# **Attachment No. 36**

Sewer System Management Plan, revised August 12, 2021, as adopted on September 2, 2021

# **RESOLUTION NO. 1282**

RESOLUTION OF THE BOARD OF DIRECTORS OF THE EAST PALO ALTO SANITARY DISTRICT APPROVING AND ADOPTING THE UPDATED SANITARY SEWER MANAGEMENT PLAN

#### EAST PALO ALTO SANITARY DISTRICT

#### **RESOLUTION NO. 1282**

#### RESOLUTION OF THE BOARD OF DIRECTORS OF THE EAST PALO ALTO SANITARY DISTRICT APPROVING AND ADOPTING THE UPDATED SANITARY SEWER MANAGEMENT PLAN

WHEREAS, the California State Water Resources Control Board ("SWRCB") promulgated a waste discharge requirement ("WDR") permit on May 2, 2006, to regulate sanitary sewer systems. This permit is known as SWRCB Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems ("SSS"); and

WHEREAS, on July 30, 2013, Attachment A to the Order was promulgated and became effective on September 9, 2013 and is known as Attachment A, SWRCB Order No. WQO 2013-0058-EXEC, amending the Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (together these documents constitute the "SSS WDR"); and

WHEREAS, the WDR requires preparation of a Sanitary Sewer Management Plan ("SSMP") with eleven separate elements; and

WHEREAS, the District's SSMP was last updated in 2018, and staff has reviewed and updated the SSMP accordingly to meet State requirements; and

WHEREAS, the SSMP update requires approval by the agency's governing board for certification upon its completion.

**NOW, THEREFORE, BE IT RESOLVED** by the District Board of the East Palo Alto Sanitary District that the District's updated SSMP is hereby adopted and approved, and the General Manager is directed to administer its implementation effective immediately.

Passed and adopted by the District Board of the East Palo Alto Sanitary District at a Regular Board Meeting thereof held on the 2<sup>nd</sup> day of September 2021 by the following vote:

Ayes: Members:

Noes: Members:

Abstain: Members:

Absent: Members:

President of the District Board of the East Palo Alto Sanitary District of San Mateo County, State of California

Attest:

Secretary of the District Board of the East Palo Alto Sanitary District of San Mateo County, State of California

(SEAL)



# EAST PALO ALTO SANITARY DISTRICT SANITARY SEWER MANAGEMENT PLAN (SSMP)

Revised: May 8th, 2018

Original Date: January 19th, 2017

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# **ABBREVIATIONS**

Cal-OSHA	California Office of Occupational Safety and Health Administration
CIP	Capital Improvement Project
CIWQS	California Integrated Water Quality System
FOG	Fats, Oil, and Grease
LRO	Legally Responsible Official
MGD	Million gallons per day
OERP	Overflow Emergency Response Plan
OES	State Office of Emergency Services
RWQCB	Regional Water Quality Control Board, San Francisco Bay Region II
SVCW	Silicon Valley Clean Water
SMCEHD	San Mateo County Environmental Health Department
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SSO WDR	Sanitary Sewer Overflow Waste Discharge Requirements
SWRCB	State Water Resources Control Board
WDR	General Waste Discharge Requirements
WWTP	Waste Water Treatment Plant

## **GLOSSARY OF TERMS**

(from *A Guide for Development of Sanitary Sewer Management Plans* published by the California State Water Resources Control Board dated September 2015)

**Collection System** – Generic term for any system of pipes or sewer lines used to convey wastewater to a treatment facility.

**Enrollee** – A public entity that owns or operates a sanitary sewer system and has submitted a complete and approved application for coverage under the SSS WDR.

Lateral (also called Service Lateral) – A segment of pipe that connects a home or building to a sewer main, which may be located beneath a street or easement. The responsibility for maintaining a lateral can be solely that of the Enrollee or the private property owner; or it can be shared between the two or more parties. Local communities dictate lateral responsibility and the basis for a shared arrangement, if it applies. See Lower Lateral and Upper Lateral definitions.

**Lower Lateral (also called Service Lateral)** – That portion of a lateral usually from the property line or easement line to the sewer main. Enrollees may or may not be responsible for maintenance of this portion of the lateral. If not, the lower lateral is owned and maintained by the property its serves.

**Miles of Gravity Sewer** – Length of gravity sewer lines/pipes in an Enrollee's sanitary sewer system, expressed in miles.

**Miles of Publicly-Owned Laterals** – Length of laterals in an Enrollee's sanitary sewer system that the Enrollee is responsible for maintaining, expressed in miles.

**Miles of Pressure Sewer (Miles of Force Main)** – Length of pressurized sewer lines/pipes in an Enrollee's sanitary sewer system, expressed in miles or portions thereof.

**Miles of Private Laterals** – Length of private laterals tributary to an Enrollee's sanitary sewer system that private property owners are responsible for maintaining, expressed in miles or portions thereof.

NGO – Non-governmental organization.

**Percent Reached Surface Water** – Volume of sewage discharged from a sanitary sewer system or private lateral or collection system estimated to have reached surface water divided by the total volume of sewage discharged.

**Percent Recovered** – Volume of sewage discharged that was disposed of properly, divided by the total volume of sewage discharged.

**Private Lateral** – Privately owned sewer service lateral.

**Private Lateral Sewage Discharge (PLSD)** – Sewage discharges caused by blockages or other problems within privately owned laterals, collection systems or other private sewer assets that are tributary to the reporting Enrollee's sanitary sewer system. Normally, this type of sewage

discharge is the responsibility of the private lateral, private asset, or collection system owner. **Sanitary Sewer Overflow (SSO)** – Any overflow, spill, release, discharge, or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:

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

**Sanitary Sewer System** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a WWTP head works and which is comprised of more than one mile of pipes and sewer lines, used to collect, and convey wastewater to a publicly owned treatment facility.

#### Service Lateral – See Lateral.

**SSO Category 1** – All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system that resulted in a discharge to a drainage channel and/or surface water.

**SSO Category 2** – All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system of a volume equal to or greater than 1,000 gallons that did not reach surface water.

**SSO Category 3** – All discharges of sewage resulting from a failure in an Enrollee's sanitary sewer system of a volume less than 1,000 gallons that did not reach surface water.

**SSO Database** – Online reporting system developed, hosted, and maintained by the SWRCB for compliance with the Monitoring and Reporting Program contained in SSS WDR.

**Storm Drain** – For the purposes of complying with the SSS WDR, any pipe that is part of a Municipal Separate Storm Sewer System (MS4) used for collecting or conveying storm water.

**Total # of SSOs per 100 miles of Sewer per Year** – Broad metric used to compare the relative performance of Enrollees and their sanitary sewer systems. This metric expresses the number of SSOs for which the reporting Enrollee is responsible, for every 100 miles of pipe or sewer lines in an Enrollee's sanitary sewer system. Due to the large variation in facility specific characteristics, this metric should only be viewed as a rough comparison of the operation and maintenance performance of Enrollees and their sanitary sewer systems. For systems, smaller than 100 miles, this metric tends to skew the result as the miles of pipe get smaller. This metric is calculated as described below:

Total # of SSOs per year = (Total # of SSOs x 100) ((Years) x (Miles of Pressure Sewer + Miles of Gravity Sewer + Miles of Public Laterals))

**Total Volume of SSOs Reached Surface Water per 100 miles of Sewer** – Broad metric used to compare the relative performance of Enrollees and their sanitary sewer systems. This metric expresses the volume of SSOs, for which the reporting Enrollee is responsible, that reached surface water for every 100 miles of pipe or sewer lines in an Enrollee's sanitary sewer system. Because sewage discharges that reach surface water pose a greater threat to public health and the environment, this metric reflects some accounting of the threat posed by SSOs. Due to the large variation in facility specific characteristics, this metric should only be viewed as a rough comparison of the operation and maintenance performance of Enrollees and

their sanitary sewer systems. For systems, smaller than 100 miles, this metric tends to skew the result as the miles of pipe get smaller. This metric is calculated as described below:

Total Annual Volume

of SSOs Reaching Surface Waters = <u>(Total volume of SSOs reaching Surface Waters x 100)</u> ((Years) x (Miles of Pressure Sewer + Miles of Gravity Sewer + Miles of Public Laterals))

**Total Volume Reached Surface Water** – Amount of sewage discharged from a sanitary sewer system, private lateral, or collection system estimated to have reached surface water.

**Total Volume Recovered** – Amount of sewage discharged that was captured and disposed of properly.

**Upper Lateral** – Portion of a lateral usually from the building foundation to the property line or easement line where it connects to the Lower Lateral. Enrollees may not own and maintain this portion of a Lateral since responsibility usually lies with the owner of the property that the lateral serves.

**WDID** – Waste Discharge Identification number assigned as a unique identifier by the SWRCB to each Enrollee for regulatory recordkeeping and data management purposes

# **INTRODUCTION**

This Sanitary Sewer Management Plan (SSMP) has been prepared by the East Palo Alto Sanitary District (EPASD) in accordance with California State Water Resources Control Board (SWRCB) requirements. The SWRCB promulgated a waste discharge requirement (WDR) permit on May 2, 2006 to regulate all sanitary sewer systems greater than 1 mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California. This permit is known as SWRCB Order No. 2006-0003, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SSS). On July 30, 2013, Attachment A to the Order was promulgated and became effective on September 9, 2013 and is known as Attachment A, SWRCB Order No. WQO 2013-0058-EXEC, amending the Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems for Sanitary Sewer Systems (together these documents constitute the "SSS WDR").

