

City of San Leandro

Sewer System Management Plan

Volume 1



City of San Leandro
Water Pollution Control Plant
3000 Davis Street
San Leandro, CA 94577

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List of Abbreviations and Acronyms

APWA	American Public Works Association
ASCE	American Society of Civil Engineers
BACWA	Bay Area Clean Water Agencies
BMP	Best Management Practice
BWF	Base wastewater flow
CASA	California Association of Sanitation Agencies
CCTV	Closed Circuit Television
CDFG	California Department of Fish and Game
CIP	Capital Improvement Plan
CIWQS	California Integrated Water Quality System
CM	Corrective Maintenance
CMMS	Computerized Maintenance Management System
CMOM	Capacity, Management, Operations and Maintenance
CWEA	California Water Environment Association
ECS	Environmental Compliance Services
EDU	Equivalent Dwelling Unit
EMA	Enhanced Maintenance Area
ERP	Emergency Response Plan
FOG	Fats, Oils, Grease
FSE	Food service establishment
GIS	Geographical Information System
gpm	gallons per minute
GPS	Global Positioning System
GWI	Groundwater Infiltration
I/I	Inflow / Infiltration
ICOM3	Maintenance and Condition Assessment Database
ISDHH	Imminent and substantial danger to human health
LRO	Legally Responsible Official
mgd	million gallons per day
MRP	Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System
NASSCO	National Association of Sewer Service Companies
NGO	Non-Government Organization
NOI	Notice of Intent
NOV	Notice of Violation
NPDES	National Pollution Discharge Elimination System
O&M	Operation and Maintenance
OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
PACP	Pipeline Assessment & Certification Program
PLSD	Private Sewer Lateral Discharge
PM	Preventive Maintenance
POTW	Publicly-Owned Treatment Works
R&R	Rehabilitation and Replacement

RDI/I	Rainfall-dependent infiltration and inflow
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SHECAP	Sewer Hydraulic Evaluation and Capacity Assessment Plan
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State of California Water Resources Control Board
UPC	Uniform Plumbing Code
TM	Technical Memorandum
WDR	Waste Discharge Requirements
WPCP	Water Pollution Control Plant

Background

The State Water Resources Control Board (SWRCB) requires that all public wastewater collection system agencies in California with more than one mile of sewer pipe be regulated under General Waste Discharge Requirements (WDR). The WDR mandates that the City prepare an SSMP following the guidelines set forth in the WDR and report SSOs using an electronic reporting system. In addition the San Francisco Bay Regional Water Quality Control Board (RWQCB) requires that the SSMP incorporate the guidelines in the SSMP Development Guide prepared by the RWQCB in cooperation with the Bay Area Clean Water Agencies (BACWA).

In July 2009, the City of San Leandro City Council approved the first version of the City of San Leandro Sewer System Management Plan (SSMP). The SSMP was prepared in compliance with requirements of both the State Water Resources Control Board (SWRCB) Order No. 2006-0003, and the SWRCB Order No. WQO 2013-0058, amending the Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. The City of San Leandro City Council approved an update to the SSMP in January 2017.

City of San Leandro Sewer System Management Plan

City Service Area and Sewer System

The City of San Leandro (the City) is located in Alameda County and is surrounded by Oakland to the north, San Lorenzo and Hayward to the south, San Francisco Bay to the west, with open space preserves and Castro Valley to the east. As of 2013, the City has a population of approximately 91,000 based on estimates from the U. S. Census Bureau. The City covers approximately 13 square miles with a population density of 6,750 persons per square mile. The City is substantially built out and experienced an overall decrease in industry over the last fifteen years.

The City's sewer system consists of approximately 130 miles of pipe, ranging from 6 inches to 42 inches in diameter, and 13 remote lift stations. The sewers in the City system range in age from new to over 70 years old. The oldest sewers are located in the northeastern portion of the City from the Oakland city limits to Castro Street roughly between the Southern Pacific Railroad and MacArthur Boulevard. This portion includes the downtown area and the oldest residential areas of the City.

The City maintains roughly two thirds of the sewers within the City limits, primarily serving the northern portion of the City. The remainder of the City is served by the Oro Loma Sanitary District. The sewage from the City sewer system is conveyed to and treated at the San Leandro Water Pollution Control Plant (WPCP).

The treatment plant produces high quality secondary effluent at an average dry weather rate of 4.8 million gallons per day (mgd). An average of approximately 2.5 dry tons of biosolids suitable for recycling are removed from the plant treatment process each day.

Section 1 – Goals

D.13.(i) **Goals:** 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.

The goals the City has established are:

- To protect public health and the environment through the proper management of the public wastewater collection system;
- To professionally manage, operate and maintain all parts of the public wastewater collection system;
- To provide a safe work environment for employees;
- To eliminate preventable SSOs;
- To understand the condition of and to maintain infrastructure to maximize the life of the collection system;
- To be a part of the community and be a responsive public agency;
- To provide adequate capacity to convey peak flows;
- To effectively operate and maintain the collection system to minimize financial impacts on customers; and
- To adhere to the components of the SSMP.

Also included are the following specific goals:

- Conduct a system-wide video inspection of all manholes and gravity mains every seven years

- Clean all gravity mains annually with the exception of three major trunk lines which are done every 3 years
- Clean all pump station wet wells annually.

Section 2 – Organization

D.13.(ii) **Organization:** The SSMP must identify:

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

The Water Pollution Control Manager is the responsible and authorized representative as described in Section J of SWRCB Order No. 2006-0003. Mr. Dean Wilson is the City’s authorized representative registered with the San Francisco Bay Regional Water Quality Control Board SSO Reporting Program and the California Integrated Water Quality System (CIWQS) as the designated Legally Responsible Official or LRO authorized to certify data to the online SSO database along with Hayes Morehouse, Water Pollution Control Administrative Analyst.

Appendix A includes the City’s [Sanitary Sewer Overflow Emergency Response Plan](#) (OERP), which details the chain of communication for reporting and responding to SSOs 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).

The City’s Water Pollution Control Plant office receives service calls during regular business hours – Monday through Friday, 7:30 a.m. to 4:00 p.m. All service calls received during these hours are referred directly to the Collections System Maintenance Supervisor or to the standby Collections System Maintenance Worker. Outside of these hours, callers are directed by voice mail to contact the on duty Police dispatcher, who has been trained to direct calls regarding the sanitary sewer system to the standby Collections worker.

All calls for service are immediately responded to within one hour, with a typical response time of 30 minutes. Collections staff maintains a 24 hours/day, seven days/week standby schedule to respond to after-hour, weekend and holiday service calls and emergencies. The standby worker summons additional help as needed.

If an overflow occurs, the first responder has the responsibility of evaluating the overflow upon arrival, implementing best management practices to contain the overflow and prevent it from entering a storm drain or other channel, contacting the Collections System Maintenance Supervisor, calling additional help if needed, photographing the site, clearing the blockage, and making regulatory notifications if required.

The Collections supervisor and Collections workers are each furnished with a City-financed cell phone. Additionally, there are four line-of-sight radios available for use when there are communications issues or during events where crews need radio communications such as confined space entries or main line cleaning and televising.

