



# SEWER SYSTEM MANAGEMENT PLAN



**Revised and Certified by the Governing Board:  
July 1, 2014  
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## **Section I. INTRODUCTION & GOALS**

### **INTRODUCTION**

In December of 2022, The State Water Resources Control Board released an updated Waste Charge Requirement Order to regulate all sanitary sewer systems designed to convey wastewater. Goleta West Sanitary District uses a Sewer System Management Plan which describes maintenance and operational guidelines to prevent the occurrence of sanitary sewer overflows and ensure quality and efficient service to all its constituents.

The Goleta West Sanitary District provides wastewater collection and street sweeping services to the residents and businesses of portions of the City of Goleta and surrounding unincorporated areas in the Western Goleta Valley and Isla Vista. The District services approximately 39,500 people throughout 6.75 square miles in southern Santa Barbara County, specifically in the western Goleta Valley on both sides of Highway 101. The District also provides collection system operation and maintenance to the Embarcadero Municipal Improvement District.

The Goleta West Sanitary District was established in 1954 under the Sanitary District Act of 1923 as the Isla Vista Sanitary District to serve the community of Isla Vista and the Western Goleta Valley. In 1990, the name of the District was changed. The District does not operate its own wastewater treatment plant. Goleta West Sanitary District has capacity rights to 40.78% of the total capacity of the regional wastewater treatment plant at Goleta Sanitary District under an agreement dated January 13, 1956.

The District currently consists of roughly 65 miles of gravity sewer pipe ranging from 6 inch to 42 inches in diameter. The system is comprised of vitrified clay pipe (VCP), polyvinyl chloride (PVC), asbestos cement pipe (ACP), ductile iron, and fiberglass reinforced mortar (HOBAS). There is one remote lift station which utilizes two parallel 2000' HDPE force mains, as well as the main lift station which uses one 18" ACP force main and one 24" ductile iron force main, both measuring roughly 8000 feet in length. There are no siphons in the collection system and it is not utilized for stormwater. The District owns and maintains the mainline sewer while residents own the entire side sewer, up to and including the point of connection at the mainline.

A Supervisory Control and Data Acquisition (SCADA) system is used to monitor both lift stations and send text message alarms to on-call personnel during critical alarms. There are three SmartCover manhole covers used at critical points in the collection system which also alert staff of alarm conditions. GWSD utilizes a software called ICOM, created by RedZone

Robotics for all asset management and maintenance operation scheduling. ICOM also houses the District's GIS mapping system which is updated continually.

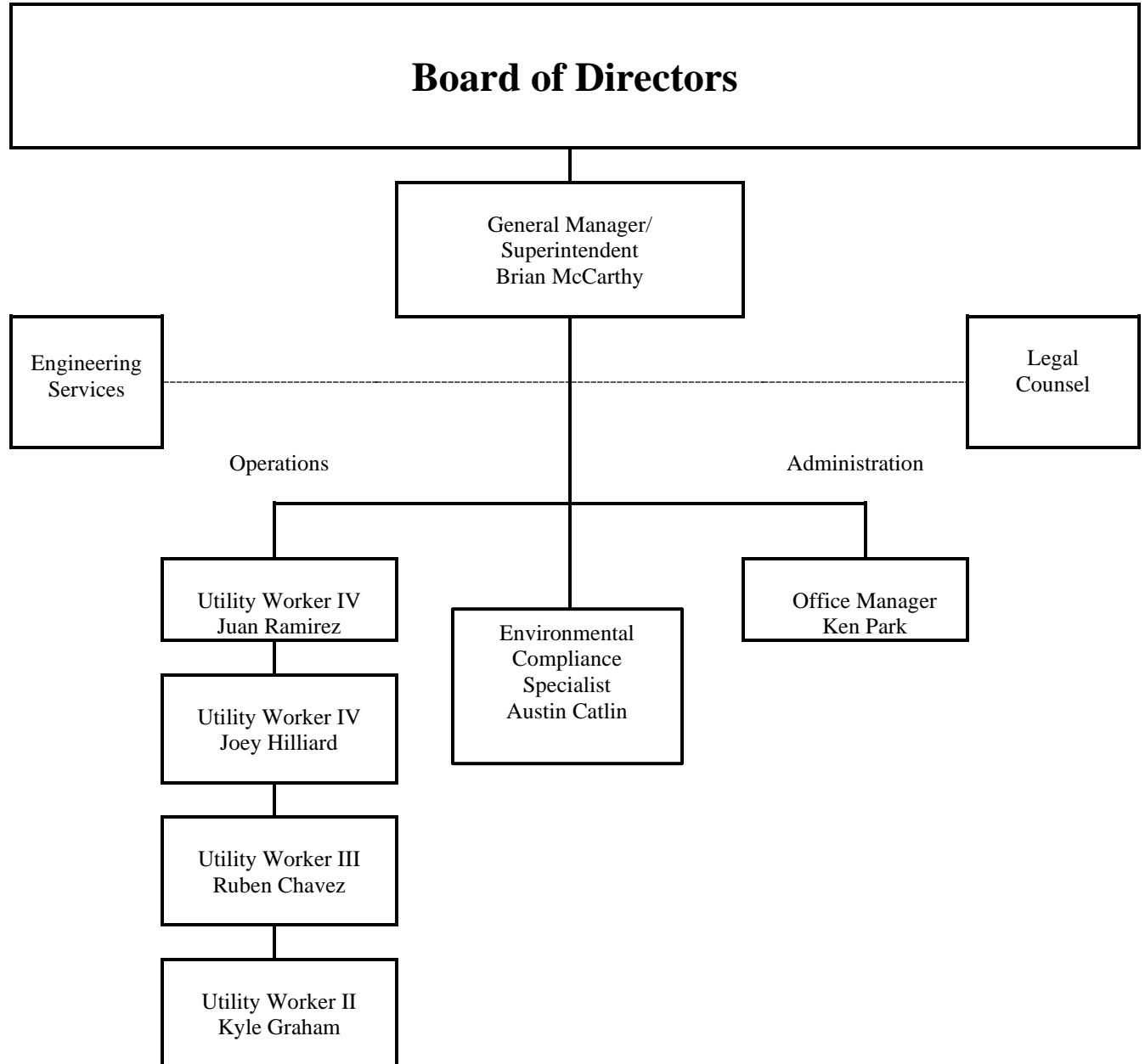
The District serves an estimated population of 39,500 people, with 32,339 living within City of Goleta. The District anticipates a growth rate of approximately 0.7 percent a year within its boundaries in the coming years. In 2021, it was estimated that the District serves 6,772 parcels, 6,429 in City of Goleta, and 315 in Isla Vista serving approximately 6,445 connections. Of these connections roughly 90% is classified as residential, 10% commercial and of that 10% roughly 2% would be considered industrial.