This permit requires local public sewer collection system agencies, referred to as "Enrollees," to develop a SSMP. To aid Enrollees in the preparation and revisions of an SSMP, the SWRCB prepared a SSMP preparation guidance document entitled A Guide for Developing and Updating Sewer System Management Plans (SSPMs) (SSMP Guide) dated September 2015. This SSMP has been prepared to comply with the SSS WDRs utilizing the SSMP Guide.

#### **SSMP** Organization

The organization of this document is consistent with the SSS WDR and includes the following eleven mandatory elements:

- 1. Goals
- 2. Organization
- 3. Legal Authority
- 4. Operations and Maintenance Program
- 5. Design and Performance Provisions
- 6. Overflow Emergency Response Plan (OERP)
- 7. Fats, Oils, and Grease (FOG) Control Program
- 8. System Evaluation and Capacity Assurance Plan (SECAP)
- 9. Monitoring, Measurement, and Program Modifications
- 10. SSMP Program Audits
- 11. Communications Program

#### System Overview

The EPASD is an independent special district established under California statutes and is responsible for maintaining the sanitary sewers in a portion of the cities of East Palo Alto and Menlo Park, in San Mateo County. The EPASD manages approximately 35 miles of sanitary sewer varying in size from 6 to 24 inches in diameter. The EPASD sanitary sewer serves approximately 6,639 residential units, 148 commercial and 20 industrial connections. The EPASD does not maintain private sewer laterals. The property owners are responsible for private sewer lateral construction, repair, replacement, and maintenance.

The EPASD service area is shown on Figure 1. The approximate limits of the EPASD service area include Menalto Avenue to the West, Ursula Way and Michigan Avenue to the North, Woodland Avenue to the South and the Bay Trail and San Francisquito Creek Trail to the East. The EPASD collection system carries wastewater from the service area to the Palo Alto Regional Water Quality Control Plant, owned and operated by the City of Palo Alto, where it is treated and disposed of in a manner which meets Federal and State standards.

The EPASD was established in 1939 as a result of increased development in the East Palo Alto area. The initial sewer lines were installed as a West Palo Alto project. Construction began after the treatment contract with the City of Palo Alto was signed in 1940 and EPASD facilities were put into operation on September 8, 1942.

The EPASD is governed by a five-member Board of Directors, elected by the registered voters residing within the EPASD. The Board establishes the operating policies of the EPASD including rate setting while EPASD employees carry out those policies on a day-to-day basis.

EPASD employees consist of the General Manager, who is responsible for the administration of all EPASD business, and necessary support staff with office and/or field responsibilities.

## Figure 1 EPASD Service Area



# 1.0 GOALS

#### 1.1 Introduction

The mission of the EPASD is to provide safe, efficient, and cost-effective sanitary sewer services to portions of East Palo Alto and Menlo Park. The goal of the EPASD SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system to:

- Provide reliable service,
- Minimize infiltration/inflow (I/I),
- Provide adequate sewer capacity to accommodate design storm flows; and
- Prevent and minimize sanitary sewer overflows (SSOs).

To meet these goals, the EPASD has developed a robust operation and maintenance (O&M) program that includes proactively monitoring, maintaining, and improving the condition of the collection system infrastructure.

# 2.0 ORGANIZATION

### 2.1 Introduction

The EPASD maintains an organization structure which meets the requirements of the SSS WDR. This section of the SSMP presents EPASD organizational roles, organization chart, individual staff responsible for each SSMP element, and SSO response and reporting chain of command.

### 2.2 Organizational Roles

The section includes positions, names, and a brief narrative description of the position's responsibilities for implementing the SSMP as applicable.

**Board of Directors -** The EPASD is governed by a five-member Board of Directors, each elected to a four-year term. The EPASD is an independent and autonomous political entity that has no legal affiliation with any municipalities located within its service area boundaries. The Board meets monthly and special meetings are held as needed.

**General Manager** -. The General Manager establishes policy, plans strategy, leads staff, allocates resources, delegates responsibility, authorizes outside contractors to perform services, and may serve as a public information officer.

**District Engineer** – Designated as a <u>Data Submitter</u>. Manages and administers the capital improvement program (CIP). Inspects CIP projects and ensures that new and rehabilitated assets meet EPASD standards. Need complete list of Data Submitters and LROs.

**Maintenance Supervisor** - Designated as a legally responsible official (LRO). Manages field operations and maintenance activities, provides relevant information to EPASD management, prepares and implements contingency plans, leads emergency response, investigates and reports SSOs, and trains field crews.

**Field Crews** - Responds to emergencies. Performs preventive maintenance activities, mobilizes, and responds to notification of stoppages and SSOs.

\*ECO Industrial Waste Investigator - Conducts inspections, response, permitting and compliance for industrial and commercial facilities including restaurants. What does ECO stand for?

**\*ECO Industrial Waste Inspector. Storm Water** - Conducts inspections, response and compliance for storm water issues including SSOs and prohibited facility discharges.

\*ECO Industrial Waste Inspector, Sampling - Collects samples and inspects discharge locations including creeks and grease removal devices.

\*ECO Engineering Tech III - Inspection for commercial facilities including restaurants.

**Manager Communications (Utilities)** - Disseminates urgent and pertinent information to the public in a timely manner. The responsibility of the General Manager unless specifically delegated to others.

(\* Handled by Palo Alto Regional Water Quality Control Plant Personnel)

An organizational chart with position titles showing the lines of authority for overseeing and implementing the SSMP is shown below.

#### 2.3 Organizational Chart

The organization chart for the management, operation, and maintenance of the EPASD's wastewater collection system is shown on Figure 2.



#### 2.4 SSMP Element – Responsible Positions

The General Manager is responsible for overseeing the overall implementation of the SSMP and is identified as an Authorized Representative of the District. The EPASD maintains organizational charts/lists with names and contact information for all management, administrative, and maintenance positions. Various individuals within the EPASD's organization are responsible for implementing one or more of the SSMP elements. The names, positions, and contact information for each of the EPASD staff responsible for implementing specific measures of this SSMP are presented in Table 1 below.

	SSMP Element	Responsible Position	Responsible Person	Phone Number	Email Address
1.	Goals	General Manager	Akintunde Okupe	650-325-9021	aokupe@epasd.com
2.	Organization	General Manager	Akintunde Okupe	650-325-9021	kmaxey@epasd.com
3.	Legal Authority	General Manager	Akintunde Okupe	650-325-9021	kmaxey@epasd.com
4.	Operations and Maintenance Program	Maintenance Supervisor	Jackey Wilson	650-325-9021	jwilson@epasd.com
5.	Design and Performance Provisions	General Manager	Akintunde Okupe	650-325-9021	kmaxey@epasd.com
6.	Overflow Emergency Response Plan (OERP)	Maintenance Supervisor	Jackey Wilson	650-325-9021	jwilson@epasd.com
7.	Fats, Oils, and Grease (FOG) Control Program	ECO Industrial Waste Inspector*			_
8.	System Evaluation and Capacity Assurance Plan (SECAP)	District Engineer	Akintunde Okupe	650-325-9021	aokupe@epasd.com
9.	Monitoring, Measurement, and Program Modifications	ECO Industrial Waste Inspector*	District Personnel	650-325-9021	_
10.	SSMP Program Audits	District Engineer	Akintunde Okupe	650-325-9021	aokupe@epasd.com
11.	Communications Program	Maintenance Supervisor	Jackey Wilson	650-325-9021	jwilson@epasd.com
Cha	ange Log	Maintenance Supervisor	Jackey Wilson	650-325-9021	jwilson@epasd.com
Ap	pendices	Maintenance Supervisor	Jackey Wilson	650-325-9021	jwilson@epasd.com

 Table 1. SSMP Implementation Responsibility
 Need to fill in the blanks

\* Personnel from the Palo Alto Regional Water Quality Control Plant

The chain of communications for responding to an SSO notification begins with EPASD's Receptionist who receives the call. The receptionist will notify the Maintenance Supervisor who will dispatch the appropriate crews and equipment to the reported overflow location. The Maintenance Supervisor will also consult with the General Manager to determine whether the SSO report is legitimate, and if so, what further notification and reporting actions will be needed. The chain of communication is summarized below: Please verify

Receptionist Maintenance Supervisor General Manager Neptina B. White Jackey Wilson Akintunde Okupe office: 650-325-9021 direct: direct: 650-704-1140

# **3.0 LEGAL AUTHORITY**

## 3.1 Introduction

This element of the SSMP presents the EPASD's legal authority to require SSS users and customers to meet performance standards, maintain user-owned assets such as laterals, and pay penalties for non-compliance with enrollee regulations.

### 3.2 EPASD Legal Authority

As required by the SSS WDR, the EPASD as an independent special district has the necessary legal authority to perform the following:

- (a) Prevent illicit discharges into its sanitary sewer system;
- (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.