WPCD Sewage Overflow Notification Procedure

- Report all spills to a supervisor
- Contain the spill
- Determine the overflow volume and impact
- If volume is more than 1000 gallons, or if overflow reaches water of the state, start the two-hour notification procedure

Reporting Instructions				
Deadline	See reverse side for definitions of the categories of spills of untreated or partially treated wastewater from publically owned sanitary sewer system			Spill from Private Lateral
	Category 1	Category 2	Category 3	
2 hours after awareness of SSO	<ul style="list-style-type: none"> If the SSO is greater than or equal to 1,000 gallons, call CalOES at (800) 852-7550 Notify Environmental Services Section at (510) 577-6029 for any SSO impacting public areas. 	Notify Environmental Services Section at (510) 577-3401** for any SSO impacting public areas.	Notify Environmental Services Section at (510) 577-3401** for any SSO impacting public areas.	-
48 Hours after awareness of SSO	If 50,000 gal or more will likely reach receiving waters, begin water quality sampling and initiate impact assessment	-	-	-
3 Days after awareness of SSO	Submit Draft Spill Report in the CIWQS* database	Submit Draft Spill Report in the CIWQS* database	-	-
15 Days after response conclusion	Certify Spill Report in CIWQS*. Update as needed until 120 days after SSO end time	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-	-
30 Days after end of calendar month in which SSO occurred	-	-	Certify Spill Report in the CIWQS* database. Update as needed until 120 days after SSO end time	-
45 days after SSO end time	If 50,000 gal or more were not recovered, submit SSO Technical Report using CIWQS*	-	-	-

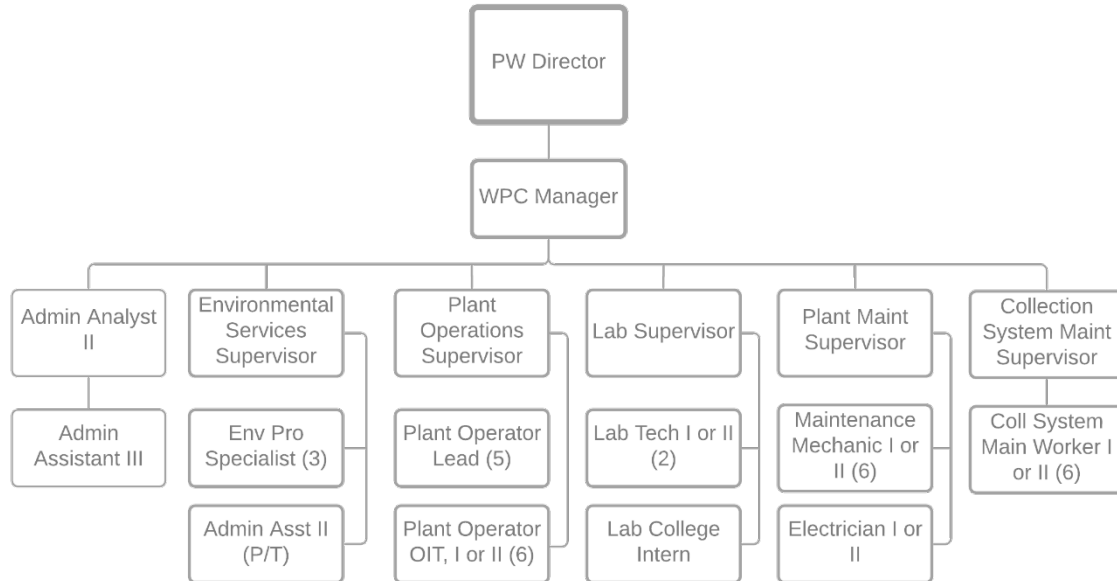
* In the event that the CIWQS online SSO database is not available, do the following until the CIWQS online SSO database becomes available: (See contact information on Side B)

1. Make required notifications to the San Francisco Regional Water Quality Control Board (SFRWQCB office) using A-3, and
2. Notify the State Water Resources Control Board (SWRCB) by phone or email

** If no answer, select ES Supervisor when prompted and leave message.

Note: For reporting purposes, if one SSO event results in multiple appearance points, complete one SSO report in the CIWQS SSO Online Database, and report the location of the SSO failure point, blockage or location of the flow condition that caused the SSO, in the CIWQS SSO Online Database, including all the discharge points associated with the SSO event.

The following chart depicts the overall organization of the Water Pollution Control Division:



<p>WPC Manager (510) 577-6059</p>	<p>Has overall responsibility for the Water Pollution Control Division, including the sanitary sewer system. Prepares wastewater collection system planning documents; manages capital improvement delivery system; documents new and rehabilitated assets; and coordinates development and implementation of SSMP. He is the backup LRO for SSO reporting.</p>
<p>Collections Systems Maintenance Supervisor (510) 577-6058</p>	<p>Manages collection system field operations and maintenance activities; has primary responsibility for the sanitary sewer system, compliance with SSO requirements, and the implementation, management and update of the SSMP. Oversees reporting and notification of SSOs as well as the posting of any necessary public health warnings; provides relevant information to agency management; prepares and implements contingency plans; leads emergency response; investigates and reports SSOs, and trains field crews.</p>
<p>Collections Systems Maintenance Workers</p>	<p>Performs preventive maintenance activities; mobilize and respond to SSOs. If the supervisor is unable to provide relevant information to agency and management, prepares and implements contingency plans; leads emergency response; investigates and reports SSOs; trains field crews.</p>
<p>Plant Maintenance Supervisor</p>	<p>Ensures that City lift stations are properly maintained and</p>

Orlando Gianecchini (510) 577-6030	operational.
Environmental Services Supervisor	Environmental Services Section (ESS) administers and implements the City’s Fats, Oils and Grease (FOG), industrial waste, hazardous materials, pretreatment, industrial waste and storm water programs. ESS staff works with the Collections System Section on mitigation and spill response.
Water Pollution Control Administrative Analyst	Provides support to the Division in the areas of permits and regulations, and compliance with SSO requirements including public education and communications. Registered data submitter.
Engineering Inspector (510) 577-3409	Ensures that new and rehabilitated assets meet City standards, works with field crews to handle emergencies when contractors are involved; provides verbal instruction.

The City’s Engineering and Transportation Department manages and administers the Capital Improvement Program (CIP) and provides engineering support to ensure that new and rehabilitated assets meet City standards.

The City Attorney is responsible for ensuring the City has sufficient legal authority to properly manage and maintain the sanitary sewer system.

The City’s Information Technology Department provides technical support with the management of asset information, GIS and data management.

Table 2.1 City Staff Responsible for SSMP

SSMP Element	Responsible Position	
Goals	WPC Manager	510-577-6059
Organization	WPC Manager	510-577-6059
Legal Authority	City Attorney	510-577-6098
O&M Program	Collections System Maintenance Supervisor	510-577-6058
Design & Performance Provisions	City Engineer	510-577-3431

Overflow Emergency Response Program	Collections System Maintenance Supervisor	510-577-6058
FOG Control Program	Environmental Services Supervisor	510-577-6031
System Evaluation & Capacity Assurance Plan	City Engineer	510-577-3431
Monitoring Measurement and Program Modification	Collections System Maintenance Supervisor	510-577-6058
SSMP Program Audits	Collections System Maintenance Supervisor	510-577-6058
Communication	Water Pollution Control Administrative Analyst	510-577-3437

Table 2.2 Legally Responsible Official and Data Submitter

Legally Responsible Officials
Dean Wilson
Hayes Morehouse
Data Submitters
To be assigned after hires

Section 3 – Legal Authority

D.13.(iii) 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 infiltration and inflow (I/I), storm water, 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.

