

SEWER SYSTEM MANAGEMENT PLAN (SSMP)

BURBANK SANITARY DISTRICT OF SANTA CLARA COUNTY



PREPARED BY:



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EXECUTIVE SUMMARY

Document Version Control

This Sewer System Management Plan (SSMP) is a living document that is anticipated to change over time. This version control sheet is intended to support Burbank Sanitary District's efforts to keep the copies of the SSMP that have been assigned to District Staff current. Please contact Ivy To prior to making copies for use by others, initiating changes, or for information regarding the current version of this document.

SSMP Copy Number: _____

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SSMP Section	Last Updated Version Date	Current Version Date
Introduction		
1. Goals	April 2012	MAY 2016
2. Organization	April 2012	MAY 2016
3. Legal Authority	April 2012	MAY 2016
4. O&M Program	April 2012	MAY 2016
5. Design and Performance Provisions	April 2012	MAY 2016
6. Overflow Emergency Response Plan	April 2012	MAY 2016
7. FOG Control Plan	April 2012	MAY 2016
8. System Evaluation and Capacity Assurance Plan	April 2012	MAY 2016
9. Monitoring, Measurement, and Program Modifications	April 2012	MAY 2016
10. SSMP Program Audit	April 2012	MAY 2016
11. Communications Plan	April 2012	MAY 2016

INTRODUCTION

This Sewer System Management Plan (SSMP) has been prepared in compliance with the State Water Resources Control Board (SWRCB) Order 2006-0003: Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (GWDR), as revised by Order No. WQ 2008-0002.EXEC on February 20, 2008. The GWDR prohibits sanitary sewer overflows (SSOs), requires reporting of SSOs using the statewide electronic reporting system, and requires the preparation of an SSMP.

This document has been prepared with the awareness that the District is one of a number of stakeholder agencies within a local watershed area of Santa Clara County each accountable by permit to the State Water Resources Control Board under the Clean Water Act. These stakeholders include:

- San Jose/Santa Clara Regional Wastewater Facility, Department of Environmental Services
- Santa Clara Valley Water District
- City of San Jose, Department of Transportation and Public Works
- Santa Clara County Roads and Airports and Public Works Departments

Other stakeholders include the Santa Clara County Environmental Services Department and several privately organized environmental groups.

This SSMP includes the elements required by both the SWRCB and RWQCB, and is organized following the SWRCB outline. Both SWRCB and RWQCB requirements are addressed in each element. Each requirement is shown as stated in the SSO-WDR and the RWQCB SSMP Development Guide.

BACKGROUND INFORMATION

Burbank Sanitary District (BSD) is a separate governmental entity established as a special district of the State of California. BSD provides sewer collection services for unincorporated pockets within the City of San Jose. The District contracts with the San Jose-Santa Clara Regional Wastewater Facility for wastewater treatment and disposal. Additionally, BSD provides solid waste collection services through franchise agreements with private contractors.

BSD was established in 1940 to acquire, build, operate, and maintain a wastewater disposal system and provide solid waste collection services within an unincorporated area of Santa Clara County. The principal act that governs the District is the Sanitary District Act of 1923. The principal act empowers the District to acquire, plan, construct, reconstruct, alter, enlarge, lay, renew, replace, maintain, and operate all of the following: garbage dumpsites, garbage collection and disposal systems; sewers, drains, septic tanks, sewage collection, outfall, treatment works and other sanitary disposal systems; storm water drains, collection, outfall and disposal systems; and water recycling and distribution systems. BSD boundaries consist of two non-contiguous unincorporated areas that are surrounded by the City of San Jose and within San Jose's Urban Service Area (USA). The District's bounds presently encompass 0.28 square miles.

REQUIRED ELEMENTS OF AN SSMP

In summary, the required elements of an SSMP include:

- Collection System Management Goals
- Organization of Personnel, including Chain of Command and Communication
- Overflow Emergency Response Plan
- Fats, Oils and Grease Control Plan
- Legal Authority for permitting flows in the system, inflow/infiltration control as well as enforcement of proper design, installation, testing standards and inspection requirements for new and rehabilitated sewers
- Measures and activities to maintain the wastewater collection system
- Design and Construction Standards
- Capacity Management
- Monitoring, Measurement and Program Modifications
- Periodic SSMP audits and implementation of program improvements
- Communication Programs

DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

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

Burbank Sanitary District (BSD) – Refers to special sanitary district established under the Sanitary District Act of 1923.

California Office of Emergency Services (Cal OES) – Refers to the agency responsible for overseeing and coordinating emergency preparedness, response, recovery and homeland security activities within the state. The agency was created in 2008, superseding both the Office of Emergency Services (OES) and Office of Homeland Security (OHS).

Calendar Year (CY) – January 1st to December 31st.

California Department of Fish and Wildlife (CDFW) – Refers to the State agency responsible for overseeing fish and wildlife protection and services in the State of California.

California Integrated Water Quality System (CIWQS) – Refers to the State Water Resources Control Board online electronic reporting system that is used to report SSOs, certify completion of the SSMP, and provide information on the sanitary sewer system.

California Association of Sanitation Agencies (CASA) – Refers to an association of local agencies engaged in advancing the wastewater disposal system/technology and the recycling of wastewater into usable water, generation of renewable energy, and other valuable resources.

California Water Environmental Association (CWEA) – Refers to an association of local agencies engaged in protecting waters of United States.

Capital Improvement Program (CIP) – Refers to the document that identifies planned capital improvements to the District’s sanitary sewer system.

Certification of SSO Reports – The SWRCB requires the Legally Responsible Official (LRO, defined below) to log in to CIWQS within a given time period to electronically sign submitted reports thereby stating that to the best of his/her knowledge and belief, the information submitted is true, accurate, and complete.

Closed Circuit Television (CCTV) – Refers to the process and equipment that is used to internally inspect the condition of gravity sewers.

County Health – Refers to the Santa Clara County Public Health Department.

Environmental Protection Agency (U.S. EPA) – Refers to the United States Environmental Protection Agency.

Fats, Oils, and Grease (FOG) – Refers to fats, oils, and grease typically associated with food preparation and cooking activities that can cause blockages in the sanitary sewer system.

First Responder – Refers to the District employee who provides the District’s initial response to a sewer system alarm, emergency, or other event.

Field Report – Refers to the Sanitary Sewer Overflow Report, a document used to provide the basis for entering an overflow report into CIWQS.

Fiscal Year (FY) – Refers to July 1st to June 30th of each year.

Gallons per Acre per Day (gpad) – Refers to measurement of volume per acre.

Gallons per Day (gpd) – Refers to measurement of volume per day.

Gallons per Minute (gpm) – Refers to measurement of volume per minute.

General Waste Discharge Requirements (GWDR) – Refers to the State Water Resources Control Board Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, dated May 2, 2006, as revised on February 20, 2008.

Geographic Information System (GIS) – Refers to the District’s system that it uses to capture, store, analyze, and manage geospatial data associated with the District’s sanitary sewer system assets.

Global Positioning System (GPS) – Refers to the handheld unit used to determine the longitude and latitude of sanitary sewer overflows for use in meeting the CIWQS Online SSO Reporting System reporting requirements. Google maps can be used in lieu of a GPS unit to obtain this information.

Grease Removal/Pretreatment Devices (GRD) – Piece of equipment connected to the sewer line close to the source of FOG (fats, oils and grease) being discharged. It is made up of a baffle system inside intended to slow the discharge long enough for the FOG to separate from the gray water (retention time). The FOG floats to the top of the reservoir inside the device, gray water flows through the sewer system and food particles drop to the bottom of the reservoir.

House Connection Sewer (Upper Lateral) – Refers to that portion of the horizontal sewer piping from the building or structure to the property line of the public right of way or easement.

Infiltration/Inflow (I/I) – Refers to water that enters the sanitary sewer system from storm water and groundwater that increases the quantity of flow. Infiltration enters through defects in the sanitary sewer system after flowing through the soil. Inflow enters the sanitary sewer system without flowing through the soil. Typical points of inflow are holes in manhole lids and direct connections to the sanitary sewer (e.g. storm drains, area drains, and roof leaders).

Legally Responsible Official (LRO) – Refers to the individual who has the authority to certify reports and other actions that are submitted through the Online SSO Reporting System.

Manhole (MH) – Refers to an engineered structure that is intended to provide access to a sanitary sewer for maintenance and inspection.

Millions of Gallons per Day (MGD) – Refers to measurement of volume in million gallons per day.

Monitoring, Measurement, and Program Modification (MMPM) – Refers to methods used in field for sewer overflows.

National Pollutant Discharge Elimination System (NPDES) – Refers to State of California permit for point and non-point source discharges.

Not Applicable (NA) – Refers to abbreviation used (NA) when something does not apply.

Notification of a SSO – Refers to the time at which the District becomes aware of a SSO event through observation or notification from the public or other source.

Office of Emergency Services (OES) – See California Emergency Management Agency.

Online SSO Reporting System – Refers to the California Integrated Water Quality System (CIWQS).

Operations and Maintenance (O&M) – Refers generally to annual operations and maintenance activities of the sanitary sewer system.

Overflow Emergency Response Plan (OERP) – Refers to established plan of the District in response to an emergency.

Preventive Maintenance (PM) – Refers to the maintenance activities intended to prevent failures of the sanitary sewer system facilities (e.g. cleaning, CCTV, inspections).

Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned sewer service lateral.

Property Damage Overflow – Property damage overflow refers to a sewer overflow or backup that damages private property.

Public Sewer – As stated in the District Operations Code, this refers to any mainline sewer constructed in any street, highway, alley, place or right of way dedicated for public use.

Regional Water Board – Refers to the San Francisco Bay Regional Water Quality Control Board – Region 2.

Regional Water Quality Control Board (RWQCB) – Refers to the San Francisco Bay Regional Water Quality Control Board – Region 2 and Regional Water Board.

Sanitary Sewer Overflow (SSO) – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:

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

Sanitary Sewer System – Refers to the portion of the sanitary sewer facilities that are owned and operated by Burbank Sanitary District. The sanitary sewer system consists of collection sewers and trunk sewers.