EPASD is regulated by several agencies of the United States Government and the State of California, pursuant to the provisions of Federal and State Law. Key Federal and State requirements include:

- (a) Federal Water Pollution Control Act, commonly known as the Clean Water Act (33 U.S.C. Section 1251 et seq.);
- (b) California Porter Cologne Water Quality Act (California Water Code section 13000 et seq.);
- (c) California Code of Regulations Title 23, Division 3, Chapter 9.2, Article 2250;
- (d) California Health & Safety Code sections 25100 to 25250;
- (e) Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 6901 et seq.); and
- (f) California Government Code, Sections 54739-54740.

These laws provide EPASD with the authority to regulate and/or prohibit, by adoption of an ordinance, and by issuance of control mechanisms, the discharge of any waste, directly or indirectly, to the EPASD sewerage facilities. This authority includes the right to establish limits, conditions, and prohibitions; to establish flow rates or prohibit flows discharged to the EPASD sewerage facilities; to require the development of compliance schedules for the installation of equipment systems and materials by all users; and to take all actions necessary to enforce its authority, whether within or outside the EPASD boundaries, including those users that are tributary to the EPASD or within areas for which the EPASD has contracted to provide sewerage services.

The legal authority to perform the above listed actions are described within the EPASD Sewer Use Ordinance (SUO) Number 39 and the City of Palo Alto (which operates the Regional Water Quality Control Plant) SUO Section 16.09.

Table 2 Legal Authority Checklist includes a list of specific actions the EPASD possesses the necessary legal authority to perform under EPA SUO No. 39 and City of Palo Alto SUO Section 16.09. The EPA SUO No. 39 and City of Palo Alto SUO Section 16.09 are included with this SSMP as Appendix A.

# Table 2 - Legal Authority Checklistper EPA SUO No. 39 andCity of Palo Alto SUO Section 16.09

Requirement
Public Sewers
Ability to prevent illicit discharges into the wastewater collection system
Ability to require that sewers and connections be properly designed and constructed
l atorals
Ensure access for maintenance, inspection, or repairs for portions of the service lateral owned or maintained by EPASD
FOG Source Control
Ability to limit the discharge of FOG and other debris that may cause blockages
Enforcement
Ability to enforce any violation of EPASD's sewer ordinances
Other Possible Code Sections (Referenced but not required by the SSS WDR)
Public Sewers
Ability to require proper installation, testing, and inspection of new and rehabilitated sewers
Laterals
Provide clear delineation of EPASD responsibility (e.g., mains and lower laterals) and policies (e.g., courtesy cleaning, repair, cleanout installation)
Ability to control I/I from private service laterals
Define lateral ownership and maintenance responsibility
Prohibit vandalism (tampering)
Define lateral ownership and maintenance responsibility Prohibit vandalism (tampering) Ability to deal effectively with private lateral problems (e.g., force property owner to correct failed/plugged private building sewer)
Define lateral ownership and maintenance responsibility         Prohibit vandalism (tampering)         Ability to deal effectively with private lateral problems (e.g., force property owner to correct failed/plugged private building sewer)         Satellite Collection Systems
Define lateral ownership and maintenance responsibility         Prohibit vandalism (tampering)         Ability to deal effectively with private lateral problems (e.g., force property owner to correct failed/plugged private building sewer)         Satellite Collection Systems         Ability to control I/I from satellite collection systems, if any
Define lateral ownership and maintenance responsibility         Prohibit vandalism (tampering)         Ability to deal effectively with private lateral problems (e.g., force property owner to correct failed/plugged private building sewer)         Satellite Collection Systems         Ability to control I/I from satellite collection systems, if any         FOG Source Control
Define lateral ownership and maintenance responsibility         Prohibit vandalism (tampering)         Ability to deal effectively with private lateral problems (e.g., force property owner to correct failed/plugged private building sewer)         Satellite Collection Systems         Ability to control I/I from satellite collection systems, if any         FOG Source Control         Requirements for the installation of GRDs
Define lateral ownership and maintenance responsibility         Prohibit vandalism (tampering)         Ability to deal effectively with private lateral problems (e.g., force property owner to correct failed/plugged private building sewer)         Satellite Collection Systems         Ability to control I/I from satellite collection systems, if any         FOG Source Control         Requirements for the installation of GRDs         Ability to set design standards for GRDs
Define lateral ownership and maintenance responsibility         Prohibit vandalism (tampering)         Ability to deal effectively with private lateral problems (e.g., force property owner to correct failed/plugged private building sewer)         Satellite Collection Systems         Ability to control I/I from satellite collection systems, if any         FOG Source Control         Requirements for the installation of GRDs         Ability to set design standards for GRDs         Ability to set maintenance requirements for GRDs

Ability to require application of BMPs

Ability to require record keeping and reporting of GRD maintenance and repair

Authority to inspect grease producing facilities

Enforcement

Prescribe prohibited actions (e.g., illicit connections, discharges)

Provide notice of alleged violations to sewer user

# 4.0 OPERATION AND MAINTENANCE PROGRAM

The EPASD manages a SSS operation and maintenance (O&M) Program designed to ensure the SSS goals are met and to ensure that the sanitary sewer system continues to operate effectively and efficiently. The O&M Program includes actively maintaining and upgrading aging infrastructure, preventing SSOs, and addressing SSOs if they occur.

In accordance with SSS WDR the O&M Program includes:

- (a) Maintenance of an up-to-date map of the sanitary sewer system. The map shows all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities; Need to expand to say how the maps are maintained, where they are located, how they are updated, and how they tie back to the flow model.
- (b) Routine preventive O&M activities; including regular cleaning and inspections of the SSS with more frequent cleaning and maintenance targeted at known problem areas. The O&M Program includes a scheduling system that documents scheduled and conducted activities. The O&M Program includes regular visual and CCTV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation.;
- (c) Rehabilitation and Replacement (R&R). The O&M Program includes identification and prioritization of system deficiencies and implements short-term and long-term rehabilitation actions to address each deficiency.
- (d) Capital improvement plan (CIP). The CIP addresses proper management and protection of the infrastructure assets. The plan includes a time schedule for implementing the short and long term improvements plus a schedule for developing the funds needed for the CIP;
- (e) Regular training for staff and contractors performing SSS O&M and monitoring.
- (f) Equipment and replacement part inventories, including identification of critical replacement parts.

To facilitate the O&M program the SSS mains are inspected using a remote-controlled carriage mounted video camera. The inspections are videotaped and observable defects in the system are cataloged. The inspection data are used to identify areas that require additional maintenance, spot repairs, or rehabilitation of the system.

In addition to cataloging the system defects, the EPASD O&M program actively works to reduce the introduction of fats, oils, and grease (FOG) into the SSS. The introduction of FOG into the SSS is one of the primary issues causing SSOs industry-wide. The O&M Program addresses this and other problems through mainline hydro-flushing, lateral replacement/repair maintenance, CCTV inspection, grease control, and root control.

The O&M Program includes the following:

**Flushing Program**: The EPASD operates one hydro-flusher vacuum combo unit that is used to perform cleaning and maintenance of the SSS.

**Lateral Maintenance**: The District does not own laterals. Lateral emergency maintenance requires operators to mechanically rod, snake, or hydro-flush laterals if the property has a

conforming District Standard cleanout.

**Grease Areas:** Grease areas are portions of the system that have been identified as being susceptible to an accumulation of FOG, which can restrict flow capacity of the SSS. These locations are maintained on a more frequent cleaning cycle. A grease emulsifier is applied to liquefy the grease prior to hydro-flushing the pipeline.

**Root Control:** The SSS is susceptible to the invasion of roots from vegetation, which can diminish the pipeline structural integrity and reduce the flow capacity of the pipe. Susceptible pipeline segments are placed on the root control program which entails clearing the pipes with a mechanical saw, hydro-flushing, and applying an herbicidal foam treatment.

**CCTV Inspection:** The EPASD owns one CCTV inspection truck that includes a remote-control carriage mounted video camera which can be inserted into a sewer manhole and dispatched through the SSS. The video camera is linked to the CCTV truck via a cable which transmits video to the truck and relays commands to the camera. The camera carriage can traverse mainlines as small as 6" and as large as 24". The video camera itself can rotate and tilt to investigate any lateral, joint, or imperfection that is identified. As the CCTV camera moves through the pipe the observable sewer defects and infiltration/inflows are catalogued for future reference and repair. The inspection findings are recorded on the CCTV Inspection Form (Appendix B) and are available for review. The Maintenance Supervisor and District Engineer review defects found in the individual sewer line segments and prioritize repairs and replacements.

**Service Calls:** The EPASD's Maintenance Department provides 24-hour service to EPASD customers either through response by EPASD crew or with a qualified contractor. EPASD crew are on-call to respond to service problems at all times. The maintenance department response time goal is to respond to all calls in less than one hour. Most response times are far faster than that goal.

Sewer Line Repairs and Construction: SSS mainlines found to have major structural defects are referred to the CIP. Sanitary sewer manholes are repaired as needed to correct structural conditions or to reduce extraneous ground or surface water intrusion.

**Capital Improvement Program (CIP):** In 1989 the Collection System Master Plan Study (Study) was completed for the SSS. The Study found areas that needed additional capacity for future growth and peak flows within the system. It also identified areas where ground water was leaking into the SSS. In response to the Study, the Wastewater Collection System Infrastructure Program (Program) was started in 1993-94. The Program was a 20-year infrastructure replacement program that incorporated the recommendations from the Master Plan Study. Since the program was started, 11 miles of pipe have been relined, and 26 miles of new wastewater mains have been constructed to improve sewage flows to the treatment plant and prevent spills.

