide Trend



7.7: Source Control Measures

The District has developed and implemented a formal source control program with assistance from the M1 Water, as previously described. The District has since incorporated similar M1 Water policies and regulations regarding source control in the District Water Code, PGDR, and Standard Specifications documents. Specific source control measures utilized by the District include the proper installation of control devices (such as grease traps or interceptors), initial inspections to ensure proper installation, compliance re-inspections, and routine pumping of customer-owned grease removal devices.

Element 8.0: System Evaluation, Capacity Assurance, and Capital Improvements

Each Enrollee shall prepare and implement a CIP that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. In addition, the plan should utilize condition assessments. At a minimum, the plan must include:

- Routine evaluation and assessment of system conditions;

- Capacity assessment and design criteria;
- Prioritization of corrective actions; and
- A Capital Improvement Plan

8.1: System Evaluation and Condition Assessment

In the winter of 2023, the District purchased a new Envirosight™ high-definition sewer track camera and related equipment. Additionally, the District has integrated its CCTV program with GIS and CMMS systems, enabling condition assessment data to be pushed directly to the servers. This provides near real-time insights into pipe conditions, visualized on a GIS heat map. See figures 10 and 11 below for a screenshot of the District's CCTV and condition assessment heatmaps.

Figure 10 - CCTV Video Footage

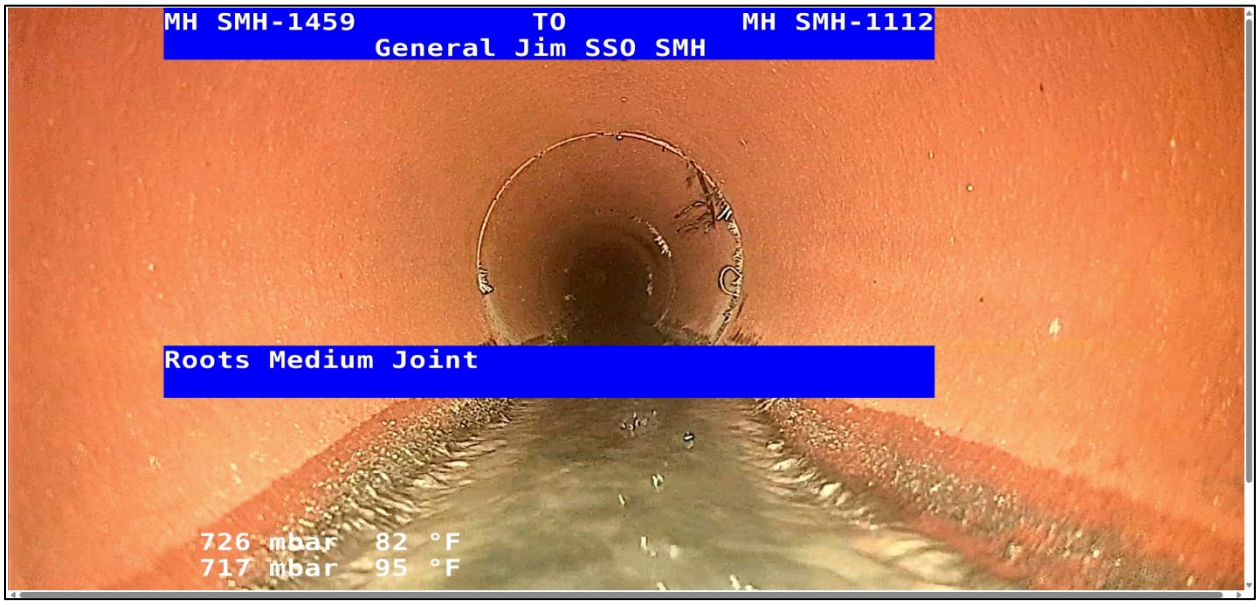


Figure 11 - District's Condition Assessment Heatmaps

The District began prioritization of its CCTV program in 2023, which focused on larger trunk mains over 12", as those lines have the ability to cause greater spills if there is a blockage. The next priority level was to CCTV any lines located near areas where a spill destination could reach Waters of the State, or surface water, such as a Vernal Pond. Most of the stormwater lines that reside within the District's service area go to dedicated percolation basins, so the areas of potential spills to Waters of the State are minimal. Going forward, the District is prioritizing CCTV on the older sections of lines, in Central Marina, and in the Ord Community, as there is a higher risk of failure in the older lines that are primarily comprised of vitrified clay pipe. The total miles of sewer pipe in the older sections of town are approximately 116 miles out of 150 miles of pipe District-wide. The District's goal is to perform approximately 20% of CCTV activity on its older sewer mains annually, resulting in approximately 23 miles of pipe being inspected each year. Due to staffing issues, emergencies, or equipment downtime, this number has historically been less than the District's goal, at approximately 6%. The District's O&M staff have been working on numerous special projects to revamp the water and wastewater system, which are nearing completion. This should allow additional resources to be allocated going forward for more proactive CCTV of the District's sewer system. Table 15 below shows the historic CCTV footage annually for the past five years.

Table 15 - CCTV Activity Over the Last 5 Years

Year	Linear Feet	Miles	Percentage of Aged System	Percentage of Total System
2020	16,457	3.1	2.7%	2%
2021	14,324	2.7	2.3%	1.8%
2022	75,400	14.3	12.3%	9.5%
2023	66,607	12.6	10.9%	8.4%
2024	64,381	12.2	10.5%	8.1%

All CCTV activity is documented via a CMMS work order and kept on a server indefinitely, or until a time when replacement footage or retention reduction is appropriate. Visual observations of the manholes are conducted during CCTV operations when the camera is being installed in the sewer manhole channel. Should any deficiencies within the manhole be found, the O&M System Operator performing the inspection would then create a separate work order, related only to the manhole.

8.1A: Location of Facilities Near Coastal Erosion Areas, or Affected by Climate Change

The District has been working proactively to relocate facilities that may be affected by rising seawater, tsunamis, or coastal erosion. In 2023, the District relocated the Ord Village Lift Station, which was located west of Highway One, near the beach, to the east side of Highway One. This facility was one of the District's largest and oldest sewer pump stations. Flows that used to cross Highway One are now eliminated, and the threat of tsunamis, coastal erosion, or sea level rise has also been reduced or eliminated from that facility. The District is also in the design phase to relocate a significant portion of flows in the Marina area, which currently travel to the Dunes Lift Station, situated off Dunes Drive, west of Highway One, to a new sewer lift station located on the east side of Highway One, in the Gloria Jean Tate Park. The new lift station will eliminate approximately 98% of the sewage flows that currently flow west of Highway One to the Dunes Lift Station.

8.1B: Utility Power Disruptions and Wildfires

In response to Pacific Gas & Electric's (PG&E) Public Safety Power Shutoffs (PSPS), rolling blackouts, and transmission and distribution line failures, the District proactively installed permanent generators and automatic transfer switches (ATS) at its critical water and sewer facilities. In addition, the District integrated real-time power feedback into SCADA to provide data on utility, generator, and ATS status. Currently, 18 out of 20 of the District's sewer lift stations have a permanent standby generator. The two lift stations that do not have permanent generators are small stations with minimal flow and have generator receptacles installed to allow the District to quickly hook up its towable generator and power the site. In addition to the permanent generators, the District has begun installation of generator receptacle plugs as a third means of powering a station, in case the permanent generator fails. These receptacles will be installed at the larger facilities; currently, eight sewer lift stations have them.

The District maintains a defense barrier around its sewer lift stations and has equipment to mow large areas around sites to help reduce the spread of fire in the event of a wildfire. Most of the District's sites are hardscaped, with a chain-link fence to further reduce the risk of fire near the site. As the District also owns and operates the potable water system, the District has taken a proactive approach to enhance storage and pumping capacity within its water system. In 2025, the District installed two 1.6 million gallon water storage tanks to enhance fire flows. In addition, the District has installed water pressure transducers at all sewer lift stations and booster sites, which enables real-time pressure monitoring through SCADA.

8.2: Capacity Assessment and Design Criteria

The District upgraded its GIS-based modeling software for the 2020 Sewer Master Plans to InfoSWMM™. InfoSWMM allows for hydraulic modeling of the District's wastewater collection system. This software allows for mapping of sewer infrastructure, analysis of flow scenarios, evaluation of collection system capacity, and is updated as infrastructure improvements are made. As part of the 2020 Sewer Masterplans, more than 105 miles of sewer pipeline modeling were performed. Model flows for existing and future conditions were generated using Peak Dry Weather Flow and Peak Wet Weather Flow in addition to infiltration and inflow analysis. Projected flows were compared to the estimated hydraulic capacity of pipelines, lift stations, and force mains to identify locations with projected deficiencies based on growth projections through

the intermediate term of 2040. Based on these studies, capital improvement planning for the collection system has been implemented, with a focus on mitigating the potential for spills.

Design criteria have been established to evaluate existing collection system components and to set requirements for new facilities and sources of information for establishing design parameters, including the District's PGDR. Design criteria were also based on mapping of the collection system, manhole surveys, lift station data, flow monitoring data, water use records, and development projections. Design parameters were used to determine flow rates and factors, establish model input parameters, and develop hydraulic analyses for evaluation under existing and future conditions. The key design criteria are summarized in Table 16.

Table 16 - Design Criteria for Hydraulic Modeling

Category	Parameter	Criteria
Gravity Pipe Hydraulics	Manning's n	0.013
	Peak Dry Weather Flow Max d/D	≤ 12" pipe = 0.67
		15" to 24" pipe = 0.80
		≥ 27" pipe = 0.90
	Peak Wet Weather Flow Criteria	No surcharging within 3 feet of rim elevation
	Max Velocity	8.0 fps
	Min Velocity	2.0 fps
Force Main Hydraulics	Roughness 'C' Value	110
	Max Velocity	10.0 fps
	Min Velocity	2.0 fps
Peaking Factors	Definition	PDWF/ADWF
	Flow Monitoring Basin M-1	2.11
	Flow Monitoring Basin M-2	1.76
	Flow Monitoring Basin M-3	1.64
	Flow Monitoring Basin M-4	1.64
	Flow Monitoring Basin O-1	1.68
	Flow Monitoring Basin O-2	2.04
	Flow Monitoring Basin O-3	1.92
	Flow Monitoring Basin O-5	2.04
	Flow Monitoring Basin O-6	2.28

I/ I Factor - Existing	Return Frequency	10-Year
	Duration	24 Hours
	I/I Factor	63% of ADWF
I/ I Factor - New Developments	Return Frequency	10-Year
	Duration	24 Hours
	I/I Factor	63% of ADWF
Design Flow	ADWF	ADWF
	PDWF	ADWF x PF
	PWWF	ADWF x PF + I/I Factor

Hydraulic analyses of the Ord Community and Central Marina collections systems include identification of structural deficiencies and potential CIPs to accommodate existing and future flows. Hydraulic analyses for both the Ord Community and Central Marina collection systems identified various pipeline segments and lift stations that require rehabilitation, replacement, or upsizing to accommodate system capacity for projected growth until 2040. All collection system deficiencies identified in hydraulic modeling studies do not necessarily require capacity enhancements or inclusion into the CIP. The ultimate need for improvement is dependent on the actual rate of development within the District, the level of overflow risk, the flow scenario, existing pipe characteristics, impacts on health and safety, funding, and whether the problem can be eliminated through other District projects. The Engineering department utilizes the results of hydraulic analyses to design the most efficient and cost-effective solutions, as well as to explore project alternatives.

8.3: Prioritization of Corrective Action

Projects are considered and prioritized based on the above criteria for inclusion into the District's rolling ten-year CIP. The O&M and Engineering departments collaborate to prioritize corrective actions according to spill severity, past incidents, and potential threats to sensitive habitats or Waters of the State. Projects are assessed and re-prioritized annually, budgeted appropriately, and must be adopted by the District's Board of Directors. The CIP budgets are based on the annual available funds developed and provided through monthly charges to ratepayers, sanitary sewer capacity fees, municipal bond issues, Federal/State loans or grants, and other related fees.

8.4: Capital Improvement Plan

Evaluation of the District's collection systems through hydraulic modeling has allowed for the identification of system deficiencies and provided guidance for CIP project designs and capacity enhancement measures. Hydraulic deficiencies can be improved through measures such as the installation of larger pipelines and pipelines with a greater slope, re-routing flows, enhancing lift station capacity, and decreasing excessive I&I. In response to hydraulic analyses, the District has addressed deficiency concerns through a variety of projects, including lift station upgrades, pipeline upsizing or extensions, and sewer main improvements, to increase system reliability and ensure capacity. Refer to Table 17 for a list of identified, completed, and ongoing CIP projects that address collection system deficiencies and ensure adequate capacity. The District also maintains an Emergency Reserve Fund to cover any necessary equipment replacements or emergency repairs. For a complete list of CIPs with funding sources and project descriptions for the last three years, see Appendix G.

Table 17 - Status of the Last 3 Years of CIPs

CIP #	Lift Station (LS), Force Main and Sewer Main Improvement Projects	Description (existing capacity/diameter, new capacity/diameter, length, etc.)	Fiscal Year	Status
WD-2503	PLC Replacement Project Phase 2	Replacement of PLCs at all of the District's Sewer Lift Stations	24/25	Completed June 2025
WE-2308.2	SCADA Improvements Phase 2	Enhancements in power, flow, and pressure monitoring and site security	24/25	Not yet started
WD-2404	Security and Access Improvements	Security Camera installation at various sewer lift stations	24/25	Construction started in 2025
GS-2510	Mis. Lift Station Improvements	Safety grate installations and wetwell linings	24/25	Design completed

GS-2511	Sewer Pipeline Renew/Replacement	Renewal and replacement of gravity sewer mains	24/25	Not yet started
WD-2308.1	SCADA Improvement Phase 1	New HMI application, screens, and redundant communications	23/24	Completed February 2024
GS2401	Wetwell Lining Project	Epoxy lining of wetwells	23/24	Construction not yet started
GS2402	Lift Station Improvements- Res Rd Lining	Project reallocated to pump replacements at various lift stations	23/24	Completed August 2024
OS0348	Odor Control Program (Imjin Lift Station)	Adding Bioxide for corrosion and odor control at Imjin Lift Station	23/24	Construction still has not started
MS-2401	Tate Park Lift Station	Additional Lift Station to replace a majority of sewer flows to Dunes Lift Station and to facilitate future buildout of Marina Station	23/24	Project under design 2025
OS-2305	Manhole Rehab and Lining Lightfighter (21 Manholes)	Grout and Epoxy lining of deteriorated manholes	23/24	Delayed to the following fiscal year
OS-0147	Ord Village Lift Station and Force Main Improvements	Replacement of Ord Village Lift Station and Force Main	22/23	Completed November 2023
OS-0152	Booker Lift Station Replacement	Replacement of the Booker Lift Station	22/23	Completed September 2022
OS-0153	Mis. Lift Station Improvement	Misc. renovation	22/23	Reallocated

OS-0218	Gigling Lift Station Renovation	Replacement of the existing lift station	22/23	Delayed to the following fiscal year
OS-0348	Odor Control Program	Installation of Bioxide for Corrosion and odor control	22/23	Delayed to the following fiscal year
OS-2301	CIPP Lining of 1st. Street Sewer	Lining of 550' of Sewer Gravity Main	22/23	Completed March 2023
OS-2303	Hatten Lift Station Improvement	Replacement of Hatten Lift Station	22/23	Completed May 2022
OS-2304	Hodges Lift Station Improvement	Replacement of pumps and associated piping	22/23	Completed June 2022
OS-2305	Lightfighter Manhole Rehabilitation and Lining	Grout and Epoxy lining of 21 manholes	22/23	Delayed to the following fiscal year

The O&M and Engineering departments coordinate with each other during the planning, design, and construction phases of all CIPs, as well as with other pertinent stakeholders, including cities, counties, and regulatory agencies.

Figure 12 - Hatten Lift Station Before and After CIP

Element 9.0: Monitoring, Measurement and Program Modifications

The Plan must include an adaptive management section that addresses SSMP implementation effectiveness and the steps for necessary plan improvement, including:

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

9.1: SSMP Program Adaptive Management

The District prepares the SWRCB Report, which is due annually in April. This report examines the previous year's preventative maintenance activities, as well as historical trends for spills. Additionally, the District conducts a voluntary annual audit to assess the effectiveness of the

SSMP. The internal audit examines the previous year's preventative data, CIP, O&M projects, training, FOG inspections, and equipment purchases. Additionally, the audit examines each element of the SSMP to assess compliance and determine its current status. When elements are identified as not current, the District will make the necessary corrections within the SSMP and document those corrections on an attached change log.

9.2: Spill Trends and Plan Effectiveness

As mentioned, the District looks at historic and current spill trends to determine the effectiveness of its SSMP. The following spill trends are performed on either the voluntary report or the State Report:

- Total Spills over the course of 3 or more years
- Number of Spills per Category- 3 or more years
- Number of Spills greater than 1,000 gallons- 3 or more years
- Spill category and volume by month- 3 or more years
- Liner feet of main cleaned- 3 or more years
- Linear feet of main CCTVd- 3 or more years
- Number of FOG inspections performed- 3 or more years

In addition to trending, staff will review condition assessment data to ensure that mains are prioritized for preventive cleaning or capital replacement. Mains with a higher O&M condition assessment will be prioritized for enhanced cleaning and CCTV activities. Sewer mains with a higher structural condition assessment will be prioritized for repair, rehabilitation, or replacement. Staff will assess all available data annually and modify the preventative program as necessary to reduce sewer backups and spills.