## **GOALS**

- Continue to professionally manage, operate and maintain all parts of the wastewater collection system in order to protect public health and the environment.
- Provide reliable cost-effective sewer service to the community.
- Operate the wastewater collection system to meet all regulatory requirements.
- Minimize inflow/infiltration (I&I) and provide adequate capacity to convey peak flows.
- Continue outstanding record of minimal frequency of SSOs.
- Mitigate the impact of SSOs.
- Educate the public to build awareness of collection system issues and to prevent SSOs.
- Achieve all operation and maintenance program goals for collection system.
- Implement and enforce current design standards for new collection system infrastructure.

## Section II. ORGANIZATION

The Goleta West Sanitary District is governed by a five (5) member Board of Directors and has a staff of seven (7) employees as of May 1, 2023. The entire staff supports the goals and directives of the Sewer System Management Plan (SSMP). The District's organizational chart and the roles of District staff as they relate to the SSMP are depicted below.



## **Roles of agency staff in the organization chart as they relate to the SSMP and wastewater collection system.**

**Board of Directors** – Elected Officials who establish policies of the District.

**General Manager/Superintendent** – Serves as the Legally Responsible Official (LRO) for the District. Responsible for the administration, operations and public relations of the District under the general direction of the Board of Directors. Prepares and manages the District budget. Plans, organizes, directs and evaluates the operation and maintenance of the District's wastewater collection system. Supervises employees in the day-to-day operation and maintenance of the wastewater collection system.

**Engineering Services** – Professional consultants hired by the District as needed to complete various studies, planning documents, design improvements or manage projects.

**Legal Counsel** – Advises the District on all legal issues.

**Office Manager** - Supports District Staff in the areas of administration, accounting, and clerical. Answers the telephone and receives office visitors, provides customer assistance as well as a variety of information about District policies, programs and functions. Acts as District radio dispatcher.

**Environmental Compliance Specialist** – Implements the District's Industrial Waste Pretreatment Program (including the FOG program). Inspects new and rehabilitated assets to ensure that construction meets District standards. Assists with the administrative, operations and public relations functions of the District.

**Utility Worker IV** - Serves as a Designated Data Submitter for the District. Acts as the lead worker responsible for the day-to-day operation, maintenance and repair of the wastewater collection system. Acts as back-up to General Manager/Superintendent when required.

**Utility Worker III** - Performs at the journeyman level in the maintenance, operation and repair of wastewater collection system.

**Utility Worker II** - Maintains, operates and repairs wastewater collection system.

**Utility Worker I** - Assists in the maintenance, operation and repair of wastewater collection system.

**Laborer**- Assists in the maintenance, operation and repair of wastewater collection system.

**Clerk II** - Maintains fiscal, statistical and administrative records; performs support work as assigned.

**Clerk I** - Performs secretarial duties and general office support for staff.

### **Contact Information**

District Phone: (805) 968-2617  
Duty Phone: (805) 729-0074  
Stand-by Phone: (805) 729-0075

District personnel can be reached at the phone numbers listed above. Emergencies during off hours are handled by trained personnel on stand-by duty. SSOs are reported and dealt with in accordance with the District's Emergency Sewer Spill Response Plan.