In 2004, a Collection System Master Plan update was completed to determine the effectiveness of the 20-year infrastructure program. The updated study concluded that the District's 20-year CIP infrastructure program had been more effective than originally anticipated and \$21.0 million in capacity improvements could be eliminated from the Wastewater Collection System Master Plan.

CIP projects on the wastewater system are now focused on assessing the current condition of the piping and replacing or relining pipe in the system. The 2015 Master Plan identified 15 years of high priority pipeline replacement projects to also improve capacity at an approximate average annual cost of \$800,000 per year. In 2021, EPASD issued an addendum to the 2015 Master Plan. The CIP in the 2021 Addendum identifies pipelines that require repair and replacement to prevent manhole surcharging and potential SSOs. It also identifies increases in capacity needed to account for future developments based on modified zoning designations. Pipeline improvements are identified, and the sequence of construction will be determined based on EPASD's observations of existing pipe conditions and new development needs. It is anticipated that approximately \$1.0M per year will be allocated to implementing the CIP independent of developer contributions to accelerate specific projects.

**Training:** EPASD conducts staff and management training pursuant to the list included in Appendix C. In general, each staff participates in one or more training classes per year. Class selections are based on consultation with direct supervisors to evaluate current and future work responsibilities as well as previous training classes completed. Please verify and edit as needed.

**Spare Parts and Contingencies:** EPASD maintains spare parts for the \_\_\_\_\_ in the \_\_\_\_\_. In addition, EPASD has accounts with \_\_\_\_\_ and \_\_\_\_ rental companies when unique or additional equipment are needed. For larger projects, such as multiple day excavations with traffic control, EPASD has on-call service agreements with ABC and XYZ construction companies.Please verify and fill in the blanks. Also need to develop a list for Appendix F

# 5.0 DESIGN AND PERFORMANCE PROVISIONS

## 5.1 Introduction

The EPASD has developed design and performance provisions in accordance with the SSS WDRs including:

- (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 and sewer appurtenances and for rehabilitation and repair projects.

#### 5.2 Summary

The District has established Sewer System Standard Plans and Standard Specifications requiring that all new sanitary sewer systems and sewer appurtenances, as well as the rehabilitation and repair of existing sewer facilities, be designed and constructed in accordance with the District's established designs. Procedures and standards for inspecting and testing the installation of new sewers, and other appurtenances are also outlined in the established performance provision elements of the Standard Plans and Specifications.

#### 5.3 Supporting Documents

The District's Standard Plans and Specifications can be found at the City of East Palo Alto's web site. A link to the website is shown below: Update this link.

http://38.106.4.240/contractors/forms-permits/standard-requirements-for-sewer-connection

## 6.0 OVERFLOW EMERGENCY RESPONSE PLAN

#### 6.1 Introduction

The EPASD has developed this Overflow Emergency Response Plan (OERP) in accordance with the SSS WDRs that identifies measures to protect public health and the environment. The OERP includes:

- (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- (b) A program to ensure appropriate response to all SSO;
- (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 could potentially affect public health or reach the waters of the State;
- (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the OERP 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.

#### 6.2 General

This OERP is designed to ensure that every SSO reported to the EPASD is promptly responded to by qualified EPASD Maintenance Department Operations staff or qualified EPASD contractors. The OERP also includes provisions to ensure prompt notification of the overflow to the appropriate local, state and federal agencies depending on the volume of the overflow. Agency notification includes potentially affected local utility departments, the San Mateo County Environmental Health Department, the San Mateo County Office of Emergency Services, the California Governor's Office of Emergency Services (CalOES), and the RWQCB as appropriate. The EPASD OERP will be followed for all minor or major SSOs.

EPASD wastewater employees are to respond immediately upon notification to secure and contain areas impacted by an SSO from EPASD owned facilities. EPASD maintains a hydroflusher vacuum truck and a mechanical rodder truck to relieve the causes of SSO and stop the overflow. In addition, the responding crew will work to prevent wastewater from reaching a storm drain, a creek, the San Francisco Bay or any other waters of the United States. In case of a spill on public

property or into a storm drain, the responding crew will contain and clean up the spill as soon as possible to minimize public health hazards and to protect the environment.

## 6.3 SSO Response Procedures

The OERP's SSO response procedures involve notifying the appropriate crews and/or departments, mobilizing personnel, materials, tools, and equipment to correct or repair any condition that caused or contributed to the SSO, notifying the appropriate concerned agencies, and reporting the incident.

EPASD staff will follow the flow chart and complete the Overflow Sewer Work Order included in Appendix D. The following subsections describe the procedures outlined

A. SSO First Report and First Response: An overflow may be reported by system employees or citizens. The EPASD Receptionist is the primary person responsible for receiving phone calls from the public of possible SSOs. The Receptionist immediately notifies EPASD the Collection System Maintenance Supervisor, who is responsible for dispatching appropriate maintenance personnel or a designated contractors to the SSO location.

Any calls from the general public received through maintenance operations staff regarding an SSO are also routed through the EPASD Receptionist.

The emergency phone line to EPASD, (650) 325-9021, is available 24 hours per day.

- 1. The Receptionist will record all relevant information regarding the SSO including:
  - a) Time and date call was received
  - b) Specific location.
  - c) Description of problem.
  - d) Time possible overflow was noticed by the caller.
  - e) Caller's name and phone number.
  - f) Observations of the caller (e.g., volume of water present, odor, duration of discharge, back or front of property).
  - g) Other relevant information that will enable the responding investigator and crews, if required, to quickly locate, assess, and stop the overflow.
  - h) A record of any communication regarding possible overflows must be available to EPASD administration personnel upon request.
- 2. The Receptionist will immediately notify the on-call Maintenance Supervisor, who, in tum will dispatch appropriate crew members, equipment, and contractors with Crew Instructions:

- 3. Sewer overflows observed by EPASD staff during their normal duties will be reported immediately to the Receptionist. In addition, EPASD staff will immediately, in a safety-first manner, assess the situation, stop the overflow, contain the overflow, and/or wait for assistance. Dispatched personnel will record all relevant overflow information and request additional response crews, as needed.
- 4. EPASD maintenance response staff shall confirm all reported overflows with the Receptionist and General Manager. Until verified, the report of a possible SSO will not be referred to as a "sewer overflow".
- 5. Responding personnel will complete an initial report at the time of incident. The final report will be completed by the Maintenance Supervisor or the General Manager within 24 hours of confirmation of an overflow. The Maintenance Supervisor or General Manager will be responsible for reviewing, updating, and signing the final report.

#### B. Dispatch of Crews to Site of SSO

Failure of any element within the wastewater collection system that threatens to cause or causes an SSO will trigger an immediate response to isolate and correct the problem. Crews and equipment will be available to respond to any SSO locations. Crews will be dispatched to any site of a reported SSO immediately. Additional maintenance personnel will be "on call" should extra crews be needed.

#### 1. Dispatching Crews and Crew Instructions

- Upon receiving notification of a SSO, as outlined above, the Maintenance Supervisor will determine what personnel and equipment are likely to be needed at the SSO site and will dispatch an appropriate field service crew as required.
- Responding crews dispatched will receive information from the Maintenance Supervisor regarding known nature of the overflow appropriate personnel, materials, equipment, and course of action.
- Employees being dispatched to the site of an SSO will proceed immediately to the site. Any delays or conflicts in assignments will be immediately reported to the Maintenance Supervisor for resolution.
- Responding crews will report their findings, including possible damage to private and public property to the Maintenance Supervisor immediately. If the Maintenance Supervisor has not received findings from the field crew within 1 hour, the supervisor will contact the response crew to determine the status of the investigation.
- Once an SSO is confirmed, the Maintenance Supervisor will immediately notify the General Manager.

#### 2. Additional Resources

- The Maintenance Supervisor shall receive and convey to the appropriate parties any requests for additional personnel, material, supplies, and equipment from crews working at the site of an SSO. EPASD maintains emergency response equipment as listed in Appendix E. In addition, EPASD has accounts with the \_\_\_\_\_ rental company. Need list of major equipment owned and operated by EPASD
- If an SSO disrupts the normal flow of traffic or causes a traffic safety hazard, the Maintenance Supervisor shall contact the General Manager to arrange for a Police or Community Services Officer to assist with traffic control.
- In the event of a major SSO that is 1,000 gallons or more, or when there is an immediate impact to public or private property or any waterways, the Maintenance Supervisor shall contact the General Manager for assistance in investigating the SSO.

### 3. Preliminary Assessment of Damage to Private and Public Property

- EPASD's focus is to resolve issues or problems originating in Districtowned wastewater facilities. The responding crews should use discretion in assisting the property owner/occupant with their property because this step increase the District's liability. The responding crew should understand the repercussions that could be incurred by either providing or failing to provide assistance on private property.
- The responding crew shall only enter private property with owner permission and for the sole purpose of assessing damage.
- Still photographs and video footage, if possible, should be taken of the inside and outdoor areas of the sewer overflow and impacted area in order to thoroughly document the nature and extent of the overflow. All photographs must be forwarded to Maintenance Supervisor for filing with the SSO Report.