Sensitive Area – Refers to areas where a SSO could result in a fish kill or pose an imminent or substantial danger to human health (e.g. parks, aquatic habitats, etc.).

Sewer Service Lateral – For the purposes of this SSMP, the sewer service lateral includes both the upper lateral (house connection sewer) and the lower lateral (sewer lateral).

Sewer Lateral (Lower Lateral) – Refers to the portion of the pipe from upper lateral (house connection sewer) to the sewer main, including the connection to the sewer main. The property owner is responsible for repairing any failure or damage in the upper sewer lateral. District is responsible for repairs, including the connection to the sewer main; unless it is determined that another party caused the failure or damage of the sewer lateral (Lower Lateral).

Sewer System Management Plan (SSMP) – Refers to State mandated program for sewer management.

Santa Clara County Public Health Department (County Health) – Refers to Santa Clara County Health Department.

Standard Operating Procedures (SOP) – Refers to written procedures that pertain to specific activities employed in the operation and maintenance of the sanitary sewer system.

State Water Resource Control Board (SWRCB) – Refers to the California Environmental Protection Agency (Cal/EPA) State Water Resources Control Board and staff responsible for protecting the State's water resources.

Surface Waters – See waters of the State

System Evaluation and Capacity Assurance Plan (SECAP) – Refers to methods employed to assure adequate available capacity.

Trunk Sewer or Main Interceptor System – The terms trunk sewer, gravity trunk line, and main interceptor sewer are used interchangeably to refer to the main branches of the sanitary sewer system, which carry flows from the collector sewers to the treatment plant.

Volume Captured – The amount of spilled sewage that is returned to the sanitary sewer system. When recording the volume that is captured, the volume of water used for flushing and/or cleaning should not be included.

Water Body – A water body is any stream, creek, river, pond, impoundment, lagoon, wetland, or bay.

Waters of the State – Waters of the State (or waters of the United States) means any water, surface or underground, including saline waters, within the boundaries of California. In case of a sewage spill, storm drains are considered to be waters of the State unless the sewage is completely contained and returned to the sanitary sewer system and that portion of the storm drain is cleaned.

Work Order (WO) – Refers to the document (paper or electronic) that is used to assign work and to record the results of the completed work.

ELEMENT 1 – GOALS

SWRCB Requirements:

The goal of the Sewer System Management Plan (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.

RWQCB Requirements:

Each wastewater collection system agency shall, at a minimum, develop goals for the Sewer System Management Plan as follows:

- *To properly manage, operate, and maintain all parts of the wastewater collection system*
- *To provide adequate capacity to convey peak flows*
- *To minimize the frequency of SSOs*
- *To mitigate the impact of SSOs*

The purpose of the SSMP is to provide guidance to the District in the operation, management and maintenance of its sewer collection system in order to comply with the SWRCB Order No. 2006-003 DWQ and RWQCB requirements outlined in the Sewer System Management Plan Development Guide. The District is charged with the responsibility of collection of sewage waste within its service boundaries and conveyance to the San Jose/Santa Clara Water Pollution Control Plant. The District's goal is to carry out maintenance and operation of the sewer collection system with no adverse impact to the public health or environment.

The provisions of the SSMP were developed and updated to ensure that the District is able to meet its goals by:

- Implementing a collection system maintenance program to minimize the frequency of sanitary sewer overflows.
- Responding to sanitary sewer overflows quickly and mitigating the impact of the SSO.
- Mitigating the impact of sewer overflows that do occur as well as follow up investigations to identify the cause of the overflow event and using that information to either adjust the maintenance schedule or schedule a repair/replacement.
- Properly managing, operating and maintaining all elements of the wastewater collection system to better allocate resources and manpower.
- Cost effectively minimizing infiltration/inflow (I/I) and analyzing the existing capacity and developing a plan to provide adequate capacity for future development and to convey peak dry weather flows.
- Developing and maintaining design construction standards and specifications for the installation and repair of the collection system and its associated infrastructure.
- Maintaining comprehensive and up-to-date maps of wastewater collection system.
- Coordinating with the City of San Jose and Santa Clara County to maintain storm water maps.

- Providing training on a regular basis for staff in collection system maintenance and operations.
- Encouraging and supporting participation in the quarterly meetings with the neighboring collection system agencies and the partners to the wastewater treatment plant.
- Maintaining Fats, Oils, and Grease (FOG) program to limit fats, oils, and grease, and other debris that may cause blockages in the sewage collection system.
- Developing a closed-circuit televising (CCTV) program for the collection system.

The District has implemented policies and procedures for the systematic inspection and continued maintenance of its infrastructure and engages contracted, competent, trained personnel to carry out the scheduled tasks. The District personnel and contractors are utilizing the procedural training available through organizations such as California Association of Sanitation Agencies (CASA) and California Water Environment Association (CWEA).

ELEMENT 2 – ORGANIZATION

SWRCB Requirements:

The Sewer System Management Plan (SSMP) must identify:

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

RWQCB Requirements:

Each wastewater collection system agency shall, at a minimum, provide the following information regarding organization:

- Identify agency staff responsible for implementing, managing, and updating the SSMP*
- Identify chain of communication for responding to SSOs*
- Identify chain of communication for reporting SSOs*

The District Organization Chart is attached and indicates the chain of responsibility for the management, operation and maintenance of the District's collection system. District contracts its management, engineering and operation with Mark Thomas and Company Inc.

Persons responsible are:

Richard Tanaka, District Manager-Engineer (408) 253-7071
Ivy To, District Administrator/Project Manager (408) 205-1080
Frank Quach, Operations Manager/Project Manager (510) 299-0917

Chain of Communication for Reporting SSOs:

- Burbank Sanitary District (408) 255-2137; after business hours/holidays (408) 299-2507 receives call of SSO from public or other agency.
- First Responder dispatched to spill site requests. Response Crew to meet at scene.
- SSO report form completed by First Responder with GPS Coordinates to define location.
- Category 1 spill: one of the above staff will be at the site.
- SSO form forwarded to Richard Tanaka/Ivy To.
- Ivy To or Frank Quach inputs SSO into statewide SSO database via CIWQS website.

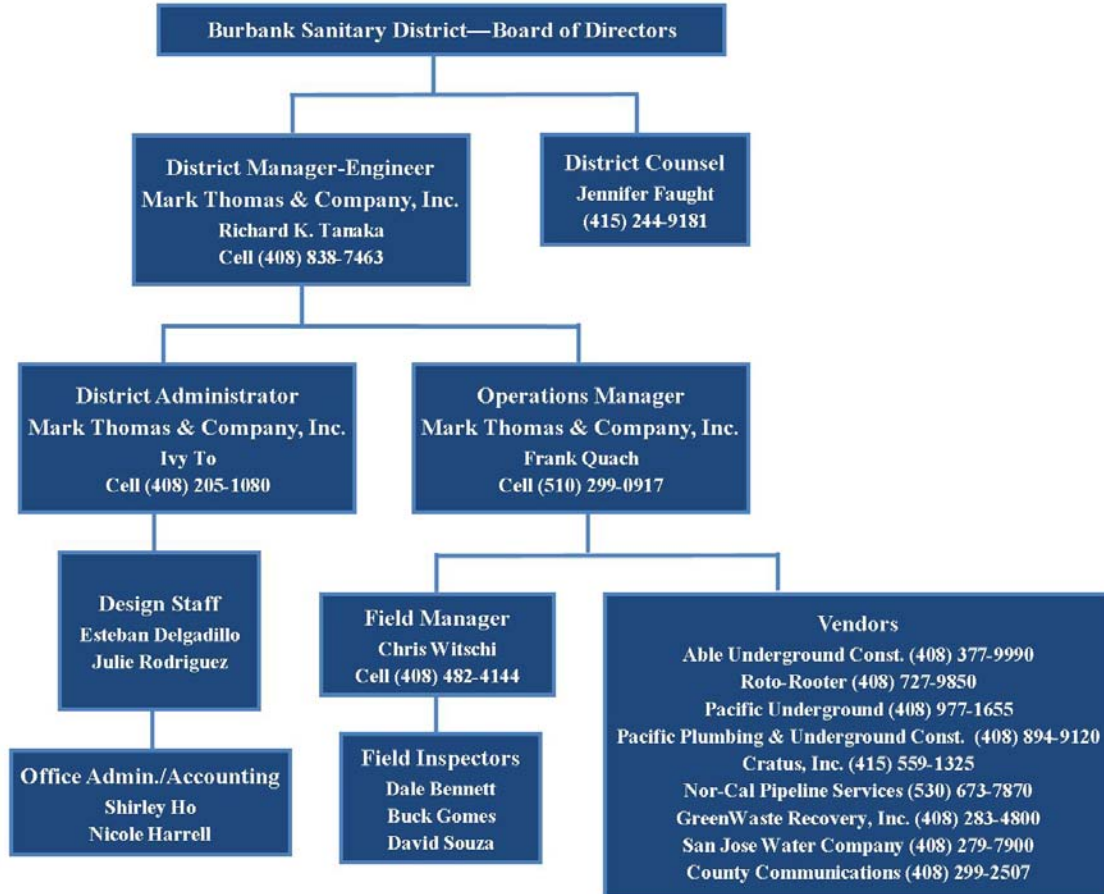
Authorized Representative

The District's Authorized Representatives in all sanitary sewer system matters are Richard Tanaka (District Manager-Engineer), Ivy To (District Administrator) and Frank Quach (Operations Manager). Tanaka, To, and Quach are authorized to submit verbal, electronic, and written spill reports to the RWQCB, SWRCB, County Health, and Cal OES. Richard Tanaka and Ivy To are the District's designated Legally Responsible Officials (LROs) and are authorized to certify electronic spill reports submitted to the SWRCB.

Responsibility for SSMP Implementation

Ivy To is responsible for developing, implementing, and maintaining all elements of the District's SSMP.