**STAFF RESPONSIBLE FOR IMPLEMENTING SSMP ELEMENT**

<b>ELEMENT</b>	<b>NAME</b>	<b>TITLE</b>	<b>EMAIL</b>	<b>PHONE</b>
I. Introduction and Goals	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
II. Organization	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
III. Legal Authority	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
IV. Operation and Maintenance Program	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
V. Design and Performance Provisions	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
VI. Spill Emergency Response Plan	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
VII. Fats, Oils and Grease (FOG) Control Program	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
VIII. System Evaluation and Capacity Assurance Program	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
IX. Monitoring, Measurement, and Plan Modifications	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
X. Program Audits	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617
XI. Communication Program	Brian McCarthy	General Manager/ Superintendent	bmcCarthy@goletawest.org	(805)968-2617



### **Section III. LEGAL AUTHORITY**

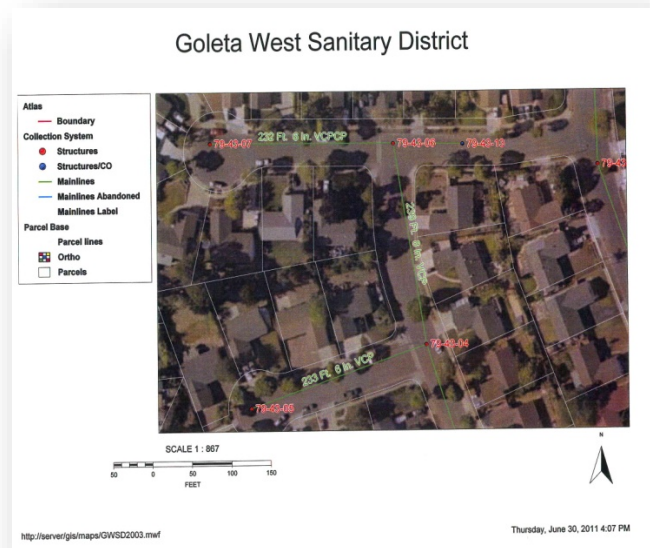
As the sewer service provider for Western Goleta and the community of Isla Vista the District possesses the legal authority needed to accomplish the proper operation and maintenance of the wastewater collection system including elements defined in the requirements of the State Water Resources Control Board General Waste Discharge Requirements. Primarily District Ordinances provide this legal authority. Items specifically addressed are explained below.

- A. Control Infiltration and Connections From Inflow Sources** – Goleta West Sanitary District (GWSD) Ordinance No. 60, Section 3.03 prohibits infiltration and inflow directly into the public sewer.
- B. Sewers and Connections Properly Designed and Constructed** – GWSD Design and Construction Standards for Sewer Facilities (latest version approved in 2022) govern all design and work in connection with sewer construction within the jurisdiction of the District. This includes easement requirements to ensure District access to its facilities.
- C. Ensure Proper Installation, Testing and Inspection of Sewers** – GWSD Design and Construction Standards for Sewer Facilities govern the installation of new and rehabilitated sewers. The Standard Specifications include sections related to installation, testing and inspection. Inspection is typically performed by in-house Staff. However, on certain projects the District may hire consultants to provide inspection services.
- D. Limit Fats & Greases and Other Debris that may Cause Blockages** – GWSD Ordinance No. 21-94, Article II, Section 2.1 regulates fats and grease discharge into the public sewer. District Design and Construction Standards for Sewer Facilities Section 2.4.10 and GWSD Standard Detail 4.15 describe the requirements for restaurant grease interceptors. The District performs regular inspections of food service establishments grease removal devices. This program is administered under the District’s Industrial Waste/Pretreatment Program.
- E. Backwater Prevention Devices** - District Design and Construction Standards for Sewer Facilities Section 2.4.7 and Standard Detail 4.14 describe the requirements for backwater prevention devices, which are required to be installed on all new construction and on all existing buildings having plumbing drain outlet elevations of 12” or less above the ground surface elevation of the next upstream manhole.
- F. Enforce Violations of Sewer Use Ordinance** – GWSD Ordinance No. 62 sets forth provisions for the enforcement of Ordinances, Rules and Regulations of the Goleta West Sanitary District.

## Section IV. OPERATIONS AND MAINTENANCE PROGRAM

This section describes the different aspects of the District's operation and maintenance programs. This section also describes the on-going training District staff completes to maintain the high standard of knowledge and professionalism required to successfully operate the wastewater collection system and comply with ever increasing regulations. GWSD operations and maintenance programs are the heart of the District's successful history of minimal SSOs and regulatory compliance.