The City maintains legal authority through codes, ordinances, and service agreements. The statutory authority is established through California Government Code Section 38900-38902 and Health and Safety Code Section 5470-5474.10 as well as the Charter of the City of San Leandro and the City of San Leandro Municipal Code. Sections most relevant to the legal authority regulating the sanitary sewer is included in the City's Municipal Code, Title 3 Health and Safety, Chapter 3-14 Uniform Wastewater Discharge Regulations (UWDR), These sections regulate source control over constituents entering into the sanitary sewer and enforce violations of ordinances. The City's Environmental Services Section personnel regularly inspects businesses large and small to ensure compliance with the City ordinance and works closely with Collection crews to ensure that their independent efforts are coordinated.

Prevention of Illicit Discharges

The City's Municipal Code Ordinance No. 2001-05 (Sections 3-15-200 to 3-15-210) and Ordinance No. 2014-020 (Sections 3-14-310 to 3-14-380) establishes specific prohibitions on discharges. These prohibitions address materials which may cause obstructions of flow, toxic pollutants, substances which will interfere with the wastewater treatment process or cause violations to the NPDES permit or the receiving water quality standards. Included in these sections are Limitations on Wastewater Strength; Interceptor Requirements, and Authority to Require Pretreatment or Corrective Measures and Authority to Deny or Condition New, Increased or Changed Discharges. Other sections of the UWDR provide for: Volume Determination; Reports and Permits; Monitoring and Inspection; Wastewater Charges and Fees, and Termination of Service. It requires all industrial waste dischargers to obtain a permit and prohibits discharge in excess of the permit allowance. The permit issued may require pretreatment or include other provisions for wastewater quality and quantity.

Responsibility for Maintenance of Laterals

The City's Municipal Code Section 3-14-640 establishes the property owner as the responsible party for ownership and maintenance of both the upper and lower lateral. It is the property owner's responsibility to maintain and repair the sewer lateral from the house or business up to the point of connection with the public sanitary sewer main. While the City's Municipal Code includes a prohibition against extraneous discharges, which includes I/I, and the general authority to access private property for purposes of enforcement of the provisions of the Code, it does not provide a specific vehicle for identifying or requiring correction of I/I on private property.

Proper Design and Construction of Sewers and Connections

Regulations pertaining to the design, construction, and inspection of private sewer systems, building sewers, and connections are included in the Municipal Code and explained in the City's Standard Plans (see Appendix B). Permits are required prior to construction of any private sewage disposal system. (A permit is also required prior to constructing a building or lateral sewer or connecting to a public sewer.) The permit application includes a review of plans and specifications by the City. Construction permits require construction of building sewers be in accordance with county and city requirements and be inspected by an Engineering Inspector prior to acceptance by the City.

Section 4 – Operations and Maintenance Program

D.13.(iv) 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 storm water conveyance facilities;

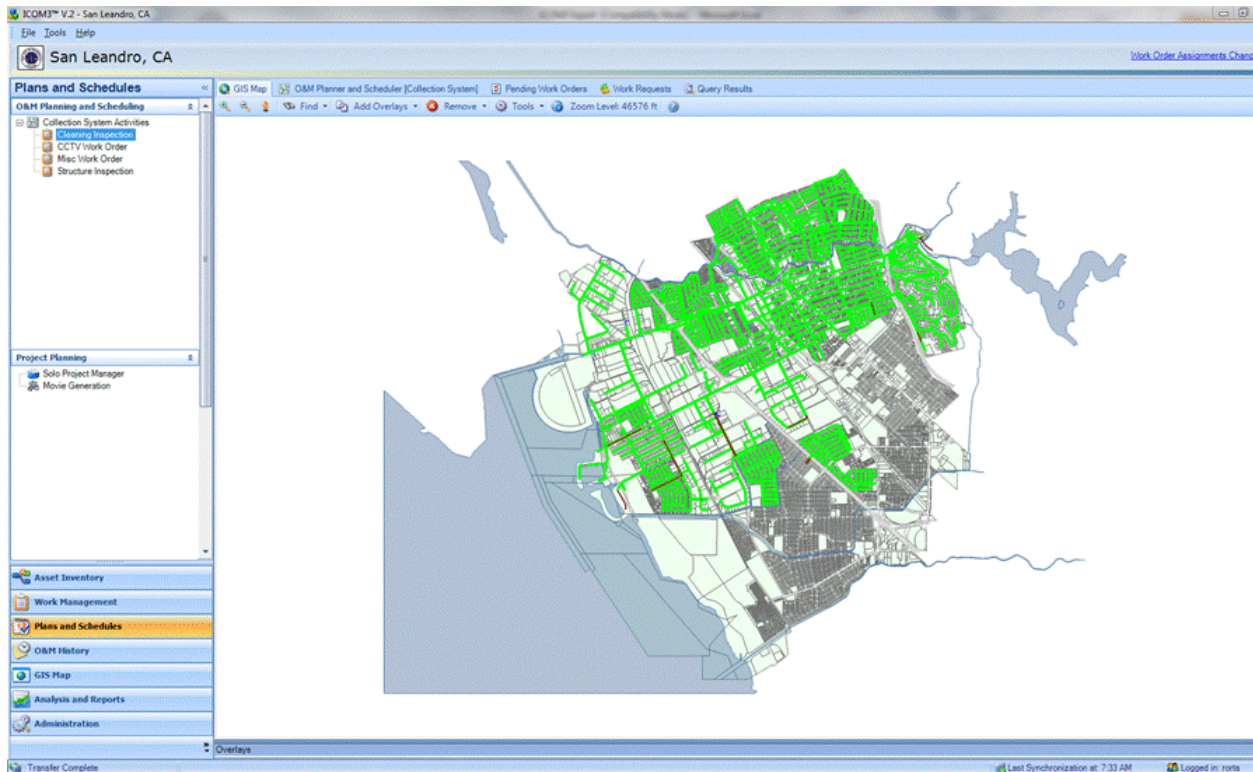
(b) Describe routine preventive operation and maintenance activities by staff and contractors; including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;

(c) Develop 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, maintenance, and require contractors to be appropriately trained; and

(e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

Collection System Maps



Each of the City's 184 base maps are digitized and formatted into an ArcGIS based mapping system. The Geographic Information System (ArcGIS) mapping system is linked to the Collection Department CMMS program, a street directory, and TV inspection Records. The link allows the map to be populated with key data such as pipe size and pipe length. Maps are continuously updated by Engineering as new tracts are accepted, and map corrections are identified by the collection crew based upon field observations. Information Services provides updated map pages to all map holders on a regular basis.