District Organization



ELEMENT 3 – LEGAL AUTHORITY

SWRCB Requirements:

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

- a. Prevent illicit discharges into its sanitary sewer system (examples may include I/I, 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.*

RWQCB Requirements:

Each wastewater collection system agency shall, at a minimum, describe its legal authority through sewer use ordinances, service agreements, or other legally binding procedures to:

- Control infiltration/inflow (I/I) from satellite wastewater collection systems and laterals.*
- Require proper design and construction of new and rehabilitated sewers and connections.*
- Require proper installation, testing, and inspection of new and rehabilitated sewers.*

The powers of and the execution of Legal Authority provided by and through the governing body of the Burbank Sanitary District (District) and directed by the District Manager-Engineer, for sewer use, services, construction, permits and procedures are applicable to all industrial, business or residential entities and are cited in the District Ordinance No. 4, dated September, 1941 and Ordinance No. 5, dated May 9, 1942 and as amended.

The District hereby declares that the following procedures are established as a means of enforcement of the terms and conditions of this Code or any other ordinances, rules and regulations, and not as a penalty. The Government Code of the State of California, Health and Safety Code of the State of California, Code of Federal Regulations, City Health Department, County Health Department, Environmental Protection Agency, Civil Code of the State of California, County of Santa Clara, NPDES, Plumbing and Electrical Codes are referenced within the District's Operations Code.

The primary responsibility for enforcement of the provisions of this Code is vested in the District Manager-Engineer or District agents as designated, field inspectors or other representatives of the District and the San Jose/Santa Clara Water Pollution Control Plant authorized to act on behalf of the District Manager-Engineer, having the power to inspect and issue notices for violations.

ELEMENT 4 – OPERATIONS AND MAINTENANCE

SWRCB Requirements:

The Sewer System Management Plan (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 applicable stormwater conveyance facilities;*
- b. Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventive Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;*
- c. Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system of ranking the condition of the 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 replacements plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;*
- d. Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and*
- e. Provide equipment and replacement part inventories, including identification of critical replacement parts.*

RWQCB Requirements:

Collection System Map – Each wastewater collection system agency shall maintain up-to-date maps of its wastewater collection system facilities.

Resources and Budget – Each wastewater collection system agency shall allocate adequate resources for the operation, maintenance, and repair of its collection system.

Prioritized Preventive Maintenance – Each wastewater collection system agency shall prioritize its preventive maintenance activities.

Scheduled Inspections and Condition Assessment – Each wastewater collection system agency shall identify and prioritize structural deficiencies and implement a program of prioritized short-term and long-term actions to address them.

Contingency Equipment and Replacement Inventories – Each wastewater collection system agency shall provide contingency equipment to handle emergencies, and spare/replacement parts intended to minimize equipment/facility downtime.

Training – Each wastewater collection system agency shall provide training on a regular basis for its staff in collection system operations, maintenance, and monitoring.

Outreach to Plumbers and Building Contractors – Implement an outreach program to educate commercial entities involved in sewer construction or maintenance about the proper practices for preventing blockages in private laterals. This requirement can be met by participating in a region-wide outreach program.

Operations and Maintenance Activities

The District's sewage flows are collected by the District's nearly 8 miles of service laterals and mains and then transmitted through joint use mains, interceptors and trunk lines by contractual agreement with the City of San Jose to the San Jose-Santa Clara Regional Wastewater Facility for treatment and disposal.

Costs of wastewater treatment and disposal are based upon the terms of a Master Agreement between the Cities of San Jose and Santa Clara, owners of the San Jose-Santa Clara Regional Wastewater Facility, and Burbank Sanitary District, dated May 1, 1985. The Master Agreement provides for treatment capacity right and appropriate allocation of capital, operations and maintenance costs.

The District's management is provided by contractual agreement with Mark Thomas & Company Inc., a private consultant responsible for day-to-day administration and oversight of the District's facilities and operations. Repairs and maintenance activities are provided as scheduled or needed with outside contractors and overseen by Mark Thomas and Company field inspection personnel.

Outside Contractors providing routine maintenance and emergency response services are required by the District's Operations Code to be registered annually with the District providing evidence of current insurance coverage in force at the limits set forth by the District. In addition, contractor is required to comply with the current prevailing wage requirements and to be in compliance with the Department of Industrial Relations.

The contractors must also demonstrate professionalism and competency to carry out the assigned tasks of maintenance and repairs of the District's facilities. A contractor's safety record is considered as well as observed safe practices and well established workmanlike performance.

Maintenance activities are overseen by District inspection staff and findings of existing condition of sewer mains are logged and evaluated on a priority of needed attention or repair. Attention can range from increased frequency of cleaning to video inspection to determine extent of needed spot repairs or eventual replacement of a significant section of sewer main. Mains found to be significantly in disrepair or undersized are placed on a prioritized list on the District's Capital Improvement Program to be rehabilitated by pipe-bursting or replacement to increase capacity, eliminate sources of I & I and/or improve integrity of the system.

The major elements of the District's Operation and Maintenance Program are:

1. Collection System Mapping
2. Description of Existing Facilities
3. Computerized Sewer Management System
4. Annual Routine Maintenance
5. Rehabilitation and Replacement Plan
6. Capital Improvement Program
7. Staff Training and Certification
8. Maintenance Equipment

Collection System Maps and Description of Existing Facilities

The District's map records consist of three systems.

- a) Records of permitted, connected parcels are keyed to the County's Assessor Maps which are utilized to show addresses and permit numbers issued. These are electronically retained and updated annually to keep current with ongoing record map changes within the District's Service Area. The maps also include schematic diagrams of the District's mains and service laterals with references for users to As-Built map sources.
- b) Assessment diagrams for Local Improvement District projects and the associated As-built plans are maintained on file and available electronically as well. Maps of other District funded projects; federally funded Trunk Lines and the District's outfall interceptor through the City of San Jose leading to the San Jose/Santa Clara WPCP are also maintained at the service counter and are accessible electronically as well. Subdivision Maps and associated developer installed As-built plans are maintained as the balance of the District's infrastructure construction history and are also available electronically.
- c) The District also maintains 100 scale maps that show the total boundaries of the areas served and the related Service Area Boundaries established by LAFCO. The District's 100 scale maps are ACAD generated and includes scale, north arrow, date of last version, service area boundaries, property lines, manholes and other access points, street names, main, trunk, easement lines and dimensions, pipe ID's, pipe diameter, and flow direction. Sanitary sewer laterals are not included in the maps due to visibility issue.

The City of San Jose has provided their storm sewer base map for the areas adjacent to the District boundaries. The storm sewer base map from the County of Santa Clara has not been made available to the District.

Computerized Sewer Management System

The District's database is maintained through daily logs and spreadsheets and is updated continually. Work orders are generated based on the database for maintenance operation; and scheduling is developed using the database information. The primary functions of the District's database are:

- Maintain service request and maintenance history information for each individual collection system asset.
- Produce and regularly update the maintenance schedule based on feedback information from the cleaning operations.
- Generate reports that support data analysis and decision-making.
- Provide documentation for use in regulatory compliance reporting.
- Indicate line segment or structures that may be candidates for replacement or rehabilitation under the capital improvement program.

Routine Maintenance

The District's routine maintenance includes scheduled and planned maintenance of the entire collection system on a 36-month cycle. The main goal of the routine maintenance is to ensure that the collection lines, manholes, and other sewer infrastructures are free of any obstacles.

Outside contractors provide routine maintenance and emergency response services as required by the District through a work order system. The contractors utilize hydroflush, VacCon, or continuous rodder to clean and maintain the District sewer mains. After each line cleaning, the District Inspector uses the work order to document the field activities. Upon completion of the daily field work, the District Inspector enters the information from the work orders into the database. Sewer laterals are being cleaned with rodders or snake machine.

Annual Routine Maintenance Prioritization List

The annual maintenance program prioritization is based on the following factors of the sanitary sewer collection system:

- A. **Structural Condition** - The District has implemented a pipeline assessment program using CCTV inspections to analyze the areas that require a higher maintenance frequency. Pipeline sections that are Grade 3 are scheduled for higher cleaning frequency with follow-up CCTV inspections. Pipeline sections that are Grade 4 and Grade 5 (Significant and Most Significant Defect) are placed on high-priority replacement/rehabilitation queue, funding permitting, and all Grade 5 are planned to be repaired/replaced within 2 years after discovery of the defect. Significant Defects that are found to be the cause of a SSO are scheduled for repair as soon as practical. Frequency of maintenance is returned to the normal cycle once the pipeline has been repaired or replaced.
- B. **Root Control** - Established neighborhoods and pipe segments located within easements with a history of root intrusion are maintained with power rodding and high pressure rodding cleaning. Pipeline assessment and history analysis will determine if the cleaning frequency of the maintenance for these lines should be adjusted based on the 36-month cycle.
- C. **Grease Conditions** - Sewers with a history of repeated calls for grease stoppages are maintained at a higher frequency that is intended to prevent repeat stoppages or SSOs. Pipeline assessment and history analysis will determine if the cleaning frequency of the

maintenance for these lines should be adjusted based on the 36-month cycle. The District not only performs maintenance of these lines, but will work closely with the Environmental Services Department of the City of San Jose in the implementation of the Fats, Oils, and Grease (FOG) reduction program by educating food establishments on Best Management Practices.

Rehabilitation and Replacement Plan

The District has completed a condition assessment and CCTV inspection program to prioritize long-term rehabilitation and replacement sanitary sewer main projects. These projects are programmed into the approved 10-year Capital Improvement Program (CIP) adopted on December 15, 2015. This 10 year Capital Improvement Program is as follows:

YEAR	ZONE	LOCATON	DESCRIPTION	COST
1	B	Arleta Avenue, Irving Avenue	20 Spot Repairs	\$246,000
2	B	Brooklyn Avenue, Leland Avenue	27 Spot Repairs	\$430,000
3	A	All Streets, includes Scott Street	Pipe Bursting	\$1,575,000
4	B	Boston Avenue, Bailey Avenue	15 Spot Repairs	\$246,000
5	B	Cleveland Avenue	4 Spot Repairs + Replacement	\$285,000
6	B	Laswell Avenue, Richmond Avenue	20 Spot Repairs	\$166,000
7	B	Rutland Avenue, Vaughn Avenue	12 Spot Repairs	\$174,000
8	B	Bascom Avenue, Wabash Avenue, Leigh Avenue	11 Spot Repairs	\$137,000
9	B	Cecil Avenue, Clifton Avenue, Raymond Avenue	9 Spot Repairs	\$141,000
10	B	Forest Avenue, Arleta Avenue	3 Spot Repairs	\$51,000

In April of 2015, District Board of Directors approved a rate increase of 15% per year for the next 5 years to ensure that the adopted 10 Year CIP can be implemented.