- A. Collection System Map** – Knowledge of the locations and physical attributes of all District facilities is essential to effective operation and maintenance of the system. Goleta West Sanitary District (GWSD) maintains a computerized Geographical Information System (GIS) of all District mainlines, manholes and other facilities. Included in this database are layers showing digital ortho photos, individual parcels, water lines owned by the Goleta Water District and storm drain locations in the City of Goleta portion of GWSD. The GIS database is updated on an as needed basis by engineering consultants hired by the District. New subdivisions or other collection system facilities are included into the GIS following completion of the project and the project engineers providing record drawings. Atlas maps printed from the GIS are used by the field crew and carried in every District vehicle. Each District asset is labeled with a unique identifier. Atlas maps include information such as pipe size, pipe type, manhole depth, pipe segment length and material etc.



- B. Preventive Operation and Maintenance** – GWSD provides a high level of preventive operation and maintenance of its collection system. As a condition of employment all collection system employees are certified in collection system maintenance through the technical certification program of the California Water Environment Association (CWEA). The District maintains a fleet of modern equipment including a Vactor combination sewer cleaning machine, a Vactor RamJet sewer cleaning machine, a CCTV truck, two (2) pick-up trucks, a flatbed truck with crane attachment and large tractor with various attachments. In addition the District periodically utilizes

contractors for several functions including system construction, repairs, root foaming and smoke testing to detect unauthorized connections to the collection system.

GWSD uses a Computerized Maintenance Management System (CMMS) to assist in the management and maintenance of the District's facilities. The CMMS stores and enables staff to retrieve data such as facility inventories, maintenance history, maintenance schedules, service calls, comments and complaints. In addition, the CMMS interfaces with the District's GIS mapping program.

GWSD utilizes a number of resources and tools to provide information which enables the District to prioritize maintenance activities required on each specific District asset. CCTV, manhole inspections, work order history, spill history, site risk assessment and observations from maintenance crews are examples of these resources.

The CMMS that GWSD utilizes includes the capabilities to produce scheduled and unscheduled work orders for all the District's assets. Literally anything that requires any form of routine maintenance is included. Schedules for maintenance activities are input into the system by District staff based on information found using methods discussed above. Following the completion of the scheduled task the completed work order is then entered in the CMMS. The database keeps a history of each work order and any related findings during that event. Many District assets have historical records over 25-years old as GWSD has had a computerized database of some type during that period. The maintenance frequencies are updated as new information is acquired. This information may indicate a change in frequency or method of cleaning is needed. The following bullets summarize the District's maintenance programs for different types of assets.

- Pipelines – The entire District is divided into maintenance areas. These areas are cleaned on a routine basis varying from every 6 months – every 3 years based on factors discussed above. Certain mainline segments with root intrusion are added to a root cut schedule and maintained in 6-month intervals. Additionally, the District has certain mainlines identified as high maintenance hotspots. These line segments are serviced on a 2-6 month interval. Pipelines were previously on a 5-year schedule for closed circuit television inspection (CCTV). To increase efficiency and due to the minimal problems found throughout the system the frequency of CCTV inspection was decreased to a 7-year schedule in 2014. CCTV inspection is performed by the District collection crew who is NASSCO PACP certified with the District's own CCTV equipment. The conditions identified during CCTV inspection comprise the primary information used to prioritize pipelines for rehabilitation or replacement.
- Manholes – Manhole inspections are performed while the collection crew is performing line cleaning maintenance and CCTV inspections. Manhole features are recorded and a photographic library is maintained. Any defects

including corrosion or infiltration are noted and the manhole is marked for rehabilitation.

- Lift/Pump Stations – The District maintains two (2) lift/pump stations. One (1) remote lift station, one (1) primary pump station to pump effluent to the Goleta Sanitary District treatment plant. The District conducts routine inspections including weekends and holidays on the two stations that operate full time. Inspection data is recorded in log books. Routine maintenance is included in the CMMS with work orders issued etc. Both stations have emergency generator power available so the District can operate normally in power outage situations. Additionally, all stations have redundant pump configurations and can operate normally with some pumps out of service. In 2011 the District completed installation of a Supervisory Control and Data Acquisition (SCADA) system for the pump stations. SCADA was upgraded/improved in 2018 and again in 2022. The SCADA system monitors the District’s pump stations 24/7 and immediately notifies District personnel of a failure. Authorized staff can access the system remotely and monitor, troubleshoot and operate specific equipment in the pump stations. SCADA ensures reliable off-hour duty response to emergencies.
- Other Facilities/Equipment – Other District equipment including pumps, valves, vehicles, generators etc. have preventive maintenance schedules as well. Many of these items are included in the CMMS for scheduling maintenance and recordkeeping.
- The CMMS provides the tools necessary to identify any trends developing in relation to stoppages or SSOs.