#### 4. Field Supervision and Inspection

- In the event of a SSO in excess of 100 gallons or where damage to property has occurred, a Maintenance Supervisor must visit the SSO site within 2 hours of the initial call to ensure that provisions of this overflow response plan and other directives are met.
- The Maintenance Supervisor is responsible for confirming that the SSO Report was provided to the Regional Water Quality Control Board/Office of Emergency Services within the specified time.
- 5. Coordination with Hazardous Material Response

- If responding personnel detect the presence of a chemical substance (e.g., oil sheen, foamy residue) on the ground surface, or detect a suspicious odor (e.g., gasoline) not common to the sewer system, the field service representative or response crew should immediately contact the Maintenance Supervisor for the next course of action.
- If the Supervisor determines the need to alert the Menlo Fire or San Mateo County hazardous material response team, the sewer investigator or crew shall await the arrival of the Hazardous Material Response Team to take over the scene. Remember, any vehicle engine, portable pump or open flame (e.g., cigarette lighter) can provide the ignition for an explosion or fire should flammable fluids or vapors be present. Keep a safe distance and observe caution until assistance arrives.
- Upon the arrival of the Hazardous Material Response Team, the crew lead person will take direction from the person with the lead authority of the HazMat team. Only when that authority determines it is safe and appropriate for the responding Wastewater Collections crew to proceed can they then proceed under the SSO ERP with the containment, cleanup activities and correction.
- C. Overflow Correction, Containment, and Clean-Up

SSO of various volumes occur from time to time despite concerted prevention efforts. Spills may result from blocked sewers, pipe failures, or mechanical malfunctions among other natural or man-made causes. The EPASD is constantly on alert and should be ready to respond to notification and confirmation of an overflow.

This section describes specific actions to be performed during an SSO.

The objectives of these actions are:

- 1. To protect public health, the environment, and property from sewage overflows and restore the surrounding area back too normal as soon as possible;
- 2. To establish perimeters and control zones with appropriate traffic cones and barricades, vehicles or use of natural topography (e.g., hills, berms);
- 3. To promptly notify the appropriate regulatory agency's communication center of preliminary overflow information and potential impacts;
- 4. To contain the sewer overflow to the maximum extent possible including preventing the discharge of sewage into the storm system or surface waters; and
- 5. To minimize the EPASD's exposure to any regulatory agency penalties and fines.

Under most circumstances, the EPASD Operations will handle all response actions with its own maintenance forces. They have the skills and experience to respond rapidly and in the most appropriate manner. An important consideration during an emergency response is to ensure that the temporary actions necessary to divert flows and repair the problem do not produce a problem elsewhere in the system.

Circumstances may arise when the EPASD could benefit from the support of private-sector construction assistance. This may be true in the case of large diameter pipes buried to depths requiring sheet piling and dewatering should excavation be required. The EPASD may also choose to use private contractors for open excavation operations that might exceed one day to complete. A list of available contractors is maintained by EPASD and is included in Appendix F.

D. Responsibilities of Response Crew upon Arrival

It is the responsibility of the first responders who arrive at the site of a SSO to protect the health and safety of the public by mitigating the impact of the overflow to the extent possible. Should the overflow not be the responsibility of the EPASD but there is imminent danger to public health, public or private property, or to waters of the U.S., then prudent emergency action should be taken until the responsible party arrives on the scene and assumes command and control of the incident.

Upon arrival at an SSO, the response crew should do the following:

- 1. Determine the cause of the overflow, e.g. sewer line blockage, pump station mechanical or electrical failure, sewer line break, etc;
- 2. Identify and request, if necessary, assistance or additional resources to correct the overflow or to assist in determining cause;
- 3. Determine if private property is impacted. If yes, the dispatcher should be informed as well as the Maintenance Supervisor of the extent of damages;
- 4. Take immediate steps to stop the overflow, e.g. relieve pipeline blockage, manually operate pump station controls, repair pipe, etc. Extraordinary steps may be considered where overflows from private property threaten public health and safety (e.g., an overflow running off private property into the public right-of-way); and
- 5. Request additional personnel, materials, supplies, or equipment that will expedite and minimize the impact of the overflow.
- E. Initial Measures for Containment
  - 1. Initiate measures to contain the overflowing sewage and where possible, recover sewage which has already been discharged, minimizing the impact to public health and the environment.
  - 2. The Maintenance Supervisor or person in charge and field staff will:
    - Determine the immediate destination of the overflow, e.g. storm drain, street curb gutter, body of water, creek bed, etc;

- Identify and request the necessary materials and equipment to contain or isolate the overflow, if not readily available; and
- Take immediate steps to contain the overflow, e.g., block or bag storm drains, recover through vacuum truck, divert into downstream manhole, etc.
- F. Additional Measures Under Potentially Prolonged Overflow Conditions

In the event of a prolonged sewer line blockage or a sewer line collapse, EPASD staff shall determine if portable by-pass pumping operations should be made around the obstruction.

- 1. Staff shall take appropriate measures to determine the proper size and number of pumps required to effectively handle the sewage flow.
- 2. Staff shall implement continuous or periodic monitoring of the by-pass pumping operation as required.
- 3. Regulatory agency issues shall be addressed in conjunction with emergency repairs.
- G. Cleanup

Sewer overflow sites are to be thoroughly cleaned after an overflow. No readily identified residue (e.g., sewage solids, papers, rags, plastics, rubber products) shall remain.

- 1. Where practical, contaminated areas including storm drain lines are to be thoroughly flushed and cleaned of any sewage or wash-down water. Solids and debris are to be flushed, swept, raked, picked-up and placed in the sewer or transported for proper disposal.
- 2. The overflow site is to be secured to prevent contact by members of the public until the site has been thoroughly cleaned. Posting if required should be undertaken pursuant to the Section titled Public Advisory Procedure, Section A (page 16 of this document).
- 3. Where appropriate, the overflow site is to be disinfected and deodorized.
- 4. Where sewage has resulted in ponding, the pond should be pumped dry and the residue disposed in accordance with applicable regulations and policies.
- 5. If a ponded area contains sewage which cannot be pumped dry, it may be treated with bleach. If sewage has discharged into a body of water that may contain fish or other aquatic life, bleach or other appropriate disinfectant should not be applied and the California State Fish and Game Department should be contacted for specific instructions.
- 6. Use of portable aerators may be required where complete recovery of sewage is not practical and where severe oxygen depletion in existing surface water is expected.

## 6.4 Sanitary Sewer Overflow Reporting Requirements and Procedures

The EPASD shall report SSO based on Spill Categories as defined in the 2013 MRP:

Category 1 – Discharges of untreated or partially treated wastewater of any volume resulting from an EPASD 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.

Category 2 – Discharges of untreated or partially treated wastewater of **1,000 gallons or greater** resulting from an EPASD 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 the storm drain system is fully recovered and disposed of properly.

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

Private Lateral Sewage Discharge – Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the EPASD sanitary sewer system or from other private sewer assets.

A. Reporting Summary

Category 1 SSOs require immediate notification and subsequent reporting:

- Within two hours of becoming aware of any Category 1 SSO, call Cal OES at (800) 852-7550 and obtain a notification control number.
- Within three business days of becoming aware of any Category 1 SSO submit draft report by entering data into the California Integrated Water Quality System (CIWQS) database (Appendix G). Need to update Appendix G per CIWQS
- Within 15 calendar days of the SSO end date, certify final report on CIWQS database.
- Conduct water quality sampling and monitoring within 48 hours after initial SSO notification when 50,000 gallons or greater are spilled to surface waters.
- Submit SSO Technical Report within 45 calendar days after the SSO end date when **50,000** gallons or greater are spilled to surface waters.

Category 2 SSOs require draft and certified final reports:

- Within three business days of becoming aware of any Category 1 SSO submit draft report by entering data into the CIWQS database.
- Within 15 calendar days of the SSO end date, certify final report on CIWQS database.

Category 3 SSOs require only a certified final report within 30 calendar days of the end of the month when the SSO occurred.

Private Lateral Sewer Discharges do not require reporting. EPASD is strongly encouraged to notify Cal OES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within privately owned sewer facilities.

EPASD shall file "No Spill" Certifications to CIWQS either monthly or quarterly. If monthly, within 30 calendar days of the end of the month. If quarterly, within 30 calendar days of the end of the quarter.

EPASD shall update and certify the Collection System Questionnaire every 12 months.

#### B. Required Information

When calling Cal OES within two hours of a recognized SSO event, EPASD shall report the following information:

- Name of person notifying Cal OES and direct return phone number
- Estimated volume of discharge (gallons)
- If ongoing, estimated rate of continuing discharge (gallons per minute)
- SSO Incident Description
  - Location
  - o Brief Narrative
  - On-Scene point of contact (name and cell phone number)
  - Date and time EPASD became aware of SSO
  - o SSO cause, if known
  - Indication of whether the SSO has been contained
  - o Indication of whether surface water has been impacted
  - Indication of whether a drinking water supply has been, or may be impacted
  - Any other known or suspected impacts

EPASD shall provide updates to Cal OES regarding substantial changes to estimated volumes or estimated impacts until the final certified report is submitted to the CIWQS online SSO database.