9.3: SSMP Updates and Performance Monitoring

The District utilizes various performance measures, as described in Elements 9.0 and 9.1, to evaluate its collection system and identify SSMP elements that require revisions and updates. The District has established condition assessment data and matrices that enable near real-time scoring of sewer mains. This data, in conjunction with preventative maintenance and reactive maintenance activities, enables the District to continuously assess the performance of its collection system. The

District is committed to regularly using performance measures for evaluating its collection system. The District will update information, approaches, and requirements, in addition to prioritizing actions under the SSMP, based on the results of these evaluations as deemed necessary. The SSMP will be reviewed and updated as needed to ensure the goals of the SSMP are met.

Element 10.0: Internal Audits

As a requirement of the WDR, an Enrollee shall complete an internal audit of their SSMP at a minimum frequency of once every three years. The Enrollee shall conduct periodic internal audits, appropriate to the size and performance of the system. The audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements, including identification of any deficiencies in the SSMP and steps to correct them.

The District will perform its internal audits every three years, and the LRO will submit the audit to the CIWQS database as required by the SRWCB. The audit scope will encompass each major component of the SSMP, addressing any deficiencies and identifying corrective measures. A major element of the audit includes a self-monitoring program that includes scheduled examination of collection system management and institutes self-correcting measures before problems escalate into major issues. The following documents cover major SSMP elements and are to be used in the annual SSMP audit:

- Sanitary Sewer Spills
    - Category and Volume
- Monthly/ annual footage and mileage of mains hydro-cleaned
- Monthly/ annual footage and mileage of mains CCTVd
- Lift station failure(s)
- Fog inspections performed
- Training performed
- CIP updates

In addition to the required three-year audit, the District typically performs an annual lower-level audit, which is on a voluntary basis, to determine the effectiveness of its preventative maintenance program and to adjust any maintenance as required. Continuous monitoring of the sewer program's effectiveness is performed by the O&M Supervisor and O&M Manager, and changes to the

program occur as needed and as frequently as necessary. The District will update its SSMP as necessary, based on the results of the audit or any findings that necessitate such updates at any time.

Element 11.0: Communication Program

Enrollees shall include procedures to communicate with:

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

11.1: Public Communication

Depending on the size, severity, and location, the District will communicate with the public on spills and discharges. The public will be notified via any combination of the following: email, social media, news outlet, door-to-door communication, mailers, and reverse 911 through the Monterey County Emergency Operations Center (EOC). The District will utilize its PR firm to post relevant up-to-date information regarding spills and affected areas.

Additionally, the public will be involved in the implementation, performance, and development/ update of the SSMP on an ongoing basis, utilizing various outreach materials. The District will keep ratepayers and stakeholders informed about the requirements of the WDR and SSMP activities through public meetings and the District's website. The District's website provides information on the District's FOG outreach program and other important information, such as announcements, agendas, resolutions, and minutes, that will contain any status updates on the SSMP. The District's updated SSMP will be published on the website following its adoption by the Board of Directors through a resolution.

Communication with District customers regarding system operations, maintenance, the pipe blockage program, and CIPs is conducted via the District's website, email blasts, social media

posts, and bill inserts (see Figure 14 below for an example of public outreach for pipe blockage). The District's Board of Directors typically meets on the third Monday of each month, and the public is welcome to comment on any item on the agenda or provide comments during the public comment period at the beginning of the meeting.

Figure 13 - FOG Public Outreach Campaign Materials

Spill Emergency Response Plan

Updated June 2025

Contents

ACKNOWLEDGEMENT OF RECEIPT

AND

REVIEW OF THE MARINA COAST WATER DISTRICT'S SPILL EMERGENCY RESPONSE PLAN

Attached is a copy of the Marina Coast Water District Spill Emergency Response Plan. It is the responsibility of each employee receiving these handouts to read, review, and become familiar with the procedures outlined in these documents and to comply with them. Failure to comply with any of the procedures may result in disciplinary action.

Please sign, date, and return this acknowledgment of receipt to the MCWD O&M Manager. This signed receipt shall be kept in the employee's file.

I have received, read, and understand the Marina Coast Water District Spill Emergency Response Plan.

Print Name _____ Signature _____

Date _____

REQUIREMENTS

Each Enrollee shall develop and implement a Spill Emergency Response Plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

- Proper notification procedures so that the primary responders and regulatory agencies are informed of all Sanitary Sewer Spills (Spills) in a timely manner; and,
- A program to ensure an appropriate response to all Spills; and,
- Procedures to ensure prompt notification to the appropriate regulatory agencies and other potentially affected entities (e.g., health agencies, Regional Water Boards, water suppliers, etc.) of all Spills that potentially affect public health or reach the waters of the US and State per the Monitoring and Reporting Program (MRP). All Spill reporting requirements shall follow the MRP, the California Water Code, other State Laws, and other applicable Regional Water Board WDRs and or National Pollutant Discharge Elimination System (NPDES) permit requirements; and,
- Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Spill Emergency Response Plan and are appropriately trained; and,
- Procedures to address emergency operations, such as traffic and crowd control, and other necessary response activities; and
- A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and or partially treated wastewater to waters of the US and State and to minimize or correct any adverse impact on the environment resulting from Spills, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge; and,
- Remove any sewage from drainage conveyance systems (i.e., stormwater systems); and,
- Minimize health impacts and clean spill area and drainage conveyance system in a method that does not impact beneficial uses of water (i.e., not using chlorine (bleach) on Spills that reach surface water); and,
- Coordinate with storm agencies within the District's service area before, during, and after any spill event; and,
- Conduct post-assessment of spill response with Operations staff; and,
- Implement technology, equipment, and coordination (mutual aids) to respond, mitigate, and clean up any Spills rapidly; and,
- Annually review and assess the effectiveness of this plan and update as needed; and,
- Ensure compliance with all notification, monitoring, and reporting requirements of the Statewide Discharge Order WQ 2022-0103-DWQ.

GENERAL CATEGORIES

The State Water Resources Control Board (SWRCB) has established guidelines for classifying and reporting Spills through the current WDR for sanitary sewer systems. Spill notification and reporting requirements vary based on the following Spill categories:

CATEGORY 1

A Spill of any volume of sewage from or caused by a sanitary sewer system that results in a discharge to:

- Surface water, including the surface of a water body that contains no flow or volume of water; or,
- A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly.
    - Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility.
    - A spill from an Enrollee-owned and/or operated lateral that discharges to surface water is a category 1 spill.

CATEGORY 2

Spills of:

- 1,000 gallons or greater caused by a sanitary sewer system that does **NOT** discharge to surface water
- 1,000 gallons or greater out of a lateral and is caused by a failure or blockage in the sanitary sewer system.

CATEGORY 3

Spill of:

- Equal to or greater than 50 gallons and less than 1,000 gallons caused by a sanitary sewer system and does **NOT** discharge to surface water
- Equal to or greater than 50 gallons and less than 1,000 gallons that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system.

CATEGORY 4

Spill of:

- Less than 50 gallons, from or caused by a sanitary sewer system that does **NOT** discharge to surface water.
- Less than 50 gallons out of a lateral and is caused by a failure or blockage in the sanitary sewer system.

PRIVATELY OWNED SEWER LATERALS AND SYSTEMS

- Reporting of spills from privately owned sewer laterals and systems is encouraged by the State Waterboards, but not required.

NOTIFICATION

The notification process typically begins with the discovery of a spill during routine inspections or through a spill report from a concerned citizen. Internal notifications will follow the appropriate chain of command, starting with a System Operator I/II and Lead Operator, and escalating to the Operations and Maintenance Supervisor and Manager, depending on the severity of the spill.

Depending on the spill location or volume, the District requires notification to the appropriate agency. All spills, regardless of size, are reported to the Monterey County Environmental Health Department by utilizing the Fire Communication Notification. The type of direction the County Health Department provides depends on the spill's conditions and will vary from one spill to another. All spills that reach Surface Water, or that are of 1,000 gallons or more, must be reported to the California Office of Emergency Services (CAL-OES) within 2 hours of the spill knowledge. All spills that reach a storm drain, regardless of the quantity or whether it reaches water of the State or Surface Water, also require CAL-OES, as per the Monterey County Environmental Health Department's policy.

Staff will ensure that, before notifying the Monterey County Environmental Health Department or CAL-OES, the in-house questionnaire is completed with all pertinent information prior to making the phone call. This will help expedite the call and safeguard against any accidental omissions related to the spill.

If a spill enters a stormwater system, the Operations staff responding to the spill must contact the jurisdiction that has control over the stormwater system. An attached map (see Appendix B) shows the jurisdictional boundaries. The phone list provided in the spill field report form includes all relevant 24-hour contact numbers for each regulatory or stormwater entity that needs to be notified. In the event of a catastrophic Spill or when a Spill poses a hazard to the public, public notification will be required. The District will post a sign or web notification and/or establish a hotline/ voicemail system to notify the public and protect public health and the environment. Water quality sampling and testing will be performed as necessary, and all notifications/reporting procedures will be initiated and updated as conditions warrant.

RESPONSE REQUIREMENTS

District policy is to respond to all Spills within the District service area to prevent Spills from reaching the storm drains, flood control channels, or any waters of the US or State, and to clean up and relieve the blockage as soon as possible. During regular business hours, all Operations staff are trained and able to respond rapidly to Spills. Spills that occur after hours will be responded to by a standby Operator. The District has a strict 30-minute response time during after-hours when assigned to standby duty. Two standby operators are on call each week for the District. The District also maintains several mutual assistance agreements with nearby agencies, should the scope of the situation require additional resources beyond the District's capabilities.

In addition, the O&M Supervisor or O&M Manager is always readily available to respond to Spills during and after hours.

EMERGENCY OPERATIONS AND RESPONSE

The District has drafted numerous Standard Operating Procedures that define step-by-step procedures for responding to emergencies, such as spills or pump station failures. The District also maintains an Emergency Response Plan, which includes incident report forms, vendor and contractor contact information, and action plans for various emergency situations. The District's field crews are trained to respond to emergencies at all times. If needed, the District utilizes its list of pre-approved, qualified contractors. The District can engage the services of independent contractors through purchase order processes, ensuring no delays in responding to a Spill. Both the District and the emergency contractors have traffic control equipment that complies with Caltrans standards and can be used for situations such as crowd control. The local Fire Department will be contacted if additional assistance, such as traffic control, is required.

SPILL CONTAINMENT, PREVENTION, AND MITIGATION

The District follows various procedures and precautions to contain and prevent discharge to surface waters and minimize the impacts of spills. To contain wastewater, field crews are required to use temporary diversion dikes or absorbent socks to block or clean sewer around catch basin entrances to storm drains and vacuum up spills and wash down water. Spills that enter drainage conveyance systems must be hydro-cleaned and vacuumed up to remove any sewage in the drainage systems. Notification and coordination with local Stormwater agencies is required when a spill enters the drainage conveyance system. The impacts of Spills are minimized through procedures such as these, in addition to notifying the appropriate agencies and District personnel as soon as possible. All Spills are reported immediately to the Monterey County Health Department to help assess the situation and any impacts on water quality. To further prevent Spills in the future and minimize environmental impacts, the Spill Emergency Response Plan will be modified or periodically improved to ensure that all corrective measures and procedures are implemented to further reduce the impact of Spills in the District's service area. The O&M Supervisor and Manager will be responsible for refining existing plans and increasing preventative maintenance activities to prevent future Spill events.

SPILL VOLUME ESTIMATION

The District has numerous methods that can be utilized to accurately estimate the volume of a Spill. Methods include utilizing the District's SCADA system, Volumetric Spill Excel Calculator, or referencing the Orange County Sewer Spill Estimation Guides. The method used will depend on the location or facility involved. On a typical gravity main spill, the District's Operators will utilize the District's Volumetric Spill Calculator on Microsoft Excel. This calculator, available to all the Operations staff on a tablet, allowing for a rapid and accurate flow estimation based on numerous overflow conditions. Should the Spill involve a force main or sewer lift station, the Operations staff will utilize the District's SCADA system to determine flow rates and pressures based on the wetwell level, pump runtimes, or pressure transducers. Also available, should it be needed, is the Orange County Flow Estimation Guide with pictorials of spills of various magnitudes with accompanying flow rates.

DOCUMENTATION

All Spills require key written and photographic documentation to comply with the SRWCB WDR Order and internal requirements. The Operations staff are required to take photos upon arrival of the Spill to help document and determine the amount and affected area of discharge. The Spill Field Report Form (see Appendix A) will assist staff in documenting and calculating spills, as well as in reporting. At a minimum, staff are required to take the following photographs with a GPS time stamp via a smartphone:

- An initial picture of the spill's appearance point. If multiple appearance points, photograph each location
    - The picture shall be an up-close picture of the discharge to help determine the height of the spill, with a delineated marker next to the spill area
    - A panoramic photograph depicting the spill area (spread) from its point of origin to its destination
        - If a spill is too large, multiple pictures and a video shall be taken to show the extent of the path
    - Spill inside of storm manhole or catch basin, if applicable
        - Trace spill down to dry manhole, if applicable, and take photographs to document recapture
    - At the discharge location(s) into surface water, if applicable
    - Surface water sheens, floating material, or bank erosion, if applicable (for surface water spills)
    - The spill's final destination location
    - Any damage done either internally or externally
    - Photos of the cleanup process
    - Final photo of the site post-cleanup

Staff should follow the District's field spill report for reference on where to take photographs during a Spill. All spills are to be uploaded internally in the District's Computer Maintenance Management System (CMMS) with an accompanying work order. All applicable photos will also

be uploaded into the State of California's Integrated Water Quality System (CIWQS) database by the submitting user.

All Spill complaints and reports must be retained for a minimum of 5 years from the date of the spill.

Documentation for all training and spill response exercises shall be kept for a minimum of 5 years from the date of the training.

SAMPLING REQUIREMENTS

The operations staff **MUST** perform water quality sampling and analysis on any spill that is 50,000 gallons or greater AND reaches surface water. Sampling must be performed within 18 hours of the initial knowledge of a spill into surface water (see Appendix C for Spill Sample Procedures). Samples, at a minimum, must be analyzed for:

- Total Coliform Bacteria
- Fecal Coliform Bacteria
- E-Coli
- Enterococcus
- Ammonia

The District will have all the necessary bottles in a container marked "sewer samples" on hand should there be a need to perform sampling. Samples shall be taken to an ELAP-accredited laboratory for testing. As soon as the District determines that water quality samples must be taken, staff should initiate phone calls to arrange for samples to be analyzed by a nearby accredited laboratory. Operators shall follow the field sampling procedures to determine where and how many samples to take and whom to contact. Hold times for coliforms and E. coli are 6 hours, so care must be taken to ensure the samples are received and analyzed on time.

TECHNICAL REPORT

Any spill that reaches surface water (waters of the US) and exceeds 50,000 gallons in volume must have a technical report submitted within 45 days. A technical report shall include, at a minimum:

- Spill cause, duration, photographs, diagrams, and descriptions of the entire Spill event in chronological order
- Pipe material, age, and failure cause
- Impact of the spill: immediate, short-term, and long-term
- Field documentation and historical maintenance on the failure location
- SSMP and SERP implementation
- Improvements or modifications to prevent future spills
- Water quality monitoring and reporting, including detailed locations with maps

TRAINING

District staff members responding to, reporting, or remediating a Spill will receive training as part of the Operations and Maintenance training program. This training involves reading and maintaining copies of the SSMP, including the *Spill Emergency Response Plan*, and participating in any necessary refresher training. Employees are also trained in how to use and implement the District's Emergency Response Plan. All new Operations and Maintenance staff employees are trained to respond appropriately to Spills. Training will consist of classroom and hands-on practical training in the response to Spills. All outside contractors working on MCWD projects are trained on how to respond and who to notify in the event of a Spill.

The Operations and Maintenance staff shall be trained on all pertinent parts of the sewer system at a frequency listed in the table below. In-house training shall consist of providing the staff with the necessary documents and reviewing all key elements. The SERP training will be in-depth and cover how to access, interpret, and complete the necessary forms when responding to a Spill. Practical training shall include hands-on field work with a mock setup in the Corporation Yard. It should be an interactive process that includes setting up the hydro-cleaner, establishing berms, disinfecting areas, and completing the required forms. All training activities will be documented with a sign-in sheet and kept on file for a minimum of five years.

ITEM	FREQUENCY
Spill Emergency Response Plan	6 months upon hire and then annually
Emergency Response Plan	6 months upon hire and then annually
Sewer System Management Plan	6 months upon hire and then annually
Spill estimation volume	Annually
Practical training- Mock set up at Corp. Yard.	Annually

TRAINING CHECKLIST-CONTRACTORS

All contractors performing work shall be aware of the requirements of the General Discharge Order and of the District's Spill Emergency Response Plan. The following requirements are to be provided to any contractor performing work for the District.