**C. Rehabilitation and Replacement Plan** – GWSD maintains a Capital Improvement Plan (CIP). This plan is a document that lays out a proposed schedule for rehabilitation and repair of all District assets. Periodically GWSD hires engineering consultants to review and update the CIP. In July 2020 a District consultant completed an update to the CIP portion of the Wastewater Master Plan. Tools utilized to update the CIP include a sophisticated hydraulic model which was developed to determine if the District’s collection system capacity was sufficient for existing and future build out scenarios. GWSD also utilizes routine CCTV inspection data to add projects to the CIP. District Staff is trained and adheres to the NAASCO PACP standards to prioritize the pipelines which are tagged to be included in the CIP. Based on the data compiled a District consultant can then develop an updated and prioritized Capital Improvement Plan (CIP) including cost estimates for the CIP. District facilities are also repaired or replaced on an emergency basis if the collection crew discovers a major problem during routine operation and maintenance work.

In 2012 the District’s financial consultant updated the District’s Financial Plan to ensure that the District maintains the funds to meet future District goals including repair and rehabilitation. This report was followed up with a Cost-of-Service Study Report

in April 2023. Effective July 1<sup>st</sup>, 2023 the District implemented a program increasing sewer user fees over a 5-year period to ensure revenue requirements of the District will be met. The District currently maintains substantial reserve funds dedicated to capital improvements in the collection system.

Additionally, GWSD participates in the Underground Service Alert marking program. This program assists in District efforts to lessen the risk of a third party excavation or drilling damaging a District mainline. Strict Design and Construction Standards for Sewer Facilities and on-site inspection during construction projects also help to ensure long term structural integrity of the collection system.

- D. Training** – GWSD is committed to having a highly trained and knowledgeable staff. The District requires employees to pursue professional development and all expenses incurred are reimbursed by the District. The collection system staff holds CWEA Collection System Maintenance Certification in addition to other various professional wastewater related certifications and credentials. Staff regularly attends vocational training provided by industry vendors and professionals. The Legally Responsible Official and Designated Data Submitters regularly attend Waste Discharge Requirement update training courses to ensure the SSMP is up to date and in compliance with the General Order, as well as CIWQS reporting procedures. The entire staff attends regularly scheduled meetings to discuss safety, emergency response and receive training in collection system operations and maintenance. All trainings are documented.

GWSD may utilize contractors to perform repairs on facilities. The District’s Standard Construction Contract Documents require contractors to provide records of their credentials and qualifications. All District contractors must hold a valid contractor’s license in the State of California for the classifications named in the Contract Documents. The Contract Documents require the contractor to submit information certifying their general competency, experience and qualifications and the qualifications of the designated person who will act as foreman on the project.

Contractors are required to attend a preconstruction meeting at the District prior to commencement of work. All special issues related to the job, contractor staff training and safety are discussed during the preconstruction meeting. The District’s trained staff inspects workmanship and monitors contractors and their workers during the completion of the project. The District’s Standard Construction Contract Documents state, “Whenever the District notifies the contractor in writing that any person on the Work appears incompetent, disorderly, or otherwise unsatisfactory, such person shall be removed from the Work and shall not again be employed on it except with the consent of the District.”

- E. Contingency Equipment and Replacement Inventories** – The District maintains its entire collection system to a high standard. All pump stations have built in redundancy to provide for routine pump maintenance and emergency backup in the event of pump failure, an emergency or high flow conditions. Emergency response equipment and

parts include emergency diesel generators, electrical and diesel driven emergency bypass pumps, plugs, spill containment kits and CCTV and Vector trucks. A critical replacement parts inventory is kept on site to minimize downtime in the event of an equipment failure. Replacement pump motors, impellers, mechanical seals and a variety of electrical parts are maintained and replaced as needed. The District also has numerous vendors that it can call upon to deliver any necessary parts and equipment within a short period of time.

- Pipelines/Manholes – An inventory of plugs and bypass equipment are maintained to provide for stopping, diverting or bypassing flows while emergency repairs are made. The District relies on local contractors to perform most emergency repairs. These local contractors are listed on the District’s emergency call-out list to effectively respond to emergencies. These contractors typically maintain a substantial inventory of critical parts including pipe, pipe fittings and repair couplings.
- Lift/Pump Stations – Both of the District’s stations have redundant pump configurations and can operate normally with some pumps out of service. This allows the District to minimize the parts inventory to only the most critical items. Parts kept in stock are: replacement motors, impellers, mechanical seals, seal and gland packing material, and electrical switches and components.
- Other Facilities/Equipment – An inventory of critical parts is kept on hand for other District facilities, equipment and vehicles. These parts are based on manufacturer’s recommendations and experience of the maintenance staff.

## **Section V. DESIGN AND PERFORMANCE PROVISIONS**

Sanitary sewer overflows and maintenance problems are in some cases attributed to poor design and/or construction. It is critical that sewers are designed and constructed properly in order to minimize overflows.