C. SSO Electronic Reporting System (CIWQS)

The EPASD shall obtain a CIWQS Online SSO Database account and receive a Username and Password through <u>www.CIWQS@waterboards.ca.gov</u> or by calling (866) 792-4977. This is a controlled and secured website, and as such, EPASD shall keep the Username and Password confidential.

Draft and Certified SSO reports shall contain the following information based on Category level of the SSO:

1. Draft Category 1 SSOs: At a minimum, the following mandatory information shall be reported for a draft Category 1 SSO report:

a. SSO Contact Information: Name and telephone number of EPASD contact person who can answer specific questions about the SSO being reported.

b. SSO Location Name.

c. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.

d. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.

e. Whether or not the SSO reached a municipal separate storm drain system.

f. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.

g. Estimate of the SSO volume, inclusive of all discharge point(s).

h. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.

i. Estimate of the SSO volume recovered (if applicable).

j. Number of SSO appearance point(s).

k. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.

1. SSO start date and time.

m. Date and time the EPASD was notified of, or self-discovered, the SSO.

n. Estimated operator arrival time.

- o. The date and time Cal OES was called.
- p. The Cal OES control number.

2. Certified Category 1 SSOs: At a minimum, the following mandatory information shall be reported for a certified Category 1 SSO report, in addition to all fields in section 8.i.a:

a. Description of SSO destination(s).

b. SSO end date and time.

c. SSO causes (mainline blockage, roots, etc.).

d. SSO failure point (main, lateral, etc.).

e. Whether or not the spill was associated with a storm event.

f. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.

g. Description of spill response activities.

h. Spill response completion date.

i. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.

j.Whether or not a beach closure occurred or may have occurred as a result of the SSO.

k.Whether or not health warnings were posted as a result of the SSO.

l. Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.

m. Name of surface water(s) impacted.

n. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.

o. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.

p. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.

q.SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.

3. Draft Category 2 SSOs: At a minimum, the following mandatory information shall be reported for a draft Category 2 SSO report:

a. Items (a) through (n) in section 6.4 (C.1) above for Draft Category 1 SSO.

4. Certified Category 2 SSOs: At a minimum, the following mandatory information shall be reported for a certified Category 2 SSO report:

a. Items (a) through (n) in section 6.4 (C.1) above for Draft Category 1 SSO and Items (a) through (i), and (q) in section 6.4 (C.2) above for Certified Category 1 SSO.

5. Certified Category 3 SSOs: At a minimum, the following mandatory information shall be reported for a certified Category 3 SSO report:

a. Items (a) through (n) in section 6.4 (C.1) above for Draft Category 1 SSO and Items (a) through (e) and (q) in section 6.4 (C.2) above for Certified Category 1 SSO

SSO reports shall be completed by the Maintenance Supervisor and the General Manager shall promptly notify the RWQCB and the Cal OES when the overflow is eliminated.

D. Water Quality Monitoring Program

EPASD will monitor water quality in receiving surface waters when an SSO discharge volume is greater than 50,000 gallons. The monitoring shall consist of collecting and analyzing receiving surface water samples upstream and downstream of the SSO discharge location. The program includes:

1. Identifying the discharge location.

2. Identify sample locations considering spill travel time, surface water characteristics, and safe allowable access:

- Upstream sample location at least 100 feet from the discharge.
- Near-downstream location within 50 feet of the discharge at a location where the impacts are likely to be present.
- Sentinel downstream location approximately 200 feet from the discharge at a location where the impacts are likely to be diluted across the surface water.

3. Collect samples for laboratory analyses within 48 hours of becoming aware of the SSO, within one day of stopping the discharge if it continues longer than 48 hours, and seven days after stopping the discharge.

4. Analyze samples at a certified laboratory for ammonia, total and fecal coliform, e-coli, and biological oxygen demand.

5. Measure water temperature and dissolved oxygen level at each sampling event and location using a properly maintained and calibrated field instruments.

6. Prepare monitoring report documenting the sample location selections, sampling activities, and water quality monitoring results.

#### E. Reporting to the FOG Program

If an SSO is determined to have been caused by a restaurant or other Food Service Establishment (FSE) by an excessive amount of grease being allowed to enter the sanitary sewer, the information will be relayed to the EPASD's FOG program for a follow-up inspection of the responsible facilities. The FOG program will be notified by email and/or phone within 24 hours of cleanup completion.

The relayed information will include:

- the date, time, address, and cause of the SSO,
- location of all laterals; and
- if there was any interaction with restaurant staff.

Please consult the EPASD's FOG Control Program for further information on procedures during inspection. In addition, anytime routine or requested maintenance such as cleaning or video inspection reveals heavy accumulation of grease in the lines, the FOG program should be notified by phone or e-mail. Contact information for FOG:

Akintunde Okupe 650-704-1140 aokupe@epasd.com or Neptina B. White or Frank Lampton 650-325-9021 <u>nwhite@epasd.com</u> flampkin@epasd.com

#### 6.5 Visual Observations/Estimating Spill Volume

A variety of approaches exist for estimating the volume of a SSO. The following section documents two methods that are commonly used. There are other methods and the person preparing the estimate will use the method most appropriate to the SSO in question using their judgment. A spill calculation method is also shown under Appendix H.

A. Method 1 Eyeball Estimate:

The volume of very small spills can be estimated using an "eyeball estimate." To use this method, imagine the amount of water that would spill from a bucket or barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to break the standing water into barrels and then multiply by 50 gallons. This method is useful for contained spills up to 100 gallons.

B. Method 2 Measured Volume:

The volume of some small spills can be estimated using this method if it is not raining. The shape, dimension, and depth of the spilled 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 in several locations.
- Step 4 Convert the dimensions, including depth to feet.
- Step 5 Calculate the area using the following formulas:
  - Rectangle Area = length x width
  - Circle Area = diameter x diameter x 0.785
  - Triangle Area = base x height x 0.5
- Step 6 Multiply the area times the depth
- Step 7 Multiply the volume by 7.5 to convert it to gallons
- C. Method 3 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 flow rate. The methods of estimating duration and flow rate are:

• Duration: The duration is the elapsed time from the start time to the time the spill stopped.

Start time is sometimes difficult to establish. Here are two approaches:

- 1. For very large overflows, changes in flow on a downstream flow meter can be used to establish the start time. Typically, the daily flow peaks are "cut off" or flattened by the loss of flow. This can be identified by comparing hourly flow data.
- 2. Conditions at the spill site change with time. Initially there will be limited deposits of grease and toilet paper. After a few days to a week, the grease forms a light-colored residue. After a few weeks to a month the grease turns dark. In both cases the quantity of toilet paper and other materials of sewage origin increase in amount. These changed with time can be used to estimate the start time in the absence of other information.

Sometimes it is simply not possible to estimate start time, however. End time is usually much easier to establish. Field crews on-site observe the "blow down" that occurs when the blockage has been removed. The "blow down" can also be observed in downstream flow meters.

• Flow Rate: The flow rate is the average flow left in the sewer system during the time of the spill stopped.

There are three ways to estimate the flow rate:

- 1. San Diego Manhole Flow Rate Reference Sheet: Appendix I shows the sewage flowing from a manhole cover for a variety of flow rates. The observations of the field crew are used to select the approximate flow rate from the chart.
- 2. Flow meter: Changes in flows in the downstream flow meters can be used to estimate the flow rate during the spill (better for large SSOs).
- 3. Estimate based on upstream connections: Once the location of the spill is known, the number of upstream connections can be determined from block books. Multiply the number of connections by 200 to 250 gallons per day per connection or 8-10 gallons per hour per connection, or other flow rates that are consistent with the City of Palo Alto's lateral data per connection.

Once duration and flow rate have been estimated, the volume of the spill is the product of the duration in hours or days' time the flow rate in gallons per hour or gallons per day.

To estimate the rate of sewer overflow in gallons per minute (GPM) we use one of the following criteria:

1. Direct observations of the overflow; or

- 2. Measurement of actual overflow from the sewer main.
- 3. Photographs of the event, when possible.
- 4. Assessment of any damage to the exterior areas of public/private property. Personnel shall enter private property for purposes of documenting damage to structures, floor and wall coverings, and personal property.

#### 6.6 Customer Satisfaction

The supervisor or response crew confirming the SSO should follow-up in person or by telephone with the citizen(s) reporting the overflow. The cause of the overflow and its resolution will be disclosed to the customer upon request.

#### 6.7 **Public Advisory Procedure**

This section describes the actions the EPASD should take, in cooperation with the RWQCB, to limit public access to areas potentially impacted by un-permitted discharges of pollutants to surface water bodies from the wastewater collection system.

A. Temporary Signage and Notification

The EPASD has primary responsibility for determining when to post notices of polluted surface water bodies or ground surfaces that result from uncontrolled wastewater discharges from its facilities and to notify affected residents. The postings do not necessarily prohibit use of recreational areas, unless posted otherwise, but provide a warning of potential public health risks due to sewage contamination. An example notice and resident notification letter is included as Appendix J.