Prioritized Preventive Maintenance

The crew is equipped with modern equipment, including one Combo Truck, one Hydro, one Rodder, one CCTV, one Tanker, one 1-ton dump truck, one pickup and one emergency response trailer. The six man crew rotates on a seven day 24/7 standby schedule

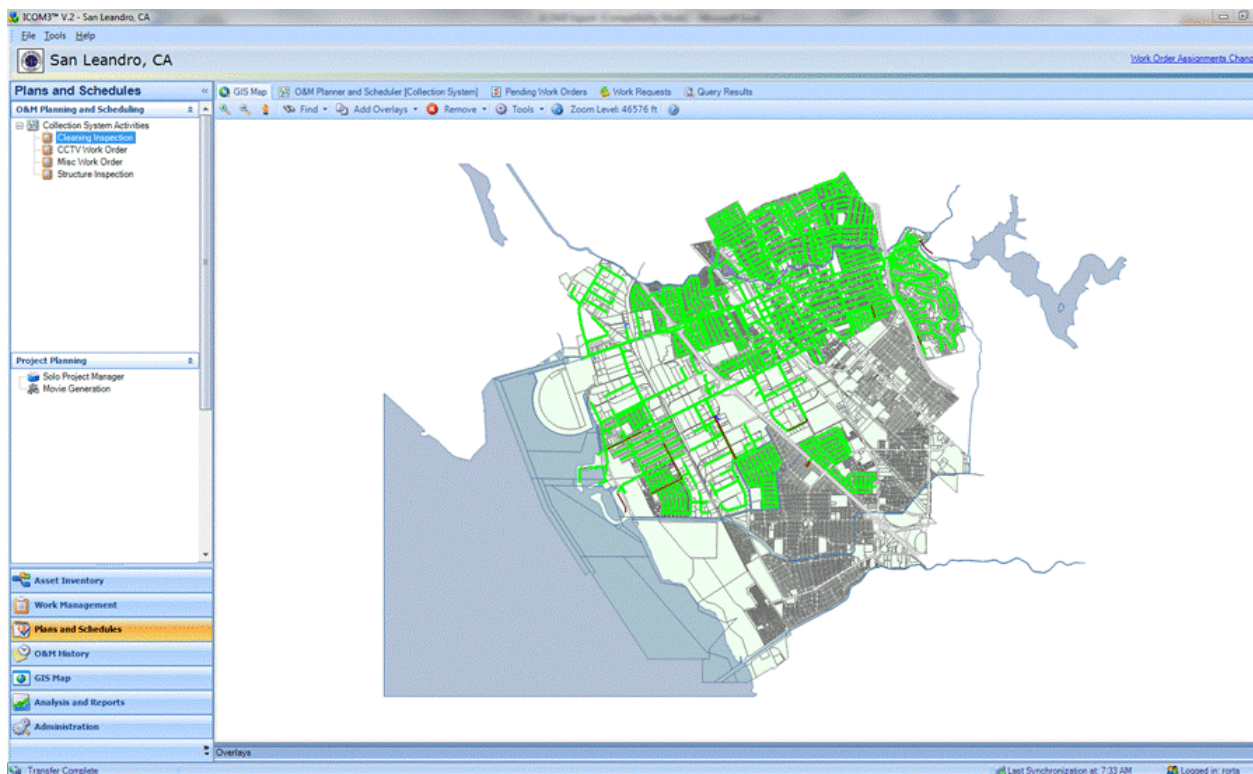
Computerized Maintenance and Management System (CMMS)

ICOM3 is used to manage the collection system preventive maintenance program. Maintenance planning and scheduling is used to establish annual and other periodic maintenance goals. These

goals include the sewer pipe scheduled cleaning and CCTV inspection objectives. The ICOM3 planner is used to assign maintenance frequencies to the collection system components.

In the Planner module of ICOM3, a set of assets or activities can be defined as a route. Planned maintenance activities can be grouped logically by geographic area, project, activity type or priority and displayed on the map or in an organized list view.

Routes can then be broken down into work orders, which can be assigned to any Collections worker. Once the work order has been created, it remains open until the cleaning has been accomplished and a report has been submitted. ICOM3 allows the supervisor to monitor the completion of cleaning objectives.



Work Orders

The system facilitates issuing, both electronically and on paper, copies of all work orders for activities planned and scheduled in the system. Work orders are issued for all maintenance management activities, inspections, customer service calls, and SSO responses. This includes issuing work orders for both scheduled and unscheduled inspections, cleaning, and other maintenance activities.

Forms

Work order forms are used for

- Routine cleaning (hydro-flushing, rodding)
- CCTV inspection (condition assessment, construction inspection)
- FOG activities
- Repairs, refurbishments and replacements
- Manhole/structure inspections
- Service calls
- SSO reporting

Sewer Cleaning

Cleaning is the City's primary sewer maintenance activity. The City has both frequent, focused cleaning as well as cyclic cleaning for pipes not on the focused cleaning schedule.

The City is currently on a one-year schedule to inspect and clean each public main within the City's sanitary authority. Excessive grease buildup in City mains is also addressed through our FOG program, both through inspection and enforcement for commercial/industrial dischargers and through public outreach in residential areas. Areas where we have root intrusion are identified through routine cleaning and through video inspection of the system. These are maintained with conventional methods and a chemical root abatement program. Presently these identified problem areas are forwarded to the City's Engineering staff where they are prioritized and scheduled into the capital improvement program.

Hot Spots

Areas that have known problems such as excessive grease buildup or odor problems are cleaned and checked on a much more frequent basis based on experience history. Approximately 5% of the system is included in the focused cleaning program (Hot Spots), with inspection on a weekly or bi-weekly basis, and cleaning on a 30, 60, or 90-day schedule. Cleaning frequency depends on the history and cause of stoppages or overflows on a line. Focused cleaning is performed primarily by jetting.

Root Control

The City has both a focused and cyclic root treatment program that covers approximately one-third of the system per year. Roots encroach upon the interior of sewer mains through structural cracks faulty pipe joints and defective laterals. Root intrusion is also a common problem in sewer laterals which are shallow and frequently not as well constructed as sewer mains. If roots are observed to be an issue during routine cleaning, in response to complaints, or through

observations from CCTV inspections, root cutting is performed with chain flail attachments on the jetters or with mechanical cutters.

Rehabilitation and Replacement Plan

The City has a proactive plan for the rehabilitation and replacement of the sewer system. This plan uses the CCTV inspections performed by Collections Maintenance Workers to prioritize repairs. See Section 8 for more details.

CCTV Inspections

The City maintains a comprehensive television inspection program. Sewer segments undergo detailed video inspection for both structural and condition damage. The program provides for televising the entire collection system a maximum of every seven years. Critical defects are identified for spot repairs and deteriorated reaches for potential rehabilitation or replacement. A future cleaning frequency can be determined for each pipe reach based on the results of the inspections. In the future, some pipe reaches may need inspecting every 10 years.

Each CCTV video is viewed by a lead Collections System Maintenance Worker, and the pipe is graded per standards outlined in the NASSCO Pipeline Assessment Certification Program (PACP). Using the PACP Code Matrix, each PACP defect code is assigned a condition grade from 1 to 5. Grades are assigned based on potential for further deterioration or pipe failure. Pipe failure is defined as when the pipe can no longer convey the pipe design capacity.