1. All underground excavation work shall be required to be located and called in to USA North, 811, before any work is performed
2. The contractors shall be given the District's contact list for emergencies
3. The Contractor shall be aware of the responsibilities for reporting and responding to any sewer emergencies within the District's service area
4. The Contractor shall provide a primary 24-hour contact number and a secondary number to remain on file during any project with the District

5. The Contractor shall ensure that any Spill is promptly reported and that they immediately begin to contain the Spill and work with District staff to mitigate the problem
6. The Contractor will take general guidance in the event of a Spill from the Operations Manager or Supervisor

POST-SPILL ASSESSMENTS

The Operations staff will perform a post-assessment of all spills within the District's service area. All spills will be discussed with the Operations staff during the next regular weekly safety meeting. Staff will provide input on the event and discuss ways to improve the outcome, if needed. A series of self-assessment questions (see Appendix D) will be asked by the Operations Lead, Supervisory, or Manager to the staff to evaluate the overall effectiveness of the response.

LEGAL RESPONSIBLE OFFICIAL AND AUTHORIZED DATA SUBMITTERS

The District's Legal Responsible Official (LRO) is the Operations and Maintenance Manager. The LRO is responsible for certifying spills and no-spill reports, updating and uploading the Sewer System Management Plan (SSMP), and ensuring the overall compliance of the District's collection system. The authorized data submitters for CIWQS are the Operations and Maintenance Supervisor and the Lead Operators. These individuals are required to be trained and able to submit spill reports within the timeframes required. Training will be provided as new hires fill the roles of authorized data submitters or if the CIWQS site layout or format changes significantly enough to warrant additional training for existing submitters. Training will be provided by the Operations and Maintenance Manager to the Operations and Maintenance Supervisor. The Operations and Maintenance Supervisor will provide the necessary training to the Lead Operators.

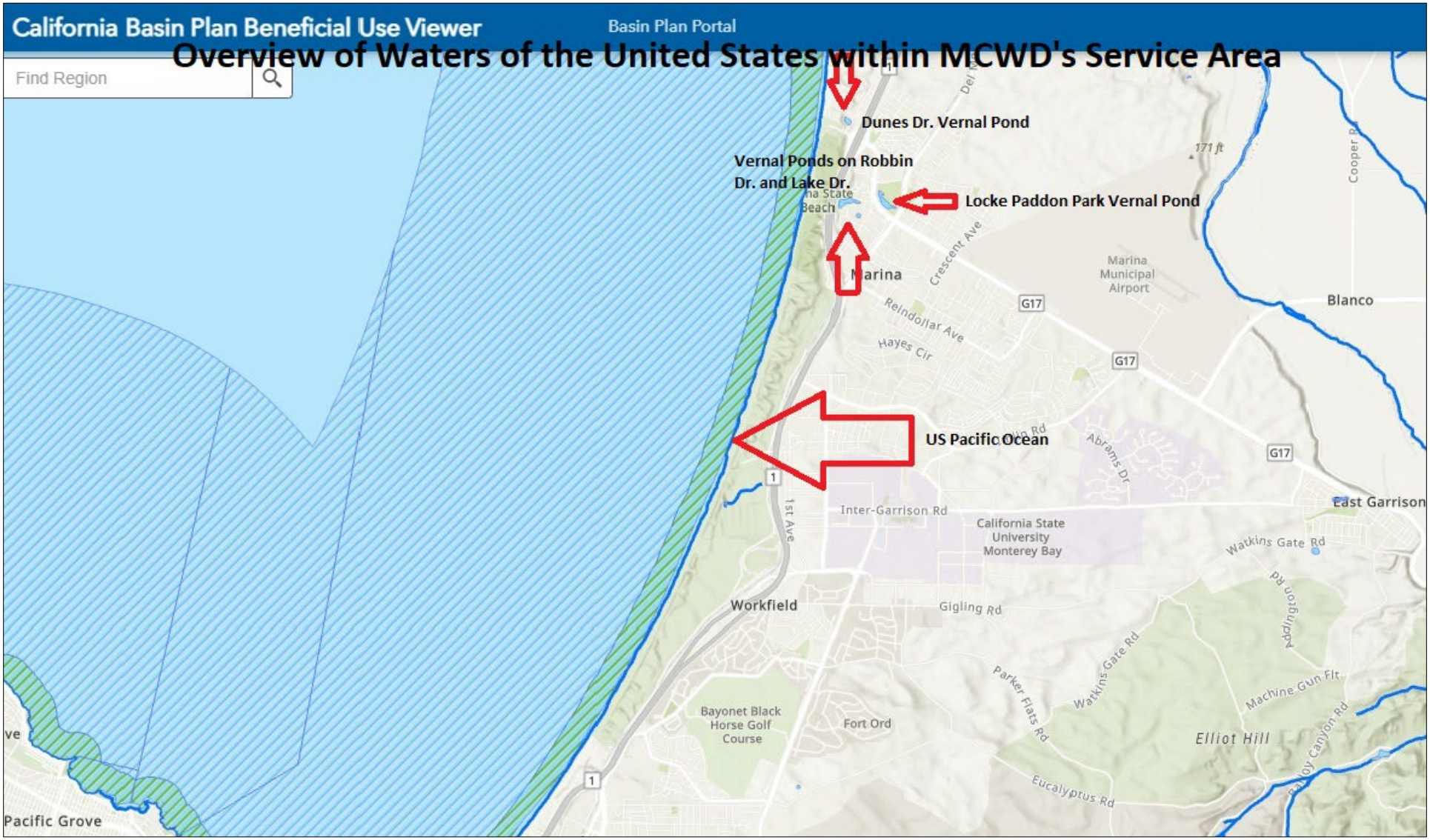
ANNUAL REVIEW AND ASSESSMENT OF THE SERP

At a minimum annual frequency, the SERP shall be reviewed to ensure it is current and is being utilized effectively to respond rapidly and mitigate any Spills. Assessments shall be performed annually, consisting of a review of all key elements. They will factor in key performance indicators such as the number of spills, locations, response time, mitigation efforts, post-spill assessments, and any additional relevant information to help better assess the plan. Any improvements shall be incorporated into a revised SERP and implemented and trained on as soon as practicable.

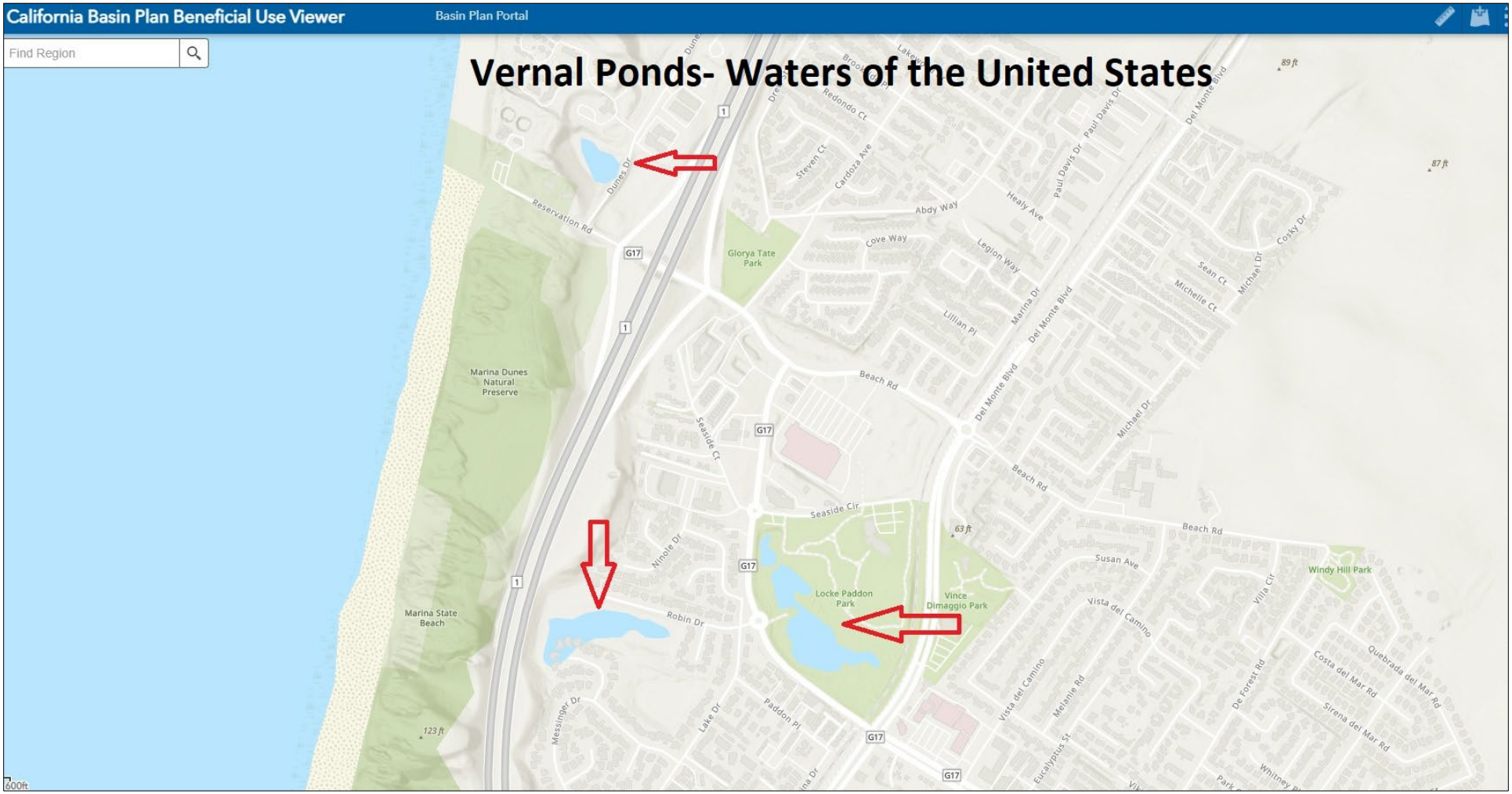
DETERMINING SPILL CATEGORY AND ASSOCIATED MONITORING AND REPORTING

Category 1 Spills- Refer to the Map of all Waters of the US within MCWD			
Volume	**Notification/Agency**	**Sampling**	**Reporting Time**
Any spill that reaches Surface Water **If Spill enters a storm drain**	1. Monterey County Environmental Health 2. Cal OES- Within 2 hours of knowledge of the spill The stormwater agency responsible for O & M of the system.	N/A	Draft Spill Report- 3 Days Certified Report- 15 Calendar days of the spill
50,000 gallons or more and reaches Surface Water **If Spill enters a storm drain**	1. Monterey County Environmental Health 2. Cal OES- Within 2 hours of knowledge of the spill The stormwater agency responsible for O & M of the system.	Sample each day of the spill: refer to Appendix C	Draft Spill Report- 3 business days Certified Report- 15 Calendar days of the spill Technical Spill Report- 45 days from the spill end date.

Waters of the United States, ie. Surface Water Locations within the District's service area



Zoomed in Area of the Vernal Ponds within the District's Service Area



Category 2 Spills

Volume	Notification/Agency	Sampling	Reporting Time
1,000 or more and does NOT reach surface water **If Spill enters a storm drain**	1. Monterey County Environmental Health 2. Cal OES- Within 2 hours of knowledge of the spill The stormwater agency responsible for O & M of the system.	N/A	**Draft Spill Rep**ort- 3 business days **Certified Report**- 15 Calendar days of the spill

Category 3 Spills

Volume	Notification/Agency	Sampling	Reporting Time
Greater than 50 gallons and less than 1,000 gallons, and does NOT reach surface water **If Spill enters a storm drain**	Monterey County Environmental Health 1.Cal-OES 2. The stormwater agency responsible for O & M of the system.	N/A	**Certified Report**- 30 Calendar days after the end of the month in which the spill occurs

Category 4 Spills			
Volume	**Notification/Agency**	**Sampling**	**Reporting Time**
Less than 50 gallons and does NOT reach surface water	Monterey County Environmental Health	N/A	**Certify**- Monthly the estimated spill volume and the total number of Category 4 spills within 30 days after the end of the calendar month in which the spill occurs **Certified Report**- Annually, by February 1st, the total number and volume to CIWQS.
If Spill enters a storm drain	1.Cal-OES 2. The stormwater agency responsible for O & M of the system.		

Private Laterals			
Volume	**Notification/Agency**	**Sampling**	**Reporting Time**
Any Volume	Monterey County Environmental Health	N/A	Voluntary Reporting

RESTORATION OF AFFECTED AREAS

The District will make every effort to restore the affected areas to the conditions that existed before the Spill occurred by utilizing the following procedures established by the Monterey County Health Department (Division of Environmental Health):

1. Disinfection is required only if the spilled sewage presents a hazard to public health and is NOT in or going to make it to surface water or waters of the State. This determination shall be made by the Monterey County Health Department Environmental Health Specialist (EHS), who responds to the incident. However, the following guidelines must be utilized: Surfaces inside dwellings and other structures where people live or congregate must be disinfected after a sewage spill. In the event the interior of a dwelling is impacted by the Spill, a certified contractor must be contacted to handle the cleanup. The District currently has a list of vendors for these services. Objects and surfaces that cannot be disinfected in public buildings or in rental housing should be discarded. Disposition of such objects and surfaces in private homes shall be the responsibility of the homeowner and discarded at their discretion. However, the EHS should advise the homeowner that sewage can contain pathogens that may cause life-threatening illness and that there is no general "test" to determine if such pathogens exist in sewage-damaged objects.

2. Although disinfection of gutters and/or streets is not usually necessary, sidewalks and areas where the public walks or congregates may require disinfection per Monterey County Environmental Health, after thorough rinsing and cleaning of debris such as paper products, fecal matter, and visible sewage residue. The residual rinse water should be recovered for disposal into the sanitary sewer. Liquid bleach should be diluted to a 50/ 50 mixture with water and applied to any surface area requiring disinfection. After several minutes of contact time, the solution should be vacuumed up and disposed of properly.

3. If the Spill occurred in the street, staff shall wash it down utilizing the high-pressure wand on the Jetter or combination cleaner truck, and or use the nearest fire hydrant to wash down the affected area(s) utilizing Best Management Practices (BMPs). Staff shall further isolate storm drain inlet structures by utilizing sandbags or other containment measures, such as absorbent pads and socks, to prevent contamination of the storm drain. District staff shall also recover wash-down water by utilizing vacuum trucks.

4. Disinfection of natural surfaces such as grass or soil is generally unnecessary except for removing visible sewage residue. However, if the natural surface is part of a schoolyard, playground, or similar public-use location, removal of the top layer of soil may be required. If the top layer of soil is removed, the "spoils" will be transported to the Monterey Regional Waste Management District landfill for disposal. A receipt for disposing of these materials must be provided to the O&M Supervisor. If this occurs, District staff shall replace the removed material with clean fill material.

5. Collect (vacuum) and dispose of standing or pooled sewage.

6. Recover any sewage within storm drains, channels, curbs, gutters, or culverts.

7. Clear all affected areas of paper, solids (including fecal matter), and any other visual signs of a Spill.

8. <u>Do not, under any circumstances</u>, apply bleach, sodium hypochlorite, or any type of disinfection product or products to any flow stream that has entered or is capable of entering a creek, tributary, flood control channel, or whose final discharge point is the Salinas River or the ocean.

APPENDIX A – SPILL FIELD REPORT FORM

Spill Field Report Form

First Responder: _____ Date: _____

Initial Location of Spill: _____ Weather Conditions: _____

Work Order #:_____ CIWQS Event #:_____

Spilling Upon Arrival? [ ] Yes [ ] No 

(A) Estimated Spill Volume to Reach Land (include dirt, concrete, asphalt, inside building structures, Perc. Ponds, or storm systems that do not reach surface water). _____ Gals.

(B) Estimate spill volume recovered from discharge to land _____ Gals.

(C) Estimated spill volume that reached a storm drain system flowing to surface water _____ Gals.

(D) Estimated spill volume recovered from the storm drain that flows to surface water _____ Gals.

(E) Estimated spill volume that directly reached a drainage channel flowing to surface water _____ Gals.

(F) Estimated spill volume recovered from drainage channel that flows to a surface water _____ Gals.

(G) Estimated volume discharged directly to a surface water body _____ Gals.

(H) Estimated spill volume recovered from a surface water body _____ Gals.

(I) Estimated saturated soil removed _____ Cubic Feet

*Do not include washdown water in any estimations

Estimated Spill Volume to Reach Land (A)	Estimated Total Spill Volume to Reach Surface Water (C - D) + (E + G)	Estimated Total Spill Volume Recovered (B)+(D)+(F)+(H)	Estimated Total Spill Volume (A)+(C)+(E)+(G)

Spill Specific Times				
Estimated Spill Start Time:	[ ]am [ ]pm	Did Caller Notice Active Spill?	[ ] Y [ ] N	[ ]am[ ] pm
Time Call Received/or Discovered:	[ ]am [ ]pm	Did Neighbors Notice Spill?	[ ] Y [ ] N	[ ]am[ ] pm
Arrival Time:	[ ]am [ ]pm	Stormwater Agency Contacted:	[ ] Y [ ] N , Who:	
Spill End Time:	[ ]am [ ]pm	Comments:		

Number of Spill Appearance Points (Location where the spill appears): 

	Manhole		Cleanout		Gravity Main		Force Main		Wetwell
	Building or Structure		Private Lateral		Other				

Final Spill Destination: 

	Paved Surface		Unpaved Surface		Storm Drain		Beach		Surface Water
	Street Curb/Gutter		Building or Structure		Other:				

If a spill enters surface water, you must take the following photos:
Waterbody bank erosion, Water Sheen (potential from grease or oil), Floating matter, Discoloration of water, and impact on receiving water.