#### 6.8 Media Notification Procedure

When an overflow has been confirmed and is a threat to public health the following actions should be taken, if necessary, to notify the media:

- A. The responding crew verifies the overflow and reports back to the Supervisor of Wastewater Collections or District Manager.
- B. The District Manager, District Engineer and Maintenance Supervisor through the number listed in the table below.
- C. After hours and weekend sewer overflows are reported to either the General Manager or District Engineer listed.
- D. Calls received by the dispatcher from the media at any time should be referred to District Manager's Office.
- E. The following personnel are authorized to be interviewed by the media and are the designated spokespersons:

Contact Name	Office	Mobile
Akintunde Okupe	650-325-9021	650-704-1140
Neptina B. White	650-325-9021	650-704-4136
Frank Lampton	650-325-9021	650-714-3967

#### 6.9 Record Keeping and Certification

EPASD shall maintain SSO and other operations and maintenance records for a minimum of five years. These records shall be made available for review by the RWQCB during onsite inspections or through specific requests.

- A. General Records. EPASD shall maintain records to document compliance with the provisions of the SSS WDRs and the 2013 MRP for the wastewater collection system.
- B. SSO Records. EPASD shall maintain records for each SSO event, including:
  - 1. Complaint records documenting responses to all notifications of possible or actual SSOs, including complaints that do not result in SSOs. Each complaint record should include: date, time, and method of notification; date and time the complainant or informant first noticed the possible SSO; narrative description of the complaint with information discharges to surface water; follow-up actions; and final resolution of the complaint.
  - 2. Records documenting steps and/or remedial actions undertaken by EPASD, using available information, to comply with any SSO responses
  - 3. Records documenting how estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
- C. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.
- D. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
  - 1. Supervisory Control and Data Acquisition (SCADA) systems
  - 2. Alarm system(s)
  - 3. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.
- E. Certifications. All information reported into the CIWQS Online SSO Database shall be certified by a person designated as the Legally Responsible Official (LRO). EPASD may have more than one LRO.
- F. The LRO shall be registered with the State Water Board to certify reports in accordance with the CIWQS protocols for reporting.
- G. Data Submitter (DS): An EPASD employee or contractor may enter draft data into the CIWQS Online SSO Database on behalf of EPASD if authorized by the LRO and registered

with the State Water Board. However, only LROs may certify reports in CIWQS.

- H. EPASD shall maintain continuous coverage by an LRO. Any change of a registered LRO or DS (e.g., retired staff), including deactivation or a change to the LRO's or DS's contact information, shall be submitted by EPASD to the State Water Board within 30 days of the change by calling (866) 792-4977 or e-mailing help@ciwqs.waterboards.ca.gov.
- I. A registered designated person (i.e., an LRO) shall certify all required reports under penalty of perjury laws of the state as stated in the CIWQS Online SSO Database at the time of certification.

#### 6.10 Distribution and Maintenance of the SSO ERP

Annual updates to the SSO ERP should be made to reflect all changes in policies and procedures as may be required to achieve its objectives.

A. Submittal and Availability of the SSO ERP:

Copies of the SSO ERP and any amendments should be distributed to the following departments and functional positions:

- Collection Sewer Maintenance Supervisor
- District Engineer
- Receptionist
- Collection Sewer Computer Technician
- Collection Sewer Sr. Maintenance Worker

All other personnel who may become incidentally involved in responding to overflows should be familiar with the SSO ERP.

B. Review and Update of SSO ERP

The SSO ERP should be reviewed annually and amended as appropriate. Wastewater Collections Operations should:

- Update the SSO ERP with the issuance of a revised or new NPDES permit or state waste discharge permit;
- Conduct annual training sessions with appropriate personnel; and
- Review and update, as needed, the various contact person lists included in the SSO ERP.

The Maintenance Supervisor will be responsible for coordinating all updates to the SSO ERP

# 7.0 FATS, OILS, AND GREASE

## 7.1 Background

The prevention of SSO is a priority for the Sanitary District Wastewater Operations. SSOs are primarily caused by blockages in the sewer collection systems. Most sewer line blockages can be attributed to roots, accumulation of FOG, illegal grease dumping, damaged sewer lines, or a combination of these factors. FOG is generated by residential homes and many types of food service establishments (FSE) during food preparation, food service, and kitchen clean-up (dishes, cookware, mop water, equipment cleaning, hood screens and floor mats).

## 7.2 Implementation of a FOG Control Program

EPASD is required to implement a FOG Control Program due to the significant number of FOG generating FSEs in the District and a history of SSOs. Many of the SSOs are caused wholly or in part by grease blockages. The benefits of a FOG Control Program include a reduction of SSOs, improved public health and safety, avoidance of spill related fines, minimizing property damage claims, minimizing the risk of lawsuits, improving sewer maintenance and an improved FSE business environment.

The Maintenance Supervisor focuses on the FOG Control Program and allows for more frequent and rigorous inspections and enforcement. The position has the lead for enforcement of the FOG related sections of EPASD (see Legal Authority).

## 7.3 Maintenance and Monitoring

EPASD has had an ongoing preventative maintenance program that includes regular cleaning and inspections of more than 35 miles of collection system piping. In addition, in 2006 the EPASD purchased a Closed-Circuit Television (CCTV) and conducted a cleaning project throughout all of the sanitary sewer lines six inches and greater. This project resulted in a complete inventory and prioritization of the areas in need of root control, repairs, or more frequent cleaning. During this project all instances of high FOG deposition were reported to the GM/Engineer for follow-up. The video footage and data from the CCTV project will be stored in an accessible database.

The SSO Emergency Response Plan (SSO ERP) section of the SSMP describes EPASD maintenance performance responsibilities for the preventative maintenance for the collection system and response to blockages and overflows. EPASD maintenance has identified areas requiring more frequent cleaning based on past experience and upon data collected during the CCTV project. The cleaning equipment used by EPASD includes a hydro flusher vacuum truck. The cleaning schedule of the sewer systems is shown in Appendix K.

## 7.4 Source Control

EPASD has many restaurants and facilities and a public school that cook and serve food. These areas are known hotspots of FOG discharge.

EPASD also has other generators of grease such as single family homes, apartment buildings and cafeterias. These sources have been primarily addressed with outreach materials. There have been regular inspections and field contacts.

All FSE related building permits are routed through EPASD for review. The EPASD uses this opportunity to work in conjunction with the FSEs and the Building and Planning Departments to find workable solutions for new construction, remodels, and new restaurants in existing buildings.

#### 7.5 Facility Inspection

There are many FSEs in the District. The expanded FOG program will include more rigorous inspections and enforcement. Each facility will be visited quarterly it is important to prioritize the FSEs and conduct more frequent inspections and enforcement where necessary.

The FSEs are categorized by their potential to contribute FOG to the collection system or cause other problems such as storm water violations. Facilities located in hot spots or that have been problematic will be addressed first and receive more frequent inspections. Bringing some facilities into compliance may be a lengthier process requiring multiple follow-up inspections. Some facilities will frequently not meet all requirements and will need ongoing attention. These facilities will be re-visited as necessary. Facilities that demonstrate compliance will receive less attention.

Problematic facilities have:

- experienced back-ups or overflows
- caused FOG build up in the line (identified by CCTV or cleaning records)
- unresolved compliance issues
- failed to follow the Better Management Practices (BMPs)
- failed to keep records
- had storm water violations
- failed to comply with verbal or written directives

FSEs are prioritized in one of the following categories.

- problem FSEs in hot spots
- problem FSEs
- FSEs that have only had minor issues in the past.
- FSEs with potential to generate FOG

#### 7.6 Facility Action Plans

Newsletters with Better Management Practices (BMPs) references are sent to all businesses identified by the EPASD as FSEs.

The letters state:

As-needed inspections are performed by plant personnel. To keep inspections effective and as short as possible, the FSE is asked to gather the following documents/information for discussion at the time of inspection:

- Size and location of your facility's grease removal device (i.e. Grease Trap).
- List of equipment, sinks and/or drains connected to grease removal device.
- Grease removal device maintenance (cleaning) records, e.g. receipts and log for the last three years, as required in Palo Alto Municipal Code (PAMC) Section 16.09.103(d).

Topics covered during inspections will include:

- Best Management Practices (BMPs)
- Prohibition against the use of food waste disposers (grinders)
- Proper cleaning of floor mats (discharge to storm drains is prohibited)
- Housekeeping/cleanliness of dumpster and/or tallow bin area
- Proper disposal of Fats, Oils, and Grease (FOG)
- Location and condition of grease removal device(s)
- Pumper/Hauler (cleaning) records for the last 3 years
- Latest lateral cleaning receipts
- Display of BMP signage near sinks (supplied by Inspector if needed)
- Inspection of the immediate downstream manhole
- Plumbing configuration (diagram if available)

Posters on Best Management Practices (BMPs) for handling FOG will be distributed to FOG generating FSEs during the inspections. The Bay Area Pollution Prevention Group (BAPPG) funded CalFOG to create this poster that is available in English, Spanish, Korean, Chinese and Vietnamese.

## 7.7 Outreach

Outreach and education are a significant component of the EPASD environmental programs. Newsletters with descriptions of BMPs for food facilities were distributed to educate the FSEs about minimizing the impact of FOG on the collection system.

Outreach for residents has also been a component of the program. East Palo Alto residents have received inserts educating them on the problems caused by improper disposal of FOG to the sewer system. Messages include simple BMPs such as disposing of used cooking oils and grease in the trash after placing them in sealed containers or absorbing them onto paper towels.