Safety Training and Certification

The District uses a combination of in-house classes, on-the job training, conferences and seminars, and other training opportunities to train its District Personnel. Staff regularly participates in technical seminars, conferences, and meetings with the following:

1. California Water Environment Association (CWEA)
2. Bay Area Clean Water Agencies (BACWA)
3. California Association of Sanitation Agencies (CASA)

All District Personnel are provided copies of the Standard Operating Procedures and trained on every piece of equipment assigned for the task including but not limited to:

1. SSO and Backup Response
2. Sewer Cleaning Equipment O&M
3. CCTV Operation and Maintenance
4. Lock Out/Tag Out

On-the job training is also received through mentoring by senior staff. Regular safety trainings are held to develop and maintain qualified staff.

The CWEA Technical Certification Program provides certification in a variety of wastewater disciplines to promote and enhance the education and effectiveness of the wastewater professional. The District encourages its maintenance staff to obtain CWEA certification to demonstrate their level of competency in the area of collection system maintenance. By providing adequate staff training and establishment of certain grade level requirements as a condition of career advancement, the District reinforces the importance it places on certification.

Staff Member	Title	CWEA Certification	CCTV	Confined Space	Traffic Control	CPR/ First Aid/AED	Water Sample Collection
Richard Tanaka, PE	District Manager/Engineer				Yes, MUTCD		
Frank Quach, PE	Operations Manager		PACP, LACP, MACP	Yes	Yes, MUTCD	Yes	
Ivy To, PE	District Administrator		PACP, LACP, MACP		Yes, MUTCD		
Julie Rodriguez	Design Engineer				Yes, MUTCD		
Esteban Delgadillo	Design Engineer				Yes, MUTCD		
Tony J. Soares	Sewer Inspector		PACP, LACP, MACP	Yes	Yes, MUTCD	Yes	Yes
Dave Souza	Sewer Inspector		PACP, LACP, MACP	Yes	Yes, MUTCD	Yes	Yes
Chris Witschi	Sewer Inspector		PACP, LACP, MACP	Yes	Yes, MUTCD	Yes	
Buck Gomes	Sewer Inspector		PACP, LACP, MACP	Yes	Yes, MUTCD		
Rick Almondia	Sewer Inspector		PACP, LACP, MACP	Yes	Yes, MUTCD		

Guadalupe Pattison	Sewer Inspector		PACP, LACP, MACP	Yes	Yes, MUTCD		
Dale Bennett	Sewer Inspector		PACP, LACP, MACP	Yes	Yes, MUTCD	Yes	
Shirley Ho	Senior Design Technician		PACP, LACP, MACP				

Equipment

The District owns no equipment.

ELEMENT 5 – DESIGN AND PERFORMANCE STANDARDS

SWRCB Requirements:

- 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.*

RWQCB Requirements:

Each wastewater collection system agency shall identify procedures and standards for inspecting and testing the installation of new sewers, pump stations, and other appurtenances; and for rehabilitation and repair projects.

Design Guidelines

The District utilizes the Design Guidelines for Sanitary Sewer for establishing minimum standards for construction of public sanitary sewers. The District's Standard Details are intended to aid consulting engineers, developers, and others doing work in the City on public sanitary sewer projects. The District Standard Details are as follows:

- Manhole
- Flushing Inlet
- Concrete Encasement
- Sewer Lateral and Main, open cut and trenchless technology
- Synthetic Rubber Wedged Insert Tee
- Banded Wye Installation
- Solvent Weld Wye Installation
- Backflow Prevention Device Installation
- Property Line Cleanout for Lateral Sewer

Sanitary Sewer Design Procedures

The current District Sanitary Sewer Design Procedures dated 2012 are being updated as needed. The Design Procedures have been followed by District staff for in-house and consultant designed projects. Additional design procedures include:

- Preliminary Engineering includes planning, scheduling, budgeting, requesting for services or information from utility companies, material testing, survey, hydraulic analysis, preliminary design, and environmental clearance applications such as exemption, negative declaration, and/or EIR.

- Initial Design and Plan Check Distribution for review to utility companies, impacted agencies and involved departments and divisions including material testing lab, survey, and City Public Works Departments.
- Final Design includes property acquisition, request for insurance specification, request for encroachment permits, construction quantities and cost estimates, preparation of final plans and specifications, final review and approval, and bid and award.

The procedures ensure the communication, coordination, and collaboration with the involved parties in the design review process.

The complete District Standard Details are available at the District's office at 20863 Stevens Creek Boulevard, Suite 100, Cupertino, CA 95014 and on the District's website in Adobe PDF format at http://burbanksanitary.org/standard_details.

Other Design Standards Used

When alternative techniques for pipeline rehabilitation are used on an existing system, the design must conform to ASTM and appropriate industry standards. Some of the potential techniques that may be considered for District rehabilitation are:

- Directional Drilling
- Pipe Bursting

The engineering analysis during the design phase must include factors such as:

- Pipe size, length, and depth
- Existing pipe condition
- Capacity requirement
- Access conditions
- Right of way requirements
- Soil condition and cover
- Groundwater conditions
- Project locations
- Traffic conditions
- Environmental impacts

Inspection Guidelines

The District has prepared sewer inspection guidelines for the following

- Lateral Maintenance Inspection
- Trunk Main Maintenance Inspection
- Final Inspection for Property Line Cleanout and CCTV
- Inspection Checklist for Sewer Lateral Capping
- Pre and Post Construction Checklist and Punch List

- Contract Change Orders
- Reporting and Documentation
- Miscellaneous and testing

Construction Management

The District's construction management includes continuous onsite inspection. Inspections are performed during the progress of the work and at the completion of construction. All acceptance testing for gravity sewers is performed in the presence of the District sewer inspectors. The project will not be accepted until all results of the testing of sewers meet the requirements of the project plans and specification and/or the established standards. If the acceptance testing fails, the District will require the contractor to submit a repair plan and conduct the repair per the approved repair plan. Acceptance testing is performed again until the testing results meet the District's requirement.

A full-time District sewer inspector is assigned to CIP projects. The inspector will follow the project until its acceptance. Inspectors are under the supervision of District Manager-Engineer and should report any discrepancy directly to the supervisor. All communications between the contractor and District Manager-Engineer should be through the project inspector.

The inspector will mark any changes to the design plan in his/her working plans. At the acceptance of the project, the inspector will provide the marked working plans to the engineer for the marking of the "record-drawings" by updating all changes from the original plan drawing.

ELEMENT 6 – OVERFLOW AND EMERGENCY RESPONSE PLAN

SWRCB Requirements:

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

- a. Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;*
- b. A program to ensure an appropriate response to all overflows;*
- c. Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The Sewer System Management Plan (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.*

RWQCB Requirements:

Each wastewater collection system agency shall develop an overflow emergency response plan with the following elements:

- Notification – Provide SSO notification procedures.*
- Response – Develop and implement a plan to respond to SSOs.*
- Reporting – Develop procedures to report and notify SSOs per SSO Monitoring and Reporting Program.*
- Impact Mitigation – Develop steps to contain wastewater, to prevent overflows from reaching surface waters, and to minimize or correct any adverse impact from SSOs.*

Sewer Overflow Response Plan

I. SSO Detection

- A. Public Observation
- B. District Personnel Observation

II. SSO Response and Procedure

- A. Safety
- B. Initial Response
- C. Containment
- D. Restore Flow
- E. SSO Volume Estimation
- F. Estimating of Recovery Volume of Spilled Sewage
- G. Cleanup
- H. Public Notification
- I. Water Quality Sampling and Testing

III. Weekly SSO Meetings (Failure Analysis Investigation)

IV. SSO Documentation and Reporting

- A. SSO Categories
- B. Internal SSO Reporting Procedures
- C. External SSO Reporting Procedures
- D. Internal SSO Documentation
- E. External SSO Record Keeping Requirements

V. Equipment

- A. Closed Circuit Television (CCTV) Inspection Unit
- B. Camera
- C. GPS (Global Positioning System) Unit
- D. Portable Generators, Portable Pumps, Piping and Hoses

VI. SSO Response Training

- A. Initial and Annual Refresher Training
- B. SSO Response Drills
- C. SSO Training Record Keeping
- D. Contractors Working on District Facilities

INTRODUCTION

The purpose of this Overflow Emergency Response Plan is to provide Standard Operating Procedures (SOPs) for an orderly and effective response to Sanitary Sewer Overflows (SSOs). This plan provides courses of actions for SSO detection, response, containment, volume estimation, recovery, clean up, analysis, documentation, and reporting.

I. SSO Detection

A. Public Observation

Public observation is the most common way that the District is notified of blockages and spills. Contact information for reporting sewer spills and backups are in the phone book and on the District's website: <http://burbanksanitary.org/>. The public is instructed to call the District office at (408) 255-2137 between 8:00 am and 5:00 pm. County Communication at (408) 299-2507 dispatches sewage related calls to the first responder after hours, weekends, and holidays.

When a report of a sewer spill or backup is made, District staff receives the call, takes the information from the caller, and fills out the first section of a Service Request.

The person who receives the call will verbally communicate the service request to the Sewer Inspector for follow up.

B. District Personnel Observation

District personnel conduct periodic inspections of its sewer system facilities as part of their routine activities. Any problems noted with the sewer system facilities are reported to appropriate District personnel who in turn responds to emergency situations. Work orders are issued to correct non-emergency conditions.

II. SSO Response and Procedures

A. Safety

The first responder is responsible for following safety procedures at all times. Special safety precautions must be observed when performing sewer work to protect and restore public health, environment, and property from sewage spill events.

There may be times when District personnel responding to a sewer system event are not familiar with potential safety hazards for that particular sewer task. In such cases, it would be appropriate to take the time to identify hazards, discuss safety issues, consider the order of work, and check safety equipment before starting the job.