Grades are assigned for two categories: Structural and O&M defects. Grades are as follows:

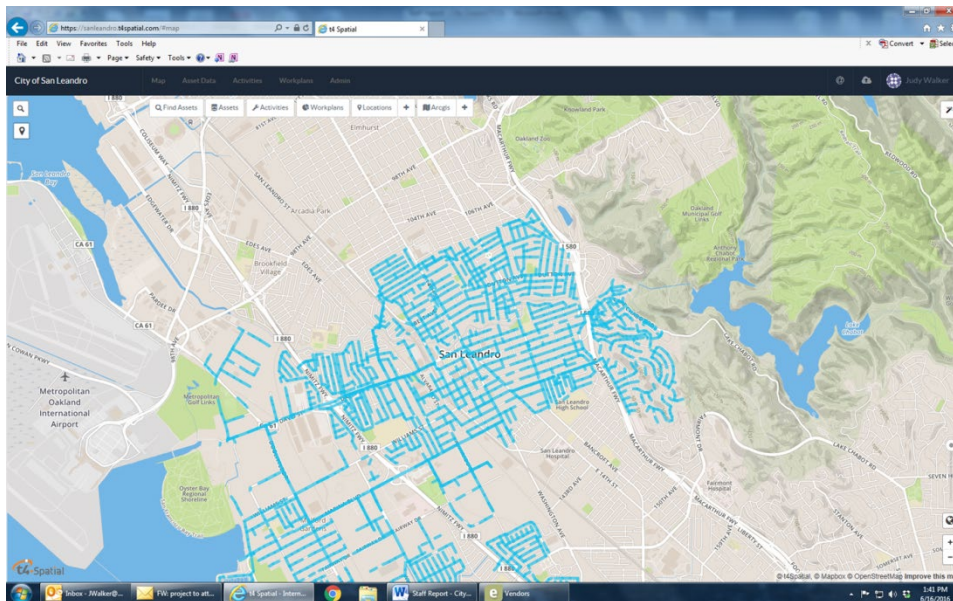
- | | |
|-------------------------|---|
| 5 – Immediate Attention | Defects requiring immediate attention |
| 4 – Poor | Severe defects that will become Grade 5 defects within the foreseeable future |
| 3 – Fair | Moderate defects that will continue to deteriorate |
| 2 – Good | Defects that have not begun to deteriorate |
| 1 – Excellent | Minor defects |

The mechanisms and rates of pipeline deterioration are highly dependent on local conditions. However the following general guidelines are provided to estimate the amount of time before the defect causes complete line failure. These guidelines should be verified by actual research under prevailing local conditions.

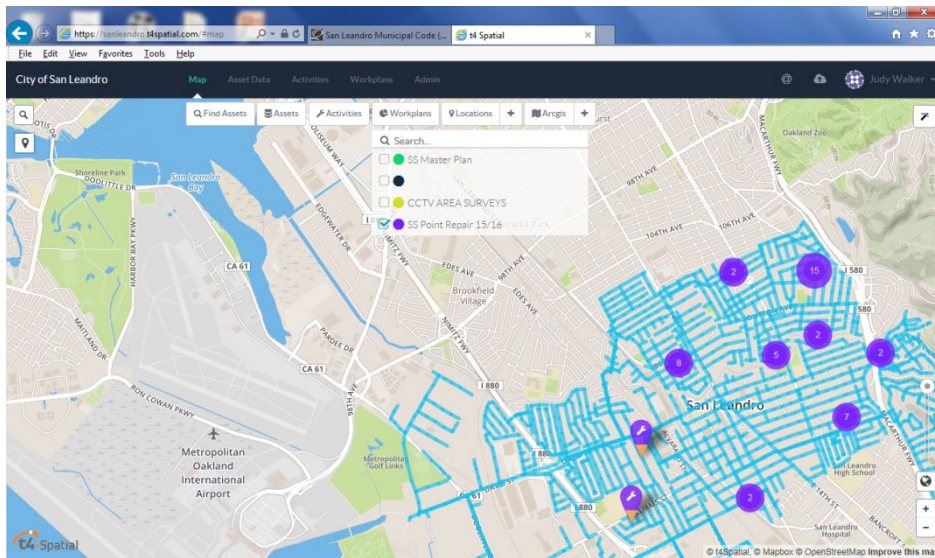
- 5 – Pipe has failed or will likely fail within the next five years

- 4 – Pipe will probably fail in 5 to 10 years
- 3 – Pipe may fail in 10 to 20 years
- 2 – Pipe unlikely to fail for at least 20 years
- 1 – Failure unlikely in the foreseeable future

After assessment is complete, CCTV videos are uploaded both to ICOM3 and to the t4 Spatial program. t4 Spatial is a cloud-based program that displays Collection System assets, and correlates video to a specific line segment.



Each frame in the video can be associated with a specific location on the GIS map. City Engineering Department staff can search for pipe segments with PACP grades of 3 or higher and view specific portions of video that reveal problem locations of the pipe. This allows the City to put together an accurate list of sewer line point repairs and replacements needed for the following fiscal year. Also, repairs are completed more efficiently due to the City’s ability to provide very accurate locations to contractors for required repairs.



The City sets aside \$1.5 million in the Water Pollution Control Division budget annually to conduct point repairs and complete emergency repairs.

Manhole Inspections

Inspections conducted for manholes involve a visual assessment of the overall manhole condition and observed deficiencies that could result in I/I. As part of the focused and cyclic cleaning programs, City Collections staff visually inspects manholes for corrosion, debris or damage around the base, cracks or holes, and condition of manhole steps.

Ratings applied to manhole investigations use the standards of the NASSCO Manhole Condition Assessment Program (MCAP) for each of the manhole structure components including the rim and lid, chimney/cone, bench and channel. Each component is rated as poor, fair, or good condition as a gross determination of construction adequacy of the structure and its component parts.

Detailed investigations of manhole condition follows at a time when a connecting line segment is defined as a rehab project, and corrections needed to the manhole structure are then included as part of the project work.

Pump Station Inspections and Assessment

Pump stations are inspected on a weekly basis. Weekly inspections include visual check of the equipment, manual cycling of pumps, checking and cleaning floats, recording hour meter readings, and cleaning off debris.

Pump stations are inspected extensively every year. Extensive maintenance includes cleaning out of sump, and removing pumps for inspection and performing repairs if necessary.

Training

All Collections System staff receive regular training utilizing both in-house resources and outside vendors and wastewater organizations such as CWEA, WEF, and California State University, Sacramento (Office of Water Programs) courses. The safety and compliance training records are maintained by the City's Human Resources Department and are always available for review. Professional training completed by Collections System staff is maintained electronically by the Collections System Supervisor.

All new Collections System staff are required to become certified as Collection System Maintenance Operators Grade I through CWEA and current staff are strongly encouraged to do so. CWEA Grade II certification is a requirement for advancement from Collections System Maintenance Worker I to Collections System Maintenance Worker II. A requirement of maintaining the CWEA certificate is to complete documented annual professional training. In addition, all camera truck operators must obtain NASSCO certification.

Contingency Equipment and Replacement Inventories

The City of San Leandro has the following equipment available for emergency operations and collection system maintenance.

- 1 truck-mounted continuous rodder
- 1 combination cleaning truck
- 1 hydro jet cleaning truck
- 1 closed circuit television truck
- 2 emergency response trucks
- 1 emergency response trailer

The majority of the City's lift stations incorporate a two-pump design to provide for seamless operation in the event of a pump failure. All lift stations are part of a SCADA network with remote alarm capability. For the stations without a second pump in the station, collection system design allows the system to surcharge to a given level and then go to gravity until repairs can be made. All lift stations have a replacement pump in stock.