- A. Design and Construction Standards and Specifications** – The District has specific design and construction standards in place. The GWSD Design and Construction Standards for Sewer Facilities govern the design and construction of newly constructed sewer facilities and rehabilitations. These standards are updated periodically. The most recent version is 2022. Design and construction standards include specifications and details for all sewer facilities such as, pipe materials, minimum sizes, slopes and cover, pipe bedding and backfill, structure standards and many other factors.
- B. Standards for Inspecting and Testing New Facilities** – GWSD Design and Construction Standards for Sewer Facilities include specific standards and requirements for testing of all new construction. Testing of new facilities is typically conducted by the contractor while a District inspector witnesses the testing ensuring that it meets the District’s standards. Some of the required tests include vacuum testing of manholes, low air pressure testing of sewer lines, mandrel test, and closed circuit television inspection.
- C. Reviewed and Updated** – The current edition of the GWSD Design and Construction Standards for Sewer Facilities were revised and approved for use by the Board of Directors in September of 2022.

## **Section VI. OVERFLOW EMERGENCY RESPONSE PLAN:**

Despite the efforts of the District to eliminate SSOs a spill may occur at any time. An important part of the SSMP is the Overflow Emergency Response Plan.

- A. Overflow Emergency Response** – The Goleta West Sanitary District Emergency Sanitary Sewer Overflow Response Plan defines how the District responds to Sanitary Sewer Overflows. Copies of this plan are issued to all employees and employees are trained on the procedures. The current edition was updated in 2016.



## Section VII. FATS, OILS AND GREASE (FOG) CONTROL PROGRAM



Fats, oils and grease (FOG) can be one of the primary contributors to stoppages and SSOs. The section below describes the GWSD FOG Program elements.

**A. FOG Public Education Outreach Program** – The Goleta West Sanitary District public education outreach program for Fats, Oils and Grease (FOG) related issues is administered under the District’s industrial waste/pretreatment program. Outreach efforts are concentrated in two major areas, residential and restaurants/Food Service Establishments (FSE’s). The FOG public education outreach program distributes bilingual educational brochures and other materials with information on FOG disposal and Sanitary Sewer Overflow (SSO) prevention. Periodically, the District publishes a newsletter distributed to all ratepayers, which often includes information on FOG related topics. District Staff attends local community events to discuss relevant issues with the general public and distribute educational material.

**B. FOG Disposal Facilities and Resources** – Information regarding the proper disposal of FOG is distributed to FSE’s during routine inspections. FSE’s that have grease removal devices are required to keep a maintenance log. The District also provides a list of resources for grease removal device sales and service providers. Information regarding proper disposal of FOG for residential customers is provided in mailers, door hangers and materials distributed at local community events. The District utilizes resources and information regarding FOG issues made available by other government agencies, CalFOG, and the CWEA.

FSE’s are also made aware of California Assembly Bill 1333 during routine inspections. This Bill makes the improper disposal of brown grease from grease traps or interceptors illegal. Additionally, the Bill prohibits reinserting any grease removed from a device back into the trap or interceptor (decanting) unless specific conditions are met. The Bill also requires grease haulers to completely remove all grease, greasy liquids, water, and solids from a trap or interceptor each time it is pumped. The District recommends hiring a reputable, professional hauler and will observe the interceptor cleaning in the interest of the customer at no charge.

**C. Legal Authority to Prohibit FOG Discharges** – District Ordinance No. 60 establishes legal authority to regulate the use of public and private sewers, the installation of sewer laterals, requiring permits for the installation of sewer laterals and regulating plumbing, drainage and sewerage in the Goleta West Sanitary District. District Ordinance No. 21-94 establishes the legal authority to prohibit discharge of Fats, Oils and Grease (FOG). This Ordinance prohibits the following: (a) the discharge of Oils and Grease concentrations in excess of Federal Pretreatment Standards or Local Limits, whichever is more stringent; (b) industrial wastewater discharges that contain floatable fats, wax, grease or oils; (c) wax, grease, non-biodegradable cutting oil, or oil concentration of mineral or petroleum origin (non-living sources) of more than 100 mg/L, or containing

substances which may solidify or become viscous at temperatures between 32° and 150° F (0° and 65° C) at the point of discharge into the system or in amounts that will cause interference or pass through; (d) total fat, wax grease or oil concentration of animal or vegetable origin (living sources of more than 100 mg/L whether emulsified or not), or containing substances which may solidify or become viscous at temperatures between 32° and 150° F (0° and 65° C) at the point of discharge into the system or in amounts that will cause interference or pass through.

- D. Ordinance and Standard Specifications Requiring Grease Removal Devices -** District Ordinance No. 21-94 requires that interceptors shall be provided when necessary for the proper handling of the liquid wastes containing Fats, Oils, or Grease (FOG) or any other harmful ingredients. All interceptors shall be of a capacity sufficient to provide the appropriate quality of effluent in accordance with the Uniform Plumbing Code and shall be in an easily accessible location for the purpose of cleaning and inspection. Sample boxes are required on all interceptors. All interceptors are required to be properly maintained to ensure compliance with District requirements.