B. Initial Response

All sanitary sewer system calls require a response to the reported location of the event in an attempt to minimize or eliminate an overflow. The first responder must arrive at the site of the reported problem immediately and visually check for potential sewer stoppages or overflows.

Response Time – It is the goal of the District to respond to a SSO within 30 minutes of the first call during regular business hours (Monday thru Friday between 8:00 am and 5:00 pm), and within 60 minutes after hours and during weekends and holidays.

First Responder's (First Person at SSO site) Role is to:

- Identify and clearly assess the affected area and extent of spill and note arrival time at spill site.
- Establish perimeters and control zones with traffic cones, barricades, vehicles, or terrain.
- Document conditions upon arrival with photographs.
- Promptly notify the Authorized Representative in the event of a Category 1 SSO or when the spill appears to be large, in a sensitive area, or there is doubt regarding the extent, impact, or how to proceed, and request additional resources (e.g. people, equipment, etc.)
- Contain and control the sewage discharged to the maximum extent possible.
- Make every effort to prevent the discharge of sewage into waterways.
- Restore the flow as soon as practicable and contact the caller for additional information. Depending on the situation, utilize the combination sewer cleaning truck and/or spill response vehicle.
- Return the spilled sewage to the sewer system.
- Restore the area to its original condition (or as close as possible).

Note: Containment is a higher priority than restoring flow, but this depends on the circumstances.

- If the problem is in a private sewer lateral and the flow has entered public right of way, then the first responder should:
 - Request the resident to cease activities that are causing continuation of the sewer spill (e.g. flushing toilets, washing laundry, etc.)
 - Request the resident to call a plumber to correct the problem with their lateral and stand by until the plumber arrives.
 - Contain any spilled sewage that has entered the public right of way and return it to the sanitary sewer system.

C. Containment

Decide whether to proceed with clearing the blockage to restore the flow or to initiate containment measures. The guidance for this decision is:

- Small Spills (less than 50 gallons) – proceed with clearing the blockage.
- Moderate spill where containment is anticipated to be simple (greater than 50 gallons to 999 gallons) – proceed with containment measures.
- Large spills where containment is anticipated to be difficult (greater than 1000 gallons) – proceed with clearing the blockage however, call for additional

assistance after 15 minutes if unable to clear the blockage and implement containment measures.

The first responder should also attempt to contain as much of the spilled sewage using the following steps:

- Determine the immediate destination of the overflowing sewage.
- Plug storm drains using air plugs, sandbags, and/or plastic mats to contain the spill, whenever appropriate. If spilled sewage has made contact with the storm drainage system, attempt to contain the spilled sewage by plugging downstream storm drain facilities.
- Contain/direct the spilled sewage using dike/dam or sandbags.
- Pump around the blockage/pipe failure.

D. Restore Flow

Attempt to remove the blockage from the system and observe the flows to ensure that the blockage does not recur downstream.

If blockage cannot be cleared within a reasonable time (15 minutes), or the sewer facility requires construction repairs to restore flow, then initiate containment and/or bypass pumping. If assistance is required, immediately contact the Authorized Representative, other employees, contractors, and equipment suppliers.

E. SSO Volume Estimation

A variety of approaches exist for estimating the volume of a sanitary sewer spill. It should be noted that the person preparing the estimate should use the method most appropriate to the sewer overflow in question and use the best information available. Below are three commonly used methods:

1. **Measured Volume** – The volume of most spills that have been contained can be estimated using this method. The shape, dimensions, and the depth of the contained wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume.

- Step 1 Sketch the shape of the contained sewage.
- Step 2 Measure or pace off the dimensions.
- Step 3 Measure the depth at several locations and select an average.
- Step 4 Convert the dimensions, including depth, to feet.
- Step 5 Calculate the area in square feet using the following formulas:

Rectangle: Area = length (feet) x width (feet)

Circle: Area = diameter (feet) x diameter (feet) x 0.785

Triangle: Area = base (feet) x height (feet) x 0.5

- Step 6 Multiply the area (square feet) times the depth (in feet) to obtain the volume in cubic feet.
- Step 7 Multiply the volume in cubic feet by 7.5 to convert to gallons.

2. **Duration and Flow Rate** – Calculating the volume of spills, where it is difficult or impossible to measure the area and depth, requires a different approach. In this method, separate estimates are made of the duration of the spill and the flow rate. The methods of estimating duration and flow rate are:

Duration: The duration is the elapsed time from the time the spill started to the time that the flow was restored. Duration time for a SSO does not include the time required to perform cleaning efforts.

Flow Rate: The flow rate is the average flow that left the sewage system during the time of the spill. The San Diego Manhole Flow Rate Chart is used to estimate the manhole overflow rate. Photographs showing the actual measurement should be taken in documenting the basis for the flow rate estimate.

SSO Start Time: The start time is sometime difficult to establish. Below are suggestions for determining spill start times:

- **Nearby Witnesses:** Witnesses can be used to establish start time. Contact and interview the reporting party, nearby residents, business owners or any witnesses that may have observed the incident. Inquire as to their observations. Spills that occur in public right of are usually observed and reported promptly. Spills that occur out of the public view can go on longer. Sometimes, observations like odors or sounds (e.g. water running in a normally dry creek bed) can be used to estimate the start time.
- **Site Conditions:** Conditions at the spill site change over time. Initially there will be limited deposits of toilet paper and other sewage solids. After a few days to a week, the sewage solids form a light-colored residue. After a few weeks to a month, the sewage solids turn dark. The quantity of toilet paper and other materials of sewage origin increase over time. These observations can be used to estimate the start time in the absence of information. Taking photographs to document the observations can be helpful if questions arise later in the process.
- **Accounting for Flow Variations:** It is important to remember that spills may not be continuous. Blockages are not usually complete (some flow continues). In this case the spill would occur during the peak flow periods (typically 10:00 to 12:00 and 13:00 to 16:00 each day). Spills that occur due to peak flows in excess of capacity will occur only during and for a short period after heavy rainfall.
- **Spill Volume/Flow Rate:** Start time can be calculated using estimated flow rate and estimated spill volume. District personnel will use the San Diego Manhole Flow Rate Chart to estimate the flow rate and to estimate the spill volume using approved methodology (please see method 2

calculation above). The start time then is calculated by using both the estimated flow rate and the estimated spill volume.

SSO Stop Time: The stop time is usually much easier to establish. The stop time is determined when field crews confirm that the SSO has stopped. This typically is the time when the blockage has been removed.

Spill Volume Calculation Using Flow Rate: Once duration and flow rate have been estimated the volume of the spill is the product of the duration in hours or days and the flow rate in gallons per hour or gallons per day.

Example:	Spill Start Time:	14:00
	Spill Duration:	3 Hours
	Flow Rate:	3.3 gallons per minute

$3.3 \text{ gallons per minute} \times 60 \text{ minutes per hour} \times 3 \text{ hours} = 594 \text{ gallons}$

F. Estimating Recovery Volume of Spilled Sewage

The following methods can be used, depending on the circumstances, for estimating recovered sewage volume:

1. **Two Truck Sewage Recovery Method:** The sewage recovery and cleanup effort often requires fresh de-chlorinated water to clean the affected area or storm pipe lines. The collected liquid in the tank would not represent the actual spill sewage volume if water is introduced for cleanup. By using this method, District inspectors will require the contractor to use two Vector trucks, one with an empty tank at a downstream storm drain manhole or inlet and one with filled fresh de-chlorinated water at an upstream storm drain manhole or inlet where fresh de-chlorinated water is introduced. The total recovered volume will include cleanup water and sewage which can be used to calculate the sewage spill volume. The total amount of the collected water less the cleanup water introduced would provide the actual sewage spill/recovered.
2. **Pipe Volume Calculation:** Using this method, before vacuuming the sewage from the storm pipe line into a tank, the contractor will block the storm pipe line downstream, video the storm main and measure the level of liquid standing in the pipe. By knowing the pipe size, level of liquid in the pipe, and the length of pipe filled, the spill sewage volume can be calculated.

G. Water Quality Monitoring

In accordance with subsection D.7(v) of the SSS WDRs, water quality monitoring program to assess impacts from SSO's to surface waters in which 50,000 gallons or greater are spilled into surface water shall include the following:

1. Protocols for water quality monitoring shall include, at minimum, visual inspection, determination of volume of total spills and estimated volume entering the surface water, and/or spill travel time in the surface water where monitoring may not be possible due to safety concerns, access restrictions, etc.
2. Within 48 hours, water quality sampling for, at a minimum, the following constituents:
 - a. Ammonia
 - b. Appropriate bacterial indicators per the applicable Basin Plan water quality objectives, which may include total and fecal coliform, enterococcus and e-coli.
3. Water quality analysis shall be performed by an accredited or certified laboratory and instruments/devices used to implement the SSO Water Quality Monitoring Program shall be properly maintained and calibrated, as necessary, to ensure their continued accuracy.

H. Water Quality Sampling and Testing

Water quality sampling and testing is required when 50,000 gallons or greater are spilled to surface water to determine the extent and impact of the SSO. Water quality samples will be taken whenever adverse impacts to surface waters (i.e. fish kill) is visually observed, the sampling can be safely obtained from the impacted water body, and the act of sampling does not prevent the District from completing the necessary SSO response actions.

- Conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters. Water quality results are required to be uploaded into CIWQS in which 50,000 gallons or greater are spilled to surface waters.
- The following steps should be taken to collect water quality samples:
 - a) Samples should be collected from upstream of the spill, from the spill area, and downstream of the spill (e.g. creeks).
 - b) Samples should be collected near the point of entry of the spilled sewage and every 100 feet along the shore of stationary water bodies.
- The City of San Jose Environmental Services Department laboratory will analyze the sample to determine the nature and extent of impact from the discharge. Additional sample will be taken to determine if posting of warning signs should be discontinued. The basic analyses should include pH, temperature, total

coliform, fecal coliform, biochemical oxygen demand (BOD), dissolved oxygen, and ammonia nitrogen.