With the exception of regularly manned, securable, low flow facilities, all sewer lift stations are fitted with a bypass pump connection, portable generator connection, and/or a permanent emergency generator set. The City maintains a fleet of portable diesel trash pumps and generators in sufficient quantity that a City wide event would not prevent transmission of sewage to the plant.

Equipment	Description	Connection
Portable pumps		
MT-PTP-01	TEEL 3" PORTABLE CENTRIFUGAL PUMP	3" cam-loc
MT-PTP-02	GORMAN RUPP PUMP	4" cam-loc
MT-PTP-04	GORMAN RUPP PUMP (KHD DEUTZ ENGINE)	4" cam-loc
MT-PTP-05	GORMAN RUPP PORTABLE SILENT L/S	6" cam-loc
MT-PTP-06	GORMAN-RUPP (LISTER ENG.)	4" cam-loc
MT-PTP-07	PORTABLE 3" PUMP (diesel trash)	3" cam-loc
MT-DP-01	DIAPHRAGM PUMP	3" cam-loc
Trailer mounted generators		
GEN-LIFT-25KW-PG-01	PORTABLE EMERGENCY GENERATOR L/S	plug
GEN-LIFT-25KW-PG-02	PORTABLE EMERGENCY GENERATOR L/S	plug
GEN-LIFT-60KW-PG	PORTABLE EMERGENCY GENERATOR L/S	plug

Each lift station has a posted plan informing responders of specific contingency equipment to be used in case of failure of electrical or mechanical systems. The City has also created a lift station response and training manual detailing the use of contingency equipment in both individual and City-wide failure situations.

All contingency equipment is kept in top working order including regularly scheduled maintenance and monthly run tests. The City keeps large stocks of onsite diesel fuel, hoses, tow vehicles and fittings to facilitate a rapid and appropriate response.



Section 5 – Design and Performance Provisions

D.13.(v) 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.

Standards for Installation, Rehabilitation and Repair

The City, through its Engineering Department, maintains a document that contains a set of wastewater and sewer system design standards (City Standard Specifications and Drawings or “Standard Specifications” – see Appendix B). These standard specifications are a comprehensive set of standards that cover all sewage or wastewater facilities in the City.

The City’s Code Ordinance requires that the standard specifications be followed in the construction of new installations, and rehabilitation and/or replacement of existing facilities. They are available to contractors and the general public at no charge and are updated periodically, as necessary. A copy is also available from the City’s website.

Standards for Inspection and Testing of New and Rehabilitated Facilities

The City has full-time Construction Inspectors who inspect both new construction and repairs. The inspector insures all construction meets the City’s standard specifications and other applicable codes. Permits are required for all work on wastewater facilities in the City, and no facility is accepted unless it is permitted, inspected, and tested in accordance with the standard specifications.

Section 6 – Overflow Emergency Response Plan

D.13. (vi) 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 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 WDR 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.

Purpose

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

Policy

The City’s employees are required to report all wastewater overflows found 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. The City’s goal is to respond to sewer system overflows as soon as possible following notification. The City will follow reporting procedures in regards to sewer spills as set forth by the San Francisco Regional Water Quality Control Board (SFRWQCB) and the California State Water Resources Control Board (SWRCB).

Goals

The City's 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.

The City's complete [OERP](#) document (Appendix A) is available to view on the City website.

Section 7 – Fats, Oils and Grease Control Program

D.13.(vii) Fats, Oils, and Grease (FOG) Control Program: Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

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

The City maintains and implements a FOG source control program to reduce the amount of fats, oils, and grease discharged to the sanitary sewer system. This pre-treatment program is administered by the Environmental Services Section of the Water Pollution Control Division. Their pre-treatment program is coordinated with the Collections Section on a regular basis to identify and correct illicit discharges. The City's FOG program addresses the following components:

Legal Authority

The City has legal authority to prohibit discharges to the collection system through the Uniform Wastewater Discharge Regulations, Title III, Chapter 14, Article 3 (Sewer Use Regulations) and Article 7 (Monitoring and Inspection) of the City of San Leandro Municipal Code.

Source Control

Beginning in 2002, the City's Environmental Services Section (ES) identified Food Service Establishments (FSEs) located within the collection system service area. In January 2003, a letter, survey and FOG fact sheet were mailed to 125 FSEs as the first part of a FOG education and outreach program. Information on the FSEs is maintained in ES's database, and records are periodically updated via information from business permit applications, the business license permit database, and building permits.

ES staff conducts permit plan checks on new construction and tenant improvements of FSEs. Plan checks include, but are not limited to, identification and proper connection of grease-bearing fixtures to a properly sized grease interceptor. The plan check and field inspection, as part of the building permit process, includes an interceptor sizing component and an Interceptor Maintenance Education component, which includes the City's maintenance requirements, BMP requirements, and record keeping and reporting requirements. A list of all such users is maintained by the City.

The City's Uniform Wastewater Discharge Regulations (UWDR) requires the installation and proper maintenance of interceptors at any facility that has the potential for discharging grease-laden wastewater. The UWDR also includes specific definitions and language pertaining to FOG from FSEs.

Facility Inspection

ES inspectors conduct inspections at FSEs in areas identified by the collection crew as FOG hot spots. Inspections include a review of grease interceptor maintenance records, FOG BMPs, and storm water BMPs. Inspections are conducted at new or remodeled FSEs as part of the building permit final review process to verify grease interceptor installation. FOG and storm water BMP information is also provided to the facility at this time.

During these site visits, the City's FOG fact sheet is distributed and each of the elements (FOG, storm water, and integrated pest management) is discussed. Posters and storm water BMP guidance from the Alameda Countywide Clean Water Program are also distributed.

Identification and Sewer Cleaning

All lines within the collection system are inspected and cleaned annually. Priority is given to areas with a history of problems relating to FOG, roots or structural impairment. Areas with a history of FOG hot spots are investigated and cleaned at least quarterly. The areas requiring quarterly monitoring and cleaning frequency are downtown San Leandro and the service area surrounding the Bermuda lift station.

FOG hot spots (areas with increased incidence of grease build-up) are cleaned to remove the risk of a blockage occurring and are subsequently inspected once per week. The sewer line is cleaned using either a hydro jet with spinning nozzle or a power rodder. The combo unit/vacuum truck is also used whenever feasible to recover the FOG. Additionally, information on the location, severity and possible source is relayed to the Environmental Services Section. Inspectors follow up at FSEs that may have contributed to the grease build-up. The collection crew continues to monitor the area weekly until the problem is abated through inspection or repair.

Documents included in Appendix C:

- Food Facility FOG Fact Sheet/ Grease Interceptor Guidance
- Food Facility Survey Form
- Food Facility Inspection Form

While the City has known areas with commercial grease sources (e.g. restaurants), most of the City's grease problems are in residential areas and the result of lines with poor grade.

Lines with known poor grade will be prioritized for CCTV inspection. With information on the causes of grease problems, maintenance activities and schedules can be modified or sewer repairs made to better control grease buildup and minimize grease-related SSOs.

Section 8 – System Evaluation and Capacity Assurance Plan

D.13.(viii) 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 capital improvement plan (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 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.

The City periodically conducts flow monitoring and hydraulic modeling analysis to anticipate future growth or increased demand on the system as well as the City's internal inspection, rehabilitation and repair program to assure that excessive I/I is not impacting the capacity of the system.