Section 2.4.10 of Goleta West Sanitary District Design and Construction Standards for Sewer Facilities provides specific design requirements for grease removal devices. All grease removal devices shall be installed in such a manner that access for maintenance and inspections shall be readily obtainable. GWSD Standard Detail 4.15 illustrates the design and installation of a typical grease interceptor and sample box.

- E. FOG Inspections and Enforcement –** FOG inspections are conducted periodically by trained District staff at restaurants and other commercial FSE's. Guidelines for grease interceptor maintenance, kitchen best management practices, grease removal device maintenance logs and other relevant materials are distributed to FSE operators during inspections. The grease removal device is inspected, maintenance logs reviewed and if deemed necessary, samples collected. Inspection frequency is determined by the condition and type of grease removal device, nature of operation of the FSE, compliance history of the FSE and sample results. Ongoing monitoring of FSE's is conducted by trained District staff.

District Ordinance No. 62 sets forth provisions for the enforcement of ordinances, rules, and regulations of Goleta West Sanitary District. Enforcement provisions range from issuance of Notifications of Violation and Administrative Orders to Administrative, Civil, and Criminal Penalties and Termination of Service. Sewer Service to any premises may be terminated if a discharge of wastewater causes or threatens to cause a condition of contamination, pollution or nuisance, or for any condition that presents, or reasonably appears to present, an imminent danger to the environment or the health or welfare of persons, or that threatens to interfere with the operation of the publicly owned treatment works. When a discharge of wastes causes an obstruction, damage, or any other impairment to the facilities owned or used by the District, the District may assess a charge against the responsible person for the work required to clean or repair the facility. Any person violating any of the provisions of the ordinances, rules or

regulations of the District shall become liable to the District for each, every, any and all expenses, losses or damages occasioned by the District by reason of such violation.

- F. FOG Maintenance Schedule** – The District maintains a Computerized Maintenance Management System (CMMS) which includes a work order system. All of the District’s lines are cleaned at a minimum frequency of once every three years. CCTV inspections are conducted at a minimum frequency of once every seven years. The maintenance schedule of District lines is determined using specific criteria including historical data, collection crew observations, and likelihood of blockage resulting in an SSO. The maintenance frequency of lines can easily be updated in the computer database and work order system. The District’s industrial waste/pretreatment program works in conjunction with the collection system crew to identify sections of the wastewater collection system that require an increased maintenance interval due to FOG and target those areas for more frequent inspections and public outreach efforts.
- G. FOG Source Control Measures** – The District’s source control measures place a strong emphasis on public education and outreach as well as FOG inspections and enforcement. In addition to routine FSE inspections, the Industrial Waste/Pretreatment Program conducts quarterly Non-Industrial Source Control (NISC) sampling at distinct locations within the District. FOG analysis is included in the NISC testing for the purpose of determining the extent and location of FOG problems. The collection system crew also tracks and records FOG related problems while cleaning lines and conducting CCTV inspections of the District system. This information enables the District to focus its FOG source control efforts where it will have a maximum impact on reducing FOG related problems.

## **Section VIII. SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN**

A wastewater collection system must be able to convey wastewater flow at peak wet weather conditions. The following describes steps that GWSD has taken to ensure adequate capacity is available in the system.

- A. System Evaluation** – The District capacity evaluations have relied on past Sewer Master Plan documents which are periodically updated. The District has never experienced an SSO discharge caused by hydraulic deficiencies. Historically, GWSD has placed significant emphasis on the reduction of inflow & infiltration (I&I). Earlier versions of the District’s Capital Improvement Plan have addressed sources of I&I. The net results of the District’s I&I reduction efforts are significant. The total influent to the District has been reduced from a high of 2.4 million gallons/day (Average Dry Weather Flow (ADWF)) in 1998 to current ADWF of approximately 2.0 million gallons/day. The community’s water conservation measures also contribute to this reduction in flows.

As part of the analysis included in the Wastewater Master Plan the District contracted with an engineering consultant to prepare a hydraulic model to assess the current condition of the entire District collection system.

Some of the objectives for the hydraulic model were:

- Compare the new model to previous conditions. A large percentage of the overall system has been rehabilitated.
- Install meters to provide data on actual flows for assessing wet and dry weather conditions.
- Identify future system needs and planned expansion.
- Evaluate the ability of the system to allow for future expansion.

The GWSD hydraulic model was run using existing scenarios and future scenarios outlined in the Land Use Survey/Wastewater Generation Projections Study 2006 prepared by Dudek & Associates. Results of the hydraulic model indicated the District has a small number of pipeline segments that require upgrading to meet the District’s design criteria. These pipeline segments are included in the Capital Improvement Plan and several capacity deficient pipelines have already been upgraded. This work will continue in a prioritized manner based on the scenarios modeled. The Wastewater Master Plan determined that all District pump stations and force main pipelines have sufficient capacity to serve existing and future flows.