In addition to above, effective August 28, 2013, the District will take water quality sampling and testing whenever it is estimated that an SSO of fifty (50) gallons or more enters surface waters. The District will collect and test samples from three (3) locations: the point of discharge, upstream of the point of discharge, and downstream of the point of discharge. Constituents tested for shall include Ammonia, Fecal Coliform, E.Coli, Total Coliform, Dissolved Oxygen, and BOD.

I. Clean Up

The recovery and clean up phase begins when the flow has been restored and the spilled sewage has been contained to the extent possible. Clean up and disinfection procedures should be implemented to reduce the potential for human health issues and adverse environmental impacts that are associated with a SSO event. The procedures described are for dry weather conditions. The contractor under the direction of the District Inspector shall follow the following guidelines:

- **Hard Surface Areas**

- Collect all signs of sewage solids and sewage related material either by hand or with the use of rakes and brooms.
- Wash down the affected area with clean de-chlorinated water until the water runs clear. They should take all reasonable steps to contain and vacuum up the wastewater which should be returned to the sanitary sewer system.
- Disinfect all areas that were contaminated from the overflow using the disinfectant solution of household bleach diluted 10:1 with water. Apply minimal amounts of disinfectant solution using a hand sprayer.
- Document the volume and application method of disinfectant that was employed.
- Allow the area to dry and repeat as necessary.

- **Landscaped and Unimproved Natural Vegetation**

- Collect all signs of sewage solids and sewage related material either by hand or with the use of rakes and brooms.
- Wash down the affected area with clean de-chlorinated water until the water runs clear. The flushing volume should be approximately three times the estimated volume of the sewer spill.
- Either contain or vacuum up the wash water so that none is released.
- Allow the area to dry and repeat as necessary.

- **Natural Waterways**

- The California Department of Fish and Wildlife (CDFW) should be notified in the event a SSO impacts any creeks or natural waterways. CDFW will provide the professional guidance needed to effectively clean up spills that occur in these sensitive environments. Contact CDFW at:

1(707) 944-5500 Monday-Friday, 8 AM – 5 PM
1(888) 334-2258 After Hours

If there is no immediate response, follow up with Cal EMA and request CDFW call back.

- Clean up should proceed quickly in order to minimize negative impact.

- **Wet Weather Modifications**

- Omit flushing and sampling during storm events wherein flushing and sampling may be impractical and unsafe as well as provide meaningless results.

- **Follow-Up Activities**

- If sewage has reached the storm drain system, the combination sewer cleaning truck should be used to vacuum/pump out the catch basin and any other portion of the storm drain that may contain sewage. District Inspectors may require the contractor to use two Vactor trucks, one with an empty tank at a downstream storm drain manhole or inlet and one with filled fresh de-chlorinated water at an upstream storm drain manhole or inlet where fresh de-chlorinated water is introduced.
- In the event that an overflow occurs at night, the location should be re-inspected first thing the following day. The inspector should look for any signs of sewage solids and sewage-related material that may warrant additional cleanup activities.

J. Public Notification

Post “Raw Sewage” signs and place barricade/cones with caution tape to keep vehicles and pedestrians away from contact with spilled sewage. Do not remove the signs until directed by the Santa Clara County Health Department.

Creeks and streams that have been contaminated as a result of a SSO will have signs posted at visible access locations until the risk of contamination has subsided to acceptable levels.

Warning signs, once posted, will be inspected every day to ensure that they are still in place.

Major spills may warrant broader public notice. The District Manager-Engineer will authorize contact with local media when significant areas may have been contaminated by sewage.

III. Failure Analysis Investigation

The objective of the failure analysis investigation is to determine the “primary cause” of the SSO and to identify corrective actions needed that will reduce or eliminate future potential for the SSO to recur. Every SSO event is an opportunity to evaluate the response and reporting procedures. Each overflow event is unique, with its own elements and challenges including volume, cause, location, terrain, and other parameters.

All relevant participants meet weekly to review the procedures used and to discuss what worked and where improvements could be made in responding to and mitigating future SSO events. The results of the debriefing should be recorded and tracked to ensure the action items are completed.

The investigation should include:

- Reviewing and completing the Sanitary Sewer Overflow Report
- Reviewing past maintenance records
- Reviewing available photographs
- Viewing a CCTV inspection video to determine the condition of the line segment immediately following the SSO and reviewing the inspection reports and logs
- Reviewing input from District personnel who responded to the spill

IV. Weekly SSO Meetings

All SSOs should be thoroughly investigated and documented for use in managing the sewer system and meeting established reporting requirements. Reporting and documentation requirements vary based on the type of SSO.

A. SSO Categories

The SWRCB has established guidelines for classifying and reporting SSOs. There are three categories of SSOs as defined by the SWRCB:

- **Category 1** – Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee’s sanitary sewer system failure or flow condition that:

- Reach surface water and/or reach a drainage channel tributary to a surface water; or
 - Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or ground water infiltration basin (e.g., infiltration pit, percolation pond).
- **Category 2** – Discharges of any untreated or partially treated wastewater of 1,000 gallons or greater resulting from an enrollee’s sanitary sewer system failure or flow condition that do not reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to a storm drain system is fully recovered and disposed of properly.
 - **Category 3** – All other discharges of any untreated or partially treated wastewater resulting from an enrollee’s sanitary sewer system failure or flow condition.

Private Lateral Sewage Discharge (PLSD) – Discharges of any untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee’s sanitary sewer system or from other private sewer assets. PLSD’s that the enrollee becomes aware of may be voluntarily reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.

B. Internal SSO Reporting Procedures

Internal Reporting Category 1 or 2 SSOs

1. The first responder will, immediately following the SSO event, notify the Authorized Representative.
2. The first responder will fill out the SSO Report Form and make the report available to the Authorized Representative. The Authorized Representative will meet with the District inspector at the site of the SSO event to assess the situation and to document the conditions with photos immediately after the SSO event.
3. In the event of a Category 1 or 2 SSO or an overflow in a sensitive area, the Authorized Representative will notify the District Manager-Engineer accordingly.

Internal Reporting Category 3 SSOs

1. The first responder will notify the Authorized Representative immediately after confirming the SSO event.

2. The first responder will fill out the SSO Report Form and make the report available to the Authorized Representative.

C. External SSO Reporting Procedures

The California Integrated Water Quality System (CIWQS) electronic reporting system will be used for reporting SSO information to the SWRCB when required. If there are no SSOs during the calendar month, the Legally Responsible Officer will certify a no-spill report. The LRO will add a “to do task item” on his/her calendar as a reminder to submit timely No Spill Certification.

In the event that CIWQS is unavailable, the Authorized Representative will forward all required information to the Region 2 Water Quality Control Board (RWQCB) office in accordance with the time schedules identified above. In such event, the District will submit the appropriate reports using CIWQS as soon as practical.

External Reporting Category 1 or 2 SSOs

1. Within two hours of becoming aware of any **Category 1 SSO greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water**, notify the California Office of Emergency Services (Cal OES, **(800) 852-7550**) and obtain a notification control number. The District will also notify the Santa Clara County Department of Environmental Health of the Category 1 SSO event within this time period.

The District shall provide updates to Cal OES regarding substantial changes to estimated volume of untreated or partially treated sewage discharged and any known change to impact.

2. Within 3 business days of being notified of the Category 1 or 2 spill event, the LRO or Authorized Representative will submit the draft SSO report using CIWQS.
3. Within 15 calendar days of the SSO end date, the LRO will certify the final report using CIWQS after it is reviewed for accuracy by the First Responder and Authorized Representative. The LRO will update the certified report as new or changed information becomes available. The updates can be submitted at any time and must be certified.

External Reporting Category 3 SSOs

Within 30 calendar days of the end of the month in which the SSO occurred, the Authorized Representative will certify the electronic report in CIWQS. The report will include the information to meet the GWDR requirements.

External Reporting Private Lateral Sewage Discharges

The LRO may report private lateral SSO using CIWQS and specify that the sewage discharge occurred and was caused by a private lateral and identify the responsible party, if known.

D. Internal SSO Documentation

Category 1 and 2 SSOs

The following steps are taken to document both Categories 1 and 2 SSOs for internal documentation:

- The first responder will complete the Sanitary Sewer Overflow Report Form and provide copies to the Authorized Representative.
- The Authorized Representative will prepare a file for each individual SSO. The file should include the following information:
 - Initial service call information
 - Sanitary Sewer Overflow Report form
 - Copies of the CIWQS report forms
 - Volume estimates
 - Weekly SSO meetings

E. External SSO Record Keeping Requirements

The GWDR requires that individual SSO records be maintained by the District for a minimum of 5 years from the date of the SSO. This period may be extended when requested by the Regional Water Board Executive Officer. All records shall be made available for review upon State or Regional Water Board staff's request. Records shall be retained for all SSOs, including but not limited to the following when applicable:

- Copy of Certified CIWQS report(s);
- All original recordings for continuous monitoring instrumentation;
- Service call records and complaint logs of calls received by the District;
- SSO calls;
- SSO records;
- Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps;
- Work orders, work completed, and any other maintenance records from the previous five years which are associated with responses and investigations of system problems related to SSOs;

- A list and description of complaints from customers or others from the previous five years; and
- Documentation of performance and implementation measures for the previous five years.

If the SSO water samples are taken for water quality results, the records of monitoring information shall include the following:

- The date, exact place, and time of sampling or measurements;
- The individual(s) who performed the sampling or measurement;
- The date(s) analyses were performed;
- The individual(s) who performed the analyses;
- The analytical technique or method used; and
- The result of such analyses.

F. Other Reporting/SSO Record Keeping Requirements

- SSO Technical Report shall be submitted within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters.
- “No Spill” certification shall be completed within 30 calendar days of the end of the month.
- Collection System Questionnaire shall be updated and certified every 12 months.

V. Equipment

The District maintains or can access specialized equipment that is required to support this Overflow Emergency Response Plan (OERP) including:

- A. Closed Circuit Television (CCTV) Inspection Unit** – A CCTV Inspection Unit is required to determine the primary cause for all SSOs from gravity sewers.
- B. Camera** – A digital, disposable, or cell phone camera is required to record the conditions upon arrival, during clean up, and upon departure.
- C. Portable Generators, Portable Pumps, Piping, and Hoses** – Portable generators, pumps, piping, and hoses are needed to pump around failed sewers mains.