The City's previous sanitary sewer master plan was completed in 1995. Since that time, the City has completed a number of sewer improvement projects and is experiencing development in a number of areas necessitating an evaluation of the capacity of the sanitary sewer system to handle future flows. A new Sanitary Sewer Capacity Study and Master Plan (Appendix D) was completed in 2015 to confirm existing flows in the collection system and anticipate capital needs for capacity improvement. In addition, it satisfies the requirement for the Sewer System Master Plan to include a System Evaluation and Capacity Assurance Plan.

Capacity Assurance Program

The capacity assurance process is used to determine estimated peak flows associated with wet weather conditions 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.

The Sanitary Sewer Capacity Study and Master Plan, completed by RMC Water and Environment was published in October 2015. The Master Plan is used to guide improvements to the City's sanitary sewer system to accommodate current and future development and ensure that the City continues to provide a high level of service to its customers.

The project used a systematic process that incorporated land use planning information, water use and flow monitoring data, and design criteria for estimating wastewater flows, applied in a computer hydraulic model of the trunk sewer system. The model was used to assess how the system would perform under various planning and flow scenarios and identify pipes and/or pump stations that may not have sufficient capacity to convey the predicted flows under existing or future conditions. Improvement projects were developed to provide the required capacity, the capitals costs of the required projects were estimated, and the projects were prioritized based on the model results.

Capital Improvement Program (CIP)

The CIP Planning relies on data from both the Master Plan and internal inspections to compile and prioritize capital projects which are scheduled as part of the two-year budget process. Point repairs are made soon after discovery and are frequently re-prioritized to insure uninterrupted sewer service. The City's annual budget for point repairs, line replace and other upgrades is approximately \$1,500,000 per year.

Section 9 – Monitoring, Measurement, and Program Modifications

D.13.(ix) 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 the program elements, as appropriate, based on monitoring or performance evaluations; and
- (e) Identify and illustrate SSO trends, including: frequency, location, and volume.

Introduction

The City of San Leandro meets the requirements of Section D, 13 (xi) Monitoring, Measurement, and Program Modifications of the State Water Resources Control Board Order No. 2006-0003 DWQ. In summary:

- (1) The City monitors the implementation of the SSMP, and measures the effectiveness of elements of the SSMP by developing and tracking Key Performance Indicators on a monthly or annual basis.
- (2) By tracking Key Performance Indicators, the City is able to assess the success of the preventive or predictive maintenance program.
- (3) The City has assigned the Collections Systems Maintenance Supervisor as the staff person responsible for reviewing the SSMP annually in order to update program elements as needed.
- (4) The City tracks locations and volumes of all SSOs.

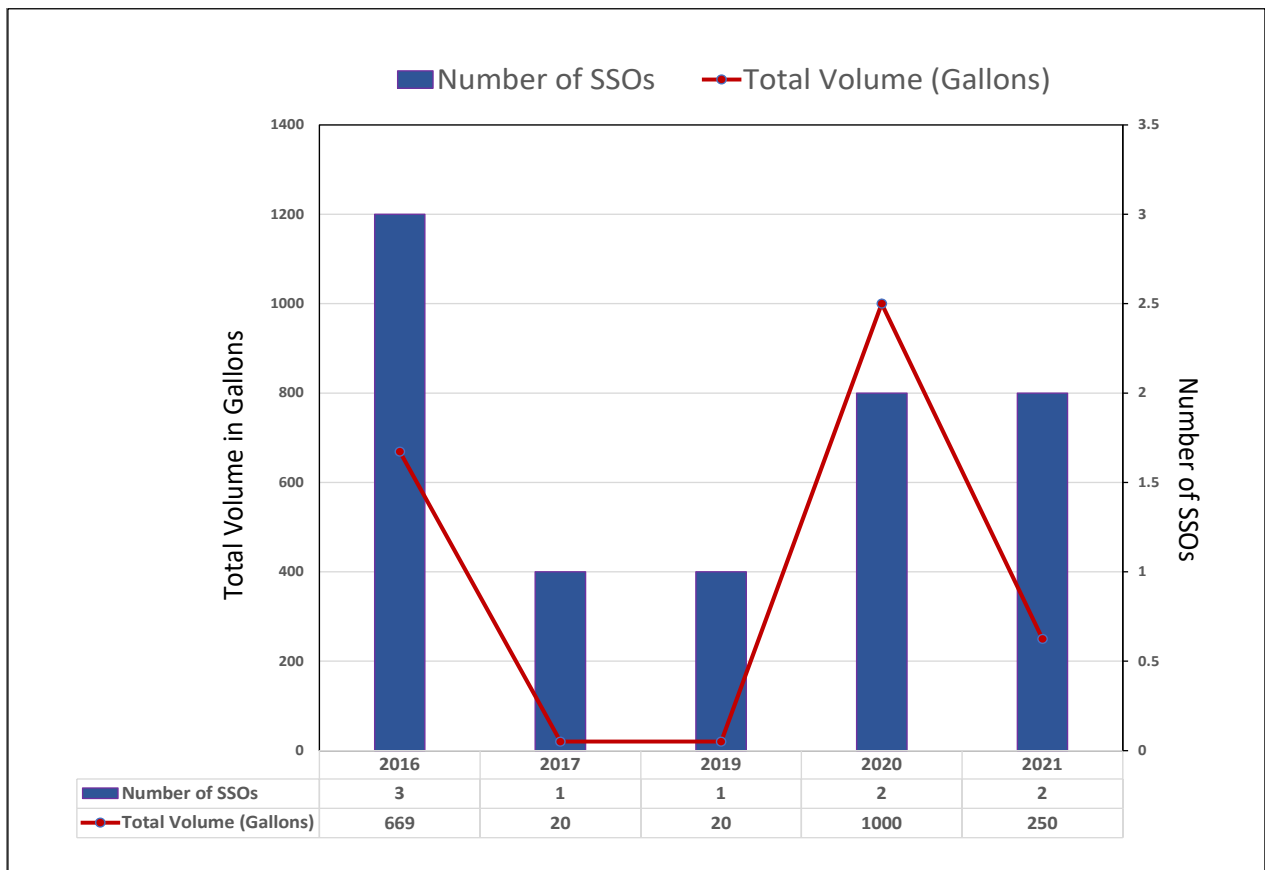
In order to monitor the implementation and measure the effectiveness of the SSMP, the City tracks several Key Performance Indicators, including:

- Total number and volume of SSOs
- Location of all SSOs over the past five years (60 months)
- Location and volume of SSOs that reached surface water
- Number and characteristics of wet weather SSOs over the past 12 months
- SSOs by cause (e.g. roots, grease, debris, pipe failure, pump station failure, capacity, other)
- Miles of gravity mainlines cleaned monthly and annually
- Miles of gravity mainlines CCTV inspected monthly and annually

- Service Calls monthly and annually
- Average time to respond to a Service Call
- Average response time and clean up time for an SSO annually
- Number of plugs in “Hot Spot” assets inspected weekly, monthly or quarterly

The City documents all maintenance activity information using the ICOM3 infrastructure management system. Historic maintenance data can be digitally linked to the GIS for analysis of repeat problem areas. This process allows the City to adjust maintenance activities to prevent stoppages and develop reports for annual audits required for the SSMP. The ICOM3 system also manages CCTV inspection data. Inspection data is collected in a format that is compatible with ICOM3. The system allows for developing a history of operations of assets that help identify approaching problems in operation and allow investigation and correction evaluation prior to an Overflow event.