Future outreach materials for the public will include information about the FOG drop off program at the East Palo Sanitary District. The FOG waste is contained in two 55 gallon drums, that have double containment, and is removed on average every 12 weeks and more often if needed.

The EPASD also participates in other regional programs such as the www.cleanbay.org "We're All in it Together" campaign and Bay Are Pollution Prevention Group's (BAPPG) FOG workgroup. Regionally generated materials such as posters have been handed out to FSEs and proposed materials such as food scrapers or grease cans will be handed out at community events when available.

#### 7.8 Goals for the FOG Control Program

The primary goal of the FOG program is to work interdepartmentally and with the community to reduce the number, severity, and frequency of SSOs linked to FOG and to reduce the environmental impact, liability, and exposure to the District and the costs associated with SSO clean ups. RWQCP staff will continue to contribute to regional programs such as the statewide CalFOG and BAPPG workgroups.

#### **Inspection and Compliance Goals:**

The 2013 Clean Bay Pollution Prevention Plan includes a long-standing goal of inspecting at least one-third of the FSEs each year. The expanded FOG program will include more rigorous inspections and enforcement but will maintain the same goal for the number of inspections. Grease trap component inspection form is included with this SSMP as Appendix L.

Once all of the facilities have received an initial visit it should be possible to determine time demands and refine the prioritization. Setting reasonable goals for inspection frequency for each category and percentage of facilities in compliance will then be possible.

Any FSEs identified through SSO events or sewer cleaning data will be inspected within two days of EPASD notification.

#### **SSO Goals**

SSO data will be analyzed each year to help monitor the success of the FOG program.

## **FOG Chart**

Scenario	BMP	Ordinance	UPC
Maintenance Log	-	The log shall be retained for a period of three years,	
		and shall be available for inspection by city inspectors upon request. 16.09.103(d)	
Sizing of Grease Removal Devise (GRD)			
GAD Required		All grease generating facilities 16.09.103(a,b,c)	Yes
GRD: Interceptors, Traps, Big Dippers	<25% solids + FOG	At a minimum, the contents shall be removed every six months. 16.09.103(d)	
GAD Additives	Okay for larger GAD with longerholdingtime, cuts down odors		
Lateral/Internal Sewer Cleaning	No, unless SSO/backup occurs		
Equipment to Grease Trap(s) & Big Dipper(s):			
Dishwasher(s)			No
Three Compartment Sink(s)			Yes
Hand Sink(s)			No
Mop Sink(s)			Yes, in new Facilities
Floor Drain(s)			Yes, In new Facilities
Flow Restrictor(s)			Yes
Equipment to Grease Interceptor(s):			
Dishwasher(s)			Yes
Three Compartment Sink(s)			Yes,
Hand Sink(s)			Yes
Mop Sink(s)			Yes
Floor Drain(s)	ĺ		Yes
Flow Restrictor(s)			Yes
Posters Displayed	Training		
Dry Wipe Plates, Pots, Pans	Required		
Screens in sink drains	Required		
Disposal of food waste to trash	Required		
Safe procedure for disposal of FOG	Required		
Soil! clean-up	Required		
Employee training	Required		
Grinder/Disposer		No newones allowed, existing outby 1/1/07. 16.09.103(e,f)	
Tallow Bin	Covered with lid	Area clean, Stormwater requirement 16.09.106	
Trash	Covered	Coverrequirement, plusgrease trap for new facilities	
Floor mat cleaning	Inside	Stormwater requirement 16.09.106	
Exhaust hood & filter cleaning	Inside	Stormwater requirement 16.09.106	
Zinc-free floor finish		< 0.01% Zn by weight or contained and treated offsite	
Storm Drains		Labeled 16.09.106(9)	

# 8.0 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

#### 8.1 Introduction

This section of the SSMP outlines the EPASD's programs and activities to provide adequate capacity.

#### 8.2 Capacity Assessment

The EPASD 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 will include:

- Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency (if any). The evaluation will provide estimates of peak flows 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.
- Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria.
- Capacity Enhancement Measures: The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, inflow, and infiltration (1/1) reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- Schedule: The District shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14 (of the GWDR).

#### 8.3 System Evaluation and Capacity Assurance Plan

1. Evaluation - Collection System Master Plan

The EPASD updated its Master Plan in 2015, and issued the Addendum to the March 2015 East Palo Alto Sanitary District Master Plan Update in April 2021. The 2015 Master Plan and 2021 Addendum are included with this SSMP as Appendix M. The master planning effort evaluated the capacity of the existing sanitary sewer system assets and provided capacity design criteria for future assets. Projects within the EPASD's service area are primarily to serve future redevelopment. The EPASD includes impact fees within the connection fees to help contribute to future downstream projects needed for extra pipe capacity.

2. Evaluation - Hydraulic Model

By metering, the EPASD periodically monitor's the flow in its sanitary sewer system to identify capacity deficiencies and to monitoring the quantity of inflow and infiltration present.

3. Design Criteria

The capacity-related design criteria are included in the SSMP Design and Performance Provisions.

4. Capacity Enhancement Measures - Capital Improvement Program

The EPASD will include publicly funded capacity enhancement projects in its Capital Improvement Program. The Capital Improvement Program includes recommended projects to address capacity deficiencies in the system. The capital improvement projects planned for the next 15 years are described within the Master Plan (Appendix M).

5. Schedule

The schedule for the EPASD's capacity enhancement projects is included in the EPASD's CIP. The CIP in the 2021 Addendum identifies pipelines that require repair and replacement to prevent manhole surcharging and potential SSOs. It also identifies increases in capacity needed to account for future developments based on modified zoning designations. Pipeline improvements are identified, and the sequence of construction will be determined based on EPASD's observations of existing pipe conditions and new development needs. It is anticipated that approximately \$1.0M per year will be allocated to implementing the CIP independent of developer contributions to accelerate specific projects.

# 9.0 MONITORING, MEASURMENT AND PROGRAM MODIFICATIONS

#### 9.1 Introduction

This section of the SSMP outlines the process that the EPASD will follow to evaluate the effectiveness of the SSMP and to identify up-dates that may be needed for a more effective program.

# 9.2 Regulatory Requirements for the Monitoring, Measurement and Program Modifications Section

The requirements for the Monitoring, Measurement, and Program Modifications (MMPM) section of the SSMP are:

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

## 9.3 **Performance Measures**

The indicators that the EPASD will use to measure the performance of its wastewater collection system and the effectiveness of its SSMP are:

- 1. Total number of SSOs;
- 2. Number of SSOs by each cause (roots, grease debris, pipe failure, capacity, pump station failures, and other);
- 3. Portion of sewage contained compared to total volume spilled;
- 4. Volume of spilled sewage discharged to surface water;
- 5. Planned to actual performance for preventive maintenance; and
- 6. Planned to actual training activities.

#### 9.4 **Baseline Performance**

The EPASD has limited historical, or baseline, performance data for the selected performance

measures. Trends will be added when the quantity of data is adequate.

#### 9.5 Performance Monitoring and Program Changes

The EPASD will evaluate the performance of its wastewater collection system at least annually using the performance measures identified in Subsection 9.3 Performance Measures. The EPASD will update the data and analysis in this section at the time of the evaluation.

The EPASD may use other performance measures in its evaluation. The EPASD will prioritize its actions and initiate changes to this SSMP and the related programs based on the results of the evaluation.

# **10.0 SSMP PROGRAM AUDITS**

### 10.1 SSMP Audit

The EPASD conducts periodic internal audits a minimum of every two years in accordance with SSS WDR requirements including preparation of an audit report. The audit focuses on evaluating the effectiveness of the SSMP and the EPASD compliance with the SSMP requirements including identification of any deficiencies in the SSMP and steps to correct them. The revised SSMP will be certified by the local oversight agency and governing board. The purpose of the audit is to evaluate the effectiveness of the SSMP and its elements and to determine the compliance of EPASD with the SSMP requirements. The audit must identify any deficiencies in the SSMP and any corrective actions taken or to be taken to be in compliance with the SSMP elements. The biennial SSMP Audit Report Form is included with this SSMP as Appendix N.

#### 10.2 Audit Reporting

All audit reports are reviewed and certified by the LRO in accordance with the SSS WDR. Audit reports are kept on file for a minimum of five (5) years and are available to the RWQCB upon request.

# **11.0 COMMUNICATION PLAN**

## **11.1** Communication Plan

The EPASD will post the SSMP to their website (<u>http://www.epasd.com</u>) and will include contact information for comments. The EPASD also presents performance of the SSMP during the monthly Regular Board Meetings or during the monthly EPASD Engineering Committee Meetings both of which are open to the public.

The EPASD also posts meeting schedules, board meeting agendas and minutes, public information including resolutions, ordinances, and notices, SSO information, "do's and don'ts" for the sewer line, guidance documents for disposal of hazardous household materials and other sewer related information on the EPASD website.

## 11.2 SSMP Change Log

The SSMP Change Log lists the specific changes or updates made to the SSMP, the location of the changes within the SSMP, the person who authorized the change or update, and the date of the change or update. The SSMP Change Log is included with this SSMP as Appendix O.