VI. SSO Response Training

A. Initial and Annual Refresher Training

All District personnel who may have a role in responding to, reporting, and/or mitigating a sewer system overflow will receive training before they are placed in a position where they may have to respond. Current employees will receive annual refresher training or as needed on this plan and the procedures to be followed.

B. SSO Response Drills

Periodic training drills will be held to ensure that employees are up to date on the procedures, the equipment is in working condition, and the required materials are readily available. The training drill should cover scenarios typically observed during sewer related emergencies (e.g. mainline blockage, mainline failure, and lateral blockage). The results and the observations during the drills should be recorded and action items should be tracked to ensure completion.

C. SSO Training Record Keeping

Records will be kept of all training that is provided in support of this plan. The records for all scheduled training courses and for each overflow emergency response training event will include date, time, content, name of trainer(s), and name of attendees.

D. Contractors Working on District Sewer Facilities

All contractors working on District sewer facilities will be contractually required to develop a project-specific Overflow Response Plan. All contractor personnel will be required to receive training in the contractor's Overflow Response Plan and to follow it in the event they cause or observe a SSO.

ELEMENT 7 – FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM

SWRCB Requirements:

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 establishment of 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.*

RWQCB Requirements:

Each wastewater collection system agency shall evaluate its service area to determine whether a FOG control program is needed. If so, a FOG control program shall be developed as part of the Sewer System Management Plan (SSMP). If an agency determines that a FOG program is not needed, the agency must provide justification for why it is not needed.

Burbank Sanitary District Pretreatment Program works closely with the Watershed Protection Division of the City of San Jose Environmental Services Department which manages the FOG program for the City of San Jose Environmental Services Department.

Grease Pretreatment Device Plan Checks

Watershed Protection staff determines the sizing requirements for all grease removal/pretreatment devices (GRD). Building plans with food service equipment for new construction or remodeling are reviewed and stamped off with any requirements. The plans are reviewed along with a questionnaire filled out by the restaurant representative, and the requirement for a GRD is determined. The District will not approve any tenant improvement plans without the review comments and requirements.

The plan review process also involves a GRD certification. This certification involves the restaurant representative signing an acknowledgement of GRD requirements. The minimum acceptable cleaning frequency for the type of GRD is required, the on-site maintenance of a schedule and instructions for cleaning, and cleaning records and receipts, these are some of the requirements acknowledged in the certification.

The size and type of pretreatment device required is determined based upon the facility's potential for discharging grease in the wastewater. The sizing is based on the size of the restaurant, the cooking and cleaning equipment installed, and the number of meals served, these are some of the factors considered in order to determine the standard required GRD size. Requirements range from a small grease trap beneath the pot sink to a large in-ground grease interceptor.

Approved grease trap sizes are 40, 50, 70, and 100 pounds. Grease interceptors must be a minimum of 1000 gallons. The District does not permit the use of Power-Operated Grease Removal Devices, Chemicals, Enzymes or Bacteria. Best Management Practices (BMPs) will be reviewed and distributed to restaurant representatives during the plan check, including kitchen practices to minimize the discharge of grease into the sewer system, maintenance tips for grease traps and interceptors, and record keeping requirements. Plumbing inspectors verify the installation and connection of the pretreatment device.

Standard Restaurant Inspections

Watershed Protection staff inspect all restaurants and other food facilities. Their initial inspection includes determining if the restaurant generates grease, if there is a GRD in place, and reviewing the cleaning records for the GRD, as well as practices used to clean floor mats, vent hoods, and outside areas. Enforcement actions are taken against any restaurant that does not clean their GRD at the minimum set frequency (monthly for grease traps and quarterly for grease interceptors) or keep 3 years of cleaning records. Facilities generating grease are reinspected periodically (every one to three years), depending on the number of areas of concern observed during the inspection. BMPs are distributed to restaurant operators during the inspections, as appropriate, including kitchen practices to minimize the discharge of grease into the sewer system, maintenance tips for grease traps and interceptors, and record keeping requirements.

Investigation of FOG in Sewer Mains

Burbank Sanitary District Inspectors respond to reports from staff or other sources that a grease blockage or unusual build-up of grease has taken place in the sanitary sewer. Referral for Watershed Protection investigations are commonly based on the following reasons:

1. Excessive grease build up
2. Odor complaints
3. Request for service
4. Blockages due to grease
5. Excessive grease evident during preventive maintenance
6. Reduced flow
7. Video inspection identifies excessive grease
8. Litigation

The area upstream of the grease build-up is evaluated for potential sources, and inspections of those sources are performed. The presence and size of GRD are looked at, and GRD cleaning and maintenance records are reviewed. Enforcement action is taken against establishments determined to be causing grease blockages in the sanitary sewer, and additional requirements for cleaning or installation of GRD can be imposed.

Participation in Regional Efforts

Burbank Sanitary District staff participates in a regional committee which includes the BACWA Collection Systems Committee.

Outreach

A number of outreach pieces are available to distribute information about FOG issues both in future Annual Reports and on an as needed basis. Grease Management Best Management Practices fact sheets: Grease Trap Maintenance, Grease Interceptor Maintenance, Maintenance Documentation, Power-Operated Grease Removal Devices, Chemicals, Enzymes and Bacteria, Vapor/Ventilation Hood Cleaning, and a poster – Managing Fats, Oils, & Grease, (“It’s Easier Than You Think”) are available to inspectors and plan check staff to distribute to restaurant owners and operators.

Legal Authority

- 1. The California Government Code**
<http://www.leginfo.ca.gov/calaw.html>
- 2. Burbank Sanitary District’s Operation Code**
<http://burbanksanitary.org/>

Burbank Sanitary District’s Operation Code consists of adopted ordinances by the Board of Directors, hereinafter “Code”, which establishes ESD’s legal authority to regulate domestic, commercial and industrial discharges to the sanitary sewer system. The sections included here describe District’s ability to regulate the discharge of substances can that cause or contribute to blockages of the sanitary sewer system. A full copy of the District Code is available at the District Office.

ELEMENT 8 – SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

SWRCB Requirements:

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

RWQCB Requirements:

Capacity Assessment: *Each wastewater collection system agency shall establish a process to assess the current and future capacity requirements for the collection system facilities.*

System Evaluation and Capacity Assurance Plan: *Each wastewater collection system agency shall prepare and implement a capital improvement plan to provide hydraulic capacity of key sewer system elements under peak flow conditions.*

(A) Scheduled Inspections and Condition Assessment

The District completed a condition assessment report for its collection system in 2014. The report was based on maintenance and repair records confirmed by follow up video inspections. This data was then used to determine frequency of maintenance cycles to schedule, whether annually, as a minimum, or more frequently as dictated by observed conditions.

The District has implemented a 10-Year CIP program in 2016. One of the main functions of the CIP program is to administer and conduct planning efforts that include capacity and condition

assessments along with recommendation and prioritization of sewer repair and rehabilitative construction projects. In addition, the Risk Assessment Plan has been a useful tool to identify those locations where inclusion in the CIP of improvements to the system will eliminate or greatly minimize incidents of SSOs.

(B) Risk Assessment Plan

Another aspect of an agency's system evaluation must include an understanding and awareness of exposure to the potential of sewage overflows entering waterways that lead to receiving waters of fishable creeks and, ultimately for this District, the San Francisco Bay. To address or reduce these potential risks the District's personnel must have knowledge of the locations of drainage channels and storm water collection facilities that are in close proximity to sewer manholes. Locations, which are recognized as most vulnerable, are noted on maps of the storm water collection infrastructure and the pertinent sewer system maps.

Prioritization of funding for the implementation of permanent prevention devices must be given to those circumstances where violation of the environment and loss of agency monetary assets due to imposed fines are most at risk. Projects thus identified must be given highest priority in the District's annual CIP allocations.

(C) Capacity Assurance Plan

The District has completed capacity analysis of the entire district system. As part of the 10-Year CIP program, District will continue to improve district's infrastructure and maintain adequate capacity in the system to serve District's customers.

If necessary to pin point I & I sources, the District will issue service orders to appropriate companies to perform general I & I reconnaissance work, smoke testing, and sewer and manhole condition assessment for unwanted inflow and infiltration. The sources of inflow may be down spouts, driveways, or yard drains from illegal private property connections. The occasion for groundwater infiltration or sewage ex-filtration in the District's sewer mains and service laterals, due to offsets, separated joints or other structural failure, may be discovered by video inspections, air testing or hydrostatic testing techniques.

ELEMENT 9 – MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

SWRCB Requirements:

The enrollee shall:

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

RWQCB Requirements:

Each wastewater collection system agency shall monitor the effectiveness of each SSMP element and update and modify SSMP elements to keep them current, accurate, and available for audit as appropriate.

The performance criteria that are monitored include:

- Total number of SSOs;
- Number of SSOs for each cause (roots, grease, debris, pipe failure, capacity, and others);
- Portion of sewage contained compared to total volume spilled;
- Volume of spilled sewage discharged to surface water;
- Miles of sanitary sewer lines cleaned.

The SSMP shall be reviewed monthly by the Authorized Representative to insure all the provisions are implemented. The effectiveness shall be discussed during regularly scheduled field inspectors and safety training meetings. These meetings include field inspectors, administrative and engineering staff. The following table will be utilized to assess effectiveness of SSMP and to reduce SSO.

Cause of SSO	Number		Percent of Total	
	Laterals	Mains	Laterals	Mains
Blockage:				
Roots				
Grease				
Debris				
Debris from Laterals				
Vandalism				
Animal Carcass				
Construction Debris				
Multiple Causes				

Cause of SSO	Number	Percent of Total
Infrastructure Failure		
Inflow & Infiltration		
Electrical Power Failure		
Flow Capacity Deficiency		
Natural Disaster		
Bypass		
Cause Unknown		
Total		

SSMP Updates

The SSMP and its elements shall be updated in accordance with current regulatory guidelines and as a result of monitoring recommendations by District staff. Performance evaluations are on-going because daily operations of the District include all the elements of the SSMP program. The District shall revise and update its CIP program each year to include upgrades to its infrastructure in compliance with SSMP requirements. Allocation of funds for such upgrades shall be identified in the CIP program and annual budget submitted to the District’s Board of Directors for approval.