Failure Location: (select all that apply) 

	Gravity Main		Force Main		Lift Station		Private Lateral
	Air Relief Valve:		Other				

Spill Cause:

	Grease		Root Intrusion		Debris-Rags
	Debris-Construction		Lift Station Failure-Mechanical		Non-Flushable Wipes
	Pipe/Structural Failure		Lift Station Failure- Electrical		Vandalism
	Air Relief Valve		Lift Station Failure- Controls		Construction Activities
	Natural Disaster		Rainfall Exceeded Capacity-I&I		Operations Staff Caused
	Other-(please list)				

Containment Procedures: 

	Hydro-Vac		Rubber Berm		Dirt Berm
	Air Plug		Dry Sweep		Naturally Contained
	Bypass Pumping		Other:		

Spill Response Activities:

	Mitigated Effects of Spill		Contained All or Portion of Spill		Restored Flow
	CCTV Inspected for Cause		Hydro Affected Storm Drains		Document Spill Spread
	Appropriate Photos Taken		Properly Dispose of Washdown and Captured Wastewater		

Description of Spill Response Activities and Actions Taken:

_____

_____

_____

_____

_____

_____

_____

_____

Spill Spread

Document the spill spread and magnitude by providing a sketch starting at the appearance point and ending at either the containment point or the endpoint of the spill. In addition, provide area measurements of the spill and depths of ponded water to get an average depth to estimate the volume. Select the surface type (s) where the spill occurred and label the sketch accordingly.

[ ] Landscape [ ] Asphalt [ ] Concrete [ ] Dirt [ ] Other _____

Spill Volume Estimation Method

	Measured Volume		Flow Estimation Excel File		Flow Rate and Duration
	Estimated Flow		SCADA and Pump Info		Hydraulic Model
	Other:				

Describe your process for volume estimation:

_____
_____
_____
_____
_____
_____

Notes:

Contact Numbers

Internal Contact Information:

Person	Title	Office Number	Cell
Customer Service	MCWD Front Office	(831) 384-6131	N/A
Call Center	MCWD After hours	(831) 384-6131	N/A
Standby Sewer	MCWD Standby Operator	N/A	(831) 242-0587
Standby Water	MCWD Standby Operator	N/A	(831) 277-2128
Joe Pineda	O & M Supervisor	(831) 883-5940	(831) 324-5091
Derek Cray	O & M Manager	(831) 883-5903	(831) 682-3908
MBAS LAB	Front Office	(831) 375-6227	(831) 277-1352

Storm Water Agencies:

Agency	Primary	Secondary
City of Marina	(831) 384- 7575 (Dispatch)	(831) 212-5448 (Standby Phone)
City of Seaside	(831) 394-6811 (Dispatch)	(831) 760-2336 (Standby Phone)
Monterey County	(831) 755-5304	(831) 755-5295
CSUMB	(831) 582-3700 (Answering service)	N/A
POM (Military)	Steven Hughes (831) 887-8877 (cell)	

Regulatory Agencies:

Agency	Primary	Secondary
Monterey County Environmental Health	(831) 775-4500	(831) 647-7654, or FireComm at (831) 899-6790
CAL-OES	1-800-852-7550	N/A
Fish and Game	(831) 649-2870	N/A
Monterey County Water Resources (Salinas River)	(831) 755-4860	(831) 796-1166 (After Hours)

Mutual Aid Agencies:

Agency	Request for Assistance
Castroville CSD	O & M Manager, or General Manager, will make the Request
City of Seaside	O & M Manager, or General Manager, will make the Request
Carmel Area Wastewater	O & M Manager, or General Manager, will make the Request

Monterey County Environmental Health Notification:
All Spills:

Fill out prior to calling:

Name of County Official spoken to: _____

Spill location: _____

Name of person calling: _____

Contact number of the person calling: _____

Estimated spill volume: _____Gallons

Estimated Spill rate from system: _____GPM

Amount of spill contained: _____ Gallons

Amount of spill recovered: _____Gallons

Did spill enter storm drain: _____

Spill incident description: _____

_____

Visible solids present: _____Yes_____No

Method of cleanup: _____

Date and time notified of the spill: _____

Name of sanitary system causing the spill: Marina Coast Water District

Spill sause (if known):_____

_____

Any public warning signs posted: _____Yes_____No

CAL OES #: _____

****Supplemental Sheet- Category 1 or 2 Spills or Spills that enter a Storm Drain****

CAL OES Notification:

Any Water that Reaches Surface Water, Storm Drains or Spills of 1,000 gallons or more: 1 (800) 852-7550

Fill out prior to calling

Spill location: _____

Name of person calling: _____

Contact number of person calling: _____

Estimated spill volume: _____Gallons

Estimated spill rate from system: _____GPM

Amount of spill contained:_____Gallons

Amount of spill recovered: _____Gallons

Spill incident description: _____

_____

Date and Time notified of the spill: _____

Name of sanitary system causing the spill: Marina Coast Water District

Spill cause (if known):_____

_____

Estimated discharge rate into surface water (if applicable):_____GPM

Name of receiving body (if applicable, i.e., surface water):_____

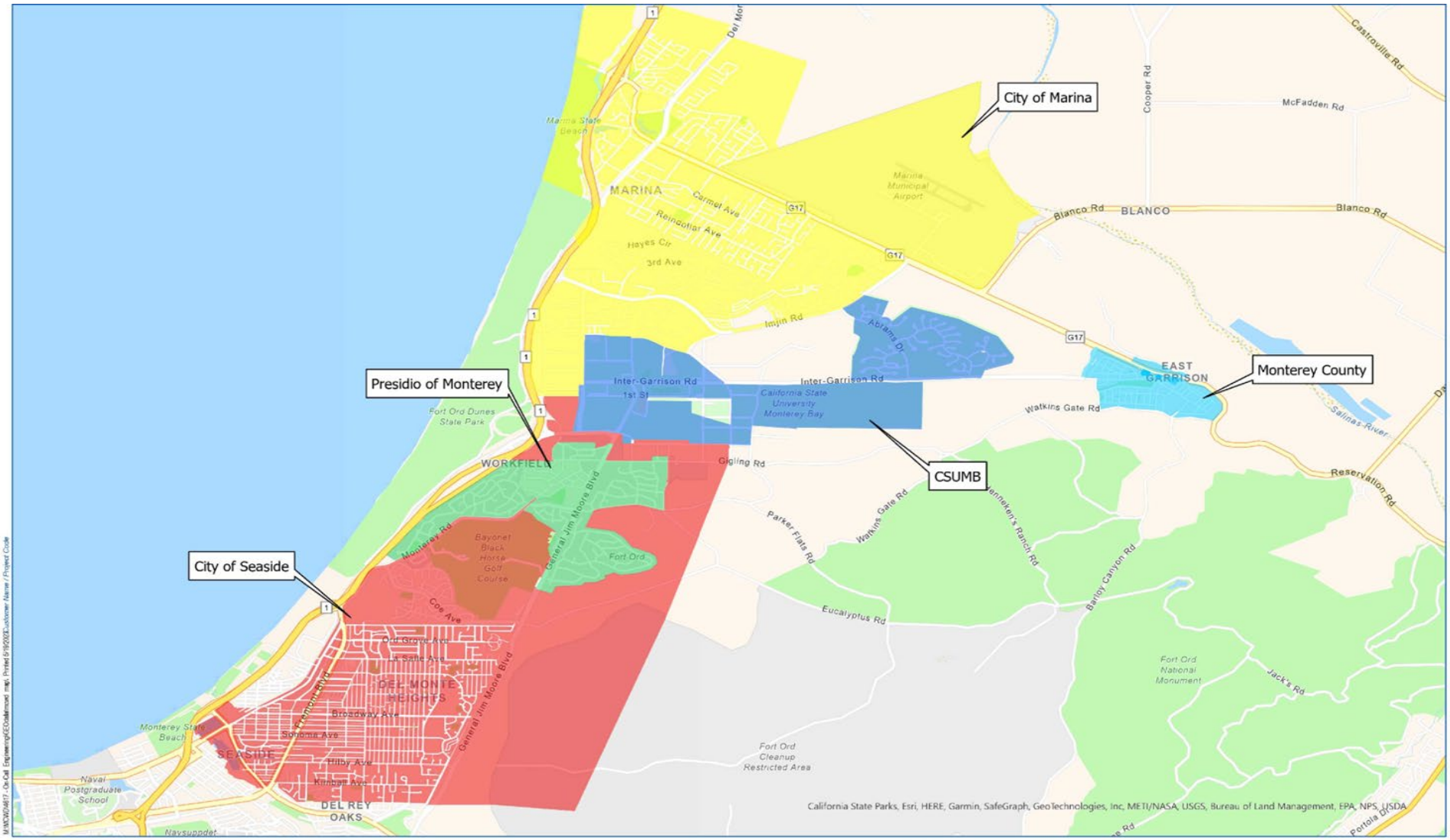
_____

Description of water body impact (if applicable, i.e., surface water): _____

_____

*** IF THE SPILL IS 50,000 GALLONS OR GREATER AND REACHES SURFACE WATER, YOU MUST PERFORM WATER QUALITY MONITORING***

APPENDIX B – STORMWATER JURISDICTION MAP



Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

0 2,000 4,000 Feet

FIGURE A:

Stormwater Jurisdictions
Marina Coast Water District System
Jurisdiction Map | 05/2023

APPENDIX C – SPILL SAMPLE EVENT PROCEDURES

SPILL SAMPLE EVENT PROCEDURES

For all spills of 50,000 gallons or greater to surface water

MUST GET SAMPLES TO LAB ASAP; HOLD TIMES ARE <6 HOURS!

1. Grab ice packs from the freezer (use smaller ones). Ice packs should be thrown away after use. **DO NOT PUT BACK INTO FREEZER IF IT CAME INTO CONTACT WITH SAMPLES!**
2. Samples are to be taken to:
    i. Monterey Bay Analytical Services
    4 Justin Court, Suite D
    Monterey, CA 93940
3. If sampling after-hours, call the following numbers in order. **You must let MBAS staff know what samples are being delivered and set up a plan for analysis. Samples MUST be analyzed no later than 6 hours after sample collection!**
    i. David Holland (Lab Director) – (831)277-1352 (cell)
    ii. Molly Wooden (Lab Supervisor) – (530)263-1711 (cell)
    iii. Olivia Woolery (Lab Technician) - (858)531-2479 (cell)

Examples: Sample is collected at 2 AM, you must get to the lab no later than 8 AM. If the sample is collected at 8 PM, you must get to the lab no later than 2 AM.

Required Sampling Locations:

You must collect one water sample each day of the duration of the spill at the following locations:

Sample ID	***Sample Location***	***Sampling Location Description***
DCS-001	*Flow in the Drainage Conveyance System Prior to Discharge to Surface Water*	*A point in the drainage system before the flow discharges into the receiving water*
RSW-001	*First Point of Contact with Surface Water*	*Point in the receiving water where sewage initially enters the receiving water*
RSW-001U	*Upstream from the Point of Contact with sewage and Surface Water*	*A point in the receiving water, upstream from the point of sewage discharge, meant to capture ambient conditions without sewage.*
RSW-001D	*Downstream from Point of Contact with Sewage and Surface Water*	*A point in the receiving water, downstream from the point of sewage discharge, where the water and spill are fully mixed.*

APPENDIX D – POST-SPILL ASSESSMENT

Post Spill Assessment

Date of Assessment: _____ Date of Spill:_____

Location of Sewer Spill:_____ Spill Volume: _____

Category of Spill:_____ CIWQS _____

1. Was the response rapid, and was there anything that could have been done to respond quicker?

2. Could Spill have been prevented, and if so, how?

3. Did the Operations staff have all the necessary resources readily available, and if not, what additional resources were needed?

4. What use of technology could have been used to prevent the Spill or allow for a quicker response?

5. Did spill mitigation and cleanup cause any unforeseen issues?

6. Were all notifications and reporting done on time and correctly?

7. Did the sewer line get CCTV to see the integrity of the pipe?

8. Should the sewer line be added to the trouble spot list?

9. Does the line need to be rehabbed or replaced via the CIP?

10. Were there any improvements that could have been made to improve the overall outcome of the spill response?

Appendix B: In-House Spill Estimation Calculator Overview

****OPERATORS - PLEASE DO NOT SAVE EDITS TO THIS DOCUMENT; PLEASE USE "SAVE AS" AND THEN MAKE EDITS. THANK YOU!****

Pick & Vent Spill Calculator

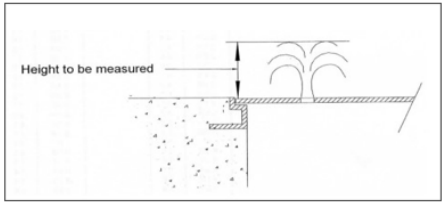
Instructions: Place cones by manhole vent holes with spill. Enter in the information in the YELLOW fields only.

Enter Pick Hole Size Here (0.5, 0.75, 1)

1	* Must have a number in cell

# of Vent Holes	Height of Discharge (Use Decimal Format as Seen to the Right)	GPM
1		-
2		-
3		-
4		-
5		-
	Total GPM	

Inches	0	1/16"	1/8"	1/4"	1/2"	3/4"	1"	1 1/4"	1 3/8"	1 1/2"	1 5/8"	1 3/4"	2"	2 1/4"	2 1/2"	2 3/4"	3"	3 1/4"	3 1/2"	3 3/4"	4"
Decimal	0	0.063	0.125	0.25	0.5	0.75	1	1.25	1.375	1.5	1.625	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4
0.5	0	0.23	0.33	0.47	0.66	0.81	0.94	1.05	1.1	1.15	1.2	1.24	1.33	1.41	1.48	1.56	1.62	1.69	1.75	0.313	0.333
0.75	0	0.51	0.72	1.02	1.44	1.77	2.04	2.28	2.39	2.5	2.6	2.7	2.89	3.06	3.23	3.38	3.53	3.68	3.82	3.95	4.08
1	0	0.88	1.25	1.77	2.5	3.06	3.54	3.96	4.15	4.33	4.51	4.68	5	5.31	5.59	5.87	6.13	6.38	6.62	6.85	7.08



Where it is difficult to measure wet spots on asphalt, use a depth of 0.0026'or 1/32". For wet spots on concrete use depths of 0.0013'or 1/64" for reasonable estimates.

Sample Calculation:
A 20 ft x 20 ft square wet spot on concrete equals 3.9 gal and for asphalt is 7.8 gal.

Ring Spill Calculator (Manhole Intact)

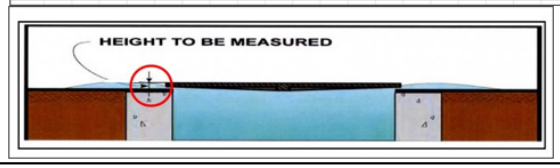
Instructions: Place cones by manhole ring with spill. Enter in the information in the YELLOW fields only.

Enter Manhole Ring Size Here (24, 36)

24	* Must have a number in cell

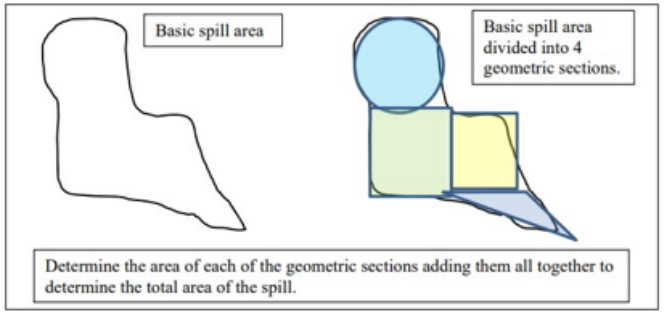
# of Manholes	Height of Discharge (Use Decimal Format as Seen to the Right)	GPM
1		-

Inches	0	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	2 3/4"	3"	3 1/4"	3 1/2"	3 3/4"	4"	4 1/4"	4 1/2"	4 3/4"	5"	5 1/4"	5 1/2"	5 3/4"	6"	6 1/4"	6 1/2"	6 3/4"	7"	7 1/4"	7 1/2"	7 3/4"	8"	8 1/4"	8 1/2"	8 3/4"	9"
Decimal	0	0.25	0.5	0.75	1	1.25	1.5	1.75	2	2.25	2.5	2.75	3	3.25	3.5	3.75	4	4.25	4.5	4.75	5	5.25	5.5	5.75	6	6.25	6.5	6.75	7	7.25	7.5	7.75	8	8.25	8.5	8.75	9
24	0	1	3	6	9	12	16	21	25	31	38	45	54	64	75	87	100	115	131	148	166	185	204	224	244	265	286	308	331	354	377	401	426	451	476	502	529
36	0	1	4	8	13	18	24	31	37	45	55	66	78	93	109	127	147	169	192	217	243	270	299	327	357	387	419	451	483	517	551	587	622	659	697	734	773



TOTAL GPM FROM MANHOLE	25.00

Volume Measurements



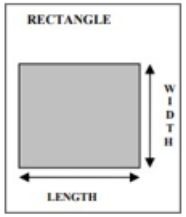
Instructions : Enter in the information in the YELLOW fields only.

