



Sanitary Sewer Management Plan September 2022

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District WDID #2SSO10665

**Prepared In Conjunction With:
Causey Consulting
Walnut Creek, CA 94598**



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CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Patricia Mairena
General Manager
Westborough Water District

1.0 Introduction

1.1. Sewer System Management Plan

This Sewer System Management Plan (SSMP) has been prepared by the Causey Consulting for the Westborough Water District (WWD). It is a compendium of the policies, procedures, and activities that are included in the planning, management, operation, and maintenance of WWD’s sanitary sewer system. WWD Board adopted the original SSMP on May 2008 as required by the Sanitary Sewer Waste Discharge Requirements (GWDR).

The State Water Resources Control Board (SWRCB) has issued statewide waste discharge requirements for sanitary sewer systems, which include requirements for development of an SSMP. The State Water Board requirements are outlined in Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, dated May 2, 2006 (GWDR), and Order No. WQ-2008-0002-EXEC, dated February 20, 2008, which was amended by Order No. 2013-0058-EXEC, effective September 9, 2013, which changed the Monitoring and Reporting Program (MRP) requirements. This SSMP is intended to comply with the GWDR and MRP revised requirements.

The structure (section numbering and nomenclature) of this SSMP follows the above referenced GWDR Section D13. This SSMP is organized by the SWRCB outline of elements; and contains language taken from the GWDR at that beginning of each element. The GWDR uses the term “Enrollee” to mean each individual municipal wastewater collection system that has completed and submitted the required application for coverage under the WDR (in this case, the Enrollee is WWD. WWD’s waste discharger identification number (WDID) in the California Integrated Water Quality System (CIWQS) is 2SSO10665.

1.2. Sanitary Sewer System Facilities

WWD sanitary sewer service area is shown in Intro Figure 1, WWD Service Area Information. WWD operates a sanitary sewer system that serves a population of 13,486 in a one (1) square mile service area in San Mateo County. The sewer system serves 4,000 service connections as of March 2022. The sewer system consists of 18.8 miles of gravity sewers (approximately 488-line segments), approximately 400 manholes, 0.97 miles of force mains, and three (3) pump station. The sewer lines range in size from four (4) inches to fifteen (15) inches in diameter. WWD is not responsible for private sewer laterals.

WWD also receives sewage from one satellite system operated and maintained by the City and County of San Francisco at the San Bruno Jail and associated facilities.

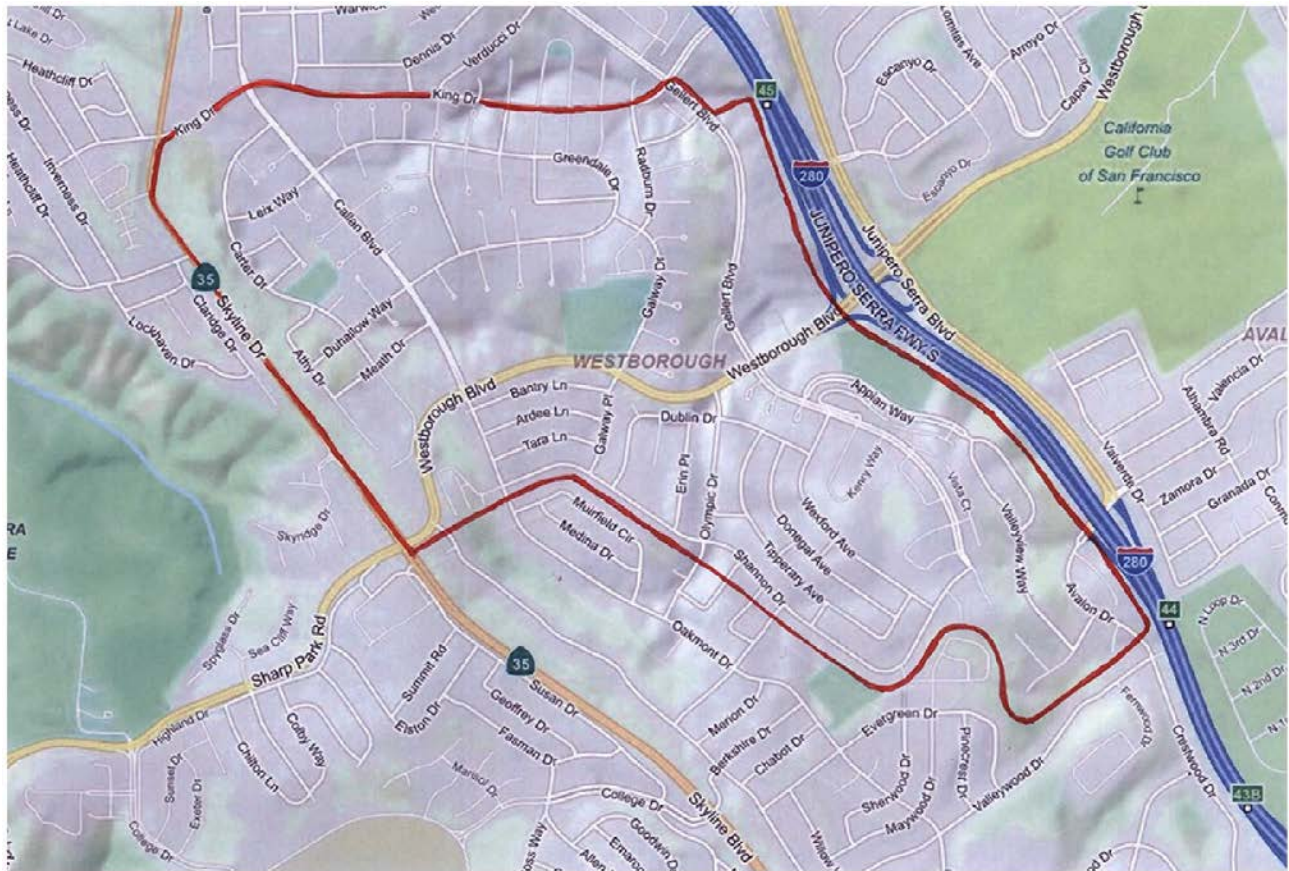
Intro Figure 1 contains an overview map of WWD’s sanitary sewer service area.

Intro Table provides the pipe diameter distribution of the gravity sewer pipes in the District collection system.

Intro Table 2 provides the composition of the gravity sewer piping by material of construction.

Intro Table 3 provides the installation age distribution of WWD’s collection system.

Intro Figure 1: WWD Sewer System Area Map



Intro Table 1: Gravity Sewer System Size Distribution

Diameter, Inches	Number of Line Segments	Pipe Length, Linear Feet	Portion of Sewer System, %
6	281	53,552	53.89
8	192	40,626	40.88
10	11	2,646	2.66
12	1	47	0.05
15	10	2,473	2.49
Unknown	1	36	0.04
Total, linear feet	496	99,379	100
Total, miles	496	18.82	

Source: WWD supplied infrastructure file 7-26-22

Intro Table 2: Gravity Sewer System Materials of Construction

Material	Number of Line Segments	Pipe Length, LF	Percent of Sewer System
VCP	474	97,145	97.75
Unknown	22	2,234	2.25
Total	496	99,379	100
Total, Miles		18.82	100

Source: WWD supplied infrastructure file 7-26-22

Intro Table 3: Gravity Sewer System Inventory of Sewer Lines by Pipe Age

Age in Years	Construction Period	Linear Feet of Gravity Sewers	Miles of Gravity Sewer	Percent of System
0-15	2000 - current	9820	1.86	10
16 – 35	1980 – 1999	29,462	5.58	30
36 – 55	1960 – 1979	58,925	11.16	59
56 – 75	1940 – 1959	0		0
76 – 95	1920 – 1939	0	0	0
95 – 115	1900 – 1919	0	0	0
>115	Before 1900	0	0	0
Unknown		1,171	0.22	1
Total		98,208	18.82	100

Source: WWD CIWQS Operational Performance 4/22/22

1.3. Definitions, Acronyms, and Abbreviations

Best Management Practices (BMP)

Refers to the procedures employed in commercial kitchens to minimize the quantity of grease that is discharged to the sanitary sewer system. Examples include scraping food scraps into a garbage can and dry wiping dishes and utensils prior to washing.

Calendar Year (CY)

Capital Improvement Plan (CIP)

Refers to the document that identifies future capital improvements to WWD's sanitary sewer system.

California Integrated Water Quality System (CIWQS)

Refers to the State Water Resources Control Board online electronic reporting system that is used to report SSOs, certify completion of the SSMP, and provide information on the sanitary sewer system.

Clean Water Act (CWA)

California Water Environment Association (CWEA)

City of Daly City (City)

Closed Circuit Television (CCTV)

Refers to the process and equipment that is used to internally inspect the condition of gravity sewers.

Computerized Maintenance Management System (CMMS)

Refers to the computerized maintenance management system that is used by WWD to plan, dispatch, and record the work on its sanitary sewer system. Lucity is the propriety software WWD uses for workflow management.

District

Refers to the Westborough Water District.

District Code (DC)

Division of Water Quality (DWQ)

Refers to the State of California Division of Water Quality of the State Water Resources Control Board.

Environmental Protection Agency (EPA)

Fats, Roots, Oils, and Grease (FROG)

Refers to fats, oils, and grease typically associated with food preparation and cooking activities that can cause blockages in the sanitary sewer system.

First Responder

Refers to the Daly City field crew or the On-Call personnel that are WWD’s initial response to an SSO event or another sewer system emergency.

Fiscal Year (FY)

Means a 12-month periods beginning July 1st and ending June 30th.

Food Service Establishment (FSE)

Refers to commercial or industrial facilities where food is handled/prepared/served that discharge to the sanitary sewer system.

General Waste Discharge Requirements (GWDR)

Refers to the State Water Resources Control Board Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, dated 5/2/2006.

Geographical Information System (GIS)

Refers to WWD’s system that it uses to capture, store, analyze, and manage geospatial data associated with WWD’s sanitary sewer system assets.

Grease Removal Device (GRD)

Refers to grease traps and grease interceptors that are installed to remove FROG from the wastewater flow at food service establishments.

Infiltration/Inflow (I/I)

Refers to water that enters the sanitary sewer system from storm water and groundwater.

- Infiltration enters through defects in the sanitary sewer system after flowing through the soil.
- Inflow enters the sanitary sewer without flowing through the soil. Typical points of inflow are holes in manhole lids and direct connections to the sanitary sewer (e.g., storm drains, area drains, and roof leaders).

Joint Powers Agreement (JPA)

Lateral

See Private Sewer Lateral

Legally Responsible Official (LRO)

Person(s) formally designated by WWD to be responsible for formal reporting and certifying of all reports submitted to the CIWQS.

Lift Station (LS)

A facility that lifts sewage into WWD gravity sanitary sewer collection system.

Manhole (MH)

Refers to an engineered structure that is intended to provide access to a sanitary sewer for maintenance and inspection.

Mainline Sewer

Refers to WWD publicly owned wastewater collection system piping that is not a private lateral connection to a user.

Monitoring, Measurement, and Plan Modifications (MMPM), SSMP Element IX

Monitoring and Reporting Program (MRP)

State Water Resources Control Board WQ 2013-0058-EXEC effective September 9, 2013.

National Association of Sewer Service Companies (NASSCO)

National Pollution Discharge Elimination System Permit (NPDES)

North San Mateo County Sanitation District (NSMCSD) WDID 2SSO10161

Notification of an SSO

Refers to the time at which WWD becomes aware of an SSO event through observation or notification by the public or other source.

Nuisance

California Water Code section 13050, subdivision (m), defines nuisance as anything that meets all the following requirements:

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

Office of Emergency Services (OES or Cal OES)

Refers to the California State Office of Emergency Services.

Operations and Maintenance (O&M)

Overflow Emergency Response Plan (OERP)

Pipeline Assessment and Certification Program (PACP)

Refers to the NASSCO certification program that is used for the evaluation and condition assessment of sewer lines and appurtenances from closed circuit televising of the lines and appurtenances.

Preventive Maintenance (PM)

Refers to maintenance activities intended to prevent failures of the sanitary sewer system facilities (e.g., cleaning, CCTV, repair, etc.).

Private Sewer Lateral (PSL)

The sewer pipeline from the plumbing of a building to a WWD collection line, including portions that extend across public rights-of-way and the saddle, wye or other physical connection to the collection line. Private sewer laterals are privately owned and maintained.

Private Lateral Sewage Discharges (PLSD)

Sewage discharges that are caused by blockages or other problems within a privately-owned sewer service lateral.

Property Damage Overflow

Refers to a sewer overflow or backup that damages a private property owner’s premises.

Public Owned Treatment Works (POTW)

Regional Water Quality Control Board (RWQCB)

Refers to the San Francisco Regional Water Quality Control Board.

Sanitary Sewer Backup (Backup)

A wastewater backup into a building and/or on private property caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

Sanitary Sewer Overflows (SSO)

Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:

- a. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
- b. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
- c. Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

SSOs that include multiple appearance points resulting from a single cause will be considered one SSO for documentation and reporting purposes in CIWQS.

NOTE: Wastewater backups into buildings caused by a blockage or other malfunction of a private sewer lateral are not SSOs.

SSO Categories:

Category 1: Discharge of untreated or partially treated wastewater of any volume resulting from a sanitary sewer system failure or flow condition that either:

- Reaches surface water and/or drainage channel tributary to a surface water; or
- Reached a Municipal Separate Storm Sewer System (MS4) and was not fully captured and returned to the sanitary sewer system or otherwise captured and disposed of properly.

Category 2: Discharge of untreated or partially treated wastewater greater than or equal to 1,000 gallons resulting from a sanitary sewer system failure or flow condition that either:

- Does not reach surface water, a drainage channel, or an MS4, or
- The entire SSO discharged to the storm drain system was fully recovered and disposed of properly.

Category 3: All other discharges of untreated or partially treated wastewater resulting from a sanitary sewer system failure or flow condition.

Sanitary Sewer System or Sewer System

Refers to the sanitary sewer facilities that are owned and operated by the WWD

Sensitive Areas

Refers to areas where an SSO could result in a fish kill or pose an imminent or substantial danger to human health.

Sewer Service Lateral

Refers to the piping that conveys sewage from the building to the sanitary sewer system

Sewer System Management Plan (SSMP)

Standard Operating Procedures (SOP)

Refers to written procedures that pertain to specific activities employed in the operation and maintenance of the Sanitary Sewer System.

Standard Specifications

Refers to the latest edition of the WWD Standard Specifications and Standard Drawings December 2018.

State Water Resources Control Board (SWRCB)

Refers to the California Environmental Protection Agency, State Water Resources Control Board.

Note: The State Board is a separate entity from the San Francisco Regional Water Quality Control Board, although the agencies are closely connected.

South San Francisco (SSF)

Supervisory Control and Data Acquisition (SCADA)

Refers to the system that is employed by WWD to monitor the performance of its lift stations and to notify the operating staff when there is an alarm condition that requires attention.

System Evaluation and Capacity Assurance Plan (SECAP) SSMP Element VIII**Untreated or Partially Treated Wastewater**

Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.

Vitrified Clay Pipe (VCP)**Waste Discharge Identification Number (WDID)**

A unique identification number for the certification and reporting of collection system related actions and overflows in the CIWQS System. The WWD WDID is 2SSO10665

Water Body

Any stream, creek, river, pond, impoundment, lagoon, wetland, or bay.

Water of the State

Refers to “any surface water, including saline waters, within the boundaries of the state.” (California Water Code § 13050(e)).

Water Quality Monitoring Plan (WQMP)**1.4. Critical Supporting Documents**

- State Water Resources Control Board Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, California State Water Resources Control Board, May 2, 2006.
- State of California Water Resources Control Board Order No. WQ-2008-0002-EXEC, Adopting Amended Monitoring and Reporting Requirements for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems dated February 20, 2008
- State Water Resources Control Board Order No. Order No. 2013-0058-EXEC, Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, September 9, 2013.
- California Integrated Water Quality System database for WDID 2SSO10665.
- Agreement For Sewage Disposal Between The City And County Of San Francisco, The Westborough County Water District And The North San Mateo County Sanitation District dated March 26, 2007.

Element I: Goals

Goal: The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

I-1: SSMP Goals

The goals of WWD are to provide safe, effective, and efficient operation of WWD's sanitary sewer collection system by:

- Properly managing, operating, and maintaining all parts of the wastewater collection system.
- Providing adequate capacity to convey peak flows
- Minimizing the frequency of SSOs
- Mitigating the Impact of SSOs

I-2: Critical Supporting Documents

None.

Element II: Organization

Organization: The SSMP must identify:

- (a) The name of the responsible or authorized representative as described in Section J of this Order.
- (b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
- (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

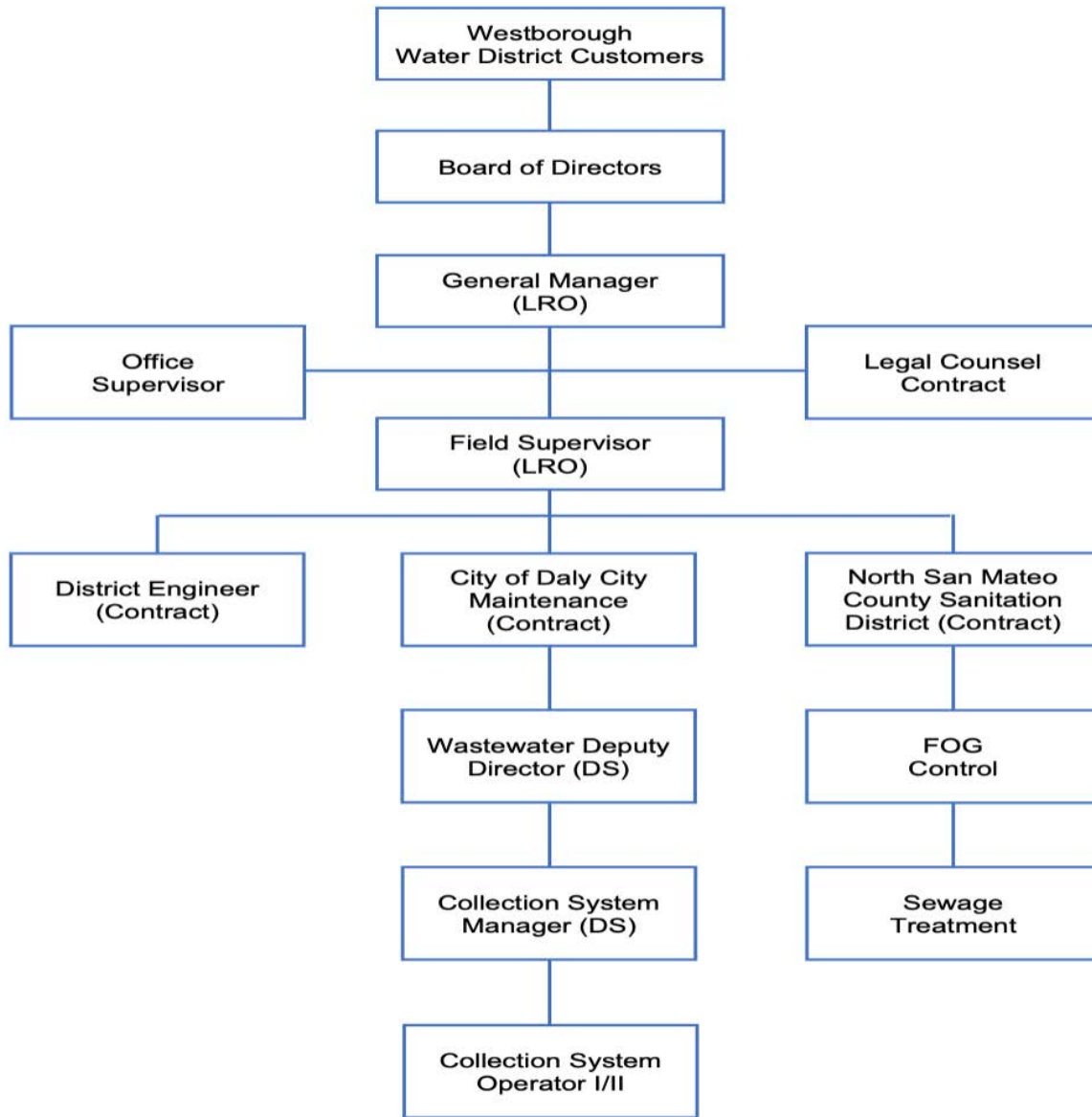
II-1: Organizational Structure

The purpose of this section is to identify WWD staff responsible for implementing this SSMP, responding to SSO events and meeting the SSO reporting requirements. This section also includes the designation of the Legally Responsible Official (LRO) or Authorized Representative to meet Statewide WDR requirements for completing and certifying spill reports.

The WWD operates and maintains WWD's sewer system and responds to sewer emergencies including SSOs. The WWD organization chart is shown in Figure 2-1.

The General Manager is the Legally Responsible Official (LRO), reports each SSO through California Integrated Water Quality System (CIWQS), and makes additional required reports to the SWRCB, RWQCB, California Department of Fish and Wildlife (CDFW), and OES as appropriate. The Field Supervisor is the backup LRO, in case the General Manager is unavailable. WWD has contracted with the NSMSD and the City of Daly City Collection Systems staff for all sewer system operations and maintenance. WWD has designated Daly City staff as data submitters for CIWQS data entry.

Figure II – 1: District Sewer Program Organization Chart



II-2: Authorized Representatives

WWD’s *Legally Responsible Official(s)* (LRO) for wastewater collection system matters are identified below along with their roles and responsibilities for the collection system operations of WWD. The below designated positions are the legally responsible officials (LRO) who are authorized to certify electronic spill reports and other required submittals to the SWRCB, the Office of Emergency Services (OES) and/or the CIWQS System. The City of Daly City collections managers have been designated as WWD data submitters.

General Manager (LRO) – Under policy direction, plans, organizes, and provides administrative direction and oversight for all District functions and activities; serves as the

District Treasurer, District Secretary and Chief Engineer; provides policy guidance and program evaluation to the Board and management staff; ensures that all regulatory and contractual requirements are met; facilitates provision of services to District residents and businesses; fosters cooperative working relationships with other governmental and regulatory agencies and various public and private groups; and performs other duties as assigned.

Field Supervisor (LRO) – Manages field operations and maintenance activities. Trains field crews, provides relevant information to WWD management, prepares and implements contingency plans, leads emergency response, investigates, compiles data and reports General Manager. Mobilize and respond to notification of stoppages and SSOs. Initiate and complete corrective repairs as needed. Assumes duties of the General Manager when unavailable.

Office Supervisor – Under general supervision, manages, organizes, and evaluates the District’s business operations; performs responsible administrative, financial, and general office work to ensure the proper functioning of the office; performs or supervises accounts receivable, accounts payable, and payroll; responds to customer complaints and concerns. Performs additional work as required.

Wastewater Deputy Director (DS) (Daly City) – Plans, organizes, directs, and supervises the public works activities of the District. Advises the District Board on collection system matters as requested by WWD. Prepares and submits maintenance reports and invoices and available to assist WWD emergency response activities and reporting. Reviews project plans and specifications for public works projects and performs technical engineering planning studies. Confers with engineering consultants and officials of WWD.

Collection System Manager (DS) (Daly City) – Supervises all activities of the Collection System Maintenance Division, including wastewater collection. Provides WWD with collection system plans and goals for operations and maintenance and emergency response. Reviews plans and specifications for sewer projects and makes recommendations regarding maintenance, construction, and operations aspects. Provide O&M reports and invoices and coordinates all overflow emergency response for WWD.

Collection System Operator II (Daly City) – Works independently under general supervision exercising judgment and initiative. Duties will normally require the ability to operate the full range of tools and mechanical equipment related to Collection System operations and maintenance (O&M). Leads and directly supervises crews on specific tasks and activities. Investigates sewer-related complaints from the general public. Reports to Field Supervisors any problems observed in the course of performing infrastructure maintenance. Makes repairs to mainlines and manholes. Enters work orders\data into asset management system, providing accurate recordkeeping and work history. Assists with WWD emergency response activities for sewage overflows.

Collection System Operator I (Daly City) – Works as a member of a field collection system maintenance crew. Cleans, unplugs, and repairs sewer lines and sewer laterals. Locates and raises manholes. Operates power equipment including combination flushing truck, regular flushing

truck, lateral flusher, rodder, and CCTV equipment. Assists with emergency response to sewage overflows in WWD service area.

Contract Services:

WWD has existing service contracts with the North San Mateo County Sanitation District for FOG control and sewage treatment and disposal. They also rely on professional engineering and capital planning services for the District Managers position and that is currently with Pakpour Engineering

II-3: Responsibility for SSMP Implementation and Maintenance

The General Manager has the overall responsibility for implementing, periodically auditing, and maintaining WWD’s SSMP. He/she may delegate these responsibilities to his/her staff or outside service contractors such as Daly City and the SMCSO as shown in **Table II – 1** below.

Table II – 1: Responsible Officials for SSMP Elements

Element	Element Name	Responsible District Official	Phone	Email
0	Introduction	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
1	Goals	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
2	Organization	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
3	Legal Authority	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
4	O & M Program	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
5	Design & Performance Provisions	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
6	OERP	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
7	Fats, Roots, Oils and Grease (FROG) Control Program	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
8	System Evaluation and Capacity Assurance Plan	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
9	Monitoring, Measurement and Program Modifications	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org

Element	Element Name	Responsible District Official	Phone	Email
10	Program Audits	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
11	Communications Program	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
App A	SSMP Board Adoption Documents	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
App B	SSMP Audit Reports	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
App C	SSMP Audit Checklist	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
App D	SSMP Change Log	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
App E	OERP	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org
App F	Water Quality Monitoring Plan	Patricia Mairena	650-589-1435	pmairena@westboroughwater.org

Source: District supplied information dated 12/5/20

II-4: SSO Reporting Chain of Communication

The SSO Reporting process and responsibilities are described in the Overflow Emergency Response Plan in Appendix D, Table B-1.

II-5: Critical Supporting Documents

None.

Element III: Legal Authority

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

- (a) Prevent illicit discharges into its sanitary sewer system (examples may include I/I, stormwater, chemical dumping, unauthorized debris and cut roots, etc.);
- (b) Require that sewers and connections be properly designed and constructed;
- (c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
- (d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
- (e) Enforce any violation of its sewer ordinances.

III-1: District Summary and Evaluation of Legal Authority

The WWD is regulated by several agencies of the United States Government and the State of California, pursuant to the provisions of Federal and State Law. Federal and State Laws including, but not limited to the following, grant to the District the authority to regulate and/or prohibit, by the adoption of an ordinance and by issuance of control mechanisms, the discharge of any waste, directly or indirectly, to the WWD sewerage facilities.

1. Federal Water Pollution Control Act, commonly known as the Clean Water Act (33 U.S.C. Section 1251 et seq.);
2. California Porter Cologne Water Quality Act (California Water Code Section 13000 et seq.);
3. California Health & Safety Code Sections 25100 to 25250; and
4. California Government Code, Sections 54739-54740.

Following the authorities provided by the documents described above, WWD maintains a District Code that provides the necessary legal authority. The District's Code provisions are summarized below in Table III-1: Summary of Legal Authorities and are included in District Ordinance 1-207 as amended by Resolution No. 2020-102. In addition, they rely on additional codes and legal authorities for the two cities and the NSMCSO as noted.

Table III – 1: Summary of Legal Authorities

Requirement	
Prevent illicit discharges into the wastewater collection system	NSMCSD Chps. 1.04, 1.16, 1.24, 1.44 SSF Chapter 14.04
Limit the discharge of fats, oils, and grease and other debris that may cause blockages	CPC Plumbing Code NSMCSD Chp. 1.24
Require that sewers and connections be properly designed and constructed	NSMCSD Chps. 1.12, 1.16, 1.20 WWD Std Specification
Require proper installation, testing, and inspection of new and rehabilitated sewers	NSMCSD Chp. 1.20 CalTrans Manual of Traffic Control
Clearly define District responsibility and policies	District code, City code, Design standards and Standard specifications
Control infiltration and inflow (I/I) from private service laterals	NSMCSD Code, Chapter 1.12 – Private Sewage Disposal
Requirements to install grease removal devices (such as traps or interceptors), design standards for the grease removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements	Ca Plumbing Code Chp. 10 NSMCSD Chp. 1.24
Authority to inspect grease producing facilities	
Enforce any violation of its sewer ordinances	NSMCSD Chp. 1.44

III-2: Agreements with Satellite Agencies

WWD is a satellite system to the NSNCSD treatment plant and the City of Daly City sewer collection system. They also receive sewage from the City and County of San Francisco San Bruno Jail Facility.

III-3: Critical Supporting Documents

- Westborough Water District Ordinance 1-207.
- North San Mateo County Sanitation District Code Title 1, Sewer System Usage.
- Agreement For Sewage Disposal Between the City and County of San Francisco, The Westborough County Water District And The North San Mateo County Sanitation District dated March 26, 2007.

Element IV: Operations and Maintenance Program

Operation and Maintenance Program. The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:

- (a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
- (b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
- (c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
- (d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
- (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

IV-1: Collection System Mapping

IV-2: WWD currently uses Preventive Operation and Maintenance

The elements of WWD's sewer system O&M program include and are fully the responsibility of the Daly City collection staff:

- Proactive, preventive, and corrective maintenance of gravity sewers;
- Ongoing CCTV inspection program to determine the condition of the gravity sewers;
- Periodic inspection and preventive maintenance for the lift stations and force mains;
- Rehabilitation and replacement of sewers that are in poor condition; and

- Proper training for District employees and contractors to assure proper operations and maintenance of the collection system facilities.

IV-2.1: Gravity Sewer Maintenance

WWD and Daly City collections staff identified below in Figure IV – 1 Organization Chart are responsible for the management of the normal maintenance and operations of the sanitary sewer collection system and the proper planning and emergency response throughout the entire service area by contract with Daly City.

Daly City cleans the WWD gravity sewer mains on roughly a 2-year cleaning cycle. Pipes are cleaned by hydrojet via one of two larger combination vactor/jetter vehicles, or a smaller jetter truck where access by the larger vactor is not feasible. Pipes with recurring maintenance issues are defined as potential “hot spots.” Hot spot pipes are first cleaned on a 12- month cleaning schedule and moved to a 6-month or 3-month cleaning schedule if issues persist. The SSO hot spot list is developed based on one or more of the following criteria: cleaning history, CCTV inspection results, and/or the occurrence of SSOs. If the pipeline in question is rehabilitated, the pipe segment is moved from the hot spot list. The entire hot spot cleaning list is re-evaluated periodically. **Hot Spot Line Cleaning Results** are stated in **Figure IV – 1** below. Daly City has identified sixty-four (64) pipe segments (9% of the gravity pipe system) throughout the system, which are cleaned three times per year. Cleaning intervals depend on observed conditions documented during routine cleaning activities at each location. These hot spots are generally the result of two (2) contributing factors in the WWD’s sewer system; root intrusion and Fats, Oils and Grease (FOG). The hot spot list is updated as necessary when Staff observes sewer line conditions that require an increased cleaning frequency because of a blockage or SSO. Summary statistics for the hot spot lines are shown in **Table IV – 1: Hot Spot Line Cleaning**.

Figure IV – 1: District Sewer Program Organization Chart

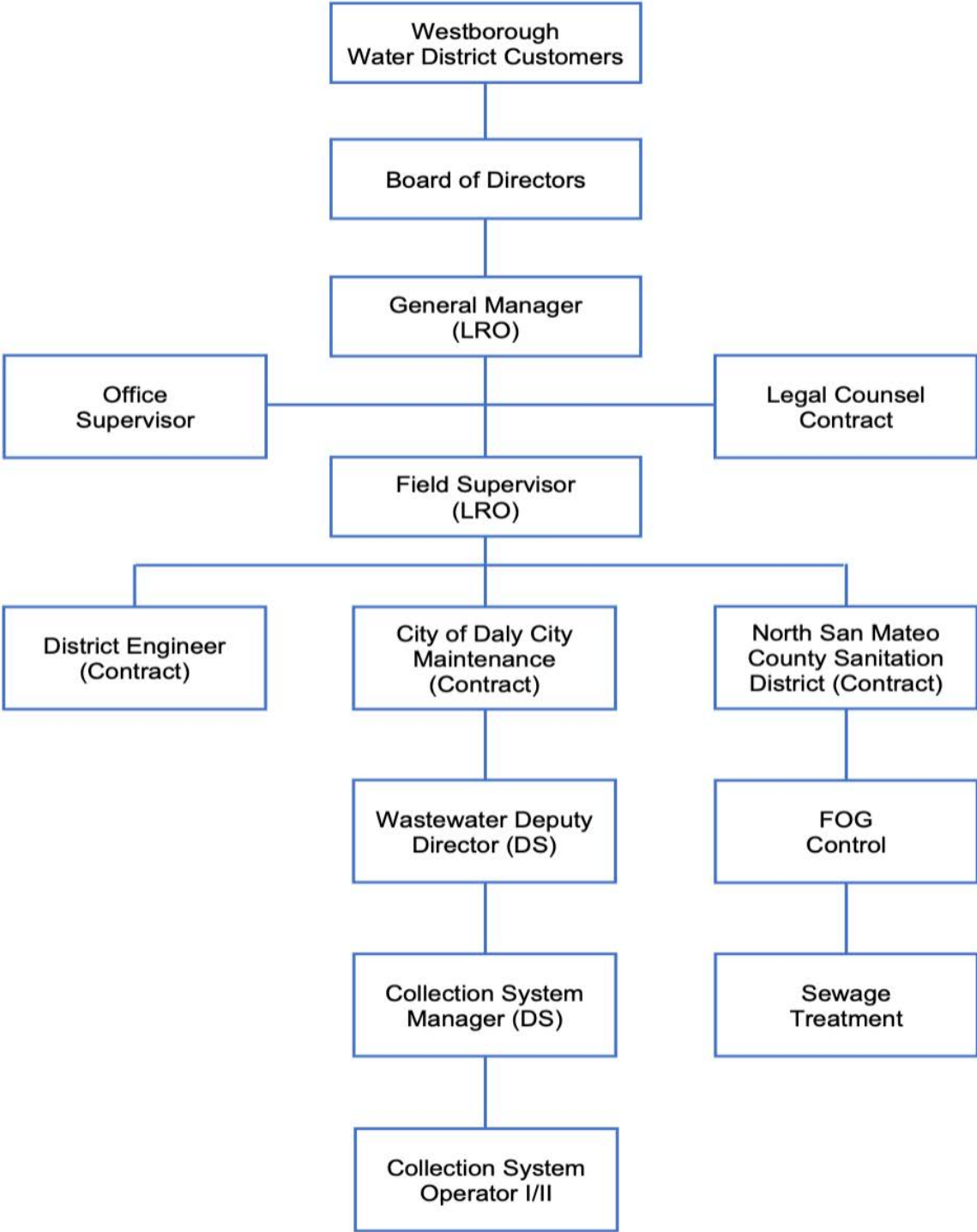


Table IV – 1: Hot Spot Line Cleaning

Frequency	Pipe Segments	Linear Feet	Annual Cleaning, Linear Feet	Annual Cleaning, miles	Percent of System
3 Months	64	8,729	26,187	4.96	27.1
Totals	64	8,729	26,187	4.96	27.1

Source: District supplied infrastructure file dated 12/17/2

The historical line cleaning results for the remainder of the gravity system are shown in Table IV-2 below.

Table IV – 2: Historical Gravity Cleaning Results

Calendar Year	Line Cleaning Results, linear feet	Line Cleaning Results, miles	Percent of System Pipes (using 208 mi)
2008	33,941	6.4	34
2009	124,091	23	123
2010	24,355	4.6	24
2011	140,310	26.5	142
2012	26,762	5	26
2013	124,109	23	123
2014	17,893	3.3	17
2015	66,909	12.6	67
2016	77,275	14.6	78
2017	20,610	3.9	20
2018	78,423	14.8	79
2019	42,726	8	43
2020	15,571	2.9	15
2021	23,708	5.1	27.6
Average per Year			

Source: Annual Year in Review Graphs 12/17/21

IV-2.1.1: Pipe Condition Assessment

WWD conducts periodic CCTV inspections using outside contract services associated with master planning efforts or following sanitary sewer overflows. Pipeline condition is assessed using the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment Certification Program (PACP). Lines are assigned structural and maintenance grades by the inspector.

Table IV – 3: Historical Closed-Circuit Television by Fiscal Year*

Fiscal Year	CCTV, Linear Feet	CCTV, miles	Percent of the System (based on 208 miles)
2014	290	0.05	0.26%
2015	0	0	0
2016	0	0	0
2017	700	0.13	0.70%
2018	0	0	0
2019	0	0	0
2020	0	0	0
2021	0	0	0

**Source District supplied 12/17/21*

IV-2.1.2: Manhole Inspection and Maintenance Program

Daly City has an active manhole inspection program conducted mostly as part of the cleaning operations or when customer complaints are received and investigated. These inspections if found concerning, result in immediate repairs or replacements by Daly City. WWD has not established a formal manhole inspection program frequency for formal inspections however additionally the normal and high frequency cleaning efforts are also used to identify any condition issues with manholes.

IV-2.2: Lift Station Maintenance

There are three (3) lift stations in the service area each operated by Daly City. Stations are monitored remotely through a Supervisory Control and Data Acquisition (SCADA) system with alarms and operating information transmitted to both WWD and Daly City/NSMCSD. Daly City checks each station twice weekly and conducts regular maintenance on each station monthly. The station wet wells are maintained as needs based upon issues identified during the weekly checks.

The lift stations asset information is identified below in Table IV – 5.

Table IV – 4: Lift Station Locations and Asset Information*

Lift Station Name	Location	Construct Date	No. Pumps	Pump GPM	Pump Manufacturer	Pump HP	Standby Generation - KW
Avalon	500 Avalon Dr.	1970s	2	97	Tarby	15	200
Rountree	2201 Gellert Blvd.	1960s	3	1240	Vaughn	100	300
Westborough	2243 Westborough Blvd.	1960s	3	1100	Vaughn	75	300

* District supplied infrastructure file dated 5/12/20

IV-2.3: Force Main Maintenance

There are a total of 5,103 linear feet of force mains immediately downstream of the three lift stations. WWD owns, maintains and schedules replacement of these force mains. Each of the lift stations described above discharge to pressure force mains to the WWD gravity sewer collection system presented in Table IV-6 below. The force main alignments are inspected annual and the discharge manholes into the collection system are inspected for concrete corrosion regularly. WWD does not currently have a formal force main condition assessment and/or replacement program.

Table IV – 5: Force Main Locations and Descriptions

Name of Lift Station Associated with Force Main	Year Constructed	Force Main Asset Information		
		Length (linear feet)	Size (inches)	Material Type*
Avalon Lift Station	1979	384	4"	AC
Rowntree Lift Station	1979	1,850	12"	AC
Westborough Lift Station	Mid 1960's	2,869	12"	AC
Total, Linear feet		5,103		
Total Miles		0.97		

Source: District supplied infrastructure file dated 12/27/21.

IV-2.4: Root Foaming

WWD has in the past, when root issues are found, utilized outside root foaming service contractor to treat the problem line segments. WWD has not found it necessary to define a regular root foaming program nor have the causes of overflows shown the need for a defined program.

IV-3: Private Sewer Laterals

WWD has no responsibility for the private sewer laterals from the building to the WWD public sewer main. The entire lateral is the responsibility of the private property owner. WWD is

responsible for the lower portion of the lateral from the property line to the connection with the District mainline.

IV-4: Rehabilitation and Replacement Program

Due to the young average age of the WWDR collection system, the District has determined that renewal and replacement is not yet required for the gravity system.

IV-5: Training of District Personnel and Contractors

All District staff and contractor employees that have a role in responding to, reporting and/or mitigating a sewer system overflow will receive regular training on sewer maintenance, equipment operation, and emergency response, in addition to required safety training. Annually employees involved in the District sanitary sewer program receive training on the SSMP, the OERP and the WQMP. In addition, staff also conducts at least annually, field exercises on proper procedures for the handling of sewage overflows and sampling requirements pursuant to the District WQMP.

Records are kept of all staff training that is provided in support of the SSMP. The records include the date, time, place, content, name of trainer(s) and names of attendees and are conducted pursuant to the District Training Program Matrix from the Injury and Illness Prevention Program and the Annual District Staff Safety & Training Meeting Schedule.

IV-6: Equipment and Replacement Parts

WWDs contract with Daly City requires that they provide critical parts and equipment, such as tools, pipe, hydro vac parts, and portable pumps, as needed to comply with the work requirements of the contract.

IV-7: Critical Supporting Documents

None.

Supplement IV-1: Lift Station and Force Main Assessment Checklist

Inspection Information	
Inspection date	
Inspection participants	
Facility name	
Facility address	
Comments	

Background Information (Prior 12 Months)	
SSOs	
Equipment failures	
Alarm history (attach copy)	
Major maintenance activities (attach list if applicable)	
Pending work orders (attach copies)	
Operating problems (attach copy of operating log)	
Comments	

Security Features	
Fence and gate	
External lighting	
Visibility from street	
Doors and locks	
Intrusion alarm(s)	
Signs with emergency contact information	
Other security features	
Comments	

Safety Features and Equipment	
Signage (confined space, automatic equipment, hearing protection, etc.)	
Fall protection	
Emergency communication	
Equipment hand guards	
Handrails and kickboards	
Platforms and grating	
Tag out and lock out equipment	
Hearing protection	
Eye wash	
Chemical storage	
Comments	

External Appearance	
Fence	
Landscaping	
Building	
Control panels	
Other external features	
Comments	

Building/Structure	
Lift Station building	
Control room	
Dry well	
Wet well	
Other structures	
Comments	

Instrumentation and Controls (including SCADA Facilities)	
Control panel	
Run time meters	
Flow meter	
Wet well level	
Alarms	
SCADA HMI/PLC	
Other instrumentation & controls	
Comments	

Electrical and Switch Gear	
Power drop	
Transformers	
Transfer switches	
Emergency generator and generator connection	
Starters	
Variable frequency drives	
Electrical cabinets	
Conduit and wireways	
Other electrical	
Comments	

Motors	
Lubrication	
Insulation	
Operating current	
Vibration and alignment	
Other	
Comments	

Pumps	
Lubrication	
Vibration and alignment	
Seals	
Indicated flow and discharge pressure	
Shutoff head	
Corrosion and leakage evidence	
Drive shaft	
Other	
Comments	

Valves and Piping	
Valve operation	
Valve condition	
Pipe condition	
Pipe support	
Other	
Comments	

Other	
Lighting	
Ventilation	
Support systems (air, water, etc.)	
Signage	
Employee facilities	
Sump pump	
Overhead crane	
Portable pump connections	
Portable pumps	
Comments	

Supplement IV-2: Capital Improvement Program, \$1000

Project Title	22/23	23/24	24/25
Rowntree Sewer Pump Station Improvements	175		
Westborough Lift Station aeration system installation	25		
Total Annual Expenditures	200		

Supplement IV-3: Major System Equipment Inventory*

Equipment Number	Equipment Description	Year Purchased	Location
	Pumps, motors, control panels, etc. are purchased with WWD approval when needed. Some items are with WWD approval when needed. Some items are for payment.		

*Source: WWD Infrastructure File dated 12/27/21

Supplement IV-4: Critical System Replacement Parts Inventory*

Part Description	Location
Check Valve parts	NSMCSD Warehouse
Mechanical Seals	NSMCSD Warehouse
Pump oil & replacement oiler line	NSMCSD Warehouse
Exhaust fan parts	NSMCSD Warehouse
Spare VFD's	NSMCSD Warehouse
Control panel lightbulbs	NSMCSD Warehouse
Sump pumps	NSMCSD Warehouse
Standby Generator oil & filter, fuel & air filters	NSMCSD Warehouse
Tarby pump	NSMCSD Warehouse
Check Valve parts	NSMCSD Warehouse

*Source: WWD supplied infrastructure file dated 12/27/21

* **Note:** above items are purchased by NSMCSD for use on NSMCSD equipment. Items are used in WWD lift stations on a replace as used basis.

Element V: Design and Performance Provisions

Design and Performance Provisions:

- (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
- (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

V-1: Design Criteria for Installation, Rehabilitation and Repair

As discussed in Element 3, the WWD design and construction standards are provided as part of the District Code, Chapter 7 and Appendices A-5 and A-6. Design criteria include the following:

- Flow criteria
- Minimum velocity
- Peaking factor
- Alignment in public rights of way
- Proximity to other utilities
- Depth of cover
- Manhole spacing
- End of line terminations
- Service connections
- Lift station and force main requirements

V-2: Inspection and Testing Criteria

Standards for inspection, testing, rehabilitation, and repair are provided in the WWD Code and described further in Element 3.

V-2.1: New and Rehabilitated Lift Stations

Construction standards and acceptance provisions for new and rehabilitated lift stations are established through the design process and are part of the approval of the plans and specifications for the new or rehabilitated lift station.

V-3: Critical Supporting Documents

The data used in this section were taken from the following Critical Supporting Documents:

- Westborough Water District Ordinance No. 61
- Westborough Water District Standard Drawings, December 2018
- Daly City Standard Drawings SS-5, 6, 10 and 11

Element VI: Overflow Emergency Response Plan

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

- (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- (b) A program to ensure an appropriate response to all overflows;
- (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g., health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
- (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

Sanitary Sewer Overflow Emergency Response Plan

VI-1: Purpose

The purpose of the WWD Overflow Emergency Response Plan (OERP) is to support an orderly and effective response to Sanitary Sewer Overflows (SSOs). The OERP provides guidelines for District personnel to follow in responding to, cleaning up, and reporting SSOs that may occur within WWD service area. The OERP (Appendix D) satisfies the SWRCB Statewide General Waste Discharge Requirements (GWDR), which require wastewater collection agencies to have an Overflow Emergency Response Plan.

VI-2: Policy

WWD employees are required to report all wastewater overflows from public sewer infrastructure and to take the appropriate action to secure the wastewater overflow area, properly report to the

appropriate regulatory agencies, relieve the cause of the overflow, and ensure that the affected area is cleaned as soon as possible to minimize health hazards to the public and protect the environment. WWD goal is to respond to sewer system overflows as soon as possible following notification. WWD will follow reporting procedures regarding sewer spills as set forth by the San Francisco Regional Water Quality Control Board (*RWQCB*) and the California State Water Resources Control Board (*SWRCB*).

VI-3: Goals

WWD goals with respect to responding to SSOs are:

- Work safely;
- Respond quickly to minimize the volume of the SSO;
- Eliminate the cause of the SSO;
- Prevent sewage system overflows or leaks from entering the storm drain system or receiving waters to the maximum extent practicable;
- Contain the spilled wastewater to the extent feasible;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the SSO;
- Meet the regulatory reporting requirements;
- Evaluate the causes of failure related to certain SSOs; and
- Revise response procedures resulting from the debrief and failure analysis of certain SSOs.

VI-4: Full Overflow Emergency Response Plan

The full copy of WWD Overflow Emergency Response Plan effective September 2022 can be found in Appendix E along with copies of all instructions and forms in response workbook referred to below. All SSO sampling and testing shall be conducted per the WWD Water Quality Monitoring Plan (WQMP) which is included in Appendix F.

VI-5: Authority and Critical Supporting Documents

- Health & Safety Code Sections 5410-5416
- CA Water Code Section 13271
- Fish & Wildlife Code Sections 5650-5656
- State Water Resources Control Board Order No. 2006-0003-DWQ
- State Water Resources Control Board Order 2013-009-DWQ effective September 9, 2013

Element VII: Fats, Roots, Oils, and Grease (FROG) Control Program

FROG Control Program: Each Enrollee shall evaluate its service area to determine whether a FROG control program is needed. If an Enrollee determines that a FROG program is not needed, the Enrollee must provide justification for why it is not needed. If FROG is found to be a problem, the Enrollee must prepare and implement a FROG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FROG;
- (b) A plan and schedule for the disposal of FROG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FROG generated within a sanitary sewer system service area;
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FROG;
- (d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FROG ordinance;
- (f) An identification of sanitary sewer system sections subject to FROG blockages and establishment of a cleaning maintenance schedule for each section; and
- (g) Development and implementation of source control measures for all sources of FROG discharged to the sanitary sewer system for each section identified in (f) above.

VII-1: Nature and Extent of FROG Problem

The Westborough Water District has twenty-five (25) food service establishments (FSEs) with grease traps and interceptors within its jurisdiction to minimize the risk of SSOs. However, in order to reduce maintenance needs for FOG-related hot spots WWD implemented a routine inspection program for the FSEs in its service area. The FOG inspection program consists of the following items:

- Inspection of grease trap
- Check grease trap maintenance log

- Provide educational materials on proper grease trap maintenance and grease waste disposal

The maintenance log shall be maintained and posted in the restaurant available for review by District personnel. If during periodic inspections, the District determines that the FSE is in non-compliance with the District Code, enforcement action may be required.

The program is developed to educate FSE owners and employees about minimizing FOG disposal to the sewer system and also information about best management practices for minimizing FOG.

Table VII-1: FOG Inspections Completed

Calendar Year	FOG Inspections Completed
2015	14
2016	0
2017	8
2018	1
2019	16
2020	9
2021	1
Total	49

Figure VII-1: Total FOG Inspections/Calendar Year

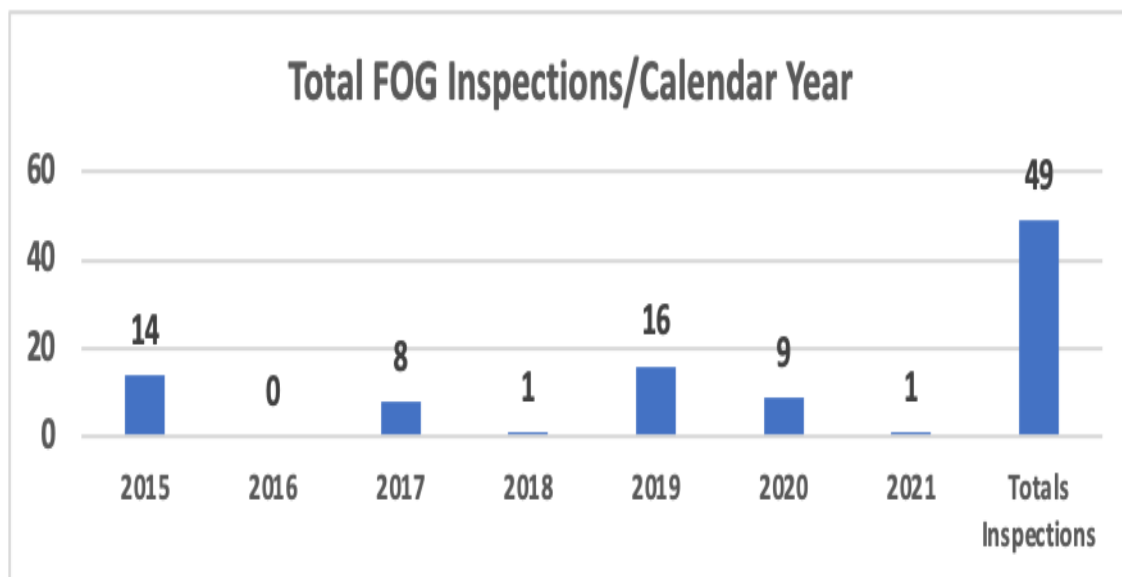
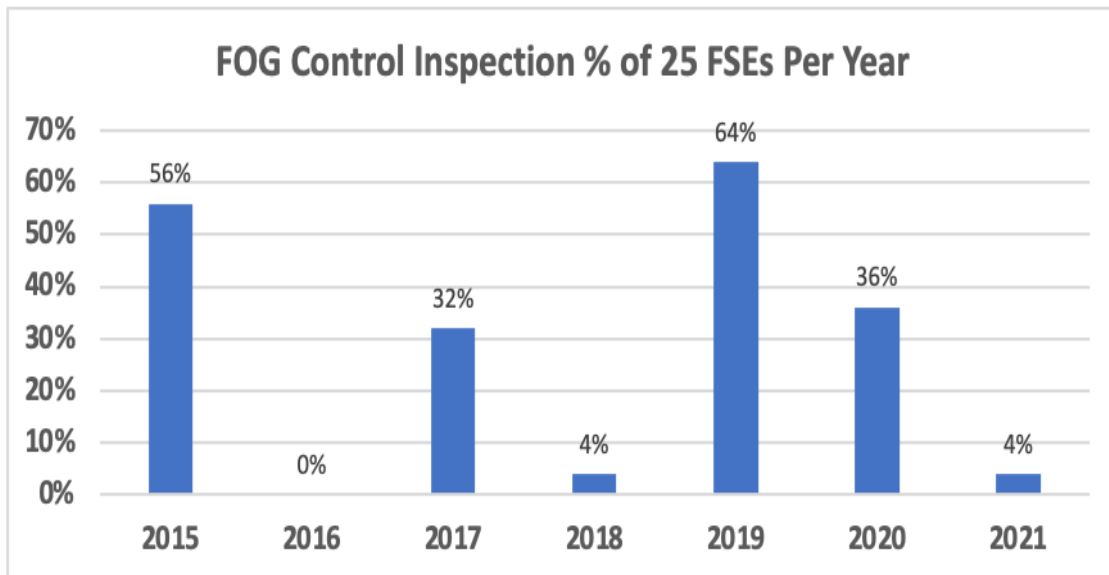


Figure VII-2: FOG Control Inspections % of 25 FSEs per Year



VII-2: Response to GWDR Requirements

Requirement (a):

An implementation plan and schedule for a public education outreach program should promote proper disposal of FOG.

Response:

The District has provided information on FOG control on the District website and works directly with SMCSO on assuring that FOG problems are minimized and handled appropriately.

Requirement (b):

A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area.

Response:

Currently, grease haulers dispose of grease pumped from interceptors at area rendering companies. At this time, there does not appear to be a need for additional grease disposal facilities to collect grease from the WWD service area. However, WWD the District may choose to evaluate this need further, should the need for additional grease disposal facilities become an issue in the future.

Requirement (c):

The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG.

Response:

Legal authority to prohibit FOG is provided through WWD Code Ordinance 61. Enforcement is addressed through WWD Code Chapter 12. WWD Code Chapter 8 subsections include the following:

Requirement (d):

Requirements to install grease removal devices (such as traps or interceptors), design standards for the grease removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements.

Response:

Requirements for the installation of grease removal devices are included in Chapters 8.02 through 8.04 of the WWD Code. Testing requirements are provided in Appendix A-6 of the WWD Code.

Requirement (e):

Authority to inspect grease producing facilities, enforcement authorities, and determination of whether the collection system has sufficient staff to inspect and enforce the FOG ordinance.

Response:

WWD Code Section (3 and 4) provides the requirements for inspections and Section provides the authority for enforcement.

Requirement (f) and (g):

Requirement (f) is an identification of sewer system sections subject to FROG blockages and the establishment of a cleaning maintenance schedule for each section, and

Requirement (g) is the development and implementation of source control measures, for all sources of FOG discharged to the sewer system.

Response:**VII-3: Critical Supporting Documents**

The data used in this section were taken from the following Westborough Water District Ordinance No. 61.

Element VIII: System Evaluation and District Assurance Plan

System Evaluation and Capacity Assurance Plan: The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

- (a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;
- (b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
- (c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- (d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.

VIII-1: System Evaluation – Collection System Master Plan

The Westborough Water District (District) is responsible for the collection and conveyance of wastewater within the WWD service area including the design and inspection of all new and rehabilitated sewer lines or pump stations either by Daly City, South San Francisco or consultants hired for construction management.

VIII-2: Design Criteria

The District's sewer system is designed to convey peak flows. Typically, peak flows related to wet weather do not exceed system design peak flows.

VIII-3: District Capacity Enhancement Measures – Capital Improvement Program

Based on the completed analyses, the District found that no SSOs are predicted in the current or buildout condition.

VIII-4: Schedule

The current schedule of District capital projects is included in Supplement IV-2 earlier in this SSMP.

VIII-5: Critical Supporting Documents

The data used in this section were taken from the following Critical Supporting Documents:

Westborough Water District, Capital Improvement Program Summary 2021, Pakpour Consulting Group, Inc. June 2021

Element 8: Monitoring, Measurement, and Program Modifications

Monitoring, Measurement, and Program Modifications:

The Enrollee shall:

- (a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- (b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- (c) Assess the success of the preventative maintenance program;
- (d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
- (e) Identify and illustrate SSO trends, including frequency, location, and volume.

VIII-6: Performance Measures

The District has established the preventive maintenance sewer metrics that are shown in Table 9-1 for use in monitoring, measuring and adjusting sewer maintenance activities. These metrics will be monitored on a regular basis.

Table IX-1: District Preventative Maintenance Performance Metrics

Maintenance Success Factors	Performance Metrics
System Pipes	Miles
Sewer Maintenance Staff	Full Time Equivalent (FTE)
Gravity Pipes Cleaned	Miles/Year
Pipes Inspected (CCTV)	Miles/Year
Manholes Inspected	Number/Year
Hot Spots Cleaned	Number by Underlying Cause (Roots, Debris, FOG, Structural)
Sanitary Sewer Overflows (SSO)	Number by Underlying Cause per 100 Miles
Repeat SSOs	Number by Address
Response Time	Minutes per SSO after Notification
Pump Station Overflows	Number by Cause
Odor Complaints	Number
FSE Inspections	Individual Inspections/Year

Maintenance Success Factors	Performance Metrics
Pipe Replaced	Miles/Year
Resolved Claims	Number/Year; \$/Year/Event

VIII-7: Baseline Performance

WWD has performance measures in place and evaluates its performance regularly. The historical performance is shown below starting in calendar 2007 through 2021. These performance results will be used to assist WWD to evaluate the effectiveness of the sewer collection system program as part of the biannual internal audit.

Figure IX – 1: SSOs per Calendar Year

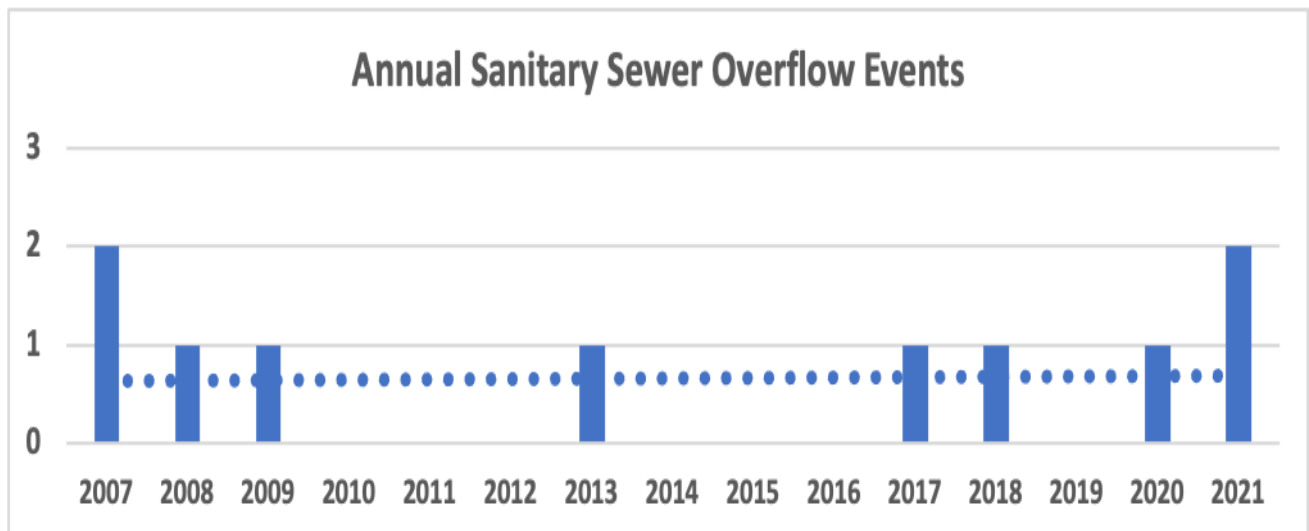


Figure IX – 2: Trend in SSOs by Cause

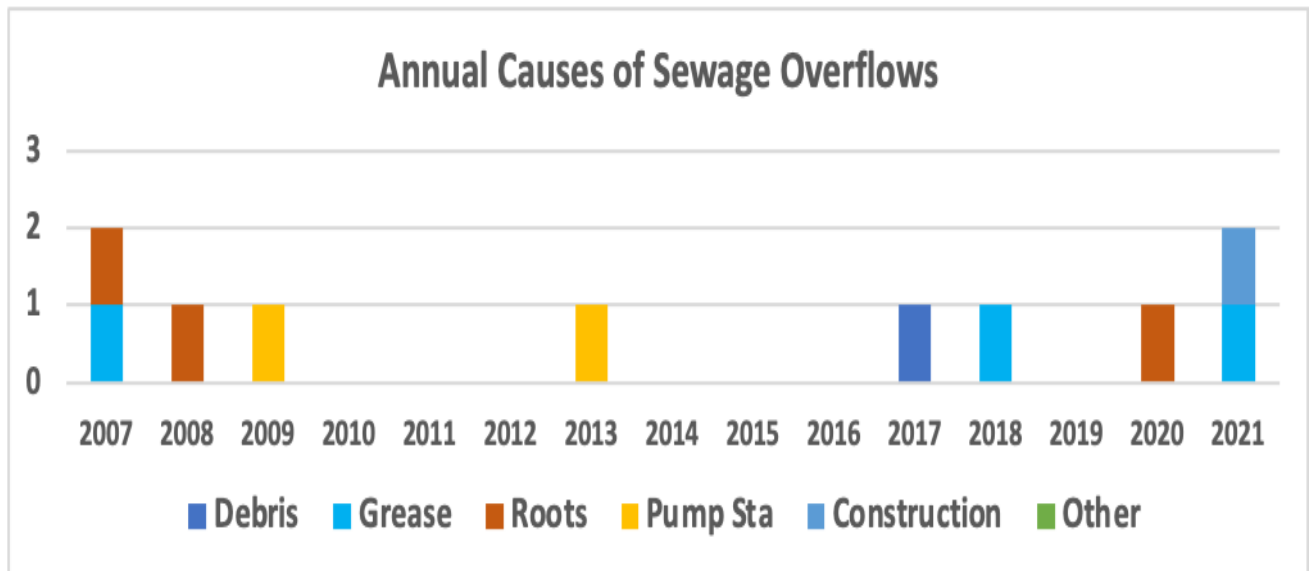


Figure IX – 3: Historical Spill and Recovered Volumes by Fiscal Year

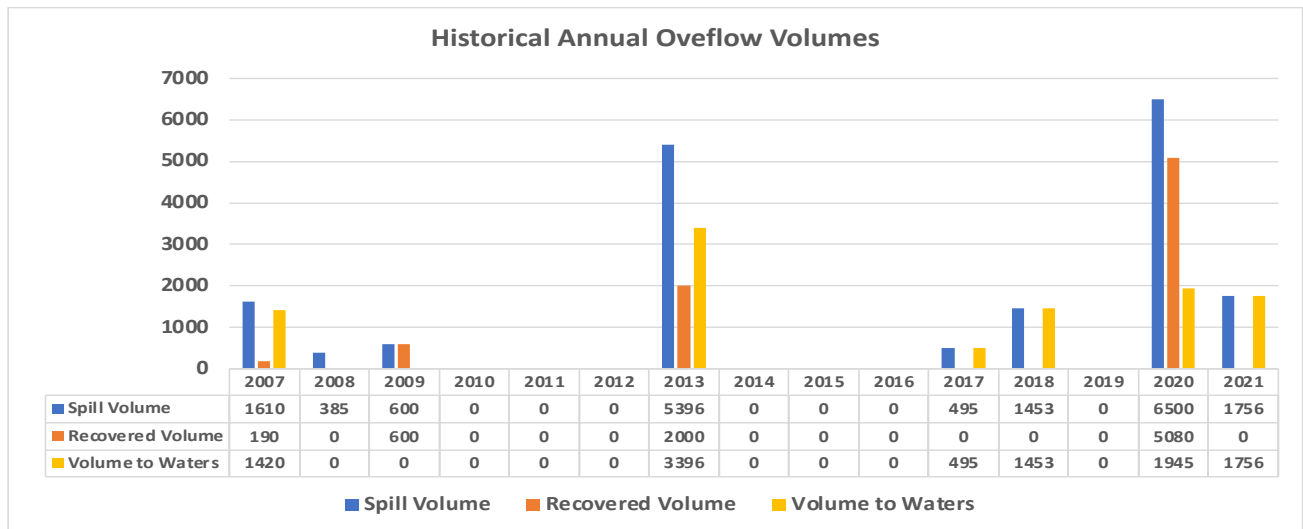


Figure IX – 4: Overflows by SWRCB Categories per Fiscal Year

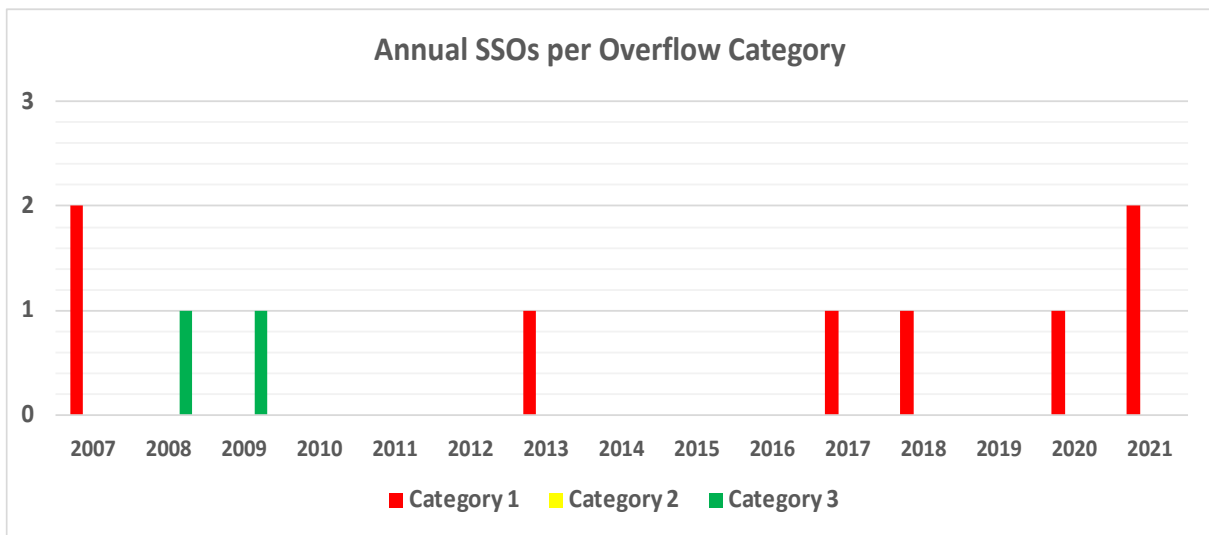


Figure IX – 5: Comparison of SSO Rate per 100 Miles of Sewers

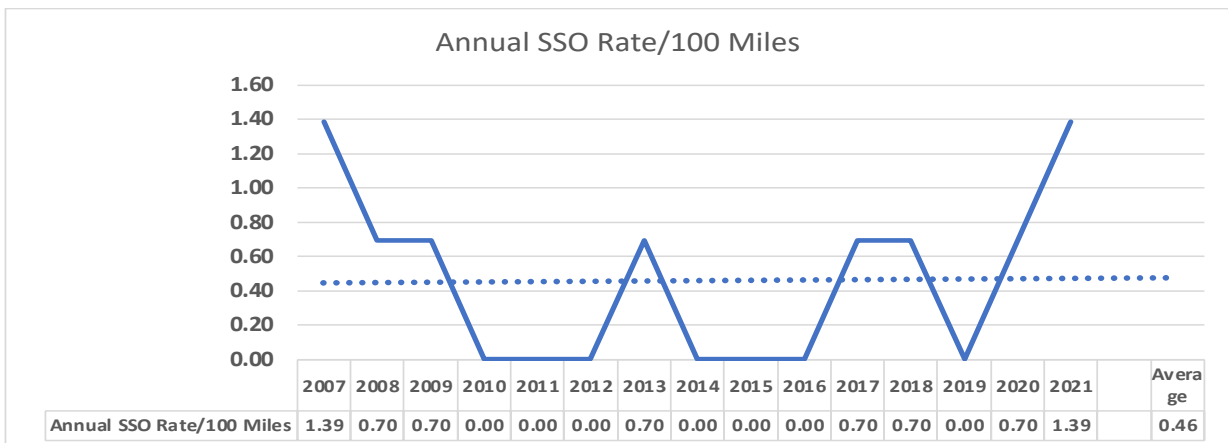


Figure IX – 6: Historical Line Cleaning Summary

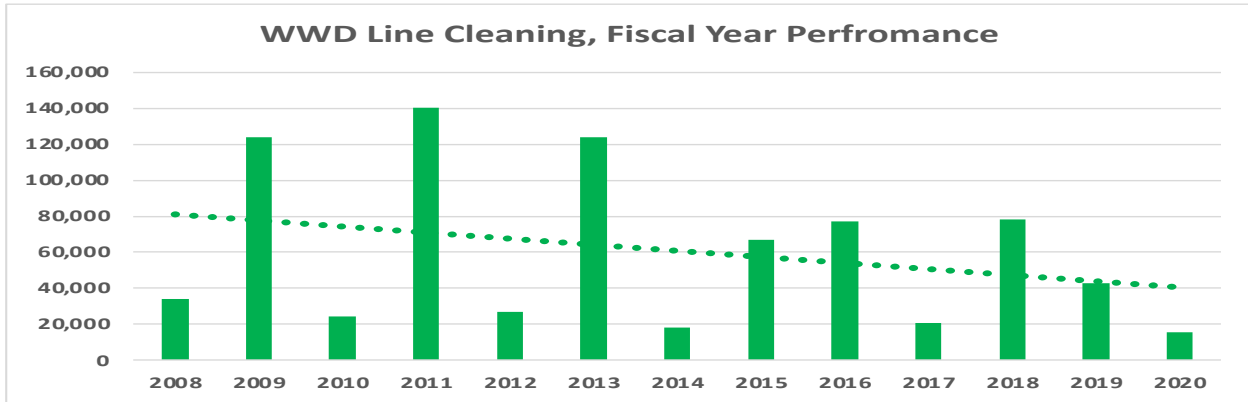


Figure IX – 7: Historical Annual CCTV Performance

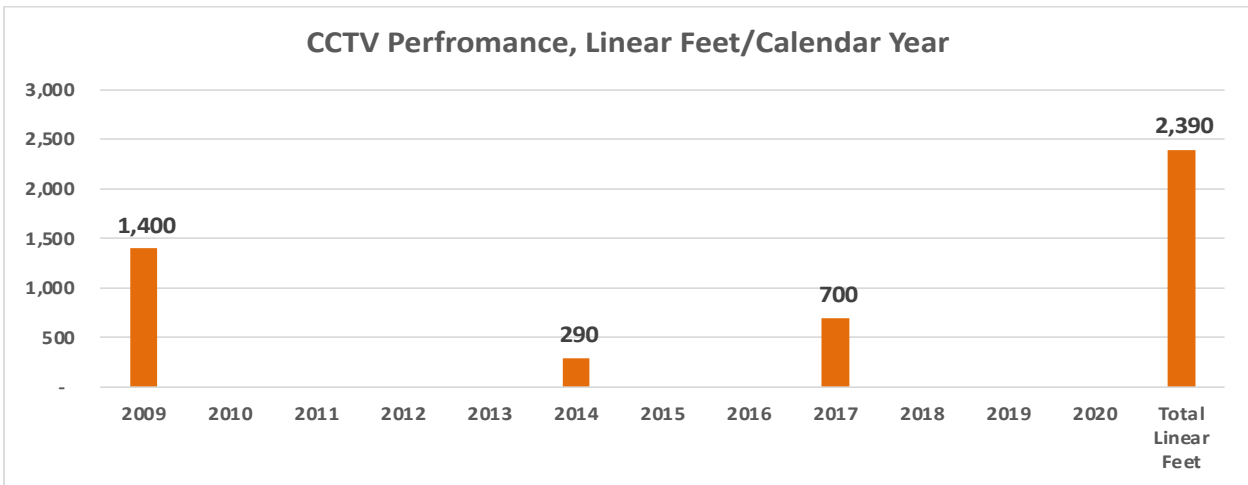
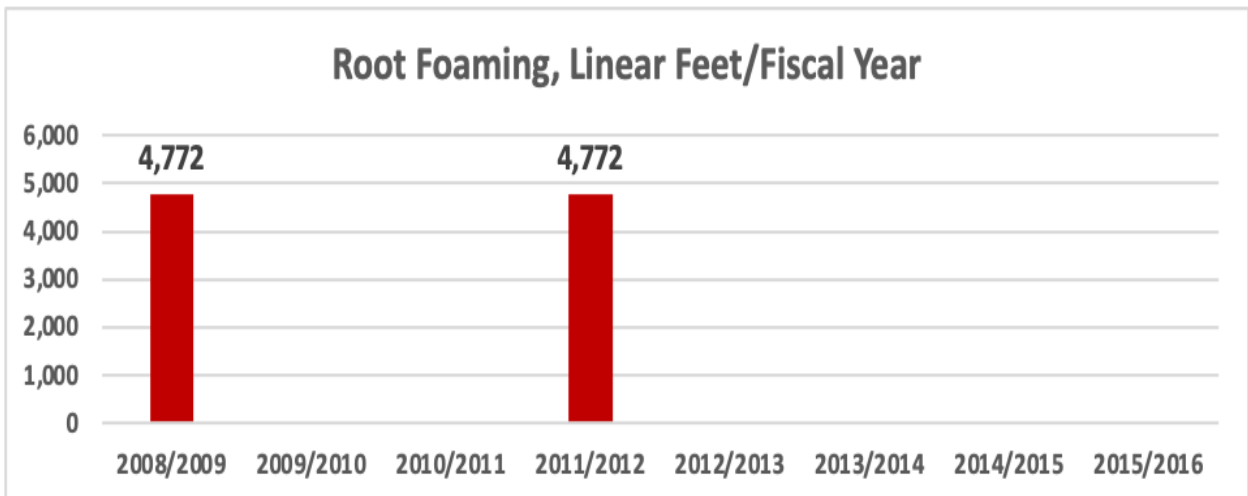


Figure IX – 8: Root Foaming, Linear Feet/Fiscal Year



VIII-8: Performance Monitoring and Program Changes

WWD will evaluate the performance of its sewer collection system regularly using the performance measures identified in this Element. WWD will update the data and analysis at least with each internal SSMP Audit.

WWD may use other performance measures in its evaluations. WWD will prioritize its actions and initiate changes to this SSMP, its operations and maintenance practices and procedures, and any related programs based on the results of these evaluations. This will be done as part of the biannual internal audit (see Element X).

VIII-9: Critical Supporting Documents

The data used in this section were taken from the following Critical Supporting Documents:

- CIWQS SSO data as of December 31, 2021 for WDID 2SSO10665

Element IX: SSMP Program Audits

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

IX-1: Audits

WWD will audit the implementation and compliance with the provisions of the WDR and this SSMP every two years from the original adoption date in May 2008 or as required by the WDR. The next audit will be conducted and completed no later than November 2022. The audit will be conducted by a team consisting of District Staff selected from WWD and the City staff. The audit team may also include members from other service area agencies or professional consultants. During the SSMP audit, WWD will conduct a record keeping audit of its SSO files supporting the CIWQS certified reports during the audit period to assure that that the files are complete, contain all required records and documentation as stated in the MRP and OERP and that the files contain no extraneous or conflicting records or information.

The SSMP Audit Checklist (Appendix C) is used to inform the audit interview process and includes the GWDR requirements for each SSMP element and the appendices. The results of the audit, including the identification of any deficiencies and the steps taken or planned to correct them will be included in a separate certified Internal Audit Report Action Plan. Upon completion of the audit report and certification by the LRO, WWD will place a copy of the final Audit Report including the SSMP Audit Checklist in Appendix B, Sewer System Annual Audit Reports of the SSMP. Modifications and changes to the SSMP identified during the audit will be identified in Appendix D, SSMP Change Log when completed.

The audit should contain information about successes in implementing the most recent version of the SSMP and identify revisions that may be needed for a continuously improving and effective program. Information collected will be used in preparing the Audit Report. Tables and figures or charts will be used to summarize information about performance results. An explanation of the SSMP development, and accomplishments in improving the sewer system, should be included in the audit report, including:

- How WWD implemented the sewer system SSMP elements in the past year;
- The effectiveness of implementing each SSMP element;
- A description of the additions and improvements made to the sanitary sewer collection system in the audit period; and

-
- A description of the additions and improvements planned for the upcoming reporting year with an estimated schedule for implementation.
 - Status of any deficiencies or corrective actions identified to improve program performance.

IX-2: SSMP Updates

If the biannual audit identifies significant changes to be made to the SSMP, then the SSMP will be updated by June 30 of the same year in which the audit was submitted. However, it is anticipated that the main SSMP document will remain generally unchanged, and that any changes will be reflected in the SSMP appendices and the SSMP Change Log.

This updated SSMP will be presented to the Board for adoption in Summer 2022. A new audit will be completed following adoption and will remain on file. Future changes to the SSMP will be documented in the Change Log located in Appendix D, SSMP Audit results will also be included in Appendix B.

IX-3: Critical Supporting Documents

None.

Element X: Communication Program

Communication Program – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee’s sanitary sewer system.

X-1: Communication during SSMP Development and Implementation

WWD, regularly communicates with the WWD Board at public meetings that allow for input from the public regarding the implementation and results of the collection system operations. WWD General Manager is responsible to coordinate all communications activities and for all materials on WWD SSMP webpage including the posting of the Board adopted SSMP and all critical supporting documents.

Information provided upon request to interested parties includes: a copy of completed sections of the SSMP, brochures and materials regarding collection system operations and maintenance and contact information and/or opportunities for input into the development and implementation of the collection system operations.

The General Manager may provide the WWD Board, at a regularly scheduled meeting, a Collection System Performance Report that will be included in the minutes of that public meeting. The performance information may include the performance measures listed in Element IX: Monitoring, Measurement, and Program Modifications.

X-2: Communication with Regional and Joint Wastewater Collection Systems

WWD regularly communicates with the City of Daly City and NSMCSD on matters affecting and impacting the operations and maintenance of the sewers and sewer pumping facilities, FOG issues and treatment issues. All meetings and communications are documented and filed in the WWD records.

X-3: Critical Supporting Documents

None.

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Appendix A: Sewer System Management Plan Adoption Documents

MINUTES OF THE REGULAR MEETING OF THE BOARD OF DIRECTORS

Thursday, March 9, 2017

The meeting was called to order at 7:30 p.m.

1. ROLL CALL:

Directors Present:

Janet Medina
Perry Bautista
Thomas Chambers
William Lopez
David Irwin

Directors Absent: None.

Staff Present:

General Manager, Darryl Barrow
Assistant General Manager, Patricia Mairena
Field Supervisor, Johnny Kennedy
Attorney, Michael Conneran

Visitors Present:

Cynthia Royer

2. PLEDGE OF ALLEGIANCE: Led by Director Irwin.

3. CONSENT CALENDAR:

Director Chambers moved to approve the consent calendar with exception to the minutes of regular meeting of February 9, 2017, seconded by Director Bautista.

The motion was carried unanimously.

4. PUBLIC COMMENT: None

5. BUSINESS (OLD):

A. Review/Approve Revisions to District's Personnel Manual.

After discussion, Director Chambers moved to approve revisions to the District's

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Minutes of the Regular Meeting of the Board of Directors
Thursday, March 9, 2017

Personnel Manual, seconded by Director Medina.

The motion was carried unanimously.

6. BUSINESS (NEW)

A. Public Hearing: Recertification of the Westborough Water Sewer District (WWSD) Sewer System Management Plan (SSMP).

President Lopez opened Public Hearing on Recertification of the Westborough Water Sewer District (WWSD) Sewer System Management Plan (SSMP).

Cynthia Royer reviewed the Recertification of the SSMP requirements with the board.

President Lopez closed the Public Hearing.

Director Chambers moved to approve Recertification of the Westborough Water Sewer District (WWSD) Sewer System Management Plan (SSMP), seconded by Director Irwin.

The motion was carried unanimously.

B. Consideration of Resolution to Move District Elections to Even Years.

Attorney Conneran reviewed the requirements in order to move the District elections to even years with the Board.

Director Chambers moved to approve Resolution No. 601 Requiring Even-Numbered Year Elections for the Board of Directors, seconded by Director Bautista.

The motion was carried unanimously.

C. Consideration of Resolution to Rescind Declaration of a Water Shortage Emergency and Suspend Implementation of Water Shortage Contingency Plan.

General Manager Barrow reported that District's prior ordinance remains in effect until the District rescinds the Declaration of a Water Shortage Emergency and suspends Implementation of the Water Shortage Contingency Plan.

Director Medina moved to approve Resolution No.602 to Rescind Declaration of a Water

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Shortage Emergency and Suspend Implementation of Water Shortage Contingency Plan,
seconded by Director Irwin.

The motion was carried unanimously.

7. **WRITTEN COMMUNICATION:** None.

8. **ATTORNEY'S REPORT:**

A. **Update on San Jose Ruling on Public Records Act.**

Attorney Conneran reported on the update on San Jose ruling on public records act.

9. **GENERAL MANAGER'S REPORT:**

A. **Report on District's Water Conservation for February 2016.**

General Manager Barrow reported that the District had achieved 3% conservation for the month of February.

B. **Report on SFPUC Annual Meeting for Wholesale Customers and BAWSCA of February 16, 2017.**

General Manager Barrow reviewed his report included in the board packet on the SFPUC Annual Meeting for Wholesale Customers and BAWSCA of February 16, 2017, with the Board.

C. **Report on BAWSCA Meeting of March 2, 2017.**

General Manager Barrow review his report on the BAWSCA meeting of March 2, 2017, with the Board.

10. **ITEMS FROM BOARD OF DIRECTORS:**

A. **Report on Meeting with Nicole Sandkulla of February 23, 2017.**

Director Chambers and General Manager Barrow reported on the meeting with Nicole Sandkulla of February 23, 2017.

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11. CLOSED SESSION:

**A. Initiation of Litigation Pursuant to Subdivision © of Section 54956.9:
One Case.**

Board went in to Closed Session at 8:25 p.m. and reconvened at 8:33 p.m.

In close session, Attorney Conneran gave update to the Board on initiation of litigation case.

12. ADJOURNMENT:

Director Bautista moved to adjourn, seconded by Director Medina.

The motion was carried unanimously.

Time 8:35 p.m.

Darryl A. Barrow

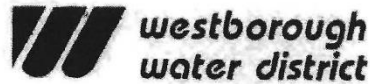
Secretary

Janet Medina

President

04/13/17

Date



e-mail: wwd@westboroughwater.com

2263 westborough boulevard . p.o. box 2747 . south san francisco, ca 94083-2747 - 650-589-1435 - fax: 650-589-5167

**MINUTES OF THE REGULAR MEETING
OF THE
BOARD OF DIRECTORS**

Thursday, July 9, 2015

The meeting was called to order at 7:30 p.m.

1. ROLL CALL:

Directors Present:

Janet Medina
Thomas Chambers
William Lopez
Perry Bautista
David Irwin

Directors Absent: None.

Staff Present:

General Manager, Darryl Barrow
Assistant General Manager, Patricia Mairena
Field Supervisor, Johnny Kennedy
Attorney, Michael Conneran

Visitors Present:

Sergio Medina
Cynthia Royer

2. PLEDGE OF ALLEGIANCE: Led by Director Medina.

3. CONSENT CALENDAR:

Director Chambers moved to approve the consent calendar, seconded by Director Irwin.

The motion was carried unanimously.

4. PUBLIC COMMENT: None.

5. BUSINESS (OLD): None.

6. BUSINESS (NEW)

A. Public Hearing: Recertification of the Westborough Water Sewer District (WWSD) Sewer System Management Plan (SSMP).

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Minutes of the Regular Meeting of the Board of Directors
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President Bautista opened the Public Hearing for the Recertification of the Westborough Water District Sewer System Management Plan (SSMP).

Cynthia Royer reported on the Recertification of the Westborough Water District Sewer System Management Plan.

With no comments from the public, President Bautista closed the Public Hearing.

Director Chambers moved to approve the Recertification of the Westborough Water District Sewer System Management Plan, seconded by Director Medina.

Roll Call

Director Medina	Aye	Director Lopez	Aye
Director Chambers	Aye	Director Bautista	Aye
Director Irwin	Aye		

The motion was carried unanimously.

B. Public Hearing: Consideration of Increase in Sewer Rates from \$6.87 to \$7.59, Ordinance No. 66.

President Bautista opened the Public Hearing for Consideration of Increase in Sewer Rates.

Attorney Conneran reported that the District received two written protests against raising the water and sewer rates.

General Manager Barrow handed out an analysis of the sewer rate increase. Mr. Barrow stated in order to balance the budget the District would need to approve a sewer rate increase of \$0.65.

With no comments from the public, President Bautista closed the public hearing.

Director Irwin moved to approve Ordinance No. 66, Authorizing the Increase in Sewer Rates from \$6.87 to \$7.52, seconded by Director Chambers.

Roll Call

Director Medina	Aye	Director Lopez	Aye
Director Chambers	Aye	Director Bautista	Aye
Director Irwin	Aye		

The motion was carried unanimously.

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C. Public Hearing: Consideration of Adoption of Report of Sewer Service Charges to be Collected on Tax Rolls and Request Their Collection, Resolution No. 588.

President Bautista opened the Public Hearing for the Adoption of Report of Sewer Service Charges to be Collected on Tax Rolls and Request their Collection.

With no comments from the public, President Bautista closed the public hearing.

Director Lopez moved to approve Resolution No. 588, Authorizing the Adoption of Report of Sewer Service Charges to be Collected on Tax Rolls and Request their Collection, seconded by Director Medina.

Roll Call

Director Medina	Aye	Director Lopez	Aye
Director Chambers	Aye	Director Bautista	Aye
Director Irwin	Aye		

The motion was carried unanimously.

D. Public Hearing: Consideration of Increase in Water Rates from \$4.93 to \$6.00, Resolution No. 589.

President Bautista opened the Public Hearing for Consideration of Increase in Water Rates.

General Manager Barrow handed out an analysis of the water rate increase. Mr. Barrow stated in order to balance the budget the District would need to approve a water rate increase of \$0.98.

With no comments from the public, President Bautista closed the public hearing.

Director Chambers moved to approve Resolution No. 589, Authorizing the Increase in Water Rates from \$4.93 to \$5.91, seconded by Director Irwin.

Roll Call

Director Medina	Aye	Director Lopez	Aye
Director Chambers	Aye	Director Bautista	Aye
Director Irwin	Aye		

The motion was carried unanimously.

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E. Consideration of Resolution No. 590 to Establish the Appropriation Limit Applicable to the District During Fiscal Year 2015-2016.

Director Medina moved to approve Resolution No. 590 to Establish the Appropriation Limit Application to the District during Fiscal Year 2015-2016.

Roll Call

Director Medina	Aye	Director Lopez	Aye
Director Chambers	Aye	Director Bautista	Aye
Director Irwin	Aye		

The motion was carried unanimously.

F. Review/Approve Proposal From Del Smith Design Build for Security Door and Glass at District Office.

General Manager Barrow reviewed the proposal from Del Smith Design with the Board.

Director Chambers moved to approve the proposal from Del Smith Design Build in the amount not to exceed \$45,000 including bonds and insurance, seconded by Director Medina.

The motion was carried unanimously.

G. Consideration to Open Facebook Account for Westborough Water District.

General Manager Barrow suggested opening a Facebook account for the Westborough Water District in order to advertise water conservation programs and update customers on District news. Mr. Barrow stated that staff agreed to design and help maintain the District's Facebook account.

Director Lopez moved to authorize the District open a Facebook Account, seconded by Director Irwin.

The motion was carried unanimously.

H. Consideration to Accept the Westborough PRV Project as Completed and File Notice of Completion with the County of San Mateo, Resolution No. 591.

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General Manager Barrow reported that the Westborough PRV Project had be satisfactorily completed and recommended accepting the project as completed and file Notice of Completion with the County.

Director Chambers moved to approve Resolution No. 591, Accepting the Westborough PRV Project as completed and File Notice of Completion with the County of San Mateo, seconded by Director Irwin.

Roll Call

Director Medina	Aye	Director Lopez	Aye
Director Chambers	Aye	Director Bautista	Aye
Director Irwin	Aye		

The motion was carried unanimously.

7. WRITTEN COMMUNICATIONS:

A. Letter of Complaint Dated June 22, 2015, from Customer of 2534 Greendale Drive.

Assistant General Manager Mairena reported that she was following District policy when she notified Ms. Erickson that she had to complete an application for water service once the District was aware to service was in her deceased husband's name.

General Manager Barrow stated that the real problem was that Ms. Erickson did not want to complete an application for water service and staff had given her sufficient time to complete the application. Mr. Barrow stated that the second letter Ms. Mairena sent stated that if she need additional time to complete the application to notify the District.

Director Medina recommended Attorney Conneran write a response letter to the customer.

President Bautista stated that he would write a response letter to Ms. Erickson.

8. ATTORNEY'S REPORT: None.

9. GENERAL MANAGER'S REPORT:

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A. Report on Orchard Supply Hardware Partnering with the District.

General Manager Barrow reported that Orchard Supply was excited about putting on the water conservation demonstration and started preparations for the display.

10. ITEMS FROM BOARD OF DIRECTORS:

A. Report on Backflow Device for Homeowners Association.

Director Medina reported that her Homeowners Association had received a notice from the County regarding the delinquent installation of a backflow device and the property management company was working on resolving the problem.

11. CLOSED SESSION:

**A. CLOSED SESSION: Public Employee Performance Evaluation, Government Code Section 54957
Title: General Manager**

The Board went into Closed Session at 8:28 p.m. and reconvened at 9:08 p.m.
No action was taken.

12. Revised Employment Contract and Salary Adjustment for General Manager.

Director Chambers moved to approve 1.9% COLA and 3% merit increase for General Manager Barrow, seconded by Director Lopez.

The motion was carried unanimously.

The Board requested the Mr. Barrow provide them with a list of goals to better help them evaluate his job performance next year.

12. ADJOURNMENT:

Director Irwin moved to adjourn, seconded by Director Medina.

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The motion was carried unanimously.

Time 9:15 p.m.

Darryl A. Basson
Secretary

[Signature]
President

8/13/15
Date

Appendix B: Sewer System Management Audit Reports



2021 INTERNAL AUDIT REPORT

2015 Sewer System Management Plan

CIWQS WDID: 2SSO10665

Audit Period:

July 2018 thru June 2021

Original SSMP Adoption Date April 8, 2010

Recertified: July 9, 2015

LRO Certification:

Internal Audit Report Certification Date: March 21, 2022

In Consultation With:

Causey Consulting

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LRO Internal Audit Report Certification

LRO Internal Audit Report Certification

LRO Internal Audit Report Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Patricia Mairena, General Manager, LRO



Date

1.0 Regulatory Summary

On May 2, 2006, the SWRCB adopted [Order No. 2006-0003](#), Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR). This Order requires that owners of sanitary sewer collection systems with more than a mile of pipe discharging to a publicly owned treatment works have in place a Sewer System Management Plan (SSMP) to comply with the terms of the Order, which is to reduce the number and severity of Sanitary Sewer Overflows (SSOs), to audit the program every two years, and revise the SSMP every five years from the original adoption date of April 26, 2010. [Order No. 2006-0003](#) was amended by [Order No. 2008-0002-EXEC](#) on February 20, 2008 to rectify early notification deficiencies, and amended again on September 9, 2013, by [Order No. 2013-0058-EXEC](#) which added a Category 3 SSO, new reporting requirements to the State SSO database (CIWQS), clarified appearance points and required new reporting and sampling requirements for SSOs greater than 50,000 gallons to waters of the United States.

This biennial internal audit of WWD's 2015 Sewer System Management Plan (SSMP) consists of sufficiency rankings of the SSMP Executive Summary and the 11 elements of the SSMP, the SSMP Change Log and the SSMP Attachments and Appendices. The ranking system is explained in the *Conduct of the Audit of the SSMP* section and is based on information provided and referenced to the WDR requirements.

2.0 Executive Summary

On September 9, 2013, the State Water Board Executive Director adopted [Order No. 2013-0058-EXEC](#) which amended and replaced [Order No. 2008-002EXEC](#) by adding a third sanitary spill category - Category 3 SSO.

[Order No. 2006-0003](#) and all of its amendments will henceforth be referred to as the "Order". The Order is intended to create an equitable statewide mechanism to manage all publicly owned sanitary sewer collection agencies with more than a mile of pipeline and discharging to a publicly owned treatment facility, to reduce the number and severity of Sanitary Sewer Overflows (SSOs), and to set up a publicly available database for online reporting of SSOs.

A principal element of the Order is the requirement that the collection agencies adopt and maintain a management plan for the system, referred to as a Sewer System Management Plan (SSMP). WWD first certified an SSMP in May 2008 and last certified the SSMP on March 12, 2015.

The Order establishes the following goals:

- The SSMP must document the organization's legal authority to achieve the goals of the SSMP as demonstrated through ordinances, agreements and other legally binding instruments.
- The SSMP must identify a Legally Responsible Official(s) LRO(s) who is/are assigned to finalize and certify that an SSO event file is complete and that all required record keeping

documents are included and well documented, especially start times and all volume estimation calculations.

- Define an organization and staff responsible for implementing and maintaining the SSMP and the sewer program.
- The SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system.

The SSMP must be updated every five (5) years from the original adoption date in 2010, must contain any significant program changes, be certified by the LRO, and approved by the Board of Directors. To complete the approval process, WWD LRO must certify the SSMP readoption in the Online SSO Database (CIWQS), place a copy with all critical supporting documents on the WWD website or mail a hard copy of the SSMP with copies of all supporting documents to the SWRCB. Thereafter any changes or revisions to the SSMP must be detailed in an SSMP Change Log.

This is the WWD internal audit of the SSMP, which covers the period between July 2018 thru June 2021. After reviewing and sharing the contents of the audit report, staff will create a list of proposed corrective actions if deficiencies are found to exist, certify and file the report, and begin working to correct identified deficiencies.

2.1 Purpose of the Internal Audit

The purpose of the Internal Audit (Audit) of the Westborough Water District (WWD) September 2015 Sewer System Management Plan (SSMP) is to focus on evaluating the effectiveness and implementation of the SSMP and the sewer program and WWD's compliance with the requirements in subsection D.13 including identification of any deficiencies and the steps to correct them.¹ The audit also serves as a guide to improvements to the sanitary sewer system program and also to inform senior WWD management of current and future needs for the program. It serves to identify program successes during the audit review period and opportunities for improvement for the future of the program.

As part of the Audit, a review of the sanitary sewer overflow (SSO) data in CIWQS and the separate SSO file for one event during the audit period were reviewed for compliance with the new reporting and recordkeeping requirements of the 2013 Monitoring and Reporting Plan (MRP) and the emergency response procedures. The purpose of the SSO recordkeeping review is to assure consistent and complete documentation is available and complies with WWD's Overflow Emergency Response Plan (OERP) and associated standard operating procedures of WWD. This should assure WWD of the ability to explain any event during a RWQCB field inspection, enforcement action or litigation resulting from an SSO from the collection system. This is intended to reduce WWD risk and liability at a time when fines and settlements against sanitary sewer collection systems are escalating significantly and can cost an agency hundreds of thousands of

¹ 2006 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR)

dollars not to mention significant legal and staff time to properly address and resolve these non-compliant deficiencies.

2.2 Internal Audit Prepared By

This internal audit report was prepared by the WWD Audit Team (Team) which is composed of personnel from WWD, the City of Daly City (NSMCSD/Daly City) and the third-party consultant Paul H. Causey of Causey Consulting.

- Patricia Mairena, WWD General Manager
- Kevin McCarthy, NSMCSD/Daly City
- Paul Causey, pursuant to WWD Agreement for Professional Services dated October 12, 2021.

The audit program and consultant agreement were managed by Patricia Mairena. The Audit covers the period from July 1, 2018 to June 30, 2021. The audit included a review of the SSMP compliance with the WDR requirements, interviews with staff employees and review of staff provided documents and the WWD website. The results of the initial compliance review used to inform the staff interviews is attached as Appendix 1. This Audit compliance review separately evaluates each of the eleven Elements of the SSMP and the SSMP Change Log to determine compliance, partial compliance or non-compliance with the WDR Section D.13 and each Element subsection requirements. In addition, it evaluates the current program compliance with previous WWD definitions of the sanitary sewer collections program in the SSMP during the audit period. All WWD references and attachments in the SSMP were reviewed.

Finally, as part of the internal audit, Causey Consulting include a review of overflow event documentation for the three overflows during the audit period. WWD was only able to provide the documentation for the December 28, 2021, event. The purpose of the review was to evaluate the documentation information in the WDD file compared to the Category I CIWQS certified report. Section 5 of the Audit Report provides a summary of the strengths and areas for improvement for future event documentation. It is important for complete and consistent documentation and WDD must assure that their service provider provides complete documentation prior to the LRO certification of the event.

2.3 Internal Audit Interviews

The Audit included interviews with administrators, managers and staff of the City of Daly City with direct knowledge and responsibilities for field operations for the sanitary sewer collection system regulatory compliance, operations and emergency response program. The following individuals were interviewed and provided input for the Audit Report:

Interview Group	Interview Date	Interviewees
District Counsel	12/29/21	Conneran
Service Contractor – Daly City	1/19/22	McCarthy, Smith, Kofeloa

Findings/Accomplishments During the Audit Period

Interview Group	Interview Date	Interviewees
NSMCSD FOG Control	1/19/22	Donnelly

2.4 Description of WWD Sanitary Sewer System

The WWD sanitary sewer system only consists of 18.8 miles of gravity sewer line six inches and larger, 0.97 miles of force mains and three (3) sewage lift stations in a 1 square mile service area. All sewage from the WWD is discharged to the North San Mateo Sanitation District sewer lines leading to that Districts wastewater treatment plant for treatment and disposal. WWD services a population of approximately 13,500 through 4000 residential, commercial and irrigation service connections in the City of South San Francisco. The District was formed in 1961 and provides both water and sewer services to the service area customer base.

The sewer system includes 496 pipe segments, 480 sewer manholes and all sewer pipelines are composed of vitrified clay pipe with 2.2% of unknown materials. WWD also receives and transport the sewage from the San Bruno Jail Facility thru WWD sewer lines ultimately discharging into the NSMCSD sewer lines in Daly City.

2.5 Audit Schedule

This internal audit was managed by WWD’s General Manager. The audit was initiated with the hiring of Causey Consulting to assist with the biennial Internal Audit. The effort was kicked off with an Audit Team Zoom meeting on October 16, 2021. Subsequently WWD and the City provided many documents requested for the audit and listed in Attachment: References. In addition, Causey completed a draft of the Audit checklist in Attachment 1 which was used to inform the interviews conducted of WWD, the City and the District Counsel. These interviews were conducted in early January 2022. Thereafter the draft Audit Report was prepared and presented to the WWD Audit Team on March 16, 2022 and the final Audit Report was submitted and certified by the LRO as of March 21, 2022. WWD then was to assign and establish a schedule for the completion of the corrective actions identified in Section 5 of the report. Many of the corrective actions will be completed with the required revisions to the WWD SSMP that is to follow the LRO certification and acceptance of the Audit Report by the WWD Board of Directors.

3.0 Findings/Accomplishments During the Audit Period

This section of the Audit Report is intended to identify broad sewer program findings and accomplishments during the audit period from the staff interviews, the reviews of the adopted 2020 SSMP and the reference documents listed in Attachment 2. These findings result in corrective actions identified in the Internal Audit Corrective Action Items Section at the end of this Internal Audit Report.

The 2015 SSMP is outdated. Many of the SSMP Elements include RWQCB provisions that are not required by the WDR regulations and do not include specific District program descriptions.

Findings/Accomplishments During the Audit Period

- F1. The District's official name is not the Westborough Water Sewer District (WWSD) and the SSMP should state the official agency name.
- F2. The SSMP does not adequately describe the current sewer program and is composed mostly of regulatory information only. The 2015 SSMP is non-compliant and should be completely rewritten and replaced.
- F3. WWD does not have an effective, responsive and compliant sewer program.
- F4. WWD has no clear policies or procedures for the sewer program and has significant risk and financial liability resulting from the lack of regulatory compliance.
- F5. WWD relies for all sewer related services on the City of Day City and the North San Mateo County Sanitation District (NSMCSD) through a services agreement.
- F6. The San Francisco RWQCB sewer requirements stated in the SSMP are no longer applicable and were fully replaced by the SWRCB WDR requirements and amendments since 2006.
- F7. The size of the SSMP is not user friendly and is not used or followed by the WWD service contractor or WWD staff.
- F8. Element opening narratives are cumbersome and of no value to the District's sewer program nor do they properly describe the regulatory requirements.
- F9. WWD relies on the NSMCSD operations and maintenance and emergency response plans and procedures for services to the WWD and these documents do not include specific WWD program policies and procedures.
- F10. The current WWD OERP is outdated and not followed by the service contractor or the District.
- F11. The last SSMP adoption by the Board was in 2015 and a subsequent Board recertification in 2017. WWD has not complied the required 2020 governing board review and re-adoption of the SSMP every five years from the original SSMP adoption date.
- F12. WWD has not completed Internal Audit Reports every two years from the original adoption date as required.
- F13. The CIWQS LRO certified Annual Collection System Questionnaire is not correct and requires updating to state actual WWD system information.
- F14. No capital renewal and replacement work conducted during the audit period.
- F15. The Board has received a revised and prioritized list of necessary renewal and replacement projects but does not have funding for these projects nor have the projects been scheduled into short- and long-term projects.
- F16. Legal responsibilities between WWD, Daly City, NSMCSD and South San Francisco are confusing and not well described.

Findings/Accomplishments During the Audit Period

- F17. No regular communications have occurred with the governing board or public on the development, implementation or performance of the sewer program during the audit period.
- F18. WWD does not have regular communications with the City of South San Francisco (SSF) regarding new construction or additions to the sewer system or storm water facilities that may be involved in sewage overflows.

3.1 Sewer Program Strengths

During the staff interviews the sewer program strengths and weaknesses were identified by some or all of those interviewed. The following two sections provide a summary of the sewer program strengths and weaknesses identified by those interviewed.

- WWD relies on two other agencies for regulatory compliance – Daly City and the North San Mateo County Sanitation District.
- WWD experienced only three sewage overflows during the audit period.
- The City of Daly City staff have significantly experienced staff handling the contracted requirements of the WWD sewer program.
- WWD has had few overflows for the past ten years with very limited volumes impacting the environment.
- The WWD sanitary sewer overflow (SSO) rate per 100 miles per year is substantially below both the San Francisco RWQCB and the SWRCB for all enrolled agencies.

3.2 Sewer Program Weaknesses

- The SSMP has not been update and readopted according to the five-year requirement since adoption in 2010.
- No internal audit reports completed as required every two years from 2008.
- NSMCSD/Daly City has revised most of the sewer program compliance documents used in the operations, maintenance and emergency response for WWD sewer service. The 2015 SSMP does not utilize or reference any of these revised documents nor has WWD updated the sewer operations and maintenance program for these changes.
- The SSMP is not used by any of the service contractors – few have read or relied upon the 2015 SSMP.
- The SSMP Revisions Log does not comply with the 2013 requirement for an SSMP Change Log.
- Data Submitter positions at the City of Daly City not formally designated by WWD.
- The SSMP is bulky and contains much that is not required by the WDR or the MRP and can be streamlined using hyperlinks.

Findings/Accomplishments During the Audit Period

- Maps of WWD sewer infrastructure are old and may not be current.
- SSMP does not include lists of critical supporting documents for each Element of the SSMP as required.
- The operations and maintenance program is limited to only high frequency cleaning.
- There is no regular ongoing condition assessment program of the sewer assets.
- WWD had no capital pipeline renewal and replacement program properly defined, scheduled or fully funded thru the audit period nor were any project started or completed during the audit period.
- Due the geography of WWD all recent overflows have reach surface waters and been designated as Category 1 overflows in the CIWQS system.

3.3 Evaluation of SSMP Effectiveness

WWD relies substantially on other agencies for professional for the administration, management, operations and repairs of the sanitary sewer program at the WWD. WWD staff has very limited involvement in the sewer program leaving the guiding documents (SSMP, OERP, WQMP) for all sewer program activities those adopted by the NSMCSD/Daly City. WWD's own sewer program documents are outdated and seldom if ever used by anyone or by the service contractors. The SSMP does not properly describe the sewer program and requires a complete replacement and should mirror the 2019 NSMCSD SSMP for much of the program descriptions specific to the WWD sewer system.

WWD has not complied with the basic deadlines from the original adoption date of the SSMP. WWD has not complied with the requirements for an SSMP Change Log for all program changes since the 2015 SSMP adoption or 2017 recertification. WWD was not able to provide an understanding of 2017 recertification action by the Board of Directors.

WWD has only experienced three sewer overflows during the audit period – all Category 1 overflows of limited quantities of sewage with no single overriding cause of the overflows. The WWD SSO rate per 100 mile per year is significantly below both the RWQCB Region 2 rate and all enrolled agencies average rate. There is an active FOG Control program managed by NSMCSD, Environmental Compliance Inspector with little involvement of WWD. It does appear that regular FOG inspections have trended downward during the audit period with no need for any FSE enforcements.

During and shortly following the audit period, WWD District Engineer completed and submitted a list of prioritized capital renewal and replacement requirements for the WSD sewer system. The list was presented to the WWD Board and will be used to evaluate funding and sewer rates for the future. WWD did not complete any renewal and replacement projects during the audit period.

While WWD generally has a good SSO history, the sewer program maybe too reliant on outside contract services to assure itself of full regulatory compliance and limited risk and liability from the current program lack of effectiveness. It is imperative that management take a more engaged

Conduct of the Audit of the SSMP

approach to the sewer program and especially the procedures and guiding philosophies for the program to be prepared for the more stringent requirements from the SWRCBs replacement of the WDR in 2022. Without the recommended improvements to the sewer program the District will be at a greater risk of financial liability for non-compliance of many of the things identified above and expected to be included in the requirements being contemplated in the current draft of the SWRCB WDR replacement.

4.0 Conduct of the Audit of the SSMP

As specified in the Order, the SSMP is composed of eleven (11) Elements and an SSMP Change Log. The Waste Discharge Regulations requirements in Section D.13 of the Order, as follows:

Element No.	WDR/MRP Reference Section	Element Heading
0		Introduction
1	D.13.i	Goals
2	D.13.ii	Organization
3	D.13.iii	Legal Authority
4	D.13.iv	Operation and Maintenance Program
5	D.13.v	Design and Performance Provisions
6	D.13.vi	Overflow Emergency Response Plan
7	D.13.vii	FOG (fats, oils, grease) Control Plan
8	D.13.viii	System Evaluation and Capacity Assurance Plan
9	D.13.ix	Monitoring, Measurement and Program Modifications
10	D.13.x	SSMP Program Audits
11	D.13.xi	Communication Program
	MRP E3	SSMP Change Log
		Attachments and Appendices

The current internal audit is focused on the eleven Elements of the 2015 SSMP, the SSMP Change Log and the staff conformance with the stated policies and procedures. The evaluation of each element is standardized with sufficiency ratings and the findings of audit evidence obtained from interviews, review of the SSMP and reference documents provided by staff and the City. Recommendations have been provided when there is enough information to support them. Any recommendations or findings that begin with “consider” are for program improvements and not necessarily required by the WDR but are expected by the enforcement office for a fully compliant sewer program. Whereas any other recommendations are necessary for compliance with the 2006 WDR and MRP requirements.

The format for each of the required Element audit evaluations is as follows:

- Element Title and WDR Section Number
- Element Sufficiency Ranking

-
- Compliant
 - Partially Compliant
 - Marginally Compliant
 - Non-compliant
 - Findings
 - Recommendations and Considerations

4.1 General SSMP Findings

In general, the SSMP is not compliant with the WDR Requirements, is outdated and ineffective in describing the sewer program and includes more information than necessary or is not currently required. In addition, it does not conform with the NSMCSO 2020 SSMP or OERP. The SSMP includes many WWD outdated policy and procedural documents. Many of the SSMP elements can be streamlined by eliminating multiple references to the same document, by removing expansive narratives and by only providing information stated in Section D13 of the WDR.

The following are the individual SSMP Element audits along with information on the required changes necessary for a compliant SSMP.

4.2 Audit of the SSMP Introduction

Sufficiency: Not currently required by the WDR but Best Management Practice (BMP).

4.2.1 Findings:

- 4.2.1.1 Reference to the Region 2 RWQCB 13267 Letter is not applicable to the current WDR requirements.
- 4.2.1.2 Only the WDR SSMP formatting is required.

4.2.2 Recommendation:

- 4.2.2.1 Remove all references to the RWQCB Region 2 sanitary sewer requirements as they no longer are applicable.
- 4.2.2.2 Consider adding sanitary sewer program asset information to the Introduction.
- 4.2.2.3 Consider adding references to the WWD CIWQS WDID information along with the link to the SSO Interactive Report information at the SWRCB webpage.
- 4.2.2.4 Assure that the SSMP asset information presented is consistent with the certified Annual Collection System Questionnaire in CIWQS.

4.3 Audit of Element I: Goals – Order D.13.I

Review the SSMP to determine if it complies with the Order by having a goal to provide a plan to manage, operate, and maintain all parts of the WWD Sanitary Sewer System.

Sufficiency: Compliant

4.3.1 Findings:

4.3.1.1 Stated goals are compliant.

4.3.2 Recommendation:

4.3.2.1 Review goals and determine if still applicable per the City of Daly City services agreement and actual service activities.

4.3.2.2 Review goals in light of the performance metrics in Element 9 to determine if still applicable.

4.4 Audit of Element II: Organization – Order D.13.II

Review the SSMP to determine if it complies with the Order by having the names of authorized representatives published and updated in the SSMP.

Sufficiency: Partially Compliant

4.4.1 Findings:

4.4.1.1 The Organization Chart does not include the service contractors supporting the sewer program.

4.4.1.2 The organization chart and Element narratives should also include the City of Daly service contractors.

4.4.1.3 Classification descriptions and organization chart do not include the data submitters designated positions.

4.4.1.4 Not all described WWD positions support the sewer program.

4.4.1.5 No statement of the responsible persons or contact information for each element of the SSMP.

4.4.1.6 No Chain of Communications flow chart for the reporting of SSOs.

4.4.1.7 Reference to the NSMCSD OERP is outdated and was replaced with the City of Daly City OERP effective on January 1, 2020.

4.4.2 Recommendation:

4.4.2.1 Revise and replace the organization chart including identification of all WWD designated LROs and Data Submitters on the organization chart or a 2nd organization chart that includes only the Sewer System)?

- 4.4.2.2 Add all support service contractors and their role and responsibilities to the organization chart and provide narrative descriptions of the services provided.
- 4.4.2.3 Create a new chain of communication flow chart and place in a new section of this Element.
- 4.4.2.4 Consider clarifying the roles of Daly City staff and the NSMCSD and SSF.

4.5 Audit of Element III: Legal Authority – Order D.13.III

Review the SSMP to determine if it complies with the Order by having ordinances and agreements in place and updated to prevent illicit discharges, provide for proper design of upstream facilities, provide right of way and access to the Collection Systems, and enforce Ordinances.

Sufficiency: Marginally Compliant

4.5.1 Findings:

- 4.5.1.1 Legal responsibilities makes no reference to WWD Ordinance 61 Establishing Permitting Requirements And Authorizing The Adoption Of Construction Standards And Specifications Regarding The Use Of Public Sewers Within The District.
- 4.5.1.2 WWD relies on three other agencies for legal authorities.
- 4.5.1.3 WWD adopted portions of the NSMCSD Sewer Ordinance in 2013 in WWD ORDINANCE 61.
- 4.5.1.4 There have been no reviews, revisions or updates to the Sewer Ordinance since 2013.
- 4.5.1.5 References to the 2010 Uniform Plumbing Code in Ordinance 61 is outdated and not consistent with Daly City or South San Francisco requirements.
- 4.5.1.6 WWD 2018 Standard Specifications do not include standards for sewer system assets.
- 4.5.1.7 WWD includes four lateral standard drawings on the Specifications and Standard Drawings webpage – all are City of Daly City Drawings and do not indicate approval by WWD.
- 4.5.1.8 WWD requires completion of a Sewer Lateral Repair/Connect Permit.
- 4.5.1.9 District Specifications Webpage states not to follow South San Francisco sewer lateral standards.

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- 4.5.1.10 WWD website does not include list of critical supporting document constituting District's legal authorities for the sewer system or hyperlinks to operating ordinances used by WWD from any of the three sister agencies other than private sewer laterals.
 - 4.5.1.11 WWD receives sewage from the City of San Francisco San Bruno Jail and appears to have no operating agreement for the service WWD provides.

4.5.2 Recommendation:

- 4.5.2.1 Completely rewrite the Element.
- 4.5.2.2 All reference should be updated and checked to assure continued applicability for WWD use and authority.
- 4.5.2.3 Update all references to appropriate legal authorities throughout the Element.
- 4.5.2.4 Consider replacing the long narratives for each required subsection in a simple table of reference to the applicable legal authority.
- 4.5.2.5 Add reference to the satellite discharge to the WWD sewer system.

4.6 Audit of Element IV: Operation and Maintenance Program – Order D.13.IV

Review the SSMP and activities of staff, consultants and contractors to determine compliance with the Order by having (a) an up to date map of the WWD sanitary sewer collection system that shows all pipe reaches, manholes, siphons, diversion structures, and laterals, (b) a routine preventative maintenance program and operations program, rehabilitation and replacement program, (c) operations and maintenance training program, and (e) part inventory program including identification of critical replacement parts.

Sufficiency: Non-compliant.

4.6.1 Findings:

- 4.6.1.1 Element IV included requirements from the RWQCB that are no longer applicable to WWD SSMP requirements.
- 4.6.1.2 Daly City provides only Monthly Operational Reports to WWD of sewer program activity.
- 4.6.1.3 WWD has not plans for the SSF storm drainage system for use during emergency response events.
- 4.6.1.4 Daly City reports indicate a declining trend in overall line cleaning during the period with no condition assessment or CCTV evaluations completed.

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- 4.6.1.5 Line cleaning is limited to April, August and December and appears to be only high frequency maintenance of only 8% of the WWD sewer program gravity pipes.
 - 4.6.1.6 No description of the Trouble Spot Cleaning program.
 - 4.6.1.7 No CCTV condition assessments of sewer pipelines completed as stated.
 - 4.6.1.8 No program description of pump station and force main operations, maintenance or condition assessment.
 - 4.6.1.9 No outside root foaming completed since 2014/2015.
 - 4.6.1.10 Trouble spot list outdated and no procedure for the addition/deletion of lines currently.
 - 4.6.1.11 Consistent and regular lift station preventative maintenance activities were completed by Daly City personnel.
 - 4.6.1.12 Resources and Budget Section IV.b. not a WDR requirement.
 - 4.6.1.13 Attachment N: Collection System Maintenance Activities is outdated and has been updated and replaced by the City.
 - 4.6.1.14 No manhole condition assessments were completed during the period and the 10-year return frequency for CCTV has not be implemented.
 - 4.6.1.15 No description of the capital planning and prioritization included in this Element.
 - 4.6.1.16 No short- and long-term CIP available.
 - 4.6.1.17 WWD completed a listing of potential renewal and replacement projects has been created and reviewed with the Board of Directors.
 - 4.6.1.18 No scheduled and funded capital improvement program has been developed, considered or approved by the Board of Directors.
 - 4.6.1.19 Section IV. E. must be added for actual sewer program activities and procedures.
 - 4.6.1.20 No training of WWD employees on the regulations or adopted documents describing the sewer program were apparent.
 - 4.6.1.21 District Board and senior management and field workers have not received training on the WDR, MRP, SSMP, OERP or WQMP used in the sewer program. There is no documentation of training for Daly City sewer staff on the WWD SSMP or field exercises for SSO response.
 - 4.6.1.22 Attachment 3 provides the historical performance results for the sewer program.

4.6.2 Recommendation:

- 4.6.2.1 Remove all RWQCB references and stated requirements.
- 4.6.2.2 A complete revision of this Element is necessary to describe the WWD operations, maintenance and condition assessment programs currently.
- 4.6.2.3 Establish real operations, maintenance and condition assessment policies and procedures that are to be accomplished by District service contractors.
- 4.6.2.4 WWD must define and establish a capital improvement program for all sewer assets including a prioritization philosophy and both short and long-term capital projects including appropriate funding and schedules for the capital program.
- 4.6.2.5 WWD should define a regular and at least annual training program for its employees and elected officials that interact with sewer program activities. This will be especially important following the anticipated SWRCB replacement of the WDR for sanitary sewer systems in mid to late 2022. Establish regular compliance training program for the Management staff and the Board of Directors for both the 2006 requirements and the upcoming 2022 WDR replacement.
- 4.6.2.6 Consider requiring annual inspection and checklist reporting of all pump stations and force mains utilizing the Checklist in Attachment 4 below.

Consider developing closer relationship with SSF regarding the storm system maps for emergency response activities.

4.7 Audit of Element V: Design and Performance Provisions – Order D.13.V

Review the SSMP to determine if it complies with the Order by having design and construction standards and specifications for installation of new facilities, including coverage for testing of new facilities prior to acceptance.

Sufficiency: Marginally Compliant**4.7.1 Findings:**

- 4.7.1.1 WWD relies on the adopted standard and specifications of the Cities of Daly City and South San Francisco and NSMCSD for all sewer program design and performance standards. The District has no formal standards other than for water system program.
- 4.7.1.2 The 2010 reference to the UPC is not the most current version used by Daly City or SSF.

4.7.2 Recommendation:

- 4.7.2.1 Revise and clarify the District use of design standards.

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- 4.7.2.2 Update references to the UPC as used by Daly City or SSF or state most current version.

4.8 Audit of Element VI: Overflow Emergency Response Plan – Order D.13.VI

Review the SSMP to determine if it complies with the Order by having an overflow emergency response plan that includes (a) proper notification procedures, (b) a program that assures proper response to all overflows, (c) procedures that ensure prompt notification of regulatory agencies and other affected entities, (d) proper procedures and training for staff and contractors named in the response plan, (e) procedures to address traffic control and crowd control, and, (f) implementation of steps to prevent SSOs from reaching waters of the United States.

Sufficiency: Non-compliant

4.8.1 Findings:

- 4.8.1.1 WWD relies solely on the City of Daly City and their emergency response procedures for all SSO activities. Daly City OERP is not included in Attachment A as stated.
- 4.8.1.2 WWD was not able to produce supporting documentation for all audited sewer overflows and does not appear to have a separately identified file for each event.
- 4.8.1.3 There is no current WWD specific OERP and Daly City generally follows their 2019 OERP for sewer overflows.
- 4.8.1.4 The SSMP does not reference or include the most current City of Daly City 2019 OERP Narrative or Response Workbook in Attachment A which is used for all overflow response within the District service area.
- 4.8.1.5 The City of Daly City OERP does not include proper designations for the reporting requirements to WWD for all emergency response activities.
- 4.8.1.6 Not clear that any City designated data submitters interact with the CIWQS system for WWD even though allowed by the WDR.
- 4.8.1.7 The City OERP references only the operations of the 3 WWD lift stations – no references to emergency responses to WWD pipeline overflows.
- 4.8.1.8 WWD property claims processing and insurance authority are not identified in the City OERP.
- 4.8.1.9 City OERP does not include overflow event recordkeeping requirements specific for the WWD. The Daly City OERP does not include proper claims reporting, filing or administration information.

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- 4.8.1.10 WWD does not properly document supporting information for all LRO certified reports in the CIWQS System, nor do they utilize and an overflow event checklist system to manage the supporting documentation associated with an event.
 - 4.8.1.11 The Element indicates that the SSF police are the first responders to a sewage spill, yet they do not appear in the organization chart in Element II.
 - 4.8.1.12 The OERP plan has not been updated continually as stated in Element VI Section iv.
 - 4.8.1.13 Element VI does not properly discuss water quality monitoring and sampling plan (WQMP) as required in the MRP. The district has no currently adopted WQMP.
 - 4.8.1.14 WDD has not in the past prepared an overflow supporting documentation file for each overflow event. The March 10, 2022 Review of Overflow Documentation Observations in Attachment 5, provides the specific areas for improvement in the documentation of all overflow events.

4.8.2 Recommendation:

- 4.8.2.1 Prepare and adopt a formal WWD OERP and WQMP specific for all procedures for the District. The OERP Element must be expanded to include a separate WQMP as part of or an attachment to the OERP.
- 4.8.2.2 The WWD LRO must immediately recertify the Collection System Questionnaire information in CIWQS.
- 4.8.2.3 WWD must develop proper recordkeeping documentation files for all overflow events including full written documentation from Daly City emergency response staff. Consider utilizing a SSO Event Checklist for all documentation files (See Sample Checklist in Attachment 6).

4.9 Audit of Element VII: Fats, Oils and Grease Control Plan – Order D.13.VII

Review the SSMP to determine if it complies with the Order by having a FOG Control plan with (a) a public education element, (b) FOG disposal facilities identified, (c) ordinances, rules and regulations to prevent FOG, (d) requirements to install FOG devices together with design standards for FOG devices, owner maintenance requirements, BMP requirements, owner record keeping requirements and owner reporting requirements, (e) inspection authority and staffing, (f) FOG mapping for pipe reaches impacted by FOG, and (g) source control measures for sewer sections that are impacted by FOG.

Sufficiency: Marginally Compliant

4.9.1 Findings:

- 4.9.1.1 All inspection and enforcement authority for the FOG Control Program is handled by the NSMCSD Source Control Inspector at the wastewater treatment plant.
- 4.9.1.2 WWD has identified 26 separate FSEs as of December 2021.
- 4.9.1.3 Daly City does not rely on the WWD SSMP Element 7 for the management of the program.
- 4.9.1.4 The “hot spots list” in Attachment C is outdated.
- 4.9.1.5 There is no formal process for the addition/removal of lines from the hot spot list.
- 4.9.1.6 No historical FOG Control Program performance results stated or included in the SSMP or provided to the District by NSMCSD/Daly City.
- 4.9.1.7 Does not appear that regular FOG Control Program reports are provided to WWD by the NSMCSD/Daly City nor is there any regular communications between the service provider and WWD.
- 4.9.1.8 No development plan reviews were completed during the audit period.
- 4.9.1.9 No enforcement actions were required during the audit period.
- 4.9.1.10 There are no residential FOG Control outreach or communications especially for grease disposal at the treatment plant.

4.9.2 Recommendations:

- 4.9.2.1 Rewrite this Element to update and properly describe the FOG Control Program by Daly City.
- 4.9.2.2 Revise and add the current bad spot maintenance listing and regularly manage this list with the service contractor.
- 4.9.2.3 Consider enhancing public outreach for the FOG Control Program and develop a residential outreach program especially during holidays like Thanksgiving and Christmas.
- 4.9.2.4 Consider requiring regular FOG control reporting of inspections and enforcements by NSMCSD be submitted to WWD including recommendations for program modifications and improvements.
- 4.9.2.5 Consider the development of the standard operating procedure for the addition or deletion of lines for the bad spot maintenance listing.

4.10 Audit of Element VIII: System Evaluation and Capacity Assurance Plan – Order D.13.VIII

Review the SSMP to determine if it complies with the Order by having a Capital Improvement Plan (CIP) that considers (a) Evaluation of those portions of the sanitary sewer system that are experiencing SSO discharges due to hydraulic deficiency, (b) Design Criteria is reviewed in problem areas and corrective work is performed, (c) Capacity Enhancement Measures and steps to address short term and long term CIP goals and an implementation schedule, and (d) Schedule for completion of the corrective items that were developed in items D.13.viii (a) - (c) above.

Sufficiency: Marginally Compliant

4.10.1 Findings:

- 4.10.1.1 Last capacity assure evaluations were completed in 2010 by RMC. No new capacity evaluations or renewal and replacement projects were completed during the audit term or since the 2010 evaluation.
- 4.10.1.2 Last complete condition assessment of the sanitary sewer system was completed in 2017 and was used to prepare the prioritized below.
- 4.10.1.3 WWD has developed a prioritized list of capital renewal and replacement needs recently but has no current schedule or funding for the identified sewer projects.
- 4.10.1.4 No long- or short-term capital project schedule developed and presented to the Board.
- 4.10.1.5 WWD has no philosophy for the renewal and replacement of sewer program assets.

4.10.2 Recommendation:

- 4.10.2.1 WWD must schedule the identified sewer projects listing developing both short and long term capital programs and schedules.

4.11 Audit of Element IX: Monitoring, Measurement, and Program Modification – Order D.13.IX.

Review the SSMP to determine if it complies with the Order by (a) maintaining relevant information that can be used to establish and prioritize appropriate SSMP activities, (b) monitoring the implementation and, where appropriate, measure the effectiveness of each element of the SSMP, (c) assessing the success of the preventative maintenance program, (d) updating program elements, as appropriate, based on monitoring or performance evaluations, and (e) identifying and illustrating SSO trends, including frequency, location and volume.

Sufficiency: Non-compliant.

4.11.1 Findings:

- 4.11.1.1 Element is not responsive to the WDR requirements generally.
- 4.11.1.2 No defined performance metrics supporting the SSMP defined in the Element
- 4.11.1.3 No quarterly reports or staff meeting notes supporting review of the SSMP as stated in Element IX. b).
- 4.11.1.4 Element appears to be a complete rewrite of the Daly City SSMP Element from 2015 only.
- 4.11.1.5 Trends were not identified and submitted annually with the annual SSO report.
- 4.11.1.6 No performance metrics were tracked or prepared by WWD during the audit period.
- 4.11.1.7 The RWQCB Annual SSO Reports have no longer been required since 2013 and do not constitute SSMP internal audit reports.
- 4.11.1.8 References to NSMCSO processes and procedures for relevant information is inappropriate and non-responsive nor is it well managed by the WWD staff.

4.11.2 Recommendation:

- 4.11.2.1 Establish proper performance metrics supporting the WWD sewer program and ensure managements involvement and regular reporting to the Board.

4.12 Audit of Element X: SSMP Program Audits – Order D.13.X

As a part of the SSMP, WWD shall conduct periodic audits. At a minimum these audits must occur every two years and a report must be prepared and kept on file. These audits shall focus on the effectiveness of the SSMP, compliance with Order requirements, identification of any deficiencies and steps to correct them.

Sufficiency: Non-compliant.**4.12.1 Findings:**

- 4.12.1.1 No internal audit reports were completed in 2018 and 2020.
- 4.12.1.2 Annual San Francisco RWQCB SSO reports do not comply with the WDR Internal Audit Report requirements. No SSO Reports have been due to the RWQCB since 2013.
- 4.12.1.3 WWD did not utilize the standardized form to evaluate the SSMP biennially.

4.12.1.4 The five-year update from the original March 2010 was not completed by the Board and certified by the LRO in the online SSO database (CIWQS) as required.

4.12.2 Recommendation:

4.12.2.1 Prepare and have the LRO certify the SSMP internal audit report no later than as required by the WDR timelines – 2 years from the original SSMP adoption date – this may go to 3 years from this date in the future WDR requirements.

4.12.2.2 Assure that all sewer program deficiencies are completed or closed out prior to the next internal audit.

4.12.2.3 Assure that program revisions from the audit report are properly logged into the SSMP Change Log along with the location of the specific change, a description of the changes made, the date the change was effective and the person or Board action authorizing the change.

4.13 Audit of Element XI: Communication Program – Order D.13.XI

Review the activities of staff to determine if they have complied with the Order by (a) communicating the performance of the SSMP with the public and with tributary agencies, and (b) providing the public and the member agencies the opportunity to provide input.

Sufficiency: Non-compliant

4.13.1 Findings:

4.13.1.1 No regular communication with the public was found during the audit other than Board agenda items to consider and approve program requirements like fees and charges and capital program description and input.

4.13.1.2 No regular communications have occurred with the governing board or public on the development, implementation or performance of the sewer program.

4.13.1.3 No regular communications with South San Francisco regarding asset additions or storm water assets that maybe impacted by sewage overflows.

4.13.1.4 The SSMP critical supporting documents were not identified and are not available on the website or apparently transmitted to the SWRCB as required by the 2013 MRP.

4.13.1.5 NO hyperlinks from the WWD website to the program at NSMCSD, City of Day City or South San Francisco.

-
- 4.13.1.6 Section XII – SSMP Program Certification not complied with regarding five-year updates and no annual reviews documented or provided to prove compliance during the audit.

4.13.2 Recommendation:

- 4.13.2.1 Enhance the WWD SSMP webpage with critical supporting documents or hyperlinks to those documents at WWD.
- 4.13.2.2 Ensure proper completion of WDR required updates and recertifications no later than the dates from the original adoption date of the SSMP in March 2010.
- 4.13.2.3 Ensure LRO certification and reporting requirements of all reports and documents supporting the sewer program.
- 4.13.2.4 Consider presentation to the Board of Directors regarding the WDR regulations both current and future resulting from the replacement of the WDR by the SWRCB in mid to late 2022.
- 4.13.2.5 Consider the development of customer outreach for residential and commercial FOG and permitted discharges to the sanitary sewer system.
- 4.13.2.6 Consider the development of at least an annual sewer program performance review for the Board of Directors and the public.
- 4.13.2.7 Consider regular reports to the Board of Directors on the performance of the sewer program.

4.14 SSMP Change Log

MRP Section E3. States “Records documenting all changes made to the SSMP **since its last certification** indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.”

Sufficiency: Non-compliant.

4.14.1 Findings:

- 4.14.1.1 The SSMP contains a Revision Log associated with the SSMP in the front of the SSMP – this is not an SSMP Change Log.
- 4.14.1.2 The SSMP does not include the required SSMP Change Log.
- 4.14.1.3 There have been no change log entries since the 2015 SSMP adoption.

4.14.2 Recommendation:

- 4.14.2.1 Regularly manage a detailed SSMP Change Log and attach the active change log to an SSMP appendix and on the SSMP webpage.

4.14.2.2 Ensure that the SSMP contains proper Element and subsection identifications to be able to properly complete the change log include specific location in the SSMP and the date of the change, description of the change and the person or Board approving the change. (See sample Change Log in Attachment No. 7)

4.14.2.3 Remove the current Revisions Log from the SSMP.

4.15 SSMP Attachments and Appendices

Sufficiency: Partially Compliant

4.15.1 Findings:

4.15.1.1 The SSMP includes many old and no longer applicable attachments especially those related to the San Francisco RWQCB.

4.15.1.2 No WWD sewer program planning documents included in the attachments.

4.15.1.3 The listed Attachments in the Table of Contents are not included and are improperly designated.

4.15.1.4 Several attachments are considered critical supporting documents per the MRP and can be hyperlinked from the SSMP and on the SSMP webpage.

4.15.1.5 The OERP and other emergency response documents attached are not currently used by the City of Daly City emergency response personnel.

4.15.1.6 Attached documents do not include date of most current used by Daly City and NSMCSO per the services contract.

4.15.1.7 Appendix C: List of Trouble Spots not included in the TOC nor does it contain current listing.

4.15.2 Recommendation:

4.15.2.1 Completely revise the table of contents and add lists of tables and figures contained in the SSMP.

4.15.2.2 Eliminate all unnecessary and outdate attachments and appendices.

4.15.2.3 Update all Daly City reference documents to those currently used for WWD activities and services.

4.15.2.4 Limit the SSMP appendices to important documents required by the WDR and MRP.

Recommendations and Opportunities for Improvement:

- 4.15.2.5 Consider hyperlinking all critical supporting documents from the SSMP webpage and from a separate reference section at the end of each SSMP Element.

5.0 Recommendations and Opportunities for Improvement:

5.1 Internal Audit Corrective Action Items

The following recommendations and corrective action items have been prepared to support the actions necessary to address the Findings earlier in this Audit Report. The completion of these action items should result in the Sanitary Sewer Program being in substantial conformance with the WDR and MRP requirements and regulator expectations identified since the original authorization of the WDR and amended MRP. WWD will need to jointly develop a schedule and assign responsibilities for the timely completion of these corrective action items.

- CA-1: The SSMP must include the proper District name on all certified documents and reports not WWSD.
- CA-2: Upon adoption of the SSMP by the Board of Directors, it must be certified in CIWQS and must be submitted to the SWRCB with all critical supporting document or placed on the WWD webpage with all critical supporting documents. Additionally, the SSMP should also be circulated to NSMCSD/Daly City and SSF for program compliance.
- CA-3: WWD Management staff needs to enhance sewer program involvement and reporting to assure compliance with the current and future SWRCB WDR requirements for sanitary sewer systems.
- CA-4: WWD must establish regular sewer program training program for all staff and service contractors involved with the sewer program including WDR, SSMP, OERP, WQMP including field exercises on emergency response.
- CA-5: WWD should include regular sewer program regulatory compliance training and annual performance reports for the Board of Directors. This should include both current and future WDR training.
- CA-6: The 2015 SSMP is not compliant with the WDR and MRP requirements for sanitary sewer systems and must be completely revised and reformatted to assure conformance to current WWD, City and NSMCSD sewer program policies, practices and procedures.
- CA-7: WWD must comply with the use of an SSMP Change Log for all modifications and changes to the sewer program and the SSMP since the last Board adopted SSMP as required by MRP Section E3.
- CA-8: WWD must comply with the WDR timeline and certification requirements for SSMP adoptions and internal audit reports from the original adoption date of the SSMP in

Recommendations and Opportunities for Improvement:

March 2010 by the District Board of Directors. This may change to three and six years under the replaced WDR once adopted by the SWRCB.

- CA-9: WWD must develop updated mapping of the sanitary sewer assets in the service area and must evaluate the inclusion of SSF storm drainage assets on these maps. The updated maps should be available to service contractors especially NSMCSD/Daly City in vehicles or on vehicle laptops.
- CA-10: WWD's reliance on the NSMCSD/Daly City service contractor requires the District to assure the use of the most current City procedures and documents in the SSMP and in all sewer program activities – many in the 2015 SSMP are outdated and not currently in use.
- CA-11: WWD must establish proper overflow event policies and procedures in WWD specific OERP and WQMPs including proper documentation supporting the certified reports in CIWQS.
- CA-12: WWD must establish procedures for and maintain a separate overflow event documentation file for all certified SSO reports in the CIWQS System utilizing forms contained in the appropriate WWD OERP and provided to WWD by the service contractors.
- CA-13: All overflow documentation must be fully completed and made available to the LRO prior to final certification of any overflow event to assure compliance of all SSO data from the event.
- CA-14: WWD should be coordinating and participating in all event debrief/failure analysis as these evaluations should or may result in changes or modifications to OERP and WQMP procedures.
- CA-15: WWD should develop lift station standard operating procedures, annual lift station and force main inspections and emergency overflow response plans tailored to each of the three WWD lift stations.
- CA-16: WWD must make available all critical supporting documents either in the SSMP or by hyperlinks from the SSMP and the SSMP webpage. If not, then all must be mailed to the SWRCB within thirty days of Board certification.
- CA-17: WWD must maintain continuous coverage by an LRO pursuant to MRP Section F4. WWD should evaluate the designated data submitters in CIWQS and properly define their roles and responsibilities for WWD overflow activities.
- CA-18: WWD must establish short- and long-term capital replacement program schedules and funding.
- CA-19: WWD must enhance communications with customers and the Board of Directors to assure proper understanding and responsibility for sanitary sewer system regulatory compliance.

Conclusions

- CA-20: WWD should develop regular communications with SSF for new construction in the service area and for identification of SSF storm drain assets that can be involved in emergency response activities. This should, include preparation of a storm drain layer on WWD sewer maps.
- CA-21: WWD should evaluate the current discharge requirements for the San Bruno Jail and determine if an agreement exists and if not whether it is advisable to enter into a discharge agreement with San Francisco.

6.0 Conclusions

WWD is a small enrollee under the SWRCB WDR and must improve the sewer program in many areas to be in compliance with the current requirements. The audit report has identified many areas for improvement and corrective actions for the sewer program. The sewer program evaluations herein have resulted in the following SSMP summary of sufficiency ranking results:

Ranking	Number of Rankings
Compliant	1
Partial Compliance	1
Marginal Compliance	4
Non-Compliant	7

The above results are a clear indication that the WWD sewer program improvement is necessary if WWD is to be considered compliant with the WDR as they currently exist. The proposed changes in the draft WDR replacement will require the addition of more information and stronger prioritization of program activities to assure continuous improvement in the program in the future.

While they have had very few sewage overflows since 2006, all overflows during the audit period are for discharges to waters of the United States (WOTUS). This is a continuing concern for the SWRCB and will be even more important because of the reissue of the WDR in fall of 2022 by the SWRCB. WWD must develop policies and procedures that are clear and broadly stated in updated documents – SSMP, OERP and WQMP. They must also assure that these documents are approved by the Board and that regular internal audits of the program and the SSMP including implementation effectiveness, corrective actives to assure continuous improvement of the program comply with the timeline requirements in the WDR. Finally, WWD must document all changes to the SSMP in an SSMP Change Log providing the specific location of the changes, a description of the change and the date and person authorizing the change since the last SSMP adoption.

Being a small enrollee, WWD has relied heavily on service contractors for the sewer program compliance and appears to assume that it is these service providers responsibility for compliance with the requirements. The Board of Directors and senior management must understand the SWRCB requirement in order to reduce the risk and liability from a poorly complying program. WWD management must become actively engaged in overseeing compliance and assuring that

the stated sewer program procedures and goals in the SSMP are complied with or changed to assure District compliance. In addition, management and the Board must establish policies and funding to deal with the proper asset management of the sewer program infrastructure. Currently there have been no expenditures for renewal and replacement in recent years. WWD has had their District Engineer prepare evaluations of the sewer assets. They must now develop both short- and long-term capital programs to assure adequate funding to address identified deficiencies.

Finally, the SWRCB is intending to replace the 2006 WDR and the 2013 MRP and includes many new and expanded requirements for a compliant sanitary sewer program. It is anticipated that these new requirements will require WWD to reenroll by having the LRO certify continued coverage under the new WDR. In addition, it is imperative that WWD Board adopt a generally compliant SSMP, OERP and WQMP before the adoption of the replaced WDR in the fall of 2022. This will allow WWD to delay implementation of some of the new requirements over the longest possible time. This will not delay the need for possible updates to the OERP from what maybe a new overflow category 4 and revised reporting requirements now included in the SWRCB draft WDR.

7.0 Acronyms

CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CIWQS	California Integrated Water Quality System
CMMS	Computerized Maintenance Management System
Daly City	City of Daly City
DS	Data Submitter
FOG	Fats, Oils and Grease
FSE	Food Services Establishment
LRO	Legally Responsible Official
MRP	Monitoring and Reporting Program
NSMCSD	North San Mateo County Sanitation District/City of Daly City
OERP	Overflow Emergency Response Plan
R&R	Renewal and Replacement
RWQCB	Regional Water Quality Control Board, Region 2 San Francisco
SOP	Standard Operating Procedure
SSF	City of South San Francisco
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow

Acronyms

SWRCB	State Water Resources Control Board
WDID	Waste Discharge Identification Number 2SSO10665
WDR	Sanitary Sewer Waste Discharge Requirements
WQMP	Water Quality Monitoring Plan
WWD	Westborough Water District
WWSO	Westborough Water Sanitary District

Attachment 1: Completed Audit Checklist

Westborough Water District SSMP Audit Checklist

The purpose of the SSMP Audit is to evaluate the effectiveness of the Westborough Water District (WWD) SSMP and to identify any needs for improvement. The information identified here will be used to inform the findings and necessary information to be evaluated during the biannual Internal Audit of the WWD SSMP.

Directions: Please rank each item below utilizing the following sufficiency ranking system and add any comments to explain the ranking to the Comment Section of each SSMP Element:

- *Complies (C) – complies with all WDR objectives*
- *Substantially Complies (SC) – complies mostly with all WDR objectives*
- *Partially Complies (PC) – complies with basic WDR objectives*
- *Marginal Compliance (MC) – complies minimally with basic objectives of the WDR*
- *Does Not Comply (DNC) – does not comply with WDR objectives*

Element 0 – Introduction/Executive Summary	
A. All references to the RWQCB no longer applicable throughout the entire SSMP and appendices.	DNC
B. No inclusion of the revised 2013 Monitoring and Reporting Plan requirements.	DNC
C. No description of the sewer program asset infrastructure.	Not required but recommended
D. Element 8 says that the SSMP was originally adopted on 4/8/2010 on page 34 – cover says 2008	DNC
E. SSMP refers to the Westborough Water and Sewer District (WWSD) which is not the official name of the District.	DNC
F. No critical supporting documents included on website; many unnecessary and outdated appendices attached to the SSMP.	DNC
G. NSMCSD has updated SSMP, OERP and WQMP not consistent with WWD SSMP documents	DNC
Element I – Goals	
A. Are the goals stated in the SSMP still appropriate and accurate?	C???

Attachment 1: Completed Audit Checklist

Discussion: Are the goals still applicable? are they consistent with the City SSMP program goals? Consistent with the agreement with the City? consider revising comparable to the City SSMP goals. **Yes, our goals should be revised to make them comparable to the City of Daly City's goals.**

Element II – Organization	Rating
A. Is the List of WWD Staff Responsible for SSMP Elements current?	C
B. Is the Sanitary Sewer Overflow Responder List current?	PC
C. Is the WWD Organization Chart current?	PC
D. Are the Staff position descriptions an accurate portrayal of staff responsibilities? Question: Are these City of Daly City's or WWD's?	MC
E. Is the Chain of Communication for Reporting and Responding to SSOs section/flow chart accurate and up to date?	DNC
F. Does WWD Data Submitter understand his role and responsibility? Yes	???

Discussion: The contractual relationship between WWD and the City/NSMCSD is not clearly stated or explained; there is no chain of communications with contact information; suggest including a table establishing responsibility for each SSMP Element and the Change Log; the relationship between the City and NSNCSD is not clear or well explained.

Element III – Legal Authority	Rating
Does the SSMP contain current references to the Ordinances and Codes documenting the WWD's legal authority to:	
A. Prevent illicit discharges? See attached Ordinance No.11 (I did not find revisions)	???
B. Require proper design and construction of sewers and connections? (Same as A)	???
C. Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the WWD?	DNC
D. Limit discharges of fats, oils and grease?	???
E. Enforce any violation of its sewer ordinances?	???
F. Were any changes or modifications made in the past year to WWD Sewer Ordinances, Regulations or standards? No	???

Discussion: Not clear how the City/NSMCSD and SSF ordinances and standards apply in the District – any formal adoption of these documents by the Board of Directors; no references to WWD Standard Specs and drawings or Sewer System requirements for Sanitary Sewer Laterals; any changes to City or District ordinances and how are they adopted by the WWD; no discussion of the lateral program; no sewers in 2018 standards yet they have standard drawings for laterals on web[page for City of Daly City; discuss with City representatives and Michael Conneran, District Counsel Hansen Bridget; add table with the most current legal authorities from all three agencies; why doesn't the District have a sewer ordinance?

Attachment 1: Completed Audit Checklist

Element IV – Operations & Maintenance	
Collection System Maps	Rating
A. Does the SSMP reference the current process and procedures for maintaining the WWD’s wastewater collection system maps?	DNC
B. Are the WWD’s wastewater collection system maps complete, current and sufficiently detailed? Are all maps produced by the City? NSMCSD? Yes, maps should be complete, current, and sufficiently detailed. Per former GM Barrow, the District engineer should have these plans as he also gets an “as built” drawings of any new developments. Also, NSMCSD receives a copy of these maps.	???
C. Are storm drainage facilities identified on the collection system maps? If not, are SSO responders able to determine locations of storm drainage inlets and pipes for possible discharge to waters of the state? SSF storm assets? No, the drainage facilities are not identified on the collection system maps, as these belong and are maintained by the City of SSF.	???
Prioritized Preventive Maintenance	Rating
D. Does the SSMP describe current preventive maintenance activities and the system for prioritizing the cleaning of sewers? What does historical cleaning results show? (Checking with Kevin)	DNC
E. Based upon information in the Annual SSO Report, are the WWD’s preventive maintenance activities sufficient and effective in minimizing SSOs and blockages? No annual reports being provided to the Board; any reports provided by City to District staff? Have not been receiving them on a regular basis from NSMCSD.	DNC
Scheduled Inspections and Condition Assessments	Rating
F. Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? List of Sewer Capital Improvements has been prepared by District Engineer; the District will need to figure out funding. Are the current components of this program documented in the SSMP?	DNC??? DNC
Contingency Equipment and Replacement Inventory	Rating
G. Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system and documents the procedures of inventory management?	MC - outdated

Attachment 1: Completed Audit Checklist

H. Are contingency and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance? The City of Daly City maintains inventory to respond to emergencies and properly conduct regular maintenance.	DNC - none
Training	Rating
I. Does the SSMP document current training expectations and programs?	MC
Outreach to Plumbers and Building Contractors	Rating
J. Does the SSMP document currently outreach efforts to plumbers and building contractors?	DNC
Discussion: Resources and Budget section no longer required by the WDR – old RWQCB requirement that can be removed; Element relies sole on NSMCSD activities and should reference the City SSMP and Maintenance Activities SOP (Attachment N updated?) Element needs to be completely rewritten using City SSMP Element 4 and any current SOPs; condition assessment statements relate to a 2010 program definition and should be updated for actual along with regular performance results to assist with the evaluation of program effectiveness – states 10-year return frequency for all lines and manholes – how are results documented at the City – reports to WWD? Do WWD maps include a SSF storm system layer available to City crews? No renewal and replacement projects completed during the period; no short- or long-term CIP available;	
Element V – Design and Performance Standards	Rating
A. Does the SSMP reference current design and construction standards for the installation for new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?	MC
B. Does the SSMP document current procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and the rehabilitation and repair of existing sewer lines?	MC
Discussion: RWQCB requirements no longer applicable need to be removed; Link to the Daly City design standards on page 29 is not correct; Section 4 Sanitary Sewer System and Section 5 Pumping Facilities are included in the 2/26/90 Standards by Daly City – are these most current – or 8/21/07 Sewer Collection System 02720 – what is currently used? Standard Details dated 2018 and 2019; what are the water and wastewater Calculations Manual? Not clear just what standards are used by the WWD; page 30 references WBSD what is this reference – WDD? Who inspections WDD projects still City and WDD? This Element is confusing and requires clarification for the use of the term District especially as relates to inspection training program especially if City does all inspections.	
Element VI – Overflow and Emergency Response Plan	Rating
A. Does the WWD’s Sanitary Sewer Overflow Emergency Response Plan establish procedures for the emergency response, notification, and reporting of SSOs?	Outdated

Attachment 1: Completed Audit Checklist

B.	Is WWD staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow Emergency Response Plan?	MC
C.	Considering SSO performance data, is the Sanitary Sewer Overflow Emergency Response Plan effective in handling SSOs in order to safeguard public health and the environment?	MC
D.	Are all SSO and claims reporting forms current or do they require revisions or additions?	Outdated
E.	Does all SSO event recordkeeping meet the SSS GWDR requirements? Are all SSO event files complete and certified in the CIWQS system? Older SSO event files under former GM have not yet been located but going forward we are keeping the files in order.	????
F.	Is all information in the CIWQS system current and correct? Have periodic reviews of the data been made during the year to assure compliance with SSS GWDR? Have all Technical Report and Water Quality Sampling requirements been met and uploaded to the CIWQS data management system?	MC DNC None
F.	Was required training on SSMP and OERP completed and documented? Were field exercises with field staff on SSO volume estimation conducted and documented?	MC
G.	Did all public improvement plans and specifications that could impact collection system operations include requirements for OERP training or were contractor OERP programs at least as stringent as the WWD OERP? Were regular items included in project meeting agendas to discuss emergency response procedures and communications?	DNC DNC
<p>Discussion: This element listed as Section V why? Reference is to NSMCSD OERP in Attachment A – Is the current OERP narratives and the workbook to be just added in total? Are sewer claims processes handled by City, NSMCSD or by WWD? Some of the OERP should be WWD specific and not as NSMCSD does; this element is confusing as to each agency responsibilities; is there a separate WWD OERP? page 23 notification requirements for County Health and SFRWQCB no longer applicable handled by OES; page 23 does WWD employee police to respond or is this handled by SSF police? Not clear that OERP clearly states responsibilities for two agencies as stated; Is contact information actually reviewed annually? What WWD field crews respond to SSOs? Shared responsibility between Daly City and WWD? Provide WWD staff training records during audit period; no edition date on Attachment A OERP attached to 2015 SSMP. OERP not consistent with current NSMCSD OERP; OERP does not include notification of the GM (LRO) for Cat 1 SSOs; last WQMP provided dated 2014 nothing from the 2019 NSMCSD WQMP; sewer project requirements need to be confirmed;</p>		
Element VII – Fats, Oils and Grease (FOG) Control Program		Rating
A.	Does the FOG Control Program include efforts to educate the public on proper handling and disposal of FOG?	DNC

Attachment 1: Completed Audit Checklist

B.	Does the FOG Control Program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages? (Checking with Kevin)	???
C.	Are requirements for grease removal devices, best management practices (BMP), record keeping, and reporting established in the WWD's FOG Control Program?	C
D.	Does the WWD have sufficient legal authority to implement and enforce the FOG Control Program?	C???
E.	Is the current FOG program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system	C??
<p>Discussion: Need to interview FOG Program staff at NSMCSD to determine status of the FOG control program – does not appear there are grease related problems currently in the system from the SSO history (only 3 grease related SSOs since 2007); do they need a FOG Control Program? Any FSEs permitted by NSMCSD? How are City requirements authorized in the WWD – adoption resolutions or by agreement with City?</p>		
Element VIII – System Evaluation and Capacity Assurance Plan		Rating
A.	Does the WWD Sanitary Sewer Master Plan evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long-term capacity enhancement and improvement projects?	DNS
B.	Does the WWD's Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long- term capacity improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity completed?	DNC
<p>Discussion: Last capacity assessment was completed in 2010 and may now be dated; has a master plan ever been completed? No sewer master plan exists; Determine how the sewer program CIP was prioritized and was a separate planning document prepared for this work; Attachment O to the SSMP is outdated and nonresponsive to the WDR requirements; Element references the 7/9/15 Board approval nothing since stated; reference to the SSMP updates not appropriate for this Element; page 34 says original, update was on 4/8/10 covert says May 2008? This Element must be completely rewritten and updated for current actions and activities; no short- or long-term CIP; no capital, projects funded or completed during the period; no schedule for projects;</p>		
Element IX – Monitoring, Measurement and Program Modifications		Rating
A.	Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?	DNC
B.	Is the WWD able to sufficiently evaluate the effectiveness of the SSMP elements based on relevant information?	DNC
C.	Do the performance metrics properly support the Goals in Element 1?	DNC

Attachment 1: Completed Audit Checklist

<p>Discussion: Element states that the SSMP is reviewed quarterly no documentation of these reviews in Log or elsewhere; Element states that an annual report is submitted to the RWQCB but has not been required since 2012 – WDR only requires Annual Collection System Information certified by the LRO; request history of performance results for the audit period. Element needs to be completely revised.</p>	
Element X – SSMP Audits	Rating
A. Will the SSMP Audit be completed, reviewed and filed in Appendix B?	DNC
B. Was the final Audit Report presented to the governing body at a publicly noticed meeting?	DNC
<p>Discussion: No audit reports completed since 2015; RWQCB annual report from 2017 no longer required and not considered an Internal Audit Report; ask for a copy of the RWQCB2 audit form report as stated to be completed in the Element; no annual report to RWQCB required; no changes from the audits included in the Change Log as required; last SSMP update was completed in 2015 and should have been completed in 2018 based upon the original SSMP adoption date on the title page of the SSMP; required to mail the entire SSMP and all critical documents to the SWRCB not just a form in addition to the LRO certification in CIWQS; last audit report completed for 2014/12 calendar years; no audits completed for 2016, 2018, 2020 as required.</p>	
Element XI – Communications Program	Rating
A. Does the WWD effectively communicate with the public and other agencies about the implementation of the SSMP and continue to address any feedback?	DNC
B. Did the WWD Board receive and review the Annual Sewer System Report?	DNC
Was the annual report uploaded to the WWD Sewer Section website and added to Appendix C?	DNC
C. Did WWD staff conduct and documented meetings with City and NSMCSD with agendas and minutes? No	???
D. Are all agreements with City and NSMCSD current or are changes necessary to these agreements? Agreements have not been revised.	???
<p>Discussion: Quarterly or semiannual newsletters The Water Faucet – determine inclusion of sewer information; most references to sewer rates and charges and some limited capital program, nothing on FOG or disposables to the system; how often are sewer system issues included on the Board agenda? Any annual performance results from Daly City – ask Patty and Kevin; no SSMP or critical supporting documents available at the webpage – was SSMP submitted to the SWRCB in 2015? Webpage does not have full copy of the 2015 SSMP or appendices available – was SSMP mailed to SWRCB – copy of transmittal; no reference to the 2017 recertified SSMP on the webpage; District cannot find the 2017 SSMP; Board receives few sewer related agenda items other than rate changes; no regular monthly or annual reports as required by SSMP;</p>	
Change Log	Rating
A. Is the SSMP Change Log current and up to date?	DNC

Attachment 1: Completed Audit Checklist

Discussion: No Change Log included in the SSMP, on the webpage or provided during the audit; **no entries in any change log since 2013** or since last 2015 SSMP; Revisions Log on page 2 of SSMP is not responsive to the change log requirements; Change log requires specific section references when change or modifications are made including dates changed and who authorized the change; no revisions for the change in roles and responsibilities at the District included in the change log;

Appendices

All RWQCB related documents no longer applicable and should be removed; Many old appendices can be removed from the SSMP using hyperlinks from the appropriate Element and from the SSMP webpage; all critical supporting documents should also be available from the SSMP webpage; why is the SSF Chapter 8.26 necessary? **WWD should consider adoption of sewer code removing multiple codes and ordinances by two cities and one special district; how does WWD use the SSF Nuisance ordinance? Most attachments not labelled with reference letter – most no longer applicable; No copy of the NSMCSO OERP as stated but located separately; Only a single appendix included in the SSMP; no change log included in the SSMP or in an appendix.**

Audit Team:	_____	Date:	_____
Prepared By:	Paul Causey	Date:	11/10/21
Reviewed By:	Patricia Mairena	Date:	2/18/22
	_____		_____
	_____		_____

Attachment 2: Documents Reviewed During the Audit

- Westborough Water Sanitary District Sewer System Management Plan March 2015
- Westborough Water District Ordinance 61
- Westborough Water District Index of Ordinances
- Westborough Water Sanitary District Overflow Emergency Response Plan October 6, 2016
- Westborough Water District Standard Specification and Standard Drawings December 2018
- Westborough Collection System Biennial SSMP Audit Report January 1, 2014 to December 31, 2015
- Westborough Water District Statement of Income and Expense 2020/2021 Budget
- Westborough Water District Annual Financial Report for Fiscal Years June 30, 2020 and 2019
- Westborough Water District Rate and Fee Schedule Resolution 613 as of February 14, 2019
- Westborough Water District Permit: Sewer Lateral Repair/Connect
- Minutes of the Regular Meeting of the Board of Directors Thursday, March 9, 2017, Item 6A Recertification of the Westborough Water Sewer District Sewer System Management Plan
- Biennial Report of Sanitary Sewer Overflows ending December 31, 2017
- Daly City Maintenance Reports – 18-9, 19-20, 20-21
- List of Food Services Establishments 11/1/21
- Westborough Water District Capital Improvement Program Summary 2020 - Water
- Westborough Water District Capital Improvement Program Summary 2021 – Sewer
- City of Daly City Sewer System Management Plan 2019
- City of Daly City Overflow Emergency Response Plan January 2020
- City of Daly City Water Quality Monitoring Plan December 5, 2019
- Agreement for Sewage Disposal by and between Callan Park County Water District and the North San Mateo County Sanitation District 6/19/1961
- North San Mateo County Sanitation District Sewer Use Ordinance
- North San Mateo County Sanitation District Typical Sewer Service Charge Impact
- North San Mateo County Sanitation District Biennial SSMP Audit Report January 1, 2021 to December 31, 2021

Attachment 2: Documents Reviewed During the Audit

- Collection System Maintenance Activities, Attachment I

Attachment 3: Historical Sewage Overflow Information

Attachment 3: Historical Sewage Overflow Information

Table 3-1: WWD SSOs by Category

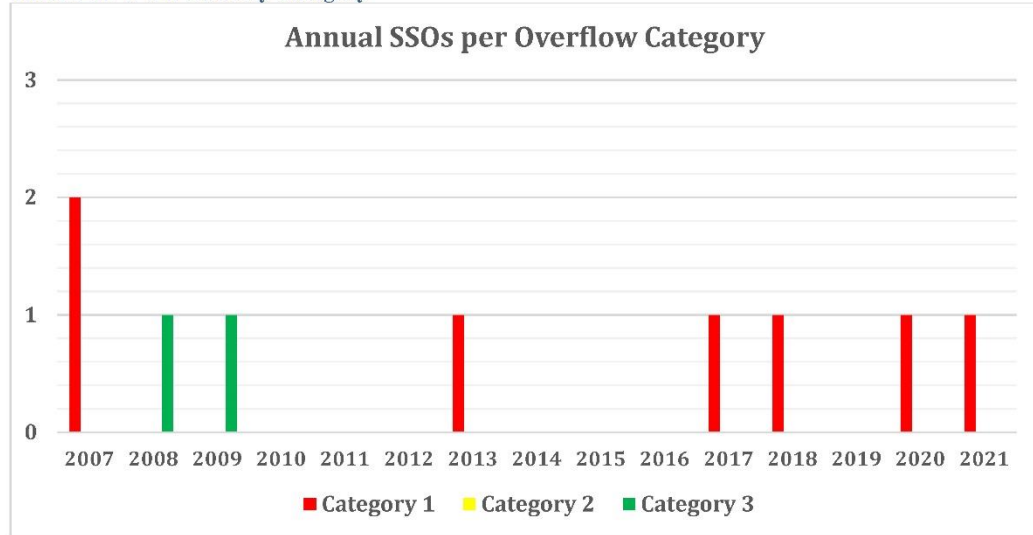
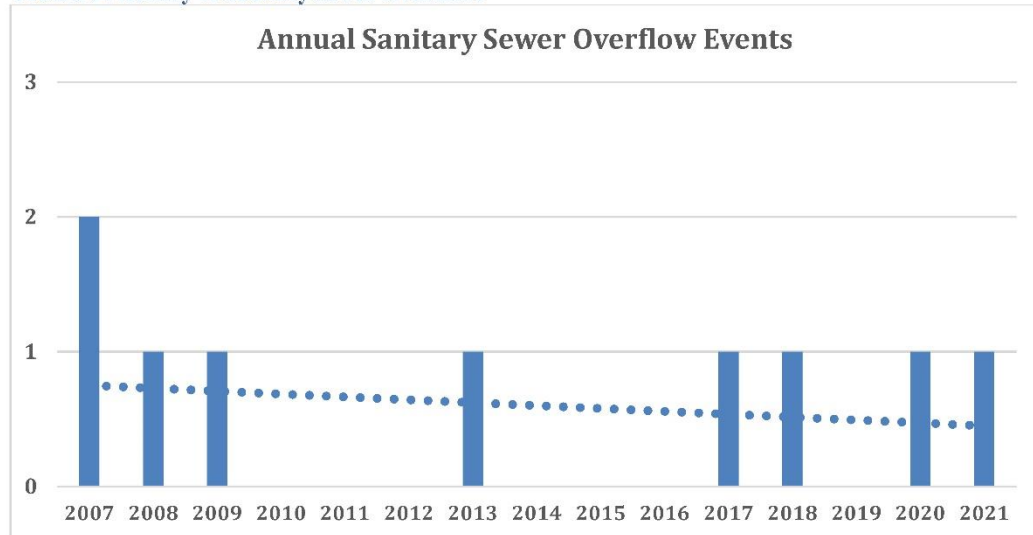


Table 3-2: History of Sanitary Sewer Overflows



Attachment 3: Historical Sewage Overflow Information

Table 3-3: Annual Causey of Sewage Overflows

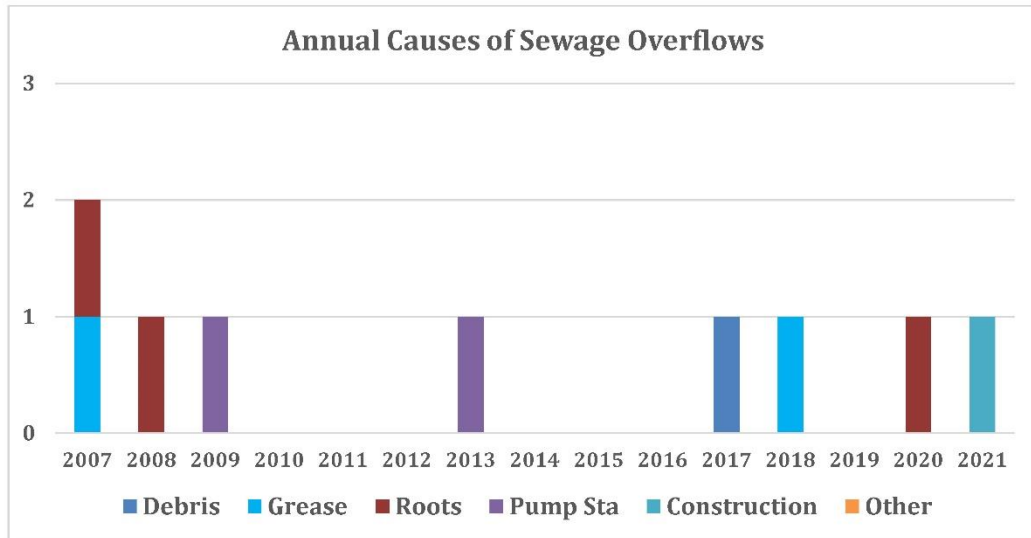
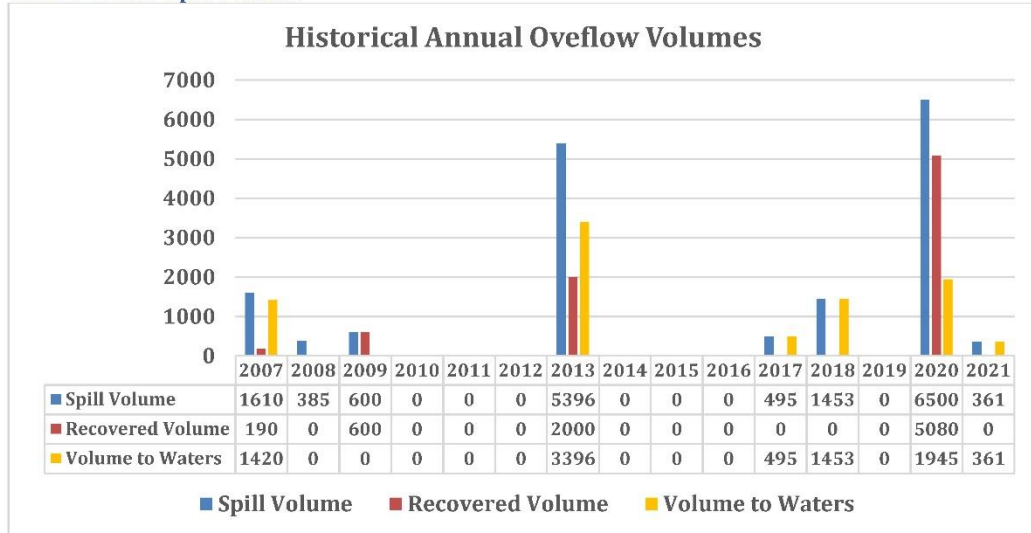


Table 3-4: SSO Spill Volumes



Attachment 3: Historical Sewage Overflow Information

Table 3-4: Annual SSO Rate/100 Miles

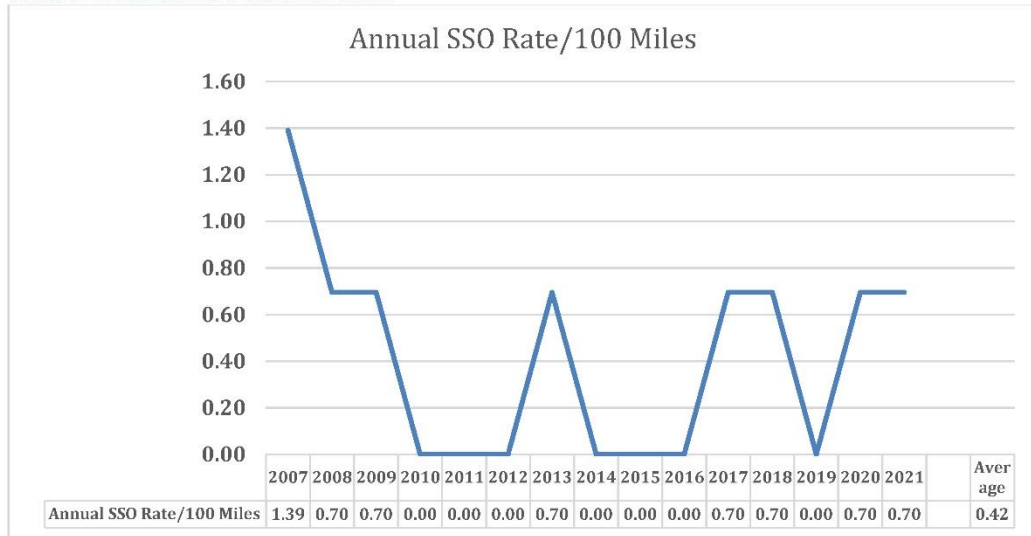
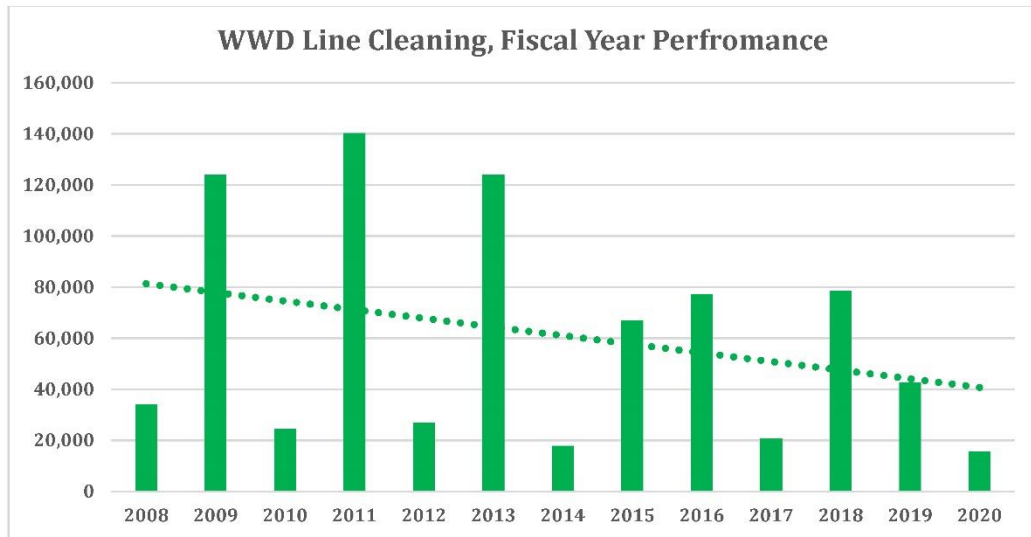


Table 3-5: Operational Performance Results



Attachment 3: Historical Sewage Overflow Information

Table 3-6: CCTV Performance

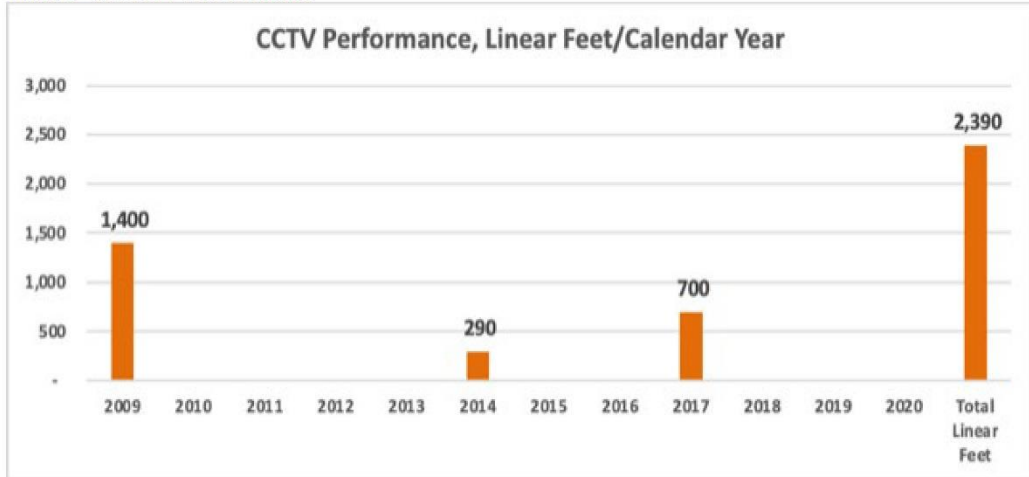
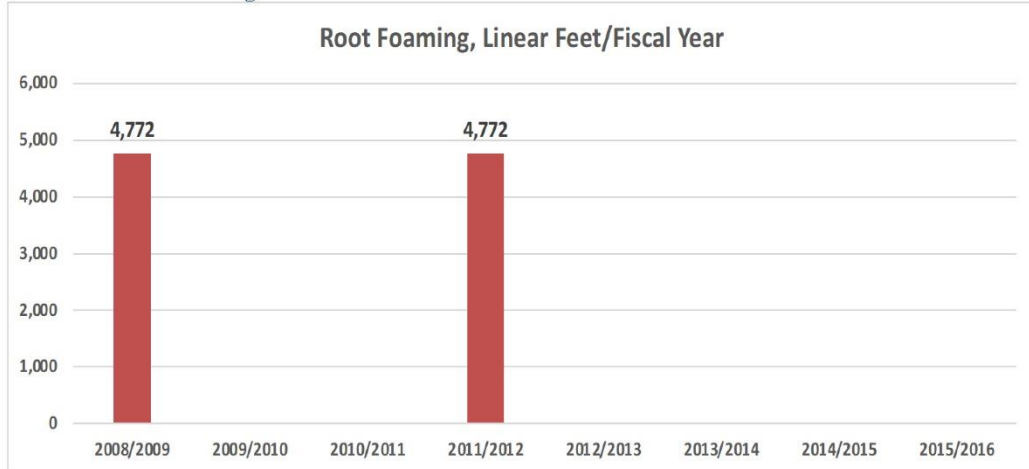


Table 3-7: Root Foaming



Attachment 3: Historical Sewage Overflow Information

Table 3-8: Total FOG Inspections/Calendar Year

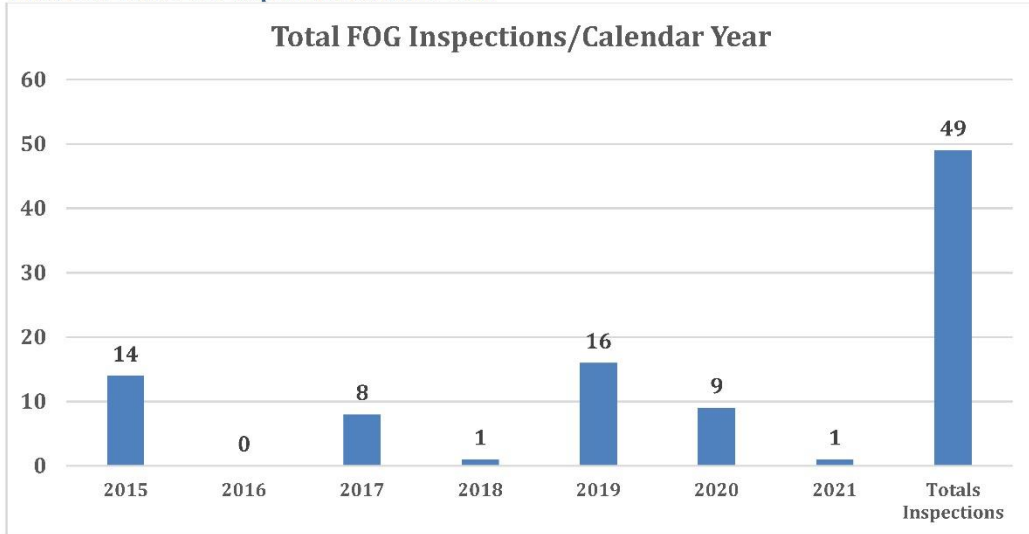
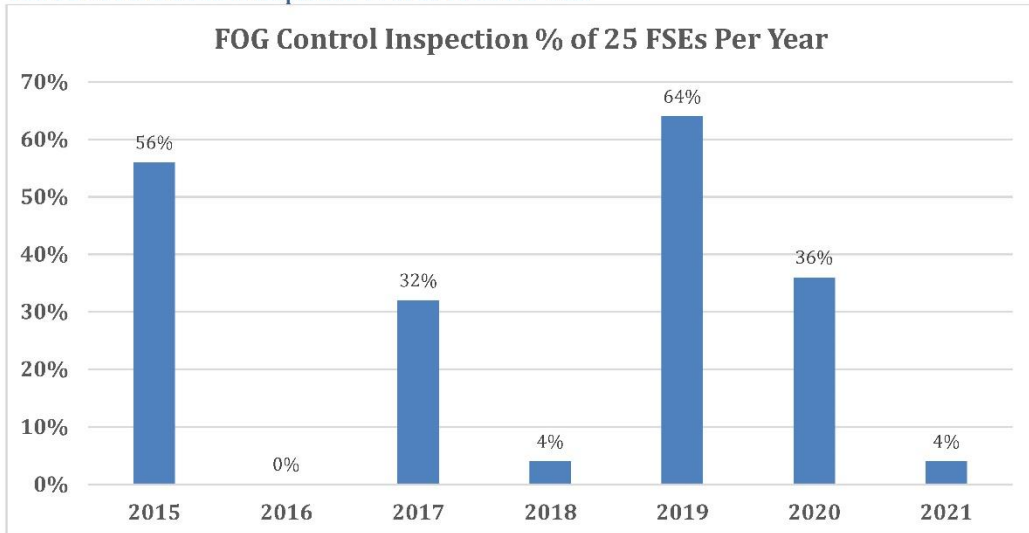


Table 3-9: FOG Control Inspection % of 25 FSEs Per Year



Attachment 4: Sample Pump Station and Force Main Checklist

Attachment 4: Sample Pump Station and Force Main Checklist

Appendix IV-1: Pump Station and Force Main Assessment Checklist

Inspection Information	
Inspection date	
Inspection participants	
Facility name	
Facility address	
Comments	

Background Information (Prior 12 Months)	
SSOs	
Equipment failures	
Alarm history (attach copy)	
Major maintenance activities (attach list if applicable)	
Pending work orders (attach copies)	
Operating problems (attach copy of operating log)	
Comments	

Security Features	
Fence and gate	
External lighting	
Visibility from street	
Doors and locks	
Intrusion alarm(s)	
Signs with emergency contact information	
Other security features	
Comments	

Safety Features and Equipment	
Signage (confined space, automatic equipment, hearing protection, etc.)	
Fall protection	
Emergency communication	
Equipment hand guards	
Hand rails and kickboards	
Platforms and grating	
Tag out and lock out equipment	

Attachment 4: Sample Pump Station and Force Main Checklist

Hearing protection	
Eye wash	
Chemical storage	
Comments	

External Appearance	
Fence	
Landscaping	
Building	
Control panels	
Other external features	
Comments	

Building/Structure	
Lift Station building	
Control room	
Dry well	
Wet well	
Other structures	
Comments	

Instrumentation and Controls (including SCADA Facilities)	
Control panel	
Run time meters	
Flow meter	
Wet well level	
Alarms	
SCADA HMI/PLC	
Other instrumentation and controls	
Comments	

Electrical and Switch Gear	
Power drop	
Transformers	
Transfer switches	
Emergency generator and generator connection	
Starters	
Variable frequency drives	
Electrical cabinets	
Conduit and wireways	
Other electrical	
Comments	

Attachment 4: Sample Pump Station and Force Main Checklist

Motors	
Lubrication	
Insulation	
Operating current	
Vibration and alignment	
Other	
Comments	

Pumps	
Lubrication	
Vibration and alignment	
Seals	
Indicated flow and discharge pressure	
Shutoff head	
Corrosion and leakage evidence	
Drive shaft	
Other	
Comments	

Valves and Piping	
Valve operation	
Valve condition	
Pipe condition	
Pipe support	
Other	
Comments	

Other	
Lighting	
Ventilation	
Support systems (air, water, etc.)	
Signage	
Employee facilities	
Sump pump	
Overhead crane	
Portable pump connections	
Portable pumps	
Comments	

Attachment 5: Overflow Documentation Observations

**Westborough Water District
Review of Overflow Documentation Observations
Event 878432
Westborough Blvd @ Professional Charter Stairway
December 28, 2021
Causey Consulting
March 10, 2022**

- I. Strengths
 - a. Completed workbook available
 - b. Workbook completed fully
 - c. OES reporting timelines were met
 - d. Event file established (but not until March)
- II. Weaknesses Areas for Improvement
 - a. Workbook completed in late February/March not before SSO certification on 1/5/22
 - b. What made this a category 1 overflow – paperwork does not show why
 - c. No LRO approval of the workbook or event file available
 - d. No draft report or certification email included (emails gone after 60 days)
 - e. No WWD contact documentation from City – part of the chronological timeline
 - f. OERP Section 6.1 Public observations no complied with as stated – does WWD have tracking system for customer calls and complaints included follow-up contacts
 - g. Start time is never when agency notified – did the call say they say it start – this should be documented, or a call should be made to interview and document more from the person
 - h. No documentation of WWD contact on the SSO from caller
 - i. No name of the person spoken to at CIWQS on A-3
 - j. File documentation not completed until early March
 - k. File documentation not available prior to event certification in CIWQS
 - l. Very limited photos, no video
 - m. No photo of containment or clean-up
 - n. No photos of flow from manhole to document flow rate on chart
 - o. No photos of overflow in the cutter on Westborough Blvd – why not?
 - p. No photos of the SSO into the separate storm drain as stated in CIWQS report
 - q. No map of spill impact area, containment, signs photo locations and direction of view
 - r. Discharge to San Francisco Bay is too large – what creek or river or stream required even if ultimately discharged to SF Bay
 - s. Require any changes to be crossed out and initialed
 - t. Spill completion date was after the clean-up not when the overflow ended
 - u. Inconsistencies in CIWQS and Workbook
 - i. Cause – roots
 - ii. Start time and notification time are the same
 - iii. Pipe age not completed on C-1:5 but in CIWQS
 - iv. D-3 says 50- and 48-gallons C-1:2 says 29 gpm or 45.8 minutes? Confusion here
 - v. CIWQS causey Wipes; C-1:4 structural and roots; F-1:1 debris?

Attachment 5: Overflow Documentation Observations

- v. Failure Analysis not reviewed by LRO WWD representative
 - w. No copy of the City service request on this event
 - x. Was containment completed? Not documented in workbook
 - y. City clean-up not described in the workbook – assume that the Blvd needed clean-up per Sec 8.3
 - z. No signage around the event area photo'd or described
 - aa. No interview of the original caller regarding other info on start time observations
 - bb. No copy of the City of Daly City Service Request Form
 - cc. Consider use of more than one volume estimate technique for SSO of this size – what was found in the gutter, etc.? Why no attempt to contain or recover from storm system.
 - dd. No D-5 Drawing Worksheet completed as required
- III. Questions for Future OERP
- a. Workbook Cover Page
 - i. Attorney contacts, correct?
 - ii. Does WWD agree to use City restoration contractors on backups to private property?
 - iii. Should a box be added to refer package to WWD General Manager
 - iv. Does City data manager enter the draft SSO report in CIWQS? If not revise the cover page
 - v. Revise to say WWD LRO to contact OES or can City staff do that notification?
 - vi. LRO sign-off needed
 - b. A-2 requires addition of WWD notifications
 - c. A-3 requires addition of LRO line or notification time to WWD for calling OES.
 - d. B-1 flow chart need to add WWD?
 - e. Page C-1:2
 - i. Add space for caller information and contact info on form
 - ii. Add info regarding contacts between City and WWD
 - iii. Add spaces for WWD and City contact information dates and time
 - f. Contact form – Need WWD contact form and contact with City form with caller information and contact information
 - g. Workbook needs to be revised to WWD not City of Daly City
 - h. SSO Event checklist should be updated for WWD actions and activities
 - i. Should OERP documents be revised to WWD and their policies and procedures?
 - j. Do you know what Waters of the US are currently?
 - k. Claims handling information and forms required to be changed to WWD
 - l. Sec 6.1 observations requires updating
 - m. Sec 7 of the OERP requires updating for WWD positions and attorneys
 - n. What does WWD receive regarding training of City staff for emergency response? Do they receive documentation of City training?
 - o. Is WWD following WQMP? Any changes needed for WWD activities?
 - i. WOTUS are different in WWD than City? How to deal with these? Section 5
 - ii. Who does the sampling -m City staff or NSCSD?
 - iii. All forms if used should be submitted into the event file
 - iv. Need additional lift station bypass plans???? Missing Westborough LS??
 - v. Appendix E needs updates for WWD in SSF? Door hangers.
 - p. Workbook requires update to WWD?
 - q. Claim for information needs to be revised in E pages and descriptions
 - r. Claims information needs to be revised and form added

Attachment 6: Sample SSO File Checklist

Sanitary Sewer Overflow Recordkeeping Checklist

Agency File No. _____ Agency File Location _____
 Date of SSO _____ SSO Location _____
 CIWQS Event ID: _____

- | | |
|---|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> SSO File established for each event <input type="checkbox"/> File designation assigned <input type="checkbox"/> File title assigned <input type="checkbox"/> Date of SSO <input type="checkbox"/> SSO Category stated <input type="checkbox"/> SSO site description attached <input type="checkbox"/> SSO incident map attached <input type="checkbox"/> Customer complaint documentation <input type="checkbox"/> Field interviews documented <input type="checkbox"/> List of all staff /contractors involved <input type="checkbox"/> Event chronology attached <input type="checkbox"/> Number of appearance points documented <input type="checkbox"/> CIWQS Draft Data form included <input type="checkbox"/> SWRCB reporting timelines met <input type="checkbox"/> Original data submitter identified in file <input type="checkbox"/> All CIWQS Fields completed by category <input type="checkbox"/> CIWQS Certification Report included <input type="checkbox"/> Event description completed <input type="checkbox"/> List of Photos included <input type="checkbox"/> Photos dated and locations identified <input type="checkbox"/> Location of Photos mapped <input type="checkbox"/> Agency Overflow Report attached <input type="checkbox"/> Impacted waters identified <input type="checkbox"/> Start time documentation attached <input type="checkbox"/> Volume estimation method(s) identified <input type="checkbox"/> Volume computations attached/approved | <ul style="list-style-type: none"> <input type="checkbox"/> Volume assumptions stated/approved <input type="checkbox"/> Recovered volume return location stated <input type="checkbox"/> Agencies notified/date/time <input type="checkbox"/> Map/photos of signs/security attached <input type="checkbox"/> Electronic-monitoring records attached <input type="checkbox"/> Pump Station Telemetry records attached if used <input type="checkbox"/> LRO report approval <input type="checkbox"/> Extraneous forms removed <input type="checkbox"/> Debrief documentation attached <input type="checkbox"/> Failure Analysis completed/attached <input type="checkbox"/> Process or procedure changes identified <input type="checkbox"/> Action plan prepared <input type="checkbox"/> SSMP Change Log updated for changes <input type="checkbox"/> File certified by LRO <input type="checkbox"/> File retention schedule set For SSOs > 50,000 gallons <ul style="list-style-type: none"> <input type="checkbox"/> Water Quality Monitoring sites identified <input type="checkbox"/> Chain of Custody attached <input type="checkbox"/> Final sample results attached <input type="checkbox"/> Sampling location map <input type="checkbox"/> Technical report completed <input type="checkbox"/> Documentation in CIWQS <input type="checkbox"/> Tech report certified by LRO <input type="checkbox"/> File disposal date established <input type="checkbox"/> All WDR timelines met/documentated |
|---|--|

Appendix C: Sewer System Management Audit Checklist

**Westborough Water District
SSMP Audit Checklist
Report Form**

The purpose of the SSMP Audit is to evaluate the effectiveness of the WWD SSMP and sanitary sewer program and to identify any needed for improvement. The information identified here will be used to inform the possible findings and necessary information to be evaluated during the biannual Internal Audit of the WWD SSMP.

Directions: Please rank each item below utilizing the following sufficiency ranking system and add any comments to explain the ranking to the Comment Section of each SSMP Element:

- *Complies (C) – complies with all WDR objectives*
- *Substantially Complies (SC) – complies mostly with all WDR objectives*
- *Partially Complies (PC) – complies with basic WDR objectives*
- *Marginal Compliance (MC) – complies minimally with basic objectives of the WDR*
- *Does Not Comply – does not comply with WDR objectives*

Element 0 – Introduction/Executive Summary	
A.	
B.	
C.	
D.	
Element I – Goals	Rating
A. Are the goals stated in the SSMP Element I still appropriate and accurate?	
Discussion:	
Element II – Organization	Rating
A. Is the List of Staff Responsible for SSMP Elements current?	
B. Is the Sanitary Sewer Overflow Responder List current?	
C. Is the Organization Chart current?	
D. Are the Staff position descriptions an accurate portrayal of staff responsibilities? Are the LRO and DSs properly identified in the position descriptions?	

E. Is the Chain of Communication for Reporting and Responding to SSOs section/flow chart accurate and up to date?	
Discussion:	
Element III – Legal Authority	
Rating	
Does the SSMP contain current Critical Supporting Documents to the Gilroy Municipal Code documenting WWDs legal authority to:	
A. Prevent illicit discharges?	
B. Require proper design and construction of sewers and connections?	
C. Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the WWD?	
D. Limit discharges of fats, oils and grease?	
E. Enforce any violation of its sewer ordinances?	
F. Were any changes or modifications made in the past year to Sewer Ordinances, Regulations or standards?	
Discussion:	
Element IV – Operations & Maintenance	
Collection System Maps	
Rating	
A. Does the SSMP reference the current process and procedures for maintaining WWD’s wastewater collection system maps?	
B. Are the wastewater collection system maps complete, current and sufficiently detailed?	
C. Are storm drainage facilities of the City and County identified in the WWD service area on the collection system maps? If not, are SSO responders able to determine locations of storm drainage inlets and pipes for possible discharge to waters of the state?	
Prioritized Preventive Maintenance	
Rating	
D. Does the SSMP describe current preventive maintenance activities and the system for prioritizing the cleaning of sewers?	
E. Based upon information in the Annual SSO Report, are the WWDs preventive maintenance activities sufficient and effective in minimizing SSOs and blockages?	

Scheduled Inspections and Condition Assessments	Rating
F. Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP?	
Contingency Equipment and Replacement Inventory	Rating
G. Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system and documents the procedures of inventory management?	
H. Are contingency and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?	
Training	Rating
I. Does the SSMP document current training expectations and programs for staff and contractors?	
Outreach to Plumbers and Building Contractors	Rating
J. Does the SSMP document current outreach efforts to plumbers and building contractors?	
Discussion:	
Element V – Design and Performance Standards	Rating
A. Does the SSMP reference current design and construction standards for the installation for new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?	
B. Does the SSMP document current procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and the rehabilitation and repair of existing sewer lines?	
Discussion:	
Element VI – Overflow and Emergency Response Plan	Rating
A. Does the WWD Sanitary Sewer Overflow Emergency Response Plan establish procedures for the emergency response, notification, and reporting of SSOs?	
B. Are staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow Emergency Response Plan?	

C. Considering SSO performance data, is the Sanitary Sewer Overflow Emergency Response Plan effective in handling SSOs in order to safeguard public health and the environment?	
D. Are all SSO and claims reporting forms current or do they require revisions or additions?	
E. Does all SSO event recordkeeping meet the SSS GWDR and MRP requirements? Are all SSO event files complete and certified in the CIWQS system?	
F. Is all information in the CIWQS system current and correct? Have periodic reviews of the data been made during the year to assure compliance with SSS GWDR? Have all Technical Report and Water Quality Sampling requirements been met and uploaded to the CIWQS data management system?	
Discussion:	
Element VII – Fats, Oils and Grease (FROG) Control Program	Rating
A. Does the FROG Control Program include efforts to educate the public on proper handling and disposal of FROG?	
B. Does the FROG Control Program identify sections of the collection system subject to FROG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?	
C. Are requirements for grease removal devices, best management practices (BMP), record keeping, and reporting established in the FROG Control Program?	
D. Does WWD have sufficient legal authority to implement and enforce the FROG Control Program?	
E. Is the current FROG program effective in minimizing blockages of sewer lines resulting from discharges of FROG to the system	
F. Was required training on SSMP and OERP completed and documented? Were field exercises with field staff on SSO volume estimation conducted and documented?	
G. Did all public improvement plans and specifications that could impact collection system operations include requirements for OERP training or were contractor OERP programs at least as stringent as the WWD OERP? Were regular items included in project meeting agendas to discuss emergency response procedures and communications?	
Discussion:	

Element VIII – System Evaluation and Capacity Assurance Plan		Rating
A.	Does the WWD Sewer System Master Plan evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long-term capacity enhancement and improvement projects?	
B.	Does the WWD Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long-term capacity improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity completed?	
Discussion:		
Element IX – Monitoring, Measurement and Program Modifications		Rating
A.	Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?	
B.	Is WWD able to sufficiently evaluate the effectiveness of the SSMP elements based on relevant information?	
C.	Do the performance metrics properly support the Goals in Element 1?	
Discussion:		
Element X – SSMP Audits		Rating
A.	Will the SSMP Audit be completed, reviewed and filed in Appendix B based upon the required time intervals since the original SSMP adoption date?	
B.	Was the last Audit Report certified by the WWD LRO as required?	
C.	Was the final Audit Report presented to the governing body at a publicly noticed meeting?	
D.	Was the last Audit Report placed in the SSMP Appendix and added to the SCWD SSMP webpage.	
Discussion:		
Element XI – Community Program		Rating
A.	Does WWD effectively communicate with the public and other agencies about the implementation of the SSMP and continue to address any feedback?	
B.	Did the WWD Board receive and review the Annual Sewer System Report?	

C. Was the annual report uploaded to the WWD Sewer Section website and added to Appendix C?	
D. Did staff conduct and document meetings with the Pebble Beach Community Services District's satellite collection systems?	
E. Are all agreements with satellite systems current or are changes necessary to these agreements?	
Discussion:	
Change Log	
Rating	
A. Is the SSMP Change Log current and up to date?	
Discussion:	

Audit Team: _____

Date: _____

Prepared By: _____

Date: _____

Reviewed By: _____

Date: _____

Certified By: _____

Date: _____

Approved for Filing On

Date: _____

Appendix E: Overflow Emergency Response Plan (OERP)

Appendix F: Water Quality Monitoring Plan