The City’s total number of SSOs and total volume of spills in calendar years 2016 – 2020 and the first 11 months of 2021 are shown below:



The City's SSMP will be updated when necessary to include operational changes that affect the SSMP elements. Successes and needed improvements of the SSMP will be reviewed as part of the SSMP annual audit using information from the performance indicators and Collection System staff input.

Section 10 – SSMP Program Audits

D.13.(x) 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.

SSMP Audits Discussion

The City will conduct an internal audit of the SSMP at least once every two years. The audit will result in a report of the findings, including the identification of any deficiencies in the SSMP and proposed steps to correct them. The two-year frequency is the maximum allowed by the regulation; however this frequency is appropriate to the size of the City's collection system and the historical number of overflows, and should be sufficient to identify any necessary improvements to the SSMP. The City will assess the need to audit its SSMP more frequently based on the performance of its sanitary sewer system using information from the key performance indicators and input from Collection System staff. All elements of the SSMP will be reviewed using an audit checklist (Appendix E). The audit will include comments regarding recently completed program updates and any recommendations for future actions, changes, or adjustments to an element. Upon completion of the audit, the WPC Manager will keep a copy of the audit report on file for review, and the Change Log will be updated to reflect insertion of the audit report into Appendix E in Volume II of the SSMP.

The City will update its SSMP at least every five years. The first update was completed December 2016 and the second December 2021.

Section 11 – Communication Program

D.13.(xi) 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.

The City maintains a website (<http://www.sanleandro.org>) to inform the public about City activities. The City’s website is an effective communication channel for providing alerts and news to the public. The main page of the website provides important announcements, links, agendas and minutes for City Council meetings, and other key information for City residents. A variety of public works information is published on the City’s Public Works Department page of the website, linked from the Departments tab. The City also uses the website to notify the public of important upcoming activities related to sewer system management.

The City has recently initiated use of an electronic application called My San Leandro (Mobile311) for use with both iPhones and Androids. This app is a work order system that allows residents to report issues of concern anywhere in the City (street lights out, sewer and storm drain issues, odor issues, etc.). Information regarding use of the app has been posted on the City website.

Another City of San Leandro avenue of outreach is the NextDoor neighborhood social network. The Public Works Department is active on this network, providing San Leandro residents notification of public works activities.

WPC Administrative staff participates in City events such as the Downtown Farmer’s Market and the Cherry Festival, interacting with the public and answering questions. Staff also distributes literature and handouts to residents regarding FOG, flushables, and how to report sewer-related issues.

The SSMP was approved by the City Council during a public City Council meeting. The City posts the approved and certified SSMP on the Water Pollution Control Plant’s page of the City’s website.

Section 12 – Record Keeping Requirements

Section E.3 of the Monitoring and Reporting Program for the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SWRCB Order No. WQ 2013-0058-

EXEC) requires the City to document 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. This record is to be attached to the SSMP. The following Change Log shows the changes made to the previously authorized version of the SSMP.

**City of San Leandro
Sewer System Management Plan
Change Log**

SSMP Element	Description of Change or Update	Authorized By	Date
Introduction	Renamed Executive Summary to Background section, removed most material and included references to Order No. WQO 2013-0058, which amended the Monitoring and Reporting Program.	Dean Wilson	12/2016
	Added revision dates to cover page and list of appendices to table of contents.	Justin Jenson	12/2019
	Clarified date of most recent Council action on SSMP in Background section	Justin Jenson	12/2019
City Service Area	Updated population and basic flow/ biosolids data.	Judy Walker	11/2016
	Clarified flow rate as an average dry weather flow	Justin Jenson	12/2019
	Updated Population from 2020 census	Dean Wilson	12/2021
1 - Goals	Simplified goals section to be in line with other City documents.	Dean Wilson	11/2016
	Clarified which gravity mains are cleaned annually	Dean Wilson	12/2021
2 – Organization	Updated SSO response table; updated Wastewater Treatment Plant’s organization chart; added table with names, titles, responsibilities and contact information; added Table 2.1 – City Staff Responsible for SSMP; added Table 2.2 – Legally Responsible Official and Data Submitter.	Dean Wilson	11/2016
	Updated staff names to current employees, titles and contact information. Clarified office	Justin Jenson	12/2019

	hours Updated contact information to current staff and removed names from responsibilities table.	Dean Wilson	12/2021
3 – Legal Authority	Clarified City Municipal Code sections giving legal authority to enforce elements of the SSMP.	Dean Wilson	12/2016
	Updated Municipal Code numbers	Justin Jenson	12/2019
4 – Operation and Maintenance Program	Completely revised to reflect current practices, procedures, and software/GIS upgrades.	Dean Wilson	12/2016
	Added location of documented training records. Included requirement for NASSCO certification for camera truck operators.	Dean Wilson	01/2017
	Minor revision and clarification of CCTV inspection interval	Justin Jenson	12/2019
	Moved information about rehabilitation and replacement to section 8.	Dean Wilson	12/2021
	CWEA certification is now required for new hires and promotions.	Dean Wilson	12/2021
5 – Design and Performance Provisions	Minor revisions.	Dean Wilson	11/2016
6 – Overflow Emergency Response Plan	The City’s OERP was updated in November 2015. This section now reflects highlights from the new OERP and provides a link to the updated document.	Judy Walker	11/2017
7 – Fats, Oils, and Grease (FOG) Control Program	Minor revisions.	Dean Wilson	11/2016
	Updated to facility inspection section reflect current City standard practice	Dean Wilson	12/2021
	Current hot spot program emphasizes known hot spots. Removed reference to 3.6 miles of sewer system on the hot spot list.	Dean Wilson	12/2021
8 – System Evaluation and	Completely revised to reflect the 2015 Capacity Study and Master Plan; also updated	Dean Wilson	12/2016

Capacity Assurance Plan	CIP Program element. Updated amounts typically budgeted for point repairs and upgrades	Dean Wilson	12/2021
9 – Monitoring, Measurement, and Program Modifications	Added City of San Leandro SSMP Change Log form; listed Key Performance Indicators used to assess program effectiveness.	Judy Walker	12/2016
	Updated SSO chart for data from 2016-2021	Dean Wilson	12/2021
	Moved record keeping requirements to a new Section 12	Dean Wilson	12/2021
10 – SSMP Program Audits	Minor revisions.	Judy Walker	11/2016
	Added reference to Audit Checklist (Appendix D).	Dean Wilson	01/2017
	Added 2 nd update	Dean Wilson	12/2021
11 – Communication Program	Updated program data to reflect outreach tools currently in use.	Judy Walker	12/2016
12 – Record Keeping Requirements	Added new section and moved changelog to it.	Dean Wilson	12/2021
Volume II	Added Audit Checklist as Appendix D. Added Audit conducted 01/26/17 as Appendix E.	Judy Walker	01/2017
	Added Audit conducted 12/15/2019 as Appendix F	Justin Jenson	12/2019
	Updated OERP with current contact information	Dean Wilson	12/2021
	Added Capacity Study as Appendix D. Combined all audit-related items into Appendix E	Dean Wilson	12/2021