Rectangle

Length (feet) x Width (feet) = Area

Enter ***0.0026*** *for* ***Wet Asphalt***
Enter ***0.0013*** *for* ***Wet Concrete***

	Length (feet)	Width (feet)	Depth (feet)	Cubic Feet	Gallons	Recovered (Gallons)
Area 1	42	7	0.0026	0.76	5.72	5.72
Area 2	4	12	0.0026	0.12	0.93	0.93
Area 3	500	1	0.0013	0.65	4.86	9.72
Area 4				0.00	0.00	
Saturated Soil	25	22	1.63	896.50	1207.05	
			Total	**898.04**	**1218.56**	**16.37**

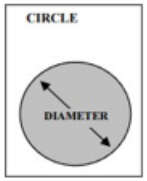


Circle

(Diameter (feet) x Diameter (feet) x 3.14) / 4 = Area

Enter ***0.0026*** *for* ***Wet Asphalt***
Enter ***0.0013*** *for* ***Wet***

	Diameter (feet)	Depth (feet)	Cubic Feet	Gallons	Recovered (Gallons)
Area 1			0	0	
Area 2			0	0	
Area 3			0	0	
Area 4			0	0	
Saturated Soil			0	0	
		Total	**0.00**	**0.00**	**0.00**

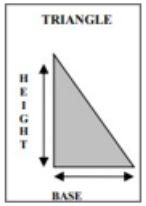


Triangle

Base (feet) x Height (feet) x 0.5 = Area

Enter ***0.0026*** *for* ***Wet Asphalt***
Enter ***0.0013*** *for* ***Wet Concrete***

	Base (feet)	Height (feet)	Depth (feet)	Cubic Feet	Gallons	Recovered (Gallons)
Area 1			0	0	0	
Area 2			0	0	0	
Area 3			0	0	0	
Area 4			0	0	0	
Saturated Soil			0	0	0	
			Total	**0.00**	**0.00**	**0.00**

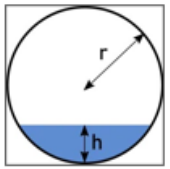


Storm Drain

(Diameter (feet) x Diameter (feet) x Depth (feet) = Area

Storm Drain *(Diameter (feet) x Diameter (feet) x Depth (feet) = Area*

	Diameter (feet)	Length (feet)	Depth (feet)	Cubic Feet	Gallons	Recovered (Gallons)
Area 1	1.25	21	0.33	8.500078125	63.58058438	63.58
Area 2	1.25	53	0.33	21.45257813	160.4652844	160.46
Area 3				0	0	
Area 4				0	0	
			Total	**29.95**	**224.05**	**224.04**



Inches to Feet Conversion

Inches	1/4"	1/2"	3/4"	1"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	2 3/4"	3"	3 1/4"	3 1/2"	3 3/4"	4"	4 1/4"	4 1/2"	4 3/4"	5"	5 1/4"	5 1/2"	5 3/4"	
Feet	0.020	0.041	0.062	0.083	0.104	0.125	0.145	0.166	0.187	0.208	0.229	0.250	0.270	0.291	0.312	0.333	0.354	0.375	0.395	0.416	0.437	0.458	0.479	0

Spill Volume to Land (Gallons):	**1442.61**
Spill Volume Recovered (Gallons):	**240.41**
Total Spill Volume (Gallons:	**1202.20**
Estimated Spill Time (Minutes):	**57.70**
Spill END Time:	***10:45 AM***
Estimated Spill START Time:	***9:47 AM***

Appendix C: Excerpt from the District's Title 5 Sewer Service System Code

Title 5 – SEWER SERVICE SYSTEM

5.08.010 Violation Unlawful

It is unlawful for any person to connect, construct, install or provide any other means of sewage disposal from any building in the District except by connection to a public sewer and except as provided in the District Water Code.

5.08.030 Violation

Any person found to be violating any provision of this or any other ordinance, rule or regulation of the district, except this section and Section 5.16.250, shall be served by the general manager or other authorized person with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. Said time limit shall be not less than two nor more than seven working days. The offender shall, within the period of time stated in such notice, permanently cease all violations. All persons shall be held strictly responsible for any and all acts of agents or employees done under the provisions of this or any other ordinance, rule or regulation of the district. Upon being notified by the general manager of any defect arising in any sewer or of any violation of this title, the person or persons having charge of said work shall immediately correct the same.

5.08.060 Public Nuisance

Continued habitation of any building or continued operation of any industrial facility in violation of the provisions of this or any other ordinance, rule or regulation of the district is declared to be a public nuisance. The district may cause proceedings to be brought for the abatement of the occupancy of the building or industrial facility during the period of such violation.

5.08.070 Disconnection

As an alternative method of enforcing the provisions of this or any other ordinance, rule or regulation of the district, the general manager shall have the power to disconnect the user or subdivision sewer system from the sewer mains of the district. Upon disconnection, the general manager shall estimate the cost of disconnection from and reconnection to the system, and such

user shall deposit the estimated cost of disconnection and reconnection before such user is reconnected to the system. The general manager shall refund any

5.08.090 Means of Enforcement Only

The district declares that the foregoing procedures are established as a means of enforcement of the terms and conditions of its ordinances, rules and regulations, and not as a penalty.

5.08.100 Powers and Authorities of Inspectors

The officers, inspectors, managers and any duly authorized employees of the District shall wear or carry an official badge of office or other evidence establishing his position as such and upon exhibiting the proper credentials and identification shall be permitted to enter in and upon any and all buildings, industrial facilities and properties for the purposes of inspection, reinspection, observation, measurement, sampling, testing or otherwise performing such duties as may be necessary in the enforcement of the provisions of the ordinances, rules and regulations of the District.

5.08.110 Violation - Misdemeanor

Section 6523 of the Health and Safety Code of the state of California provides that the violation of an ordinance, rule or regulation of a district by any person is a misdemeanor punishable by fine not to exceed one hundred dollars, imprisonment not to exceed one month, or both. Each and every connection or occupancy in violation of the ordinances, rules and regulations of the district shall be deemed a separate violation and each and every day or part of a day a violation of the ordinance, rule or regulation continues shall be deemed a separate offense hereunder and shall be punishable as such.

5.08.120 Liability for Violation

Any person violating any of the provisions of the ordinances, rules and regulations of the district shall become liable to the district for any expense, loss or damage occasioned by the district by reason of such violation.

5.12.020 Treatment of Wastes Required

It is unlawful to discharge to any stream, pond or to the ocean any sewage, industrial wastes, or other polluted waters, except where suitable treatment has been provided in accordance with provisions of this title.

5.16.010 Permit Required

No person shall construct a building sewer, lateral sewer or make a connection with any public sewer without first obtaining a written permit from the district and paying all fees and connection charges as required therein.

5.16.020 Construction Requirements

Construction of building sewers and lateral sewers shall be in accordance with the requirements of the Uniform Plumbing Code and all other requirements of the District.

5.16.170 Plans, profiles and specifications required

The application for a permit for public sewer construction shall be accompanied by complete plans, profiles and specifications, complying with all applicable ordinances, rules and regulations of district, prepared by a registered civil engineer showing all details of the proposed work based on an accurate survey of the ground. The application, together with the plans, profiles and specifications shall be examined by the district engineer who shall within thirty days approve them as filed or require them to be modified as he deems necessary for proper installation. After examination by the district engineer, the application, plans, profiles and specifications shall be submitted to the board at its next regular meeting for its consideration. When the board is satisfied that the proposed work is proper and the plans, profiles and specifications are sufficient and correct, it shall order the issuance of a permit predicated upon the payment of all connection charges, fees and furnishing bonds as required by the district. The permit shall prescribe such terms and conditions, as the board finds necessary in the public interest.

5.16.240 Design and Construction Standards

Minimum standards for the design and construction of water, recycled water and sewer infrastructure within the District shall be in accordance with the current design requirements and standard plan and specifications adopted by the District. The District Engineer may permit modifications or may require higher standards where unusual conditions are encountered. "As-

built" drawings showing the actual location of all mains, structures, valves, fire hydrants, Y's, laterals and cleanouts shall be filed with the District before final acceptance of the work.

5.20.020 Drainage into sanitary sewers prohibited

No leaders from roofs and no surface drains for rainwater shall be connected to any sanitary sewer. No surface or subsurface drainage, rain water, stormwater, seepage, cooling water or unpolluted industrial process waters shall be permitted to enter any sanitary sewer by any device or method whatsoever.

5.20.030 Use of storm sewers required

Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers, or to a natural outlet. Industrial cooling water or unpolluted process waters shall be discharged to a storm sewer or natural outlet.

5.20.040 Types of Wastes Prohibited

Except as hereinafter provided, no person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewer as required by the Code of Federal Regulations (40 CFR 403.5) and the following:

A. Any liquid or vapor having a temperature higher than one hundred fifty degrees F;

B. Any water or waste which may contain more than one hundred parts per million, by weight, of fat, oil or grease;

C. Any gasoline, benzene, naphtha, fuel oil, or other flammable or explosive liquid, solid or gas;

D. Any garbage that has not been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than three-eighths inch in any dimension;

E. Any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure or any other solid or viscous substance capable of causing obstruction to the flow in sewers or other interference with the proper operation of the sewage works;

F. Any waters or wastes having a pH lower than 6.0 or higher than 9.0 or having any other corrosive property capable of causing damage or hazard to structures, equipment and personnel of the sewage works;

G. Any waters or wastes containing a toxic or poisonous substance in sufficient quantity to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals or create any hazard in the receiving waters of the sewage treatment plant;

H. Any waters or wastes containing suspended solids of such character and quantity that unusual attention or expense is required to handle such materials at the sewage treatment plant;

I. Any noxious or malodorous gas or substance capable of creating a public nuisance;

J. Any septic tank sludge.

5.20.050 Grease trap, grease interceptor or other device required.

A. A food service establishment or any other business discharging grease, oil or other similar material shall have an operable and properly sized grease trap, grease interceptor or other comparable device(s) as determined by the general manager. All grease traps, grease interceptor or other devices shall be of a type and capacity approved by the general manager and shall be so located as to be readily and easily accessible for cleaning and inspection.

B. All drains from food preparation and clean up areas including, but not limited to, pre-wash sinks, floor drains, food waste disposal units, pots and pans sinks, scullery sinks and garbage can wash areas shall be connected to such trap or interceptor.

5.20.060 Maintenance of interceptors

A. Traps and interceptors shall be maintained by the owner, at his expense, and shall continuously operate efficiently at all times. The owner shall periodically remove accumulated grease from the trap or interceptor. No collected grease shall be introduced into any public or private drainage piping.

B. Any grease trap or grease interceptor required by this chapter shall be readily accessible for inspection and properly maintained to assure that accumulations of grease or oil do not impair its efficiency or transport grease or oil into the sewer system.

C. The general manager or its designee shall perform grease trap and grease interceptor inspections bi-annually or more often, at the owner's expense, and at the discretion of the district should maintenance reports not be received or should a grease trap or grease interceptor fail to operate properly.

D. In the event the District determines that a food service establishment or business required to install and maintain a grease trap either fails to maintain the maintenance record required by this section, or fails to maintain the grease trap as required by this section, the district may require the immediate installation of a grease interceptor.

5.24.110 All work to be inspected

All sewer construction work and building sewers shall be inspected by an inspector acting for the district to insure compliance with all requirements of the district. No sewer shall be covered at any point until it has been inspected and passed for acceptance. No sewer shall be connected to the district's public sewer until the work covered by the permit has been completed, inspected and approved by the district inspector. After the test proves satisfactory and there is evidence of plumbing code compliance, the inspector shall issue a certificate of satisfactory completion.

part of the deposit remaining after payment of all costs of disconnection and reconnection.

Appendix D: Excerpts from Standard Plans and Specifications for Construction of Domestic Water, Sewer, and Recycled Water Facilities

Section 02701 - Installation of Gravity Sewer Pipelines

Part 3 Execution

N. Closed-Circuit Television Inspection

1.**General:** In addition to the regular leakage and infiltration test, the entire length of all new sewer lines shall be inspected by the contractor using closed-circuit television equipment. The inspection shall be conducted after the line has been successfully tested and prior to paving. The inspection shall be conducted in the presence of the District representative. For pipe lengths designed to absolute minimum design slopes (See Section 500-2 of the Procedural Guidelines), video inspection shall provide a profile of the sewer line.

2.**Responsibility:** All labor and equipment necessary to conduct this inspection shall be furnished by the contractor.

3.**Notification:** Requests for sewer line inspection shall be made to the District representative a minimum of two working days in advance of the requested inspection date.

4.**Flushing**: Each sewer section shall be flushed with water being introduced at the upstream manhole of each section prior to video recording.

5.**Stationing:** The video shall show stationing corresponding to sewer stationing shown on plans for each manholes and Wye location.

6.**Submittal:** The videotape shall be VHS format and be submitted to the District with two (2) of the computer printouts showing manhole numbers and stationing, wye stationing and distance between manholes prior to occupancy release for the dwelling units being served by the sewer. The tape and printout shall be labeled with the project name, tract number, street names, and contractor's name and shall list the station of any defects, dirt, low spots, etc. in the pipe.

7.**Repair of Defects:** Even though the sewer line may have successfully passed the leakage and infiltration tests, any defects or low spots in the line shall be repaired to the satisfaction of the District.

8.**Acceptance:** Sewer section having standing water or defects shall be repaired by the contractor prior to District acceptance and prior to occupancy release for the dwelling units or commercial site being served by the sewer. Standing water in the system will not be allowed.

O. Final Inspection

After paving has been completed and all manholes raised to grade, a final visual inspection shall be made. The necessary labor shall be furnished to assist the District representative in making the final inspection. Additional balling may be required if the lines are dirty, even though lines were previously balled. The contractor shall furnish a responsible person or supervisor for the final inspection to remove manhole covers and to note any corrections required by the District representative in order to obtain final approval. Final District inspection shall be requested through the District representative by giving at least two days' notice.

Section 03463 – Grease Interceptors

Part 1 General

A. Description

This section includes materials and installation of precast concrete grease interceptors on commercial sanitary sewer conditions.

B. Related Work Specified Elsewhere

1. Installation of Gravity Sewer Pipelines 02701

2. Precast Concrete Vaults 03462

C. Approved Manufacturers

GT series as manufactured by Jay R. Smith Manufacturing Company

Pro-Cast

Jensen Precast

Pyramid Precast

D. Application

Grease interceptors are to be installed on the sewer laterals from all restaurants and other commercial sewer connections as designated by the District in the Procedures Guidelines and Design Requirements manual.

E. Responsibility

It is the responsibility of the owner of each facility to maintain the grease interceptor in proper operating order and to remove accumulated grease at suitable intervals to avoid excessive buildup in the unit.

Part 2 Materials

A. Precast Vault

1. Precast vault shall meet the requirements of Section 03462.

2. The interior of the precast unit shall be sealed with a protective coating.

3. The interceptor shall have an interior baffle for full separation of the interceptor into two (2) sections. The interior baffle shall have two (2) openings of the same diameter and at the same invert height as the outlet pipe. The baffle openings shall be staggered from the inlet and outlet pipes to prevent straight line flow through the unit.

4. The outlet pipe shall be the same diameter as the inlet pipe.

5. The interceptor shall have an adequate number of manholes to provide access for cleaning all areas of the interceptor. A minimum of one manhole per ten (10) feet of interceptor length shall be provided. Manholes shall be gas-tight in construction with a minimum opening dimension of twenty (20) inches.

6. Each grease interceptor shall be permanently and legibly marked with the Manufacturer's name or trademark, model number and UPC certification mark.

Part 3 Execution

A. Location

1. The grease interceptor shall be located on private commercial sewer laterals upstream of the connection to the MCWD sewer main.

2. The interceptor shall be located where it is easily accessible for inspection, cleaning and removal of intercepted grease.

B. Installation

1. Grease interceptors shall be installed per Section 03462.

2. Sewer laterals connections to the grease interceptor shall be per Section 02701.

Appendix E: Excerpts from PGDR 2024 (Sections 300 & 500)

Section 300

300.7.2 EASEMENTS

MCWD infrastructure shall be placed on public right of way. MCWD infrastructure shall not be placed within private streets. In unavoidable and rare circumstances, MCWD infrastructure may be placed within a public utility easement.

For water and recycled water facilities outside of the public right-of-way, an easement is required for construction and/or maintenance of water facilities, including but not limited to, water mains, hydrants, meter vaults, and detector check vaults. Minimum easement width shall be twenty-feet for water mains, and five-feet on all sides for meters, fire hydrants, meter vaults, detector check vaults, and other appurtenances, unless otherwise determined by the District. Actual width shall be twice the average pipe depth, rounded up to the nearest 10 feet.

For sewer facilities outside of the public right-of-way, an easement is required for construction and/or maintenance of sewer facilities, including but not limited to, sewer lines, manholes, and lift stations. Minimum easement width shall be twenty-five feet for sewer lines, preferably crossing a lettered (nonresidential) lot. Wider easements may be necessary if sewer depths are greater than eight feet. Actual width shall be twice the average pipe depth, rounded up to the nearest 10 feet.

An easement running parallel with a lot line shall not be split so as to occur on two lots. The easement, title report, and legal descriptions with accompanying sketch and plans shall be prepared by the applicant's engineer, two copies of which shall be sent to the District Engineer, or easements for the District shall be shown on a tract or parcel map. Easement descriptions shall be in a form acceptable to the District and will be checked by the District Engineer. Easements shall also be shown on the construction plans. The District will approve the plans only after all required easements have been granted to the District together with any necessary partial reconveyance or subordination agreements. Exhibits will be 8-1/2-inch by 11-inch, no exceptions.

Along public streets a three or five foot utility parallel easement on private property for District may be required depending upon public right-of-way widths and sidewalk locations. Easements shall not encroach beyond this utility parallel line towards the lot structures.

Water and sewer infrastructure that is not provided with the required easements shall be consider privately owned and maintained by the Grantor of the easements.

Applicant shall submit two copies of the easement description and sketch to the District for review. If acceptable, the applicant shall furnish two additional copies of the description and sketch, signed by a registered Professional Engineer registered prior to 1982 or Surveyor along with a completed "Grant of Easement to Marina Coast Water District" form, a current (within 30 days) title report of the property reflecting all deeds of trust and encumbrances, and subordinations signed by the trustees shown on the title report. If not acceptable, the District will return the documents with the required corrections noted.

All blanks in the documents, such as project identifications, title report number, map and book numbers and pages, dates, etc., must be filled in. The easement sketch must contain a vicinity map showing the location of the easement in relation to major streets and highways, as well as a sketch depicting the easement boundaries with bearings, distances, points of beginning, north arrow, and any other information required by the District.

NOTE: Approval by the District will not be given for the in-tract water or sewerage systems until all

easements have been obtained.

300.10.1 District Authority

Access: The District shall at all times have access to the work during construction and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, quality of labor, and character of materials used and employed in the work. No pipe, fittings, or other materials shall be installed or backfilled until inspected and approved by the District Engineer. The contractor shall give at least 72-hours notice prior to backfilling to the District inspector so that proper inspection may be provided.

Obligation: Inspection of the work shall not relieve the contractor of any obligations to complete the work as prescribed by the Standard Specifications. Any known defective work shall be corrected before testing or final inspection will be permitted. Unsuitable materials may be rejected at any time.

Suspension of Work: The District Engineer shall have the authority to suspend the work wholly or in part for such time as it may deem necessary if the contractor fails to carry out orders given by the District's inspector, or to perform any required provisions of the plans and specifications. The contractor shall immediately comply with a written order of the District to suspend the work wholly or in part. The work shall be resumed when methods or defective work are corrected as ordered and approved in writing by the District Engineer.

300.10.2 License Requirements

1. The applicant's contractor shall have a Class A or any combination of licenses that is deemed sufficient to perform the intended work.

2. The applicant's contractor shall have a business license to operate within the city having jurisdiction.

300.10.3 Notification

Signed Utility Plans and notices shall be given to the District Engineer at least 48-hours before starting construction. Applicant shall also notify the city, and/or County inspector's prior to work within public right-of-way.

300.10.4 Preconstruction Meeting

A preconstruction conference is to be held no sooner that 72-hours before starting construction, at which will be present the applicant's contractor's working foremen and/or job superintendent, the applicant's engineer, the District inspector, and a representative from the District's O&M Department. The purpose of this meeting will be to answer any questions on District specification requirements, to obtain the contractor's construction schedule in a Microsoft Project time bar format, and to discuss any known circumstances that might affect job installation.

Preconstruction Meeting Agenda: Without relieving the developer of responsibilities outlined elsewhere in the specifications; the District will present to the developer a list of requirements that may contain, but will not be limited to, the following items:

1. Order of work
2. Surety bond, Business license, Insurance Certificate documentations.
3. Working hours
4. Site Accessibility
5. District facilities that will be taken off-line for construction
6. Startup operations of new facilities and other District facilities affected by the project results.
7. Submittal List
8. 3rd Party Special Inspections and Testing
9. Pressure test procedures and startup operations of new facilities and other District facilities affected by the project results.
10. Bacterial test results.

11. As-Builts and Record Drawings

12. Order of Precedence: The order of precedence as defined in Section 300.16 will be reviewed in the pre-construction meeting.

300.10.5 Construction Water

Water for construction purposes is the temporary use of water from a connection to the District's water system. Connections could be from a fire hydrant or other direct connection as approved by the District Engineer or designee. Below is the District's process to respond to and provide to requests for temporary water service from a fire hydrant.

Any customer that requires use of water from a fire hydrant must fill out the Temporary Service Application (available upon request). That application will be processed by customer service. If the application is acceptable, then a fire hydrant meter will be provided to the applicant. The District may install the fire hydrant meter, but the security of the hydrant meter is the applicant's responsibility. The District will inspect the installation of the hydrant meter to assure it is both installed correctly and that it has the proper backflow device. The water shall be taken through a metered delivery and the developer shall pay all costs related thereto, including (but not limited to) District's standard deposit for temporary meter and actual costs of water used, pumping costs, loading, hauling and the use thereof. The developer shall make all arrangements for transporting the water to the construction site. Recycled water shall be used for construction purposes when possible.

The District will read the hydrant meters. The District will inspect the fire hydrant meter installation. If the installation is acceptable, the O&M Department will place a "lock-out" tag on the hydrant. This "lock-out' tag indicates to the meter reader that the fire hydrant meter is properly installed with the correct backflow device. If the District finds uninspected fire hydrant meters, it shall immediately remove the hydrant meter from the hydrant.

At the conclusion of the temporary water service, the applicant must return the fire hydrant meter and the gate valve. Once the District inspects the fire hydrant to make sure it is in good working order, the hydrant meter and any other pertinent appurtenance and has received all payments for temporary water service fees and charges, then deposits may be returned to the applicant.

300.10.6 Existing Facilities

Connection and Shut Downs: Schedule connection to existing water and sewer facilities with the District Operations Staff. Contractors are not permitted to operate District valves. Coordinate shut-downs a minimum of 2-days in advance of the work.

Repairs: Any and all damage to existing facilities occurring as a result of new construction must be repaired to the District's satisfaction at the Developer's expense. Repairs may be performed by the Developer's contractor or by District staff, at the discretion of the District Engineer.

Removals: Per the District's In-Tract Policy, new developments require the removal of existing facilities at or beyond their useful service life, and the installation of new infrastructure to serve the development. Excavate and remove all existing pipes, valves, manholes and appurtenances as indicated on the approved construction plans.

Abandonment: Where it is impractical to remove an existing facility (for example, a pipeline crossing a street not otherwise being reconstructed), existing facilities may be abandoned in place with the approval of the District Engineer. Follow the procedures of Standard Specification Section 02222.

300.10.8 Inspection of Work

Access: All work shall be subject to inspection by the District and shall be left open and uncovered until approved by the District Engineer.

Domestic Water, Sewer and/or Recycled Water System Inspections: The Contractor shall not proceed with any subsequent phase of work until the previous phase has been inspected and approved by the District Engineer. Inspection may also be made at the following intervals of work. See District Construction Manual for more details.

2. Sewer Inspections:

    A. Trench excavation and bedding.

    B. Placing of pipe, fittings, and structures.

    C. Placing and compacting of the pipe zone backfill.

D. Backfilling of the balance of the trench to grade. Compaction tests to be taken by the city and/or county road departments in public right-of-way and by private soils consultant retained by the applicant and acceptable to the District in private streets and easements. Copies of test results shall be given to the District by the applicant for approval before final acceptance of the work.

E. Testing after backfill compaction of all utilities is approved by the city and/or county road departments and must be obtained before paving.

300.10.9 Pressure Test

A pressure test of the newly constructed domestic and recycled water lines shall be conducted as detailed in Section 15042 “Hydrostatic Testing of Pressure Pipelines” of the District’s Standard Specifications.

300.10.12 Raising of Valve Boxes and Manhole Rims

For paved areas in the applicant's development, and/or out-of-tract resulting from the developer’s project, the developer/contractor will raise all valve boxes and manhole rims for District constructed facilities for each lift of pavement.

300.10.13 Final Domestic Waer and Recycled Water Facilities Inspection

Before final acceptance, the District Engineer will make a final inspection of all work, accompanied by the contractor's superintendent or representative, to verify that:

1. All phases of the job are complete in accordance with plans and specifications

2. All valve boxes are raised to finish grade and that all repairs are completed

3. All valves are referenced and the inspector has been given all reference measurements. Valves shall be located by a 2-inch "V" chiseled in the adjacent curb face

4. All right-angle meter stops, and the meters, are properly positioned and all meter boxes are positioned and raised to proper grade

5. Fire hydrants are raised to proper grade, are in a vertical position, painted; and its concrete pad is poured

6. Backfill has passed all compaction testing

7. All system valves are turned and left open (except those specifically required to be normally closed), direction and turns required for complete open/close cycle are recorded on the record drawings

8. Domestic water lines have been chlorinated and disinfected

9. Water line pressure testing, bacti-tested, and flushing have been completed

10. The job site is clean and cleared of all the contractor's equipment and materials

11. All service lateral locations have been marked on curbs

12. Certified test results have been provided for all backflow prevention devices

13. "RECORD DRAWINGS" with the "As-Built" revisions have been delivered to the District (See section 400.13)

14. Digital submittal of plan information in a format acceptable to the District 300.10.14 Final Sewer Inspection

Before final acceptance, the District, even though the sewers have been balled once, will require the contractor to flush and ball all sewer mains again. The District, accompanied by the contractor's foreman or superintendent, will make a final inspection of all work to check the following items:

1. That all bulkheads and plugs have been removed

2. The concrete base and channels in manholes are smooth

3. That manhole interiors are clean of all debris and excess concrete mortar

4. That all manhole concrete grade rings are adequately grouted and properly set

5. That pavement around manhole cover has been properly blacktopped to correct grade

6. That proper field tests have been made on all sewer main sections and manholes, particularly where sections of manholes had to be repaired

7. That backfill has passed all compaction requirements

8. That lateral locations have been mark with a "S" on curb

9. For a Sanitary lift station, all proposed equipment shall be tested and verified per Section 500, including all SCADA check lists.

Section 500

500.1 DESIGN CRITERIA FOR GRAVITY SEWERS

500.1.1 Flow Rate Generation

Sewage flow shall be based on the criteria in the following table. The basis for flow is the equivalent dwelling unit (EDU) or the flow from a typical residential home.

Sewer Flow Criteria

Design Item	Flow Criteria	Flow
Average Flow per EDU	Average Flow	174 gpd/EDU
Sewer (Gravity)	Peak Dry Weather Flow	600 gpd/EDU (200 x 3.0)
Lift Station/Force Main	Peak Dry Weather Flow	400 gpd/EDU (200 x 2.0)

500.1.2 Peak Flow Limitation (Based on d/D Ratio)

The design peak flow rate allowed within a pipeline of any given diameter will be limited by the resulting depth-to-diameter ratio (d/D ratio) where 'd' is the calculated flow depth in the pipe and 'D' is the inside diameter of the pipe. For pipe 12-inches in diameter and smaller, the maximum allowed d/D ratio is 0.50. For pipe equal to 15-inches in diameter, the maximum allowed d/D is 0.67. For pipe 18 inches and greater, the maximum allowed d/D is 0.75.

500.1.3 Minimum and Maximum Velocity

All sewers shall be designed and constructed to yield mean velocities within the pipeline, at peak dry weather flow (PDWF), of at least 2.0-fps while not allowing velocities to exceed 8.0-fps. Flow velocities will be determined by the utilization of Manning's formula for open-channel flow and will use an "n" value of 0.013. Variance from the requirements in this section will be allowed only with approval by the District Engineer.

500.1.4 Minimum Pipe Diameter

Sanitary sewer mains shall generally be 8-inch diameter or larger. 6-inch sewer mains are only allowed for top-of-line segments (dead-end lines, alleys and cul-de-sacs). When two or more sewers flow into a manhole, the sewer out shall be a minimum of 8-inches.

500.1.5 Minimum Slopes

Minimum slopes by pipe size are per the following table:

Sewer Size (inches)	Minimum Slope,
8	0.0040
10	0.0028
12	0.0022
15	0.0015
18	0.0012
21	0.0010

Sewers shall be designed and constructed to provide a mean velocity of not less than 2.0-fps minimum when flowing half-full at the estimated peak flow. Peak flows shall be calculated using Manning's formula with an "n" value of 0.013. The maximum allowable slope shall be the slope that generates a maximum flow velocity of 8.0-fps at the peak dry weather flow rate.

Under special conditions, the developer's engineer may request slopes of less than the minimums stated. The developer's engineer must submit this request along with back-up data and calculations to show that the depth of flow at design average dry weather flow will be 0.3 of the pipe diameter or greater. The developer's engineer must also submit computations to show the depths of flow within the pipeline at minimum and average flow rates. The request shall detail the reasons why the normal minimum slopes cannot be achieved. The request and supporting data will be reviewed by the District Engineer and his decision will be conveyed to the applicant.

500.2 STANDARD LOCATION, ALIGNMENT, AND STATIONING

500.2.1 Location and Alignment

In local, residential, industrial, major, and primary streets, and secondary highways, sewer mains are to be located at the centerline of the street. Where there is a center median, the sewer mains shall be located in the center of the driving lane nearest to the center of the street. Sewers shall not be located in landscaped median strips or parking lanes.

Sewer mains that are constructed in a common trench with another utility will not be accepted by the District. Adequate horizontal and vertical spacing shall be maintained in accordance with

District Standards. Concurrent review of other underground utility locations is required for tract developments.

Sewer lines in tracts will not be allowed within easements in residential lots. A separate lettered lot, minimum 20 feet wide, must be created for these situations. Lots may need to be wider than the minimum 20 feet where the sewer main is designed deeper than 10 feet.

500.2.2 Radius of Curvature

Minimum radius of curvature shall comply with the table below, Section 02701, Installation of Gravity Sewer Pipelines, or the pipe manufacturer's recommendation, whichever is more restrictive.

Polyvinyl Chloride Pipe (PVC)

Pipe Diameter (inches)	6"	8"	10"	12"
Minimum Radius (feet)	210'	280'	350'	420'

500.2.3 Stationing

Sewer centerline stationing shall be shown (example: 00+00.00) with the stationing starting at the most downstream manhole or connection to existing sewer and the stationing increasing upstream to the last manhole on a sewer line. Intersecting sewer lines shall be independently stationed from their downstream point of connection and increase upstream to the last manhole or clean-out. Each line shall be independently labeled for identification as "Sewer Line A", "Sewer Line B", etc. Sewer stationing may be independent of street stationing.

500.2.4 Minimum Cover

Minimum cover from finish street grade to top of sewer main pipe is to be 6 feet or 12-inches below any potable water main in the right-of-way, whichever is deeper, unless approved otherwise by the District Engineer. Sewers shall be deep enough to allow lateral connections meeting minimum 4 feet depth at curb.

500.2.5 Separation Between Waterlines and Sewers

Adequate horizontal and vertical spacing shall be maintained in accordance with Section 400.7.

500.3 SEWER PIPE MATERIAL

All gravity sewers and laterals 15-inch diameter and smaller and with a pipe slope of 20 percent or less shall be SDR-35 PVC as described in the District's Standard Specification Section 02715. Gravity sewers 18-inch diameter and larger and with a pipe slope of 20 percent or less shall be DIP with polyethylene lining (per Standard Specification Section 15056) or C-900 SDR 14 PVC pipe or thicker. Exceptions must be pre-approved by the District Engineer.

Sewer pipe material shall remain constant (continuous) between manholes. (Meaning that transitioning between pipe material types, such as VCP and PVC or other material changes, size changes, or pipe class changes, such as SDR-35 PVC and SDR-14 C-900, may only be done at manholes.)

All sewer force mains shall be PVC pipe meeting District Standard Specification Section 15064 and AWWA C-900 and SDR 14 pipe standards. Force main pipe shall have restrained joints wherever there are changes in grade (vertical direction) or alignment (horizontal direction) of more than five degrees (5°) and for the necessary length to prevent joint-movement or separation up and downstream of those deflections.

All sewer service laterals shall be either SDR-35 PVC or extra strength VCP pipe. The material used for construction of the sewer laterals shall match the materials of construction for the adjacent sewer main (to which they are connected).

500.4 FORCE MAIN CRITERIA

The size of sewer force mains shall be determined during the design phase of the project and only after a comparative study of the construction cost and pumping costs for several alternative sizes. In no case shall a force main be less than 6-inches in diameter. The capacity of the force main shall be the design peak flow from the pump station calculated from Manning's equation using "n" = 0.013. The nominal design velocity for a force main should be 3.0-fps, with minimum velocity of 2.0-fps, and maximum allowed 8.0-fps. The discharge shall be into a manhole with a smooth flow transition to a gravity sewer. The manhole shall be epoxy coated on the interior or PVC lined for corrosion protection.

500.5 MANHOLES

Refer to District Standard Specification Section 03461, Precast Reinforced Concrete Manholes and Manhole Bases for additional information.

500.5.1 Manhole Spacing and Location

Manholes shall be installed at the end of each line; at all changes in grade, size, or alignment; at all intersections; and at distances not greater than 300 feet for 8-inch sewers, 400 feet for 10- through 15-inch sewers and 500 feet for 18- to or larger sewers. If a sewer is curved, closer spacing of manholes will be required. Only one curve (horizontal or vertical) shall be allowed between any two manholes. If a sewer line has a right angle turn, additional manholes may be required by the District Engineer.

500.5.2 Manhole Type, Size, and Depth

Manholes shall be precast reinforced concrete with eccentric cone in accordance with the applicable District Standard Specifications and Standard Drawings.

Minimum manhole diameter shall be 48-inches. Larger diameter manholes are required as shown in the following tables:

MANHOLE DIAMETER SIZES (based on sewer size

Sewer Diameter of Main (inches)	Maximum Branch Size (inches)	Manhole Shaft Minimum (inches)	Frame & Cover Diameter (inches)
8” to 15”	10”	48”	30”
16” to 24”	12”	60”	30”
>24” to 36”	15”	72”	36”
>36”	21”	84”	36”

These are minimum manhole diameters based on the diameter of the main sewer passing through the manhole. Where branch sewer diameters are larger than the maximum listed in the table above, the diameter shall be increased to the next larger practicable size. There are additional requirements for larger diameter manholes where the sewer main is at greater depths. The diameter requirements for manholes for various depths (measured from the top of pipe to the finished-surface) are as shown in the following table:

MANHOLE DIAMETER REQUIREMENTS

(based on sewer depth)

Depth of Cover Range (feet)	Manhole Shaft Diameter Minimum
0’ to 15’	48”
>15’ to 20’	60”
>22’	72”

Manhole diameters shall be upsized to the more conservative requirement (larger diameter) established in the two preceding tables.

Manholes deeper than twenty (20’) feet shall have steel-reinforced concrete bases. Reinforcement shall be provided for the specific soils conditions at each deep manhole location. The reinforcement design shall be submitted to the District under the signature and stamp of a Licensed California Civil Engineer.

500.5.3 Minimum Assumed Head Losses Thru Manholes

Minimum head loss in manholes shall be as follows:

Straight run through manholes based on 0.20 foot loss.

Right angle turn in manholes based on 0.5 velocity head loss (i.e. (0.5)(V2/2g)), or 0.30 foot, whichever is greater.

500.5.4 Epoxy Lined Manholes

The District has been experiencing substantial deterioration in manholes at some locations due to hydrogen sulfide gases released from sewage flow. In order to mitigate the problem on future sewers, the District requires manholes that meet certain criteria be constructed with an integral epoxy liner. The District has established the following criterion to govern the requirement for lining manholes with an epoxy liner:

1. If the sewer has a slope of 7% or greater, then all manholes will be epoxy-lined.

2. Where there is a change in slope, from steep to flat (relative to the direction of flow) of 5% or greater, the manhole at the grade change and the next manhole upstream will be epoxy-lined.
3. All drop manholes, including force main terminal (i.e. the transition from forced flow to gravity flow) manholes, will be epoxy-lined.
4. When required by the District Engineer.

500.5.5 Manhole Covers

Cast-iron covers and frames shall be provided in accordance with District Standard Specification Section 03461 and Standard Plan S-3.

At the completion of final paving, the manholes shall be raised to final grade by using the necessary sized grade rings.

500.5.6 Access to Manholes

All sewer manholes shall be designed and constructed with a direct access to them. Manhole steps shall not be installed. Unpaved access may be allowed as determined by the District Engineer

500.6 CLEAN-OUTS

Use of clean-outs (as shown in District Standard Plan S-6) on service laterals and sewer mainlines shall be required in the following instances unless otherwise approved by the District Engineer.

1. At the point of connection to the building drain.
2. At any single turn greater than forty-five degrees.
3. At intervals not to exceed one hundred (100) feet along the side sewer system.
4. Short sections of sewer main, less than 250-feet that will be extended.
5. All commercial and industrial sewer lateral installations at the property line.
6. Between manholes, if there is a reverse curve in the sewer main, to facilitate cleaning of the main line.
7. Special instances such as on a sewer lateral to a single family residential lot where the dwelling unit is set back more than 100-feet from the property line, where there is a large slope up to the building pad from the property line and a grade change in the lateral is necessary, or where the sewer lateral enters the rear of the lot from a public right-of-way.

8. On a lateral where the overflow level of the lowest wastewater fixture in the building is below the rim elevation of the uphill sewer manhole on the main line. In this situation the rim elevation of the clean-out installed at the property line shall be at least 6-inches below the overflow elevation of the lowest wastewater fixture on the lateral. A backflow prevention device is required on the lateral per the District‘s Code.

500.7 HOUSE LATERALS AND MINIMUM DEPTH AT CURB

All sewer laterals shall be located by the applicant and shown (with stationing) on the improvement plans.

House connections shall be constructed to the property line. There shall be one house sewer lateral constructed for each individually owned dwelling unit and it shall have a minimum diameter of 4 inches. Sewer laterals for Accessory Dwelling Units (ADUs, either attached or detached units) may connect to the primary unit’s sewer lateral inside the property line. Separate cleanouts for detached ADUs are recommended.

Four-inch sewer house connections shall be laid to the grade as established by the applicant so that the 4-inch house connection will have a minimum cover of 5 feet from the top of the curb to the top of the pipe per Standard Plan S-7. The sewer laterals from the main to the building, and inside the buildings are governed by the Uniform Plumbing Code and enforced by the local building authority.

500.8 TOWNHOUSES AND CONDOMINIUM LATERALS

For buildings containing two to four units, either one 4-inch diameter lateral to each unit or one 6-inch or larger diameter lateral to the building shall be used. For buildings containing more than four units, either one 4-inch diameter lateral to each unit or one 8-inch or larger diameter lateral to the building shall be used. A lateral shall serve only one building regardless of number of units per building.

500.9 BACKWATER PREVENTION

Backwater prevention devices are required on sewer laterals connecting to all buildings. Variances may be considered by the District Engineer on a case by case basis. Exceptions cannot be granted for laterals to buildings where the building ground floor elevation is below the rim elevation of the uphill sewer manhole on the main line.

500.10 SANITARY SEWER PRETREATMENT DEVICES

Requirements for pretreatment of sewage will be determined by the California Plumbing Code, latest edition and the District Engineer.

For example, for waste enclosures there are different interceptor types available depending on use. For example, a sand separator is required for waste generators that do not produce grease, such as waste enclosures exclusively serving apartments. The minimum inceptor size for this type of use shall be 200 gallons.

500.11 GREASE INTERCEPTORS

A grease inceptor shall be required for waste generators that produce grease, such as waste enclosures that include serving restaurants and other grease and oil generating businesses. All restaurants and other facilities which discharge grease into the District's sewers shall be required to use grease interceptors to minimize grease problems in collection systems and treatment plants. The minimum gravity grease interceptor size shall be 750 gallons and shall be complemented with a minimum 5-gallon sample box. Comply with the California Plumbing Code, latest edition for sizing.

It will be the responsibility of the owner of each facility to maintain proper operating order of the interceptor unit and to remove accumulated grease at suitable intervals to avoid excessive buildup in the unit. The Marina Coast Water District approves the location and design of the interceptor unit.

500.12 STANDARD SEWER NOTES

Standard sewer notes to be included on all sewer system construction plans shall be as follows:

1. The sewer system as shown on these plans shall be constructed in accordance with the standard plans and specifications of the Marina Coast Water District. Contractor shall keep a copy of the standard specifications and drawings on the jobsite at all times.
2. The Marina Coast Water District shall be notified at least 48 hours prior to commencing work on the sewers. Phone (831) 883-5929 for inspection. A preconstruction meeting shall be held at least 24 hours before starting construction.
3. Sewer Connection: 4-inch house connection is to be constructed from the sewer main to the property line for each lot.

4. All sewer house connections shall be placed prior to surfacing of streets.
5. All sewer lengths are calculated on horizontal distances along the centerline of the sewer.
6. Pressure testing of sewers shall be in accordance with the standard specifications of the Marina Coast Water District.
7. 00+00.00 shown on sewer profile denotes stationing along centerline sewer from downstream manhole.
8. In order to prevent accidental use of the new sewer prior to completion and acceptance, the outlet or inlet to existing tie-in manhole(s) shall be sealed with broken brick and mortar. Installation of these plugs shall be approved by the District. Plugs shall be removed at the time of final acceptance.
9. Contractor shall verify the horizontal and vertical location of all utility crossings before constructing any sewers in this project.
10. Contractor's surveyor shall stake the location of all wye fittings. All house laterals not normal to street sewer to have end of lateral at property line staked and tied to a property corner as shown on the plans.
11. The Marina Coast Water District will inspect and maintain all manholes and main line sewers. The District will inspect laterals from the main to the building line, but maintain only to the property line/clean-out. The local building department or appropriate governing agency will inspect and verify building connections to the laterals.
12. The Contractor shall conduct all tests as required in the presence of the District representative.
13. Any work to be performed inside a live manhole shall be done in accordance with Cal OSHA "Confined Spaces" and District manhole entry regulations. Manhole entry without District personnel present is not allowed.
14. All sewer manhole lids are to have "MCWD" cast thereon as shown in Standard Plan S-3 of Marina Coast Water District's "Standard Plans and Specifications for Construction of Domestic Water, Sewer and Recycled Water Facilities."
15. The applicant is to provide the Marina Coast Water District with a record drawings set of job prints with tie-down measurements for all laterals and manholes.
16. Curb face shall be inscribed with an "S" indicating location of all sewer laterals.

Appendix F: WDR Grease Public Outreach Plan FY 24/ 25

Attachment A

WDR Sewer Pipe Blockage Control Program Public Education Outline
FY 2024-2025

Program Goals

- Educate our communities about the proper disposal of substances that block pipes, such as fats, oils, grease, rags, and debris, through advertising and public resources
- Help members meet the issued Waste Discharge Requirements (WDR) by the California Regional Water Quality Board

Program Timeframe

July 2024 – June 2025

Sample Media Types

- Print
- Digital
- Broadcast TV
- Live Radio
- On-demand Radio
- Social Media

-Digital copies of all advertisements will be provided to entities to continue using beyond this campaign

Costs

Total advertising across all media not to exceed $19,850

Attachment B

Southern Monterey Bay Dischargers Sewer Pipe Blockage Control Program Outreach Partnership Distribution and Budget FY 2024-2025

Shared Budget for FY 2024-2025 Not to Exceed $19,850			
Entity	Population within area to be covered by regional WDR program[1]	% of budget to be paid	Contribution not to exceed
California American Water[2]	6,400	2%	$382.18
Carmel Area Wastewater District	4,000	1%	$238.86
Castroville Community Services District[3]	8,129	3%	$485.43
City of Monterey	30,218	10%	$1,804.48
City of Pacific Grove	15,090	5%	$901.11
City of Salinas	163,542	54%	$9,766.00
Marina Coast Water District[4]	35,258	12%	$2,105.45
Pebble Beach Community Services District	4,509	2%	$269.26
Seaside County Sanitation District[5]	34,283	11%	$2,047.23
Sub Total	301,429	100%	**$18,000**
ReGen Monterey Sponsorship	--	--	$1,850
TOTAL	--	--	**$19,850**

Notes

1. Source: U.S. Census Bureau, 2021 Census of Population
2. Combined data for Oak Hills, Indian Springs, Las Palmas, Spreckels, Pasadera, White Oaks, Village Green, Carmel Valley Ranch provide by Cal Am
3. Combined data for Castroville, Moss Landing, and, provided by CCSD, the Moro Cojo area population
4. Combined data for Marina and, provided by MCWD, the Ord Community
5. Combined data for Seaside, Sand City, and Del Rey Oaks

Appendix G: CIP Budget Worksheets

FY 24/25 CAPITAL IMPROVEMENT PROGRAM (CIP) BUDGET (BY FUNDING SOURCE)

CIP No.	Capital Improvement Project Name	Funding Source						
		2024 Bond in USD $	Capital Replacement in USD $	GSA Fund Balance in USD $	Capacity Fee in USD $	Future Grant in USD $	Bldg Removal Fund in USD $	Totals in USD $
WD-2501	CIP Planning and Program Management Tool	19,000	7,000	2,000	-	-	-	28,000
WD-2503	PLC Replacement Project Phase 2	203,000	350,000	-	-	-	-	553,000
WD-2308.2	SCADA Improvements Phase 2	491,000	191,000	-	-	-	-	682,000
WD-2404	Security and Access Improvements	-	-	-	723,000	-	-	723,000
GW-2504	Eastern Well Field Supply	-	-	-	53,000	-	-	53,000
GW-2505	Fire Hydrant Replacement Program	138,000	-	-	-	-	-	138,000
GW-2507	Misc Booster Pumping Station Improvements	235,000	-	-	-	-	-	235,000
GW-2508	Water Pipeline Renew/Replacement Program	782,000	-	-	-	-	-	782,000
GW-2509	Well Rehabilitation	170,000	-	-	-	-	-	170,000
GW-0112	Zone A Tank and Improvements	579,000	-	-	771,000	-	-	1,350,000
GW-0123	Zone B Tank 2	-	-	-	4,326,000	-	-	4,326,000
GW-0378	Well 12 Rehabilitation	161,000	-	-	-	-	-	161,000
GW-2403	Comprehensive Desal Improvements	-	-	-	628,000	-	-	628,000
GW-2404	Reservation Road Desal Plant Renovation	-	-	-	1,985,000	-	-	1,985,000
GW-2310	Castroville Water Pipeline Intertie	-	-	-	-	7,800,000	-	7,800,000
MW-0322	Water Pipeline in Lynscott from Carmel to Reservation Rd	-	-	-	95,000	-	-	95,000
MW-0321	Water Pipeline in California Avenue from Patton Parkway to Reindollar Ave	110,000	-	-	-	-	-	110,000
OW-0201	Gigling Road Water Pipeline Replacement	1,286,000	-	-	-	-	-	1,286,000
OW-0330	Paint Reservoir 2 Exterior	337,000	-	-	-	-	-	337,000
OW-0340	McClure Road Water Pipeline	300,000	-	-	-	-	-	300,000
OW-2401	Corp Yard Demo and Rehabilitation	-	-	-	-	-	472,000	472,000
OW-2402	Ord Wastewater Treatment Plant Blight Removal	-	-	-	-	-	444,000	444,000
OW-2421	Inter-Garrison Rd pipeline upsizing Schoonover to East Garrison	1,050,000	-	-	-	-	-	1,050,000
GS-2510	Misc Lift Station ImprovementS	85,000	75,000	-	-	-	-	160,000

FY 24/25 CAPITAL IMPROVEMENT PROGRAM (CIP) BUDGET (BY FUNDING SOURCE)

CIP No.	Capital Improvement Project Name	Funding Source						
		2024 Bond in USD $	Capital Replacement in USD $	GSA Fund Balance in USD $	Capacity Fee in USD $	Future Grant in USD $	Bldg Removal Fund in USD $	Totals in USD $
GS-2511	Sewer Pipeline Renew/Replacement	250,000	821,000	-	-	-	-	1,071,000
GS-2512	Northeast Sewer Reroute to Interceptor	16,000	36,000	-	53,000	-	-	105,000
GS-2401	Lift Station Wetwell Lining Program	29,000	66,000	-	-	-	-	95,000
MS-0205	Replace Sewer Pipeline Reservation Road Near Crestview Court	35,000	-	-	312,000	-	-	347,000
MS-2401	Tate Park Lift Station	1,122,000	-	-	1,725,000	-	-	2,847,000
OS-0210	1st Avenue Gravity Main	-	345,000	-	-	-	-	345,000
OS-0218	Gigling Lift Station Replacement	-	210,000	-	-	-	-	210,000
OS-0348	Odor Control Program (Imjin Lift Station)	-	190,000	-	-	-	-	190,000
OS-0350	Imjin Parkway Sewer Manhole Rehab	-	158,000	-	-	-	-	158,000
OS-2305	Manhole Rehab & Lining Lightfighter	-	145,000	-	-	-	-	145,000
RW-2401	ATW Irr Connection at Armstrong Ranch	-	-	-	223,000	-	-	223,000
GA-2513	Monitoring Well Water Quality Equipment	-	-	210,000	-	-	-	210,000
GA-2401	Indirect Potable Reuse Program	-	-	-	-	7,400,000	-	7,400,000
GA-2402	Install Monitoring Wells	-	-	389,000	-	1,261,000	-	1,650,000
Grand Total		**7,398,000**	**2,594,000**	**601,000**	**10,894,000**	**16,461,000**	**916,000**	**38,864,000**

FY 24/25 CAPITAL IMPROVEMENT PROGRAM (CIP) BUDGET (BY COST CENTER)

CIP No.	Capital Improvement Project Name	Cost Center						
		Marina Water in USD $	Marina Sewer in USD $	Ord Water in USD $	Ord Sewer in USD $	Recycled Water in USD $	GSA in USD $	Grand Total in USD $
WD-2501	CIP Planning and Program Management Tool	6,000	1,000	12,000	3,000	4,000	2,000	28,000
WD-2503	PLC Replacement Project Phase 2	35,000	85,000	83,000	350,000	-	-	553,000
WD-2308.2	SCADA Improvements Phase 2	144,000	48,000	299,000	191,000	-	-	682,000
WD-2404	Security and Access Improvements	188,000	36,000	412,000	87,000	-	-	723,000
GW-2504	Eastern Well Field Supply	17,000	-	36,000	-	-	-	53,000
GW-2505	Fire Hydrant Replacement Program	63,000	-	75,000	-	-	-	138,000
GW-2507	Misc Booster Pumping Station Improvements	135,000	-	100,000	-	-	-	235,000
GW-2508	Water Pipeline Renew/Replacement Program	514,000	-	268,000	-	-	-	782,000
GW-2509	Well Rehabilitation	85,000	-	85,000	-	-	-	170,000
GW-0112	Zone A Tank and Improvements	432,000	-	918,000	-	-	-	1,350,000
GW-0123	Zone B Tank 2	1,384,000	-	2,942,000	-	-	-	4,326,000
GW-0378	Well 12 Rehabilitation	51,000	-	110,000	-	-	-	161,000
GW-2403	Comprehensive Desal Improvements	195,000	-	433,000	-	-	-	628,000
GW-2404	Reservation Road Desal Plant Renovation	615,000	-	1,370,000	-	-	-	1,985,000
GW-2310	Castroville Water Pipeline Intertie	2,457,000	-	5,343,000	-	-	-	7,800,000
MW-0322	Water Pipeline in Lynscott from Carmel to Reservation Rd	95,000	-	-	-	-	-	95,000
MW-0321	Water Pipeline in California Avenue from Patton Parkway to Reindollar Ave	110,000	-	-	-	-	-	110,000
OW-0201	Gigling Road Water Pipeline Replacement	-	-	1,286,000	-	-	-	1,286,000
OW-0330	Paint Reservoir 2 Exterior	-	-	337,000	-	-	-	337,000
OW-0340	McClure Road Water Pipeline	-	-	300,000	-	-	-	300,000
OW-2401	Corp Yard Demo and Rehabilitation	-	-	472,000	-	-	-	472,000
OW-2402	Ord Wastewater Treatment Plant Blight Removal	-	-	444,000	-	-	-	444,000
OW-2421	Inter-Garrison Rd pipeline upsizing Schoonover to East Garrison	-	-	1,050,000	-	-	-	1,050,000
GS-2510	Misc Lift Station ImprovementS	-	85,000	-	75,000	-	-	160,000
GS-2511	Sewer Pipeline Renew/Replacement	-	250,000	-	821,000	-	-	1,071,000

FY 24/25 CAPITAL IMPROVEMENT PROGRAM (CIP) BUDGET (BY COST CENTER)

CIP No.	Capital Improvement Project Name	Cost Center						
		Marina Water in USD $	Marina Sewer in USD $	Ord Water in USD $	Ord Sewer in USD $	Recycled Water in USD $	GSA in USD $	Grand Total in USD $
GS-2512	Northeast Sewer Reroute to Interceptor	-	33,000	-	72,000	-	-	105,000
GS-2401	Lift Station Wetwell Lining Program	-	29,000	-	66,000	-	-	95,000
MS-0205	Replace Sewer Pipeline Reservation Road Near Crestview Court	-	347,000	-	-	-	-	347,000
MS-2401	Tate Park Lift Station	-	2,847,000	-	-	-	-	2,847,000
OS-0210	1st Avenue Gravity Main	-	-	-	345,000	-	-	345,000
OS-0218	Gigling Lift Station Replacement	-	-	-	210,000	-	-	210,000
OS-0348	Odor Control Program (Imjin Lift Station)	-	-	-	190,000	-	-	190,000
OS-0350	Imjin Parkway Sewer Manhole Rehab	-	-	-	158,000	-	-	158,000
OS-2305	Manhole Rehab and Lining Lightfighter	-	-	-	145,000	-	-	145,000
RW-2401	ATW Irrigation Connections at Armstrong Ranch	-	-	-	-	223,000	-	223,000
GA-2513	Monitoring Well Water Quality Equipment	-	-	-	-	-	210,000	210,000
GA-2401	Indirect Potable Reuse Program	-	-	-	-	-	7,400,000	7,400,000
GA-2402	Install Monitoring Wells	-	-	-	-	-	1,650,000	1,650,000
Grand Total		**6,526,000**	**3,761,000**	**16,375,000**	**2,713,000**	**227,000**	**9,262,000**	**38,864,000**

23/24 Capital Improvement Project-Budget by Source

CIP NO	PROJECT NAME	2019 BOND ($)	BLDG REMOVAL FUND ($)	CAPACITY FEE ($)	CAPITAL REPLACEMENT ($)	GSA FUND BALANCE ($)	GRANT ($)	NEW BOND ($)	GRAND TOTAL ($)
WD-2401	IOP B Side Improvements Project	-	-	-	-	-	-	1,000,000	1,000,000
WD-2402	New Corp Yard	-	-	-	-	-	-	5,400,000	5,400,000
WD-2403	PLC Replacement Project	-	-	-	225,000	-	-	-	225,000
WD-2308.1	SCADA Improvements Project (Phase 1)	-	-	-	224,000	-	-	-	224,000
WD-2308.2	SCADA Improvements Project (Phase 2)	-	-	-	201,000	-	-	449,000	650,000
WD-2404	Security and Access Improvements Project	-	-	300,000	-	-	-	-	300,000
WD-2405	Solar Array	-	-	-	-	-	-	4,000,000	4,000,000
WD-2309	Water/Sewer Pipeline Renew/Replacement Program FY23/24	-	-	-	275,000	-	-	-	275,000
GW-2310	Castroville Water Pipeline Intertie	-	-	-	-	-	7,800,000	-	7,800,000
GW-2401	Inter-Garrison Rd pipeline upsizing Schoonover to East Garrison	-	-	-	200,000	-	-	-	200,000
GW-2402	Booster Pumping Station Improvements Program FY23/24 (E Booster Station)	-	-	-	150,000	-	-	-	150,000
GW-2403	RDP - Comprehensive Desal Improvements	-	-	100,000	-	-	-	-	100,000
GW-2404	RDP - Reservation Road Desal Plant Renovation	-	-	500,000	-	-	-	-	500,000
GW-2405	Well Rehabilitation Program FY23/24 (Well 12)	-	-	-	225,000	-	-	-	225,000
GW-2406	Fire Hydrant Replacement Program FY23/24	-	-	-	50,000	-	-	-	50,000
GW-0112	Zone A Tank and Improvements	4,770,829	-	-	-	-	-	579,171	5,350,000
GW-0123	Zone B Tank 2	-	-	150,000	-	-	-	-	150,000
OW-0341	Coe Ave Water Pipeline Upsizing for Seaside Resort	-	-	350,000	-	-	-	-	350,000
OW-2401	Corp Yard Demo and Rehabilitation - Bldg Removal Fund	-	500,000	-	-	-	-	-	500,000
OW-0306	D-Zone Booster Pump Replacement	-	-	-	100,000	-	-	-	100,000
OW-0201	Gigling Road Water Pipeline Replacement	-	-	-	100,000	-	-	-	100,000
OW-2402	Ord Wastewater Treatment Plant Blight Removal - Bldg Removal Fund	-	470,000	-	-	-	-	-	470,000
OW-0340	Water Pipeline in Seaside Resort McClure Road to Coe	-	-	300,000	-	-	-	-	300,000
GS-2401	Lift Station Wetwell Lining Program (Lift Station #2)	-	-	-	100,000	-	-	-	100,000
GS-2402	Lift Station Improvements Program FY23/24 (Reservation Road Lift Station)	-	-	-	400,000	-	-	-	400,000
MS-2401	Tate Park Lift Station	-	-	550,000	-	-	-	-	550,000
OS-0210	1st Avenue Gravity Main	-	-	-	350,000	-	-	-	350,000
OS-0348	Odor Control Program (Imjin Lift Station)	-	-	200,000	-	-	-	-	200,000
OS-2305	Manhole Rehab and Lining Lightfighter 21 Manholes	-	-	-	150,000	-	-	-	150,000
RW-2401	ATW Irrigation Connection at Armstrong Ranch	-	-	50,000	-	-	-	-	50,000
GA-2401	Indirect Potable Reuse Program - Sand Tank	-	-	-	-	-	7,400,000	-	7,400,000
GA-2402	Install Monitoring Wells	-	-	-	-	750,000	-	-	750,000
Totals		**4,770,829**	**970,000**	**2,500,000**	**2,750,000**	**750,000**	**15,200,000**	**11,428,171**	**38,369,000**

23/24 Capital Improvement Project - Budget by Cost Center

CIP NO	PROJECT NAME	MARINA WATER ($)	MARINA SEWER ($)	ORD WATER ($)	ORD SEWER ($)	RECYCLED WATER ($)	GSA ($)	GRAND TOTAL ($)
WD-2401	IOP B Side Improvements Project	197,000	47,000	433,000	106,000	137,000	80,000	1,000,000
WD-2402	New Corp Yard	1,064,000	252,000	2,339,000	571,000	742,000	432,000	5,400,000
WD-2403	PLC Replacement Project	59,000	11,000	128,000	27,000	-	-	225,000
WD-2308.1	SCADA Improvements Project (Phase 1)	26,000	20,000	93,000	85,000	-	-	224,000
WD-2308.2	SCADA Improvements Project (Phase 2)	137,000	46,000	285,000	182,000	-	-	650,000
WD-2404	Security and Access Improvements Project	78,000	15,000	171,000	36,000	-	-	300,000
WD-2405	Solar Array	788,000	187,000	1,732,000	423,000	550,000	320,000	4,000,000
WD-2309	Water/Sewer Pipeline Renew/Replacement Program FY23/24	72,000	14,000	156,000	33,000	-	-	275,000
GW-2310	Castroville Water Pipeline Intertie	2,457,000	-	5,343,000	-	-	-	7,800,000
GW-2401	Inter-Garrison Rd pipeline upsizing Schoonover to East Garrison	62,000	-	138,000	-	-	-	200,000
GW-2402	Booster Pumping Station Improvements Program FY23/24 (E Booster Station)	47,000	-	103,000	-	-	-	150,000
GW-2403	RDP - Comprehensive Desal Improvements	31,000	-	69,000	-	-	-	100,000
GW-2404	RDP - Reservation Road Desal Plant Renovation	155,000	-	345,000	-	-	-	500,000
GW-2405	Well Rehabilitation Program FY23/24 (Well 12)	70,000	-	155,000	-	-	-	225,000
GW-2406	Fire Hydrant Replacement Program FY23/24	-	-	50,000	-	-	-	50,000
GW-0112	Zone A Tank and Improvements	1,712,000	-	3,638,000	-	-	-	5,350,000
GW-0123	Zone B Tank 2	48,000	-	102,000	-	-	-	150,000
OW-0341	Coe Ave Water Pipeline Upsizing for Seaside Resort	-	-	350,000	-	-	-	350,000
OW-2401	Corp Yard Demo and Rehabilitation - Bldg Removal Fund	-	-	500,000	-	-	-	500,000
OW-0306	D-Zone Booster Pump Replacement	-	-	100,000	-	-	-	100,000
OW-0201	Gigling Road Water Pipeline Replacement	-	-	100,000	-	-	-	100,000
OW-2402	Ord Wastewater Treatment Plant Blight Removal - Bldg Removal Fund	-	-	470,000	-	-	-	470,000
OW-0340	Water Pipeline in Seaside Resort McClure Road to Coe	-	-	300,000	-	-	-	300,000
GS-2401	Lift Station Wetwell Lining Program (Lift Station #2)	-	31,000	-	69,000	-	-	100,000
GS-2402	Lift Station Improvements Program FY23/24 (Reservation Road Lift Station)	-	50,000	-	350,000	-	-	400,000
MS-2401	Tate Park Lift Station	-	550,000	-	-	-	-	550,000
OS-0210	1st Avenue Gravity Main	-	-	-	350,000	-	-	350,000
OS-0348	Odor Control Program (Imjin Lift Station)	-	-	-	200,000	-	-	200,000
OS-2305	Manhole Rehab and Lining Lightfighter 21 Manholes	-	-	-	150,000	-	-	150,000
RW-2401	ATW Irrigation Connection at Armstrong Ranch	-	-	-	-	50,000	-	50,000
GA-2401	Indirect Potable Reuse Program - Sand Tank	-	-	-	-	-	7,400,000	7,400,000
GA-2402	Install Monitoring Wells	-	-	-	-	-	750,000	750,000
Totals		**7,003,000**	**1,223,000**	**17,100,000**	**2,582,000**	**1,479,000**	**8,982,000**	**38,369,000**

22/23 CAPITAL IMPROVEMENT PROJECT BUDGET

BY FUNDING SOURCE

Project No.	Project Name	Bond Funded	Capacity Fee Funded	SRF	Other Source Funded	Capital Replacement Reserves	Amount
GW-0112	A1/A2 BC booster improvements	$4,561,843					$4,561,843
GW-0378	Well 12 Rehab					$100,000	$100,000
OS-0147	Ord Village LS and FM improvements	$500,000					$500,000
OS-0152	Booker Lift Station Replacement	$610,500					$610,500
OS-0153	Misc. Lift Station Improvements	$1,066,000					$1,066,000
OS-0218	Gigling Lift Station Renovation	$1,000,000					$1,000,000
OS-0348	Odor Control Program	$100,000					$100,000
OS-2301	CIPP Lining of 1st St. Sewer Lines (550')					$70,000	$70,000
OS-2303	Hatten LS improvements	$100,000					$100,000
OS-2304	Hodges Lift Station pump and discharge replacement to Flygt					$150,000	$150,000
OS-2305	Manhole rehab and lining Lightfighter 21 Manholes					$150,000	$150,000
OW-0193	Imjin parkway Pipeline, Reservation Rd to Abrams Drive	$318,044					$318,044
OW-0201	Gigling Road Water Pipeline Replacement	$99,000					$99,000
OW-0306	D-Zone Booster Pump Replacement	$100,000					$100,000
OW-2302	East Garrison 2nd supply via Watkins Gate and F Reservoir		$1,250,000				$1,250,000
OW-2306	Ord blight removal, demolition				$970,000		$970,000
RW-0174	RUWAP - Distribution System			$2,809,896			$2,809,896
RW-2307	RUWAP				$400,000		$400,000
WD-0106	Corp Yard Demolition & Rehab	$250,000					$250,000
WD-0379	Beach Office Corrosion improvements					$70,000	$70,000
WD-2308	SCADA Improvements					$400,000	$400,000
WD-2309	Water/sewer pipeline replacement program R/R					$275,000	$275,000
		$8,705,387	**$1,250,000**	**$2,809,896**	**$1,370,000**	**$1,215,000**	**$15,350,283**

22/23 CAPITAL IMPROVEMENT PROJECT BUDGET

BY COST CENTER

Project No.	Project Name	MW	MS	OW	OS	RW	Amount
GW-0112	A1/A2 BC booster improvements	$2,965,198		$1,596,645			$4,561,843
GW-0378	Well 12 Rehab	$100,000					$100,000
OS-0147	Ord Village LS and FM improvements				$500,000		$500,000
OS-0152	Booker Lift Station Replacement				$610,500		$610,500
OS-0153	Misc. Lift Station Improvements				$1,066,000		$1,066,000
OS-0218	Gigling Lift Station Renovation				$1,000,000		$1,000,000
OS-0348	Odor Control Program				$100,000		$100,000
OS-2301	CIPP Lining of 1st St. Sewer Lines (550')				$70,000		$70,000
OS-2303	Hatten LS improvements				$100,000		$100,000
OS-2304	Hodges Lift Station pump and discharge replacement to Flygt				$150,000		$150,000
OS-2305	Manhole rehab and lining Lightfighter 21 Manholes				$150,000		$150,000
OW-0193	Imjin parkway Pipeline, Reservation Rd to Abrams Drive			$318,044			$318,044
OW-0201	Gigling Road Water Pipeline Replacement			$99,000			$99,000
OW-0306	D-Zone Booster Pump Replacement			$100,000			$100,000
OW-2302	East Garrison 2nd supply via Watkins Gate and F Reservoir			$1,250,000			$1,250,000
OW-2306	Ord blight removal, demolition			$485,000	$485,000		$970,000
RW-0174	RUWAP - Distribution System					$2,809,896	$2,809,896
RW-2307	RUWAP					$400,000	$400,000
WD-0106	Corp Yard Demolition & Rehab	$65,000	$12,500	$142,500	$30,000		$250,000
WD-0379	Beach Office Corrosion improvements	$18,200	$3,500	$39,900	$8,400		$70,000
WD-2308	SCADA Improvements	$200,000		$200,000			$400,000
WD-2309	Water/sewer pipeline replacement program R/R	$71,500	$13,750	$156,750	$33,000		$275,000
		$3,419,898	**$29,750**	**$4,387,839**	**$4,302,900**	**$3,209,896**	**$15,350,283**

Appendix H: Change Log

Sewer System Management Plan (SSMP)

CHANGE LOG

DATE	ELEMENT	CHANGE/ REV. DESCRIPTION	SIGNATURE