The District will determine the need to update its SSMP more frequently based on the results of the bi-annual audit as required by the SSS-WDR and the performance of its sanitary sewer system. The process to complete the update will be identified in the event that the District determines that an update is warranted. The update will be completed within one year following identification of the need for an update.

The authority for approval of changes such as employee names, contact information, or minor procedural changes is delegated to the District Manager-Engineer.

Identify and Illustrate SSO Trends, Including: Frequency, Location, and Volume

SSO reports shall be entered into the District’s database to analyze SSO trends. The database can create reports as to location, volume, cause, and frequency of SSO events. These reports shall be reviewed by the District staff to determine appropriate maintenance/repair/upgrades to the sewer system, if necessary.

ELEMENT 10 – SSMP AUDITS

SWRCB Requirements:

As part of the Sewer System Management Plan (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.

RWQCB Requirements:

Each wastewater collection system agency shall conduct an annual audit of their SSMP which includes any deficiencies and steps to correct them (if applicable), appropriate to the size of the system and the number of overflows, and submit a report of such audit.

The District shall perform internal audits evaluating its SSMP and its compliance with the SSO-WDR every two years. A report shall be prepared and kept on file at the District office. The report shall include an evaluation of the effectiveness of the SSMP along with recommendations and suggested improvements to the Board of Directors.

The audit shall consist of the following elements:

- Progress made on development of SSMP elements, and whether or not the District is on schedule in developing all elements of the SSMP;
- SSMP implementation efforts over the timeframe in question;
- The effectiveness of implementing SSMP elements;
- A description of the additions and improvements made to the sanitary sewer collection system in the past reporting year(s); and
- A description of the additions and improvements planned for the upcoming reporting year(s) with an estimated schedule for implementation.

		YES	NO
ELEMENT 1 – GOALS			
A.	Are the goals stated in the SSMP still appropriate and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ELEMENT 2 – ORGANIZATION			
A.	Is the District Services Key Staff Telephone List current?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Is the Sanitary Sewer Overflow Responder Telephone List current?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

		YES	NO
C.	Is Figure 1 of the SSMP, entitled “District Organization Chart,” current?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Are the position descriptions an accurate portrayal of staff responsibilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Is Table 2 of the SSMP, titled “Chain of Communication for Reporting and Responding to SSOs,” accurate and up-to-date?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ELEMENT 3 – LEGAL AUTHORITY			
Does the SSMP contain excerpts from the current Burbank Sanitary District Operations Code documenting the District’s legal authority to:			
A.	Prevent illicit discharges?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Require proper design and construction of sewers and connections?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the District?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
D.	Limit discharges of fats, oil and grease?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Enforce any violation of its sewer ordinances?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ELEMENT 4 – OPERATIONS AND MAINTENANCE			
Collection System Maps			
A.	Does the SSMP reference the current process and procedures for maintaining the District’s wastewater collection system maps?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Are the District’s wastewater collection system maps complete, current, and sufficiently detailed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Resources and Budget			
C.	Does the District allocate sufficient funds for the effective operation, maintenance and repair of the wastewater collection system and is the current budget structure documented in the SSMP?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prioritized Preventive Maintenance			
D.	Does the SSMP describe current preventive maintenance activities and the system for prioritizing the cleaning of sewer lines?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Based upon information in the Annual SSO Report, are the District’s preventive maintenance activities sufficient and effective in minimizing SSOs and blockages?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Scheduled Inspections and Condition Assessments			
F.	Is there an ongoing condition assessment program sufficient to develop a capital improvement plan addressing the proper management and protection of infrastructure assets? Are the current components of this program documented in the SSMP?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Contingency Equipment and Replacement Inventory			

		YES	NO
G.	Does the SSMP list the major equipment currently used in the operation and maintenance of the collection system and document the procedures of inventory management?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
H.	Are contingency equipment and replacement parts sufficient to respond to emergencies and properly conduct regular maintenance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Training			
I.	Is the training calendar current?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
J.	Does the SSMP document current training expectations and programs within the District's Wastewater Division?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Outreach to Plumbers and Building Contractors			
K.	Does the SSMP document current outreach efforts to plumbers and building contractors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ELEMENT 5 – DESIGN AND PERFORMANCE STANDARDS			
A.	Does the SSMP contain current design and construction standards for the installation of new sanitary sewer systems, pump stations and other appurtenances and for the rehabilitation and repair of existing sanitary sewer systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Does the SSMP document current procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and the rehabilitation and repair of existing sewer lines?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ELEMENT 6 – OVERFLOW AND EMERGENCY RESPONSE PLAN			
A.	Does the District's Sanitary Sewer Overflow and Backup Response Plan establish procedures for the emergency response, notification, and reporting of sanitary sewer overflows (SSOs)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Are District staff and contractor personnel appropriately trained on the procedures of the Sanitary Sewer Overflow and Backup Response Plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Considering performance indicator data in the Annual SSO Report, is the Sanitary Sewer Overflow and Backup Response Plan effective in handling SSOs in order to safeguard public health and the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ELEMENT 7 – FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM			
A.	Does the Fats, Oils, and Grease (FOG) Control Program include efforts to educate the public on the proper handling and disposal of FOG?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Does the District's FOG Control Program identify sections of the collection system subject to FOG blockages, establish a cleaning schedule and address source control measures to minimize these blockages?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C.	Are requirements for grease removal devices, best management practices (BMP), record keeping and reporting established in the District's FOG Control Program?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

D.	Does the District have sufficient legal authority to implement and enforce the FOG Control Program?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E.	Is the current FOG program effective in minimizing blockages of sewer lines resulting from discharges of FOG to the system?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ELEMENT 8 – SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

A.	Does the Burbank Sanitary District Sanitary Sewer Master Plan evaluate hydraulic deficiencies in the system, establish sufficient design criteria and recommend both short and long term capacity enhancement and improvement projects?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Does the District’s Capital Improvement Plan (CIP) establish a schedule of approximate completion dates for both short and long-term improvements and is the schedule reviewed and updated to reflect current budgetary capabilities and activity accomplishments?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ELEMENT 9 – MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

A.	Does the SSMP accurately portray the methods of tracking and reporting selected performance indicators?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B.	Is the District able to sufficiently evaluate the effectiveness of SSMP elements based on relevant information?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ELEMENT 10 – SSMP AUDITS

A.	Will the SSMP Audit be submitted with the SSO Annual Report to the Regional Water Board by March 15 th of the year following the end of the calendar year being audited?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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ELEMENT 11 – COMMUNICATION PROGRAM

A.	Does the District effectively communicate with the public and other agencies about the development and implementation of the SSMP and continue to address any feedback? <i>The District provides an Annual Report to the public which details the District’s maps, FOG related issues, sanitary sewer overflows, preventing sewer blockages, handling grease waste and pharmaceuticals. Any feedback that the District receives on the material in the report is followed up by Staff. The District’s SSMP will be posted to the website by May 31, 2016.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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ELEMENT 11 – COMMUNICATION PROGRAM

SWRCB Requirements:

Each enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its Sewer System Management Plan (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.

Communications with and Outreach to Residential, Commercial, and Industrial Customers and the General Public

Burbank Sanitary District's communications program involves mailing the District's Annual Report to the public. The District will post on its website the SSMP components and other related information for input by the public as well as dissemination of important SSMP requirements. The District will also be conducting public outreach and education to residents and businesses related to sanitary sewer overflows, preventing grease blockages and Best Management Practices for the handling of grease waste. Additional links such as the Association of Bay Area Governments' (ABAG) "Sewer Smart," the Santa Clara Valley Water District's "Best Management Practices" for storm water discharges, and the District's Standard Design Details are available for residential and commercial customers.

Communication with Other Local Sanitary Sewer Agencies

The District is a tributary agency to the San Jose-Santa Clara Regional Wastewater Facility. Other tributary agencies include the City of Milpitas, West Valley Sanitation District, Cupertino Sanitary District and the County Sanitation District No. 2-3. Collectively, these agencies along with the District have been included in a communication program initiated by the City of San Jose to establish a collaborative approach during the development and implementation of, and future improvements to, the SSMP.

Wastewater collection agencies share the same watershed basins with storm water collection agencies or cities and Santa Clara Valley Water District. Since all are subject to State WDR and/or NPDES permitting, it is imperative that open communication be maintained which acknowledges a partnership of stakeholders with the common interest of keeping the South Bay, creeks and their tributaries free of pollutants. Specifically, the District is within Santa Clara Valley Water District's Guadalupe River Watershed.

The District has developed a Risk Assessment Plan which identifies areas most vulnerable to impacting receiving waters within the watershed in the event of a SSO. Steps have been proposed to contain overflows and divert by cross-connections. These measures provide additional time to respond and eliminate blockages before they become a major spill event.

The District will be communicating with the above agencies to note the identified areas at risk in the event of SSOs and working to develop strategies for joint response, when practical, to contain and prevent SSOs from reaching fishable creeks or receiving waters to the Bay.

Communication with Other Local Watershed Stakeholders

California Water/Wastewater Agency Response Network (CalWARN) was established with a mission to support and promote statewide emergency preparedness and mutual assistance for public and private water and wastewater utilities, and has been active for approximately 12 years. The organization is divided into six regions within the state. Burbank Sanitary District is within Coastal OES Region II. Of the tributary agencies to San Jose-Santa Clara WPCP, only the Cities of Milpitas and Santa Clara are currently members of CalWARN. Within Santa Clara County, the City of Sunnyvale, California Water Service Company, San Jose Water Company, San Jose Municipal Water System and Santa Clara Valley Water District are also members. Membership in this organization of all the tributary agencies and others having common watershed interests, would be a first step toward accomplishing the stated objectives above described and is encouraged. Additional information for CalWARN can be found at its website www.calwarn.org.