Currently, the District’s collection system includes no diversions of urban runoff and as mentioned earlier there have been no known sewer overflows due to hydraulic deficiencies.

- B. Design Criteria** – The design capacity of pipelines is established in the Goleta West Sanitary District Design and Construction Standards for Sewer Facilities (current version 9/2022). The District utilizes very conservative design criteria of a d/D (flow depth/Diameter) ratio less than 0.5. Design capacity is determined by calculating the actual flow capacity and adding 50 percent for I&I, reserve capacity and variations in flow. GWSD standards require a minimum velocity of 2 feet-per-second.
- C. Capacity Enhancement Measures** – GWSD typically makes improvements to capacity deficient pipelines by installing larger pipelines. The District’s Capital Improvement Plan includes these pipelines as future capital projects. The District periodically reviews its revenues including sewer use fees and connection/capacity fees. The District Board acknowledges that future capital improvements are costly and sound financial planning ensures that the improvement projects can be completed as planned.
- D. Schedule** - The District reviews the Capital Improvement Plan on a regular basis and implementation schedules are reprioritized as needed. The District also periodically reviews its financial plan to ensure funds are available to finance the projects required by the Capital Improvement Plan.

## **Section IX. MONITORING, MEASUREMENT, AND PLAN MODIFICATIONS**

The following are measures taken by GWSD to evaluate the effectiveness of the SSMP and the wastewater collection system.

- A. Maintain Information** – Goleta West Sanitary District (GWSD) has utilized a Computerized Maintenance Management System (CMMS) for many years. The District has a rich history contained in the database. In 2010 the District upgraded that system to the Redzone/ICOM3 Infrastructure Management Program System. This system expanded the District's ability to maintain, retrieve, track and report all collection system maintenance activities.
- B. Monitor the implementation and effectiveness of SSMP** – The CMMS allows the District to track the effectiveness of the SSMP elements. Reports can be generated using several performance indicators. Management monitors the workflow and effectiveness of all existing programs. Additionally, daily morning meetings are a forum for discussion to ensure that work is on schedule, certain problems have been identified and changes to the plan may be needed.
- C. Success of the Preventive Maintenance Program** – The preventive maintenance (PM) program is continually monitored. Through the CMMS, work orders are generated for all PM activities. Completed work orders provide a record for decision making regarding success or implementing changes to achieve success of the PM program. Feedback from collection system operators is communicated through work orders and considered when revising PM activities. Communication with the field crew also assists in assuring PM success.
- D. Update Program Elements** – Program elements are updated as needed based on performance and effectiveness.
- E. Identify and Illustrate SSO trends** – GWSD is fortunate to historically have minimal SSO's. The District has data on file to track the few SSO's that have occurred. The Redzone/ICOM3 program assists the District in analyzing SSO data. In the past 10-year period the District is averaging .715 spills per year per 100 miles of pipe.

## **Section X. PROGRAM AUDITS**

The General Waste Discharge Requirements specify that GWSD state that periodic internal audits must occur at a minimum of every three (3) years.

GWSD will perform an audit to evaluate the effectiveness of the SSMP. The audit will be performed at a minimum of every two (2) years. The audit will identify any deficiencies and note the steps taken to correct them. Following the audit GWSD will schedule a timeframe for updates to be completed.

The GWSD SSMP audit will be conducted by in-house staff responsible for the program. The audit team may include other members from outside agencies or consultants.

The audit scope will analyze each of the major sections of the SSMP. A GWSD SSMP Audit Checklist has been developed and will be used as a guide and record of the audit.

## **Section XI. COMMUNICATION PROGRAM**

GWSD has an ongoing public relations program. Described below are some of the efforts applicable to the SSMP.

The Goleta West Sanitary District (GWSD) Board of Directors adopted the SSMP Task Development Plan/Schedule at a public meeting held on October 16, 2007.

District transparency to the public is accomplished using a variety of communication methods which include public meetings, articles in the District newsletters, and having the complete SSMP available on the District's website. The District reports SSOs electronically to the California Integrated Water Quality System. The electronic SSO data is then available to the public through the SWRCB website.

Embarcadero Municipal Improvement District (EMID) is the only satellite collection system served by GWSD. The District's General Manager/Superintendent communicates regularly with EMID management and addresses the SSMP specifically with them on an as needed basis.

The GWSD Board of Directors adopted the complete Sewer System Management Plan at a public meeting on July 7, 2009.

The GWSD Board of Directors adopted an updated complete Sewer System Management Plan at a public meeting on July 1, 2014. Periodic and primarily minor updates to the SSMP have been made since this latest